

# FRASCOLD®



Semi-hermetic reciprocating compressors  
Compressori semiermetici alternativi  
Halbhermetische Hubkolbenverdichter

FCAT100.5  
Product Selection Catalogue  
Version 50Hz



FRASCOLD

75  
YEARS

1936 - 2011

**Frascold compie 75 anni dalla fondazione e guarda al futuro.**

**Dal 1936 a oggi, un lungo cammino fatto di trasformazioni e attenzione alle tecnologie più avanzate.**

In tutto questo tempo Frascold ha prodotto compressori a servizio dell'industria della refrigerazione e del condizionamento dell'aria commercializzandoli in tutto il mondo per una grande varietà di applicazioni.

Ha costruito la propria reputazione e affermazione sul mercato internazionale grazie alla elevata capacità di migliorare costantemente il prodotto e le tecnologie, valorizzando nello stesso tempo le relazioni con i clienti in maniera da mantenersi alla testa del proprio settore.

Frascold è una realtà industriale che opera a livello mondiale con esperienza, risorse, tecnologie e grande capacità delle persone. Frascold ha gli strumenti per dare vicinanza a rapide risposte alle necessità del mercato e guarda fiduciosa al proprio futuro.

Con la nostra tecnologia, l'esperienza applicativa e la presenza globale, offriamo prodotti, soluzioni e servizi che consentono ai nostri clienti di ottenere vantaggi in termini di prestazioni, efficienza energetica e confort di funzionamento.

I nostri compressori sono utilizzati nei molteplici settori della refrigerazione, condizionamento dell'aria, pompe di calore, e influenzano la vita quotidiana di molte persone.

**Frascold was founded 75 years ago and is looking to the future.**

**Its long journey from 1936 to the present day has been marked by transformations and attention to cutting-edge technology.**

From its founding, Frascold has produced compressors for the refrigeration and air conditioning industry, selling them all over the world for a broad range of applications.

It has built its international reputation and recognition on its outstanding capacity to improve its products and technologies, at the same time valuing customer relations so as to stay at the top of the industry.

Frascold is a manufacturing company that operates world-wide, bringing experience, resources, technology and highly-skilled personnel to all of its activity. Frascold has the tools to provide proximity and act quickly in response to market needs, and is looking confidently to its future.

With our technology, application experience and global presence, we offer products, solutions and services that provide our customers with advantages in terms of performance, energy efficiency and operational comfort.

Our compressors are used in numerous refrigeration, air conditioning and heat pump sectors, affecting the daily life of countless people.

**Frascold feiert seinen 75. Geburtstag und schaut in die Zukunft.**

**Von 1936 bis heute, ein langer Weg voller Veränderungen und immer mit dem Augenmerk auf die modernsten Technologien.**

In dieser Zeit hat Frascold Verdichter für die Kälte- und Klimaindustrie produziert und für verschiedenste Anwendungen in die ganze Welt vertrieben.

Wir haben unseren Ruf und Erfolg auf dem internationalen Markt unserer ausgeprägten Fähigkeit zu verdanken, unsere Produkte und Technologien beständig zu verbessern. Außerdem messen wir der Beziehung zu unseren Kunden eine hohe Bedeutung zu – nur so können wir uns an der Spitze der Branche halten.

Frascold ist ein Industrieunternehmen, das weltweit mit Erfahrung, Ressourcen, Technologien und der umfassenden Kompetenz seiner Mitarbeiter tätig ist. Frascold verfügt über sämtliche Instrumente, um zeitnah auf die Marktanforderungen reagieren zu können, und blickt daher zuversichtlich in die Zukunft.

Mit unserer Technologie, Anwendungserfahrung und globaler Präsenz bieten wir Produkte, Lösungen und Dienstleistungen, die unseren Kunden zu Vorteilen hinsichtlich Leistungen, Energieeffizienz und Betriebskomfort verhelfen.

Unsere Verdichter werden in zahlreichen Bereichen wie der Kälte- und Klimaindustrie sowie für Wärmepumpen eingesetzt, und sie beeinflussen das tägliche Leben vieler Menschen.

## Compressori semiermetici alternativi Semi-hermetic reciprocating compressors Halbhermetische Hubkolbenverdichter

### Generalità

Frascold produce un'ampia linea di compressori semiermetici alternativi a singolo stadio con modelli a 2, 4, 6 e 8 cilindri per rispondere adeguatamente alle attuali tendenze e aspettative del mercato. Robusti, compatti, estremamente performanti e con costi di esercizio molto bassi rispetto ai prodotti concorrenti. Un progetto perfetto costruito con le migliori tecnologie per coprire l'intero spettro di applicazioni, sia con refrigeranti artificiali HFC che con refrigeranti naturali a basso GWP per ridurre significativamente l'impatto ambientale. Tutti i modelli sono forniti con sistemi avanzati di protezione. Ulteriori funzionalità di diagnostica possono essere integrate per la completa affidabilità del sistema, la riduzione dei costi di servizio e una vita operativa molto lunga.

### Estensione della linea di compressori

Frascold è in grado di offrire un'ampia scelta di compressori per soluzioni che rispondono alle diverse esigenze nei settori commerciale e industriale, nelle molteplici applicazioni della produzione e conservazione alimentare e delle bevande, nei supermercati e negozi convenzionali, nella climatizzazione degli ambienti, nei trasporti, negli svariati impieghi della refrigerazione di processo, nella criogenia, ecc.

### Applicazione con variatore di frequenza

Tutti i modelli sono costruiti con tecnologia inverter e adatti al funzionamento con variatore di frequenza in un largo campo di applicazioni;

- compressori a due cilindri da 30 Hz a 87Hz con controllo della potenza da 60% a 174%
- compressori senza pompa dell'olio a quattro cilindri da 25 Hz a 87 Hz con controllo della potenza da 50% a 174%
- compressori con pompa dell'olio a quattro, sei, otto cilindri da 30 Hz a 70 Hz con controllo della potenza da 60% a 140%

### Concetti costruttivi

I compressori semiermetici Frascold sono sviluppati con criteri progettuali che consentono di limitare al massimo l'assorbimento di potenza e implementano una architettura meccanica per massimizzare l'affidabilità. Le loro altre caratteristiche principali sono:

- progettazione attraverso sistemi di simulazione e calcolo CFD/FEM in grado di prevedere il comportamento in fase di funzionamento
- rapporto ottimizzato corsa/alesaggio per elevare il rendimento termodinamico
- pistoni con geometria ottimizzata per assicurare un funzionamento performante e un alto rendimento volumetrico
- fasce elastiche in lega ad elevata durezza estremamente resistenti alle elevate temperature e alla corrosione
- cuscinetti con superfici rivestite in PTFE ad alta scorrevolezza per ridurre l'attrito e fornire una buona protezione all'avviamento.
- albero del motore trattato termicamente e dimensionato in base allo spostamento volumetrico ed equilibrato dinamicamente senza aggiunta di masse esterne per una perfetta uniformità di rotazione e un funzionamento eccezionalmente confortevole, silenzioso e privo di vibrazioni
- piastre valvole Hi-Tech di robusta struttura che garantiscono un'efficienza costante nel tempo. Lamelle in acciaio legato e trattato termicamente, con planarità e finitura superficiale extra-curate; resistenti alla fatica, alla temperatura e corrosione
- sistema integrato per la corretta lubrificazione e il raffreddamento delle superfici di scorrimento degli elementi soggetti a usura
- valvola interna tra aspirazione e mandata presettata per comandarne l'apertura quando la pressione differenziale massima viene superata
- efficiente sistema di raffreddamento del motore elettrico con gas aspirato attraverso passaggi con ampie superfici di scambio
- lappatura dei cilindri con tecnologia auto motive
- design robusto e compatto
- migliore rapporto prezzo/prestazione

### General details

Frascold manufactures a wide range of models of semi-hermetic reciprocating, single-stage compressors, with 2, 4, 6, and 8 cylinders, to satisfy properly the current market trends and demands. Sturdy, compact, with proven high performance, and very low operating costs when compared to products manufactured by competitors. A perfect design produced with the best technologies to cover the entire spectrum of applications with HFC refrigerants and natural, low GWP refrigerants, to significantly, reduce impact on the environment. All models are supplied with advanced protection systems. Additional diagnostic functions can be integrated in the protector to provide a fully reliable system, a reduction of service costs, and a very long operating life.

### Extension of the compressors range

Frascold is able to offer a wide selection of compressors that match the different requirements of commercial and industrial applications. They are the perfect solution for multiple applications in food and beverages production, processing and preservation, for, supermarkets and small stores, for building air conditioning, for mobile refrigeration and A/C, for the several applications of process cooling, for cryogenics applications, etc.

### Application with frequency inverter

All the models are manufactured with "inverter technology" and are suitable to operate with a frequency inverters in a wide range of application;

- admissible frequencies for two cylinders compressors vary from 30 Hz to 87 Hz, with ac capacity control from 60% to 174% (compared with capacity at 50Hz)
- for compressors without oil pump with four cylinders, allowed frequencies range goes from 25 Hz to 87 Hz, with a capacity control from 50% to 174%
- for compressors with oil pump with four, six and eight cylinders, allowed frequencies range goes from 30 Hz to 70 Hz, with a capacity control from 60% to 140%

### Manufacturing concepts

Frascold semi-hermetic compressors are developed with design criteria that permits to run with very limited power absorption and that implements a mechanical architecture that maximizes compressor's reliability. Their main features are:

- design with CFD/FEM simulation and calculation systems, able of predicting performances during operation
- optimized bore/stroke ratio to boost thermal-dynamic performance
- pistons with optimized geometry to ensure high performance during operation and high volumetric efficiency
- piston rings in high-resistance-alloy, extremely resistant to high temperatures and corrosion
- bearings with PTFE surfaces that reduce frictions and power losses and guarantee the best lubrication also during start-up
- crankshaft heat-treated for surface hardening, sized to fit the displacement and dynamically balanced, for a smooth rotation and exceptionally comfortable operation, silent and vibration-free
- Hi-Tech valve plates with sturdy structure that guarantee steady efficiency over the whole compressor lifetime. Valve plate reeds in heat-treated steel alloy, with extremely precise surface planarity and finishing; resistant to stress, temperature, and corrosion
- built-in lubrication system (splash disc or forced lubrication) to provide the right oil amount on the wearing surfaces of components and, in the same time, cooling them
- internal valve between high and low pressure side, pre-set, to open when the maximum differential pressure is exceeded and release pressure on the suction side
- efficient cooling system for the electric motor by means of suction gas forced through passages with wide exchange surfaces
- cylinders honing with automotive technology to guarantee smooth running and optimal lubrication at start-up
- sturdy and compact design
- optimal price/performance ratio

### Algemeines

Frascold stellt eine breite Reihe von halbhermetischen einstufigen Hubkolbenverdichtern mit 2, 4, 6 und 8 Zylindern her, um allen aktuellen Markttendenzen und -erwartungen in angemessener Weise Rechnung zu tragen. Robust, kompakt, extrem leistungsfähig und im Vergleich zu den Konkurrenzprodukten, mit sehr niedrigen Betriebskosten. Ein perfektes Projekt, das mit den besten Technologien konstruiert wurde, um das gesamte Anwendungsspektrum sowohl mit künstlichen HFC-Kältemitteln als auch mit natürlichen Kältemitteln mit niedrigem GWP-Wert abzudecken und dadurch die Auswirkungen auf die Umwelt bedeutend zu verringern. Alle Modelle werden mit fortschrittlichen Sicherheitssystemen ausgestattet. Um die vollständige Zuverlässigkeit des Systems, die Senkung der Betriebskosten und eine bedeutend längere Betriebsdauer zu gewährleisten, können zusätzliche Diagnosefunktionen integriert werden.

### Erweiterung der Verdichterreihe

Frascold ist in der Lage, ein breites Angebot an Verdichtern mit Lösungen anzubieten, die den verschiedenen Anforderungen im gewerblichen und industriellen Bereich gerecht werden. In den vielfältigen Anwendungen der Lebensmittel- und Getränkeherstellung und -konservierung in Supermärkten und herkömmlichen Geschäften, in der Raumklimatisierung, im Transport, in den unterschiedlichen Anwendungen der Prozesskühlung, in der Tieftemperaturtechnik, usw.

### Anwendung mit Frequenzumrichter

Alle Modelle wurden mit Inverter-Technologie konstruiert und eignen sich zum Betrieb mit Frequenzumrichtern in einem breiten Anwendungsspektrum:

- Verdichter mit zwei Zylindern von 30 Hz bis 87Hz mit Leistungsregelung zwischen 60% und 174%
- Verdichter ohne Ölpumpe mit vier Zylindern von 25 Hz bis 87 Hz mit Leistungsregelung zwischen 50% und 174%
- Verdichter mit Ölpumpe mit vier, sechs, acht Zylindern von 30 Hz bis 70 Hz mit Leistungsregelung zwischen 60% und 140%

### Bauliche Merkmale

Die halbhermetischen Frascold Verdichter wurden mit baulichen Kriterien entwickelt, die die maximale Begrenzung der Leistungsaufnahme gestatten und eine mechanische Architektur ergänzen, um die Zuverlässigkeit aufs Höchste zu steigern. Ihre Hauptmerkmale sind:

- Projektplanung über CFD/FEM Simulations- und Berechnungssysteme, die in der Lage sind, das Verhalten während der Betriebsphase vorausszusehen
- Optimiertes Verhältnis Lauf/Bohrung zur Erhöhung der thermodynamischen Leistung
- Kolben mit optimierter Geometrie zur Gewährleistung eines leistungsfähigen Betriebs und einer hohen Volumenleistung
- Legierte Kolbenringe mit hoher Härte, extrem widerstandsfähig gegen hohe Temperaturen und Korrosion
- Lager mit Oberflächenverkleidung in PTFE, mit hoher Gleitfähigkeit, um die Reibung zu verringern und beim Start einen guten Schutz zu bieten
- Thermisch behandelte und auf der Grundlage des Fördervolumens dimensionierte Motorwelle, dynamisch ausgewuchtet, ohne Zusatz von externen Gewichten, für eine perfekt gleichmäßige Drehung und einen besonders komfortablen, ruhigen und vibrationsfreien Betrieb
- Hi-Tech Ventilplatten, mit robuster Struktur, die eine langfristig konstante Leistungseffizienz gewährleisten. Lamellen aus legiertem und thermisch behandeltem Stahl mit ebenem und extra-gepflegtem Oberflächenfinish. Beständig gegen Beanspruchung, Temperatur und Korrosion.
- Integriertes System für die korrekte Schmierung und Kühlung der Gleitflächen der Verschleißteile
- Innenventil zwischen Saug- und voreingestellter Druckleitung, um bei Überschreiten des maximalen Differentialdrucks, die Öffnung steuern zu können
- Effiziente Kühlanlage des Elektromotors mit Gas, das über die Kanäle mit großen Austauschoberflächen angesaugt wird
- Honen der Zylinder mit Automotiv-Technologie
- Robustes und kompaktes Design
- Besseres Preis-/Leistungsverhältnis

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### Controllo della capacità

Nei compressori Frascold a 4, 6 e 8 cilindri è possibile regolare la capacità con la parzializzazione delle testate per adattare la potenza di un impianto di refrigerazione o di condizionamento alle reali richieste termiche delle utenze, attraverso un dispositivo (in opzione). In questo modo si evita una elevata frequenza di avviamento dei compressori riducendo lo stress per la meccanica e il motore elettrico.

Fasi di controllo possibili:

- compressori a 4 cilindri: 50% - 100%
- compressori a 6 cilindri: 33% - 66% - 100%
- compressori a 8 cilindri: 50% - 75% - 100%

Vedi accessori in option a pagina 9.

### Partenza a vuoto

Nei compressori Frascold è possibile fare l'avviamento a vuoto attraverso un dispositivo integrato nella testata (in opzione) che equalizza le pressioni di mandata e di aspirazione. In questo modo si evitano le eccessive sollecitazioni alla rete elettrica e nel contempo si riduce la coppia allo spunto del compressore. Nota: per l'utilizzo della partenza a vuoto è necessaria una valvola di ritegno a valle del rubinetto di compressione (non fornito da Frascold).

### Protezione del compressore

Tutti i compressori vengono forniti completi di protezione costituita da una catena di termistori PTC inseriti nello statore del motore elettrico e collegati al modulo elettronico di controllo Kriwan® presente all'interno della scatola elettrica, (vedi pag. 8 e 9).

I compressori serie V, Z, W, sono anche dotati di un sensore a termistore sulla mandata per il controllo della temperatura di scarico, collegato al modulo di controllo.

### Dispositivo elettronico per il controllo della lubrificazione

I compressori Frascold delle serie V, Z, W vengono forniti completi di pressostato differenziale olio elettronico di provata affidabilità, che opera una efficiente sorveglianza delle oscillazioni delle pressioni del sistema di lubrificazione.

### Lubrificante

Tutti i compressori sono forniti con carica di olio sintetico a base di estere di polioli (POE) con caratteristiche lubrificanti specifiche per gas frigoriferi e una bassa propensione al trascinamento. La viscosità dell'olio è idonea ad assicurare la perfetta lubrificazione entro i limiti di applicazione dei compressori ed è appropriata alla loro meccanica con viscosità di 32 cSt (@ 40°C) per i modelli A, B, D, Q, S e viscosità di 68 cSt (@ 40°C) per i modelli V, Z, W.

### Costruzione Tandem

I modelli delle serie Q, S, V, Z, W sono disponibili anche nella versione Tandem. Due compressori dello stesso volume spostato, sono tra loro accoppiati attraverso un'aspirazione comune. Comparativamente a un singolo compressore, a parità di spostamento volumetrico, la versione Tandem aumenta le opportunità del controllo della potenza.

Tutti i modelli Tandem sono già forniti con equalizzazione completa gas e olio.

### Accessori

Frascold ha selezionato e messo a punto per i suoi compressori una serie completa di accessori, idonei a garantire efficienza e affidabilità in tutte le condizioni di funzionamento previste.

L'intera gamma di accessori è illustrata a pagina 9.

### Prestazioni

I dati di prestazioni sono indicati in linea con la norma Europea EN12900, temperatura di aspirazione 20°C e senza sottoraffreddamento del liquido, con funzionamento a 50Hz. Per dati con prestazioni in punti operativi diversi vedi Frascold Selection Software. (vedi anche pag. 37)

### Versione motore

Per consentire al compressore l'ideale adattamento alle diverse applicazioni sono stati previsti motori elettrici in tre diverse versioni (vedi pagine 10 e 11)

### Capacity control

The capacity of Frascold compressors with 4, 6, and 8 cylinders can be adjusted by capacity control heads (Optional), to better adapt the cooling capacity of the refrigeration or air-conditioning plant to the real application requirements, and reduce the number of start and stop of each compressor.

With a low frequency of start-ups, the stress on the mechanical and electric components is strongly reduced.

Possible control steps:

- compressors with 4 cylinders: 50% - 100%
- compressors with 6 cylinders: 33% - 66% - 100%
- compressors with 8 cylinders: 50% - 75% - 100%

See optional equipment on page 9.

### Unloaded start-up

Frascold compressors can be started unloaded, by means of US head (optional), a device built-in into the compressor head that equalizes suction and discharge pressures.

In this way, excessive electric stress to the power network is avoided, reducing the starting torque of the compressor.

Note: The use of US device foresees the installation of a check valve in the discharge line (not supplied by Frascold).

### Compressor protection

All compressors are supplied with a protection system that consists of a chain of PTC thermistors inserted in the winding of the electric motor and connected to a Kriwan® electronic module installed inside the electrical box, (see page 8 and 9).

V, Z, W series compressors are also equipped with a PTC thermistor on the compressor discharge side, connected to the control module, to monitor also maximum gas temperature.

### Electronic device to control lubrication

Frascold compressors of the V, Z, W series, equipped with an oil pump for forced lubrication, are standard supplied with an electronic oil pressure switch.

### Lubricant

All compressors are supplied with a charge of synthetic, polyolester oil (POE) having lubricating characteristics that are specific for refrigerants, and a low tendency to trailing. Oil viscosity is ideal to ensure perfect lubrication within the limits of compressor application envelope, and is appropriate for the mechanics of the compressors, with a viscosity of 32 cSt (@ 40°C) for models A, B, D, Q, S and a viscosity of 68 cSt (@ 40°C) for models V, Z, W. Special oil are available on request for specific refrigerants or operating conditions.

### Tandem version

The Q, S, V, Z, W series models are also available in the "Tandem" version. Two compressors with the same displacement are connected with a common suction flange. Compared to a single compressor with the same displacement, the Tandem compressor double the possibility of capacity control. All Tandem models are standard supplied with gas and oil equalization pipings.

### Optional equipment

Frascold has selected and studied a complete series of accessories for its compressors, suitable to ensure efficiency and reliability in all foreseen operating conditions. The full range of optional equipment is featured on page 9.

### Performances

Performance data are printed in accordance with European standard EN12900: suction temperature 20°C, and no liquid sub-cooling, with operation at 50Hz. To calculate performances in different operative conditions, use the Frascold Selection Software, downloadable from [www.frascold.it](http://www.frascold.it). (see also page 37)

### Motor version

Three different sizes of motors have been developed to allow the compressor to adapt to the different applications (see pages 10 and 11)

### Überprüfung der Kapazität

Bei den Frascold Verdichtern mit 4, 6 und 8 Zylindern ist es möglich, über eine Vorrichtung (auf Wunsch), die Kapazität mit der stufenlosen Regelung der Kopfteile einzustellen, um die Leistung einer Kühl- oder Klimaanlage an die realen Temperaturanforderungen der Abnehmer anzupassen.

Auf diese Weise wird eine hohe Startfrequenz der Verdichter vermieden und die Beanspruchung für Mechanik und Elektromotor reduziert.

Mögliche Kontrollphasen:

- Verdichter mit 4 Zylindern: 50% - 100%
- Verdichter mit 6 Zylindern: 33% - 66% - 100%
- Verdichter mit 8 Zylindern: 50% - 75% - 100%

Siehe das auf Wunsch erhältliche Zubehör auf Seite 9.

### Leeranlauf

Bei den Frascold Verdichtern ist es möglich, über eine im Kopfteil eingebaute Vorrichtung (auf Wunsch), die den Förder- und den Ansaugdruck ausgleicht, Leeranläufe durchzuführen.

Auf diese Weise wird die übermäßige Beanspruchung des Stromnetzes vermieden und gleichzeitig das Drehmoment beim Start des Verdichters reduziert.

### Schutz des Verdichters

Alle Verdichter verfügen über einen Schutz, bestehend aus einer Kette von PTC-Thermistoren, die in den Stator des Elektromotors eingefügt und an ein elektronisches Kontrollmodul, Kriwan®, das sich im Innern des Schaltkastens befindet, angeschlossen sind, (siehe Seite 8 und 9).

Die Verdichter der Reihe V, Z, W verfügen auf der Druckleitung auch über einen Thermistor-Sensor, der die Auslasstemperatur überwacht und an das Kontrollmodul angeschlossen ist.

### Elektronisches Gerät zur Steuerung der Schmierung

Die Frascold Verdichter der Reihen V, Z, W verfügen über einen elektronischen Öl-Differential-Druckschalter, mit bewährter Zuverlässigkeit, der die Druckschwankungen des Schmierensystems wirkungsvoll überwacht.

### Schmiermittel

Alle Verdichter werden mit Synthetiköl auf der Basis von Ester - Polyolen (POE) mit spezifischen Schmiereigenschaften für Kühlgase und niedriger Ölurfürate geliefert. Die Viskosität des Öls ist geeignet, die perfekte Schmierung innerhalb der Anwendungsgrenzen des Verdichters zu gewährleisten und ist ihrer Mechanik mit einer Viskosität von 32 cSt (@ 40°C) bei den Modellen A, B, D, Q, S und einer Viskosität von 68 cSt (@ 40°C) bei den Modellen V, Z, W angemessen.

### Tandem-Konstruktion

Die Modelle der Reihen Q, S, V, Z, W sind auch in der Version Tandem erhältlich.

Zwei Verdichter mit demselben Fördervolumen werden miteinander über eine gemeinsame Saugleitung verbunden. Im Vergleich zu einem einzigen Verdichter, erhöht die Tandem-Version bei gleichbleibendem Fördervolumen die Möglichkeiten der Leistungsregelung. Alle Tandem-Modelle werden bereits mit vollständigem Gas- und Ölausgleich geliefert.

### Zubehör

Frascold hat für seine Verdichter eine komplette Zubehörreihe ausgewählt und entwickelt, die geeignet ist, unter allen vorgesehenen Betriebsbedingungen Effizienz und Zuverlässigkeit zu garantieren.

Die gesamte Zubehörpalette finden Sie auf Seite 9.

### Leistungen

Die Leistungsdaten entsprechen der europäischen Norm EN12900, Ansaugtemperatur 20°C und ohne Kühlkanal der Flüssigkeit, mit Betrieb bei 50Hz. Für Daten mit Leistungen in unterschiedlichen Betriebspunkten siehe Frascold Selection Software. (siehe auch Seite 37)

### Motorversion

Um zu gewährleisten, dass sich der Verdichter optimal an die verschiedenen Anwendungen anpasst, bieten wir Elektromotoren in drei verschiedenen Ausführungen an (siehe Seiten 10 und 11).



## Compressori semiermetici alternativi

### Semi-hermetic reciprocating compressors

### Halbhermetische Hubkolbenverdichter

#### Applicazioni con R134a e R1234ze

I compressori sono disponibili in 3 diverse versioni

- Motore elettrico versione 1  
Per applicazioni di condizionamento e pompe di calore in alta temperatura; t<sub>c</sub> fino a 80°C, t<sub>e</sub> fino a 12,5°C
- Motore elettrico versione 2  
Per applicazioni di refrigerazione e di condizionamento in media temperatura; t<sub>c</sub> fino a 65°C, t<sub>e</sub> fino a 12,5°C
- Motore elettrico versione 3 [ECOinside]  
Ottimizzato per la refrigerazione in un campo di applicazione più limitato

#### Applicazioni con R404A, R507A, R407A, R407F, R407C, R22

I compressori sono disponibili in 2 diverse versioni

- Motore elettrico versione 1  
Per applicazioni di refrigerazione in media temperatura e condizionamento
- Motore elettrico versione 2  
Ottimizzato per applicazioni di refrigerazione in bassa temperatura

#### Applications with R134a and R1234ze

3 sizes of compressors are available

- Electric motor size 1  
For application as climate control systems and heat pump with high temperature; t<sub>c</sub> until 80°C, t<sub>e</sub> until 12,5°C
- Electric motor size 2  
For application as refrigeration and climate control systems with medium temperature; t<sub>c</sub> until 65°C, t<sub>e</sub> until 12,5°C
- Electric motor size 3 [ECOinside]  
Optimized for application with low condensing temperature

#### Applications with R404A, R507A, R407A, R407F, R407C, R22

2 sizes of compressors are available

- Electric motor size 1  
For application as refrigeration with medium temperature and climate control systems
- Electric motor size 2  
Optimized for application as refrigeration with low temperature

#### Anwendungen mit R134a und R1234ze

Die Verdichter sind in 3 Ausführungen erhältlich

- Elektromotor Ausführung 1  
Für Klima-Anwendungen und Heizpumpen; t<sub>c</sub> bis 80°C, t<sub>e</sub> bis 12,5°C
- Elektromotor Ausführung 2  
Für Normalkühl- und Klima-Anwendungen; t<sub>c</sub> bis 65°C, t<sub>e</sub> bis 12,5°C
- Elektromotor Ausführung 3 [ECOinside]  
Optimiert für Kühlung in begrenzteren Anwendungsbereichen

#### Anwendungen mit R404A, R507A, R407A, R407F, R407C, R22

Die Verdichter sind in 2 Ausführungen erhältlich

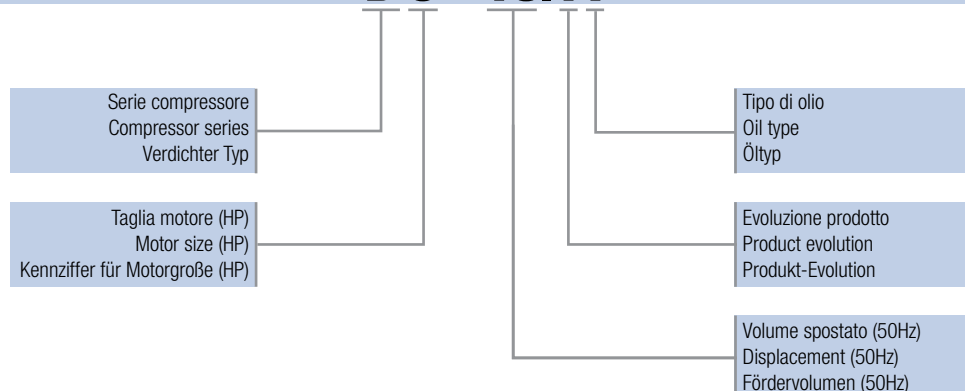
- Elektromotor Ausführung 1  
Für Normalkühl- und Klima-Anwendungen
- Elektromotor Ausführung 2  
Für Tiefkühlanwendungen

## Nomenclatura modelli

### Model designation

### Modellbezeichnung

# D 3 - 18.1Y



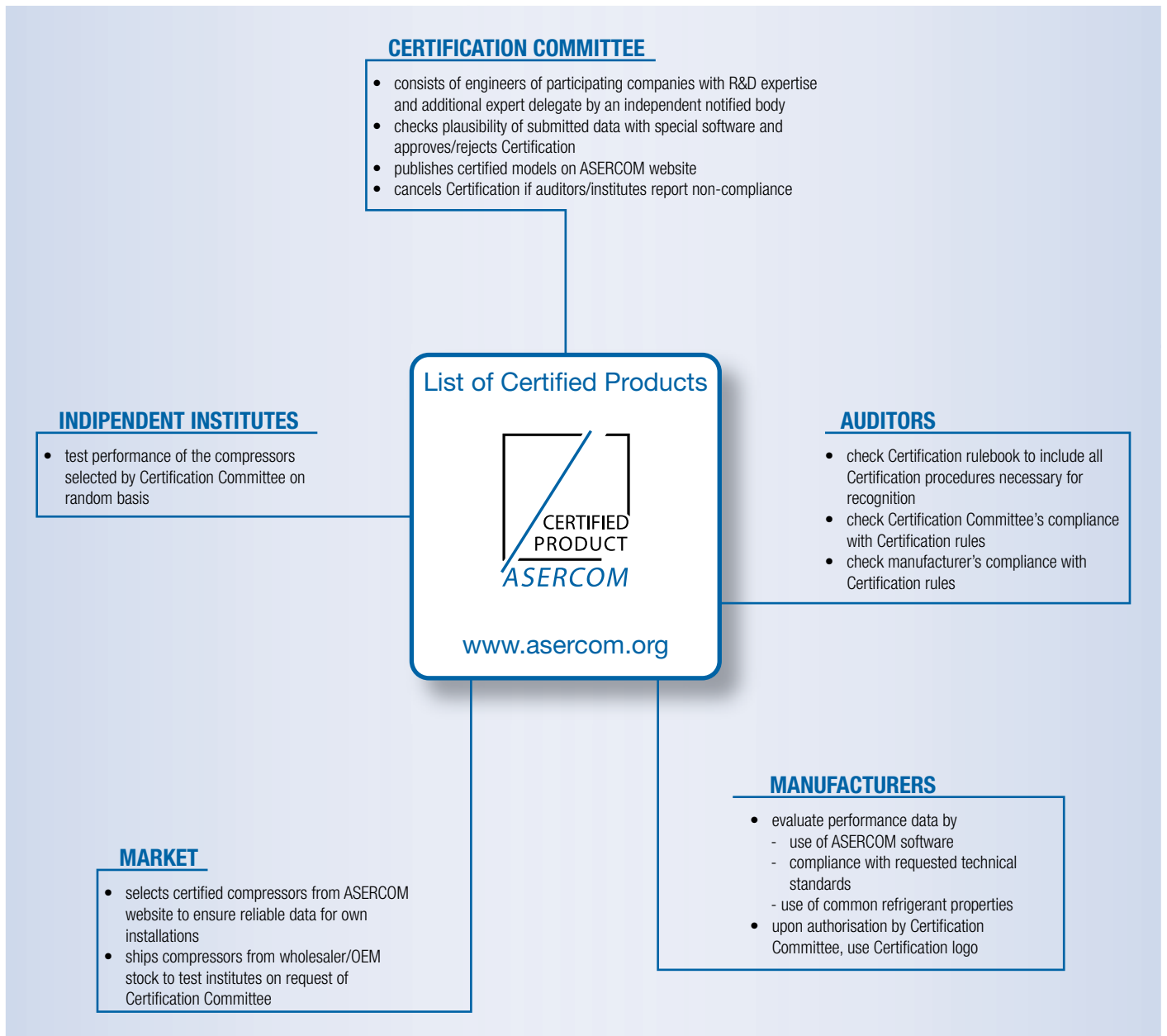
**Certificazione delle prestazioni ASERCOM**  
**Performance certification ASERCOM**  
**ASERCOM Leistungszertifizierung**

, di cui Frascold fa parte, allo scopo di creare uno standard per la sicurezza delle prestazioni dei compressori, ha definito la procedura di certificazione dei dati delle prestazioni.  
 La certificazione del compressore attesta e garantisce che le prestazioni pubblicate corrispondano a quelle effettivamente misurate con riferimento alla norma Europea EN12900.  
 I compressori con le prestazioni certificate sono contrassegnati con logo Certified Product. Ulteriori informazioni su [www.asercom.org](http://www.asercom.org)

, of which Frascold is a proud member, has defined a program for the certification of the performance to ensure the reliability of the data of the compressors.  
 The certification of the compressor guarantees that the published performance is identical to the one that anybody can really measure, using the conditions defined by the European standard EN12900.  
 The compressors with certified performances are marked with the label Certified Product. Supplementary information on [www.asercom.org](http://www.asercom.org)

Um die Zuverlässigkeit von Verdichterdaten sicherzustellen, hat , deren Mitglied Frascold ist, ein Leistungszertifizierungsprogramm entwickelt.  
 Die Zertifizierung eines Verdichters belegt, dass die veröffentlichte Leistung mit den tatsächlichen Messwerten übereinstimmt, die auf der Basis der europäischen Norm EN12900 erhoben wurden.  
 Verdichter mit zertifizierten Leistungen sind mit dem Logo Certified Product gekennzeichnet. Weitere Infos unter [www.asercom.org](http://www.asercom.org)

**Programma ASERCOM per la certificazione delle prestazioni**  
**ASERCOM Performance Certification Programme**  
**ASERCOM Programm für Leistungszertifizierung**



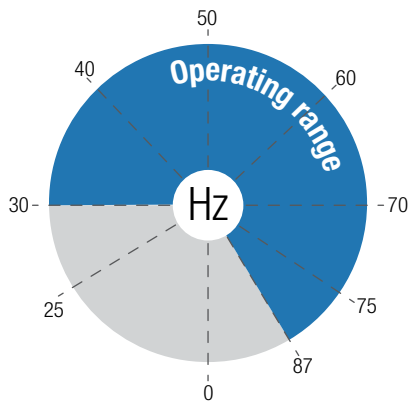
## Funzionamento del compressore con variatore di frequenza Functioning of compressor with variable frequency drive Der Betrieb des Kompressors mit variabler Frequenz

La nuova generazione di compressori Frascold Inverter-technology integrano tutte le soluzioni meccaniche ed elettriche per consentire il sicuro funzionamento con variatore di frequenza in un ampio campo di applicazioni.

The new generation of Frascold Inverter-technology compressors incorporates all mechanical and electrical solutions that allow the functioning with variable frequency drive in wide range of applications.

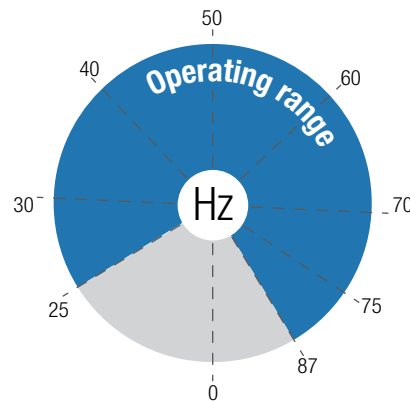
Die neue Generation von Kompressoren Frascold Inverter-technology Lösungen integrieren mechanischen und elektrischen Eigenschaften, die einen sicheren Betrieb ermöglichen mit variabler Frequenz in einem breiten Spektrum von Anwendungen.

### Serie A-B-D Series Reihe



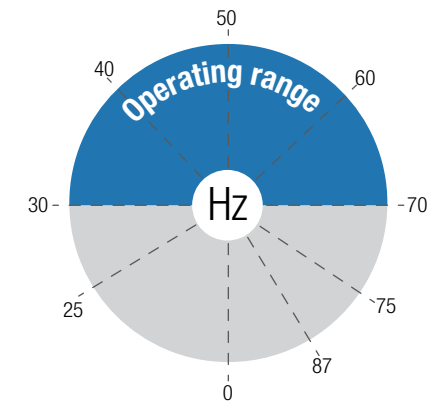
In alcune condizioni di impiego si potrà avere un restringimento del range di frequenza. In particolare la frequenza superiore è data dalla massima corrente operativa (MRA) secondo la formula riportata nel paragrafo successivo. Per i dati di performance alle varie frequenze e il limite massimo in ogni condizione, vedi Frascold selection software. Per compressori ECOinside: chiedere a Frascold.

### Serie Q-S Series Reihe



The range of frequencies can be restricted in some applications. In particular, the higher frequency depends on the maximum operating current (MRA) through the formula quoted in the next paragraph. For performance at several frequencies and the upper limit in every possible condition, see Frascold selection software. For ECOinside compressors: ask to Frascold.

### Serie V-Z-W Series Reihe



Bei einigen Anwendungsbedingungen kann es zu einer Einschränkung des Frequenzbereichs kommen. Insbesondere die Höchstfrequenz ergibt sich aus dem maximalen Betriebsstrom (MRA), gemäß der Formel, die Sie im nächsten Abschnitt finden. Für die Leistung bei mehreren Frequenzen und der oberen Grenze in jeder möglichen Zustand, siehe Frascold Selection-Software. Für ECOinside Verdichter: fragen an Frascold.

## Come selezionare l'inverter adatto al funzionamento del compressore

### How to select the inverter suitable for functioning of the compressor

### So wählen Sie den Frequenzumrichter geeignet für den Betrieb des Verdichters

Selezionare la taglia dell'inverter in base alla corrente massima erogabile continuamente (dato tecnico specifico di ciascun inverter) che deve essere uguale o superiore alla massima corrente operativa (MRA) del compressore, che può essere letta nei dati tecnici di pagina 12 e 13 o direttamente sulla targhetta del compressore.

Select the size of the inverter based on the maximum continuously output current (technical data specific to each inverter) to be equal to or greater than the maximum operating current (MRA) of the compressor, which can be read in the technical data in page 12 and 13 or directly on the nameplate of the compressor.

Wählen Sie die Größe des Wechselrichters auf den maximalen Strom kontinuierlich (technische Daten spezifisch für jeden Wechselrichter), dass sie gleich oder größer als der maximale Betriebsstrom (MRA) des Kompressors, die in den technischen Daten auf Seite 12 und 13 oder direkt am gelesenen werden können, Verdichtertypschild.

### Come calcolare la massima frequenza possibile dei compressori alle specifiche condizioni operative

All'interno dei limiti di impiego di ogni specifico compressore e refrigerante per ciascun punto di lavoro esiste una frequenza massima da non superare calcolabile attraverso la formula seguente:

$$f(\text{Max}) = \frac{\text{MRA} \times 50 \text{ Hz}}{I_e}$$

f(Max) = massima frequenza possibile (Hz)  
MRA = massima corrente operativa (A)  
I<sub>e</sub> = corrente assorbita nei punti di lavoro a 50 Hz (A)

### How to calculate the maximum possible frequency of the compressor in specific working conditions

Within the limits of use of each specific compressor and refrigerant, for each working point, the maximum frequency that VS compressors can reach, can be calculated with the following formula:

$$f(\text{Max}) = \frac{\text{MRA} \times 50 \text{ Hz}}{I_e}$$

f(Max) = maximum permissible frequency (Hz)  
MRA = maximum operating current (A)  
I<sub>e</sub> = current consumption at the operating point 50 Hz (A)

### Berechnung der möglichen Höchstfrequenz des Verdichters je nach Betriebsbedingungen

Innerhalb der Betriebsgrenzen jedes einzelnen Verdichters und Kältemittels besteht für jeden Betriebspunkt eine Höchstfrequenz, die nicht überschritten werden darf und nach folgender Formel berechnet wird:

$$f(\text{Max}) = \frac{\text{MRA} \times 50 \text{ Hz}}{I_e}$$

f(Max) = Max. möglich frequenz (Hz)  
MRA = Max. Betriebsstrom (A)  
I<sub>e</sub> = Strom-aufnahme für Betriebsbedingungen bei 50 Hz (A)

### Come calcolare la corrispondente capacità frigorifera

La capacità frigorifera può essere determinata in funzione della frequenza attraverso la seguente formula:

$$Q_0(f) = \frac{\text{factual} \times Q_0 50 \text{ Hz}}{50 \text{ Hz}}$$

Q<sub>0</sub>(f) = capacità frigorifera alla frequenza di lavoro scelta (W)  
factual = frequenza attuale applicata al compressore (Hz)  
Q<sub>0</sub> 50 Hz = capacità frigorifera a 50 Hz (W)

### How to calculate the correspondent refrigeration capacity

The refrigerating capacity can be calculated, in function of the frequency, with the following formula:  
Corresponding refrigerant capacity:

$$Q_0(f) = \frac{\text{factual} \times Q_0 50 \text{ Hz}}{50 \text{ Hz}}$$

Q<sub>0</sub>(f) = refrigerating capacity at chosen frequency (W)  
factual = actual frequency applied to the compressor (Hz)  
Q<sub>0</sub> 50 Hz = refrigerating capacity at 50 Hz (W)

### Berechnung der entsprechenden Kühlleistung

Die Kühlleistung kann je nach Frequenz nach folgender Formel berechnet werden:

$$Q_0(f) = \frac{\text{factual} \times Q_0 50 \text{ Hz}}{50 \text{ Hz}}$$

Q<sub>0</sub>(f) = Kälteleistung bei frequenz Wahl (W)  
factual = Aktuell frequenz des Verdichter (Hz)  
Q<sub>0</sub> 50 Hz = Kälteleistung bei 50 Hz (W)

**Frascold Diagnose - Il dispositivo elettronico intelligente per la protezione e la diagnosi del compressore**  
**Frascold Diagnose - The intelligent electronic device for the protection and diagnosis of the compressor**  
**Frascold Diagnose - Das intelligente Schutz- und Diagnosegerät für den Verdichter**

Il nuovo sistema di protezione Diagnose integrato nei compressori Frascold consente un importante avanzamento del sistema di protezione del compressore e aggiunge le nuove funzioni di diagnostica e comunicazione.

**Maggiore protezione**

I compressori Frascold sono ancora più affidabili. Il dispositivo Diagnose monitora le condizioni all'interno del sistema frigorifero e protegge il compressore in caso di parametri funzionali non corretti.

**Maggiore informazione**

Il dispositivo Diagnose consente la registrazione di tutti i parametri di funzionamento del compressore degli ultimi 7 giorni, le statistiche sui tempi di funzionamento, la memoria degli ultimi 20 eventi critici. Attraverso tali dati si potrà eseguire un'indagine immediatamente orientata al "cuore" del problema.

**Minori costi**

Gli algoritmi di ricerca contenuti nel dispositivo di protezione Diagnose consentono di diagnosticare in modo rapido e accurato lo stato passato e presente del sistema frigorifero, riducendo i costi e gli intervalli di fermo impianto.

The new protection system Diagnose, inside Frascold compressors, is an important evolution of the protection system and it adds new functions for diagnosis and communication.

**Better protection**

Frascold compressors are even more reliable. Diagnose device checks the condition of the system and protect the compressor in case of operating parameters not correct.

**More information**

Diagnose device registers all the operating parameters of the last 7 days, the statistics on the operating and running time, the memory of the last 20 critical events. Through these data is possible to go directly to the "heart" of the problem.

**Lower costs**

The algorithms inside the Diagnose protection device allow to know quickly and accurately the past and the present state of the refrigerating system, reducing costs and intervals of plant shutdown.

Das neue Schutzsystem "Diagnose", das in die Frascold-Verdichter integriert ist, stellt eine wichtige Weiterentwicklung und Erweiterung des bisherigen Schutzsystems um die Funktionen Diagnose und Kommunikation dar.

**Mehr Schutz**

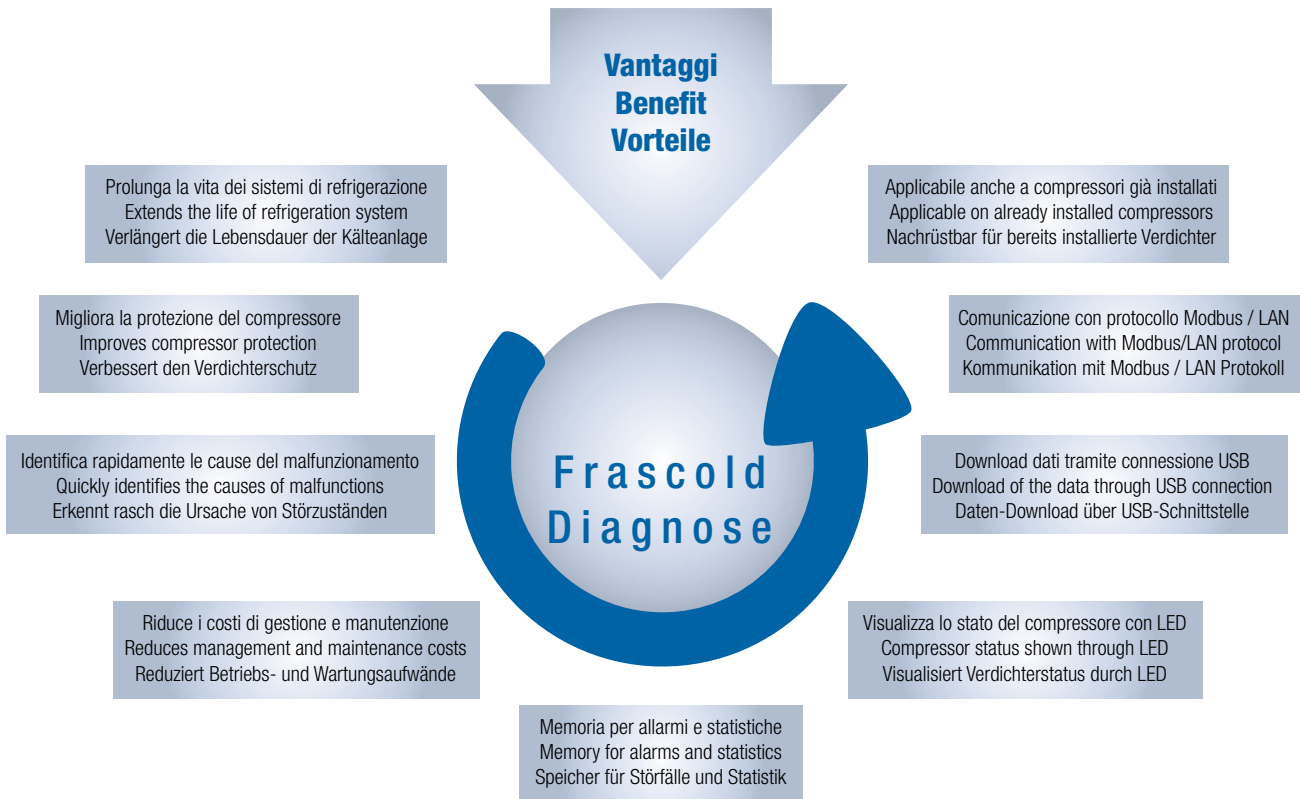
Die Frascold-Verdichter sind noch zuverlässiger. Das Diagnosegerät überwacht die Betriebsbedingungen des Systems und schützt den Verdichter im Falle von Fehlfunktionen.

**Mehr Information**

Das Diagnosegerät speichert die Betriebsdaten der letzten 7 Tage, die Laufzeiten und die letzten 20 Störfälle. Mit Hilfe dieser Daten ist es möglich, direkt zum „Kern“ des Problems vorzudringen.

**Weniger Kosten**

Die Algorithmen des Diagnosegeräts erlauben einen raschen Überblick über den aktuellen und vergangenen Betriebszustand des Kältesystems, was Kosten spart und die Zahl von Abschaltungen der Anlage reduziert.





**Equipaggiamento standard e accessori in opzione**  
**Standard equipment and optional**  
**Standard- und Zusatzausrüstung**

| Compressore<br>Compressor<br>Verdichter  | Serie - Series - Typ            | A - B - D              | Q                      | S                      | V                      | Z                      | W                      |
|--|---------------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
|  | Cilindri - Cylinders - Zylinder | 2                      | 4                      |                        |                        | 6                      | 8                      |
| Motore elettrico per avviamento diretto [DOL], avvolgimenti motore con sonde PTC<br>Electric motor for direct start [DOL], motor winding with PTC thermistor<br>Elektromotor, Direktstart (DOL), Motorwicklung mit PTC Sonden<br>• 220-240V/380-420V/3/50Hz /// 265-290V/440-480V/3/60Hz                         |                                 | ●                      | ●                      |                        |                        |                        |                        |
| Motore elettrico per avviamento part-winding [PWS], avvolgimenti motore con sonde PTC<br>Electric motor for part winding start [PWS], motor winding with PTC thermistor<br>Elektromotor, Part-Winding-Start, Motorwicklung mit PTC Sonden<br>• 380-420V/3/50Hz /// 440-480V/3/60Hz                               |                                 |                        |                        | ●                      | ●                      | ●                      | ●                      |
| Unità elettronica di controllo T00ECA01 (controllo temperatura avvolgimento motore)<br>Electronic control unit T00ECA01 (motor winding temperature monitor)<br>Steuereinheit T00ECA01 (Temperaturüberwachung der Motorwicklung)  |                                 | ●                      |                        |                        |                        |                        |                        |
| Unità elettronica di controllo T00ECA01D (controllo temperatura avvolgimento motore e diagnostica)<br>Electronic control unit T00ECA01D (motor winding temperature monitor and diagnostic)<br>Steuereinheit T00ECA01D (Temperaturüberwachung der Motorwicklung und Diagnose)                                     |                                 | ○                      | ●                      | ●                      |                        |                        |                        |
| Unità elettronica di controllo T00ECA11D (controllo temperature avvolgimento motore e mandata e diagnostica)<br>Electronic control unit T00ECA11D (motor winding and discharge temperature monitor and diagnostic)<br>Steuereinheit T00ECA11D (Temperaturüberwachung der Motorwicklung und Druckseite, Diagnose) |                                 |                        |                        |                        | ●                      | ●                      | ●                      |
| Lubrificazione forzata con pompa olio reversibile<br>Forced lubrication with reversible pump<br>Druckschmierung mit reversibler Ölpumpe  |                                 |                        |                        |                        | ●                      | ●                      | ●                      |
| Pressostato elettronico differenziale olio Kriwan®<br>Electronic switch oil differential pressure Kriwan®<br>Elektronischer Öldifferenzdruckschalter Kriwan®   |                                 |                        |                        |                        | ●                      | ●                      | ●                      |
| Carica olio POE (poliolesteri)<br>Oil charge POE (polyolester)<br>POE Ölfüllung (Polyolester)  |                                 | ●<br>[32cSt]           | ●<br>[32cSt]           | ●<br>[32cSt]           | ●<br>[68cSt]           | ●<br>[68cSt]           | ●<br>[68cSt]           |
| Resistenza di riscaldamento dell'olio [230V, altre tensioni sono disponibili]<br>Crankcase heater [230V, other voltages on request]<br>Ölsumpfheizung [230V, andere Spannungen erhältlich]   |                                 | ○<br>[50W]             | ○<br>[70W]             | ○<br>[70W]             | ○<br>[150W]            | ○<br>[150W]            | ○<br>[150W]            |
| Controllo opto-elettronico del livello dell'olio [T00WK252]<br>Opto-electronic oil level control [T00WK252]<br>Optoelektronische Ölstandkontrolle [T00WK252]   |                                 |                        | ○                      | ○                      | ○                      | ○                      | ○                      |
| Regolatore elettronico del livello dell'olio T00EC1900 [230V]<br>Oil level regulator T00EC1900 [230V]<br>Elektronische Ölstandkontrolle T00EC1900 [230V]   |                                 | ○                      | ○                      | ○                      | ○                      | ○                      | ○                      |
| Dispositivo di controllo temperatura di mandata<br>Discharge temperature sensor<br>Temperatursensor Druckseite   |                                 |                        | ○                      | ○                      | ●                      | ●                      | ●                      |
| Controllo di capacità [bobina 230V, altre tensioni disponibili a richiesta]<br>Capacity control [230V coil, other voltages on request]<br>Leistungsregelung [Spule 230V, andere Spannungen auf Anfrage erhältlich]   |                                 |                        | ○<br>100%<br>50%       | ○<br>100%<br>50%       | ○<br>100%<br>50%       | ○<br>100%<br>66-33%    | ○<br>100%<br>75-50%    |
| Partenza a vuoto [bobina 230V, altre tensioni disponibili a richiesta]<br>Unloaded start [230V coil, other voltages on request]<br>Anlaufentlastung [Spule 230V, andere Spannungen auf Anfrage erhältlich]   |                                 |                        | ○                      | ○                      | ○                      | ○                      | ○                      |
| Rubinetti di aspirazione e compressione<br>Suction and discharge valves<br>Saug- und Druckventile  |                                 | ●                      | ●                      | ●                      | ●                      | ●                      | ●                      |
| Motoventilatore per il raffreddamento supplementare [230V]<br>Additional cooling motor fan [230V]<br>Lüfter für Zusatzkühlung [230V]   |                                 | ○<br>[SZ-FM1]          | ○<br>[SZ-FM9]          | ○<br>[SZ-FM2S]         | ○<br>[SZ-FM2V]         | ○<br>[SZ-FM3]          | ○<br>[SZ-FM4]          |
| Flangia+Rubinetto per equalizzazione dell'olio (complanare)<br>Flange+oil equalizing valve<br>Flansch+Ölausgleichsventil   |                                 | ○                      | ○                      | ○                      | ○                      | ○                      | ○                      |
| Supporti antivibranti in gomma [altre dimensioni e durezza disponibili]<br>Rubber antivibration mountings [other dimensions and hardness on request]<br>Schwingungsdämpfer aus Gummi [andere Abmessungen und Ausführungen erhältlich]  |                                 | ●<br>[30x30]<br>[45Sh] | ●<br>[40x40]<br>[45Sh] | ●<br>[50x50]<br>[55Sh] | ●<br>[30x50]<br>[55Sh] | ●<br>[50x40]<br>[55Sh] | ●<br>[50x40]<br>[55Sh] |
| Compressore ATEX [II3GExclIBT3 Direttive 1999/92/CE e 94/9/CE]<br>ATEX compressor [II3GExclIBT3 Directives 1999/92/CE and 94/9/CE]<br>ATEX Verdichter [II3GExclIBT3 Richtlinien 1999/92/EG und 94/9/EG]  |                                 | ○                      | ○                      | ○                      | ○                      | ○                      | ○                      |

● Standard ○ Optional

# Limiti operativi Operating limits Einsatzgrenzen

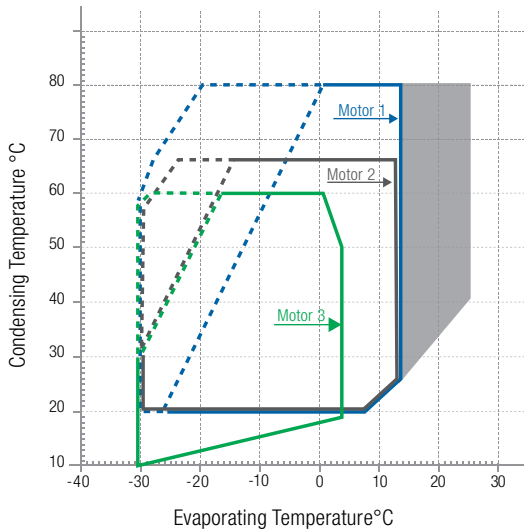
Il funzionamento dei compressori è possibile all'interno dei diagrammi di applicazione; prestare attenzione alle zone differenti. Per i limiti operativi di ogni singolo compressore consultare il Frascold Selection Software (vedi pagina 37).  
Compressore al 100% della capacità

Compressor operation is possible within the limits shown on the application diagrams. Please note the different zones. For the operating limits of each compressor, please see Frascold Selection Software (see page 37).  
Capacity of the compressor 100%

Der Betrieb der Verdichter ist innerhalb der Anwendungsdiagramme möglich; achten Sie auf die unterschiedlichen Bereiche. Die Einsatzgrenzen der einzelnen Verdichter entnehmen Sie der Frascold Selection Software (siehe Seite 37). Verdichter bei 100% Leistung.

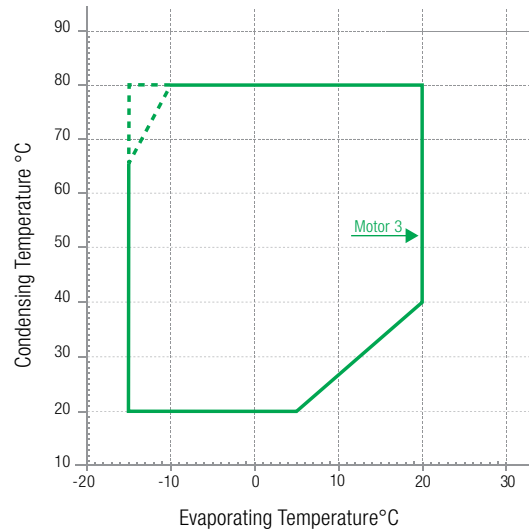
## R134a

Motore taglia 1-2-3  
Motor size 1-2-3  
Kennziffer für Motorgröße 1-2-3



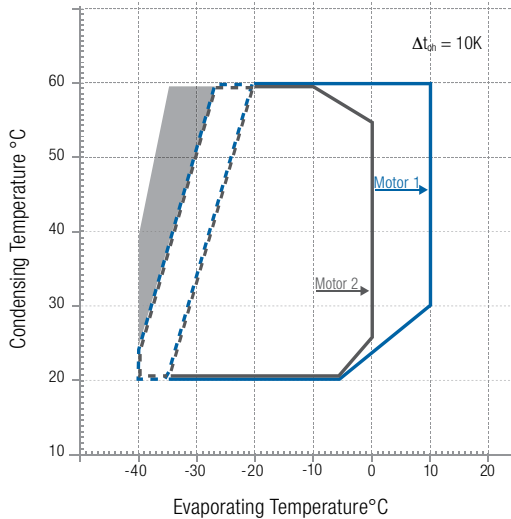
## R1234ze

Motore taglia 3  
Motor size 3  
Kennziffer für Motorgröße 3



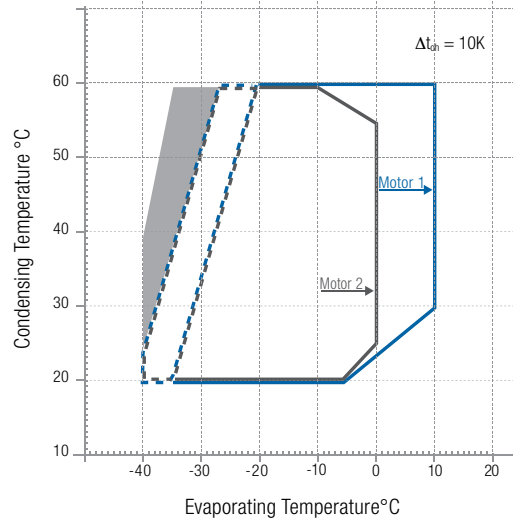
## R407A

Motore taglia 1-2  
Motor size 1-2  
Kennziffer für Motorgröße 1-2



## R407F

Motore taglia 1-2  
Motor size 1-2  
Kennziffer für Motorgröße 1-2



Zona di funzionamento senza alcuna limitazione con  $t_{oh} 20\text{ }^{\circ}\text{C}$

Raffreddamento supplementare o limitata temperatura di aspirazione, con  $\Delta t_{oh} < 20\text{ }^{\circ}\text{C}$

$t_{oh}$  temperatura di aspirazione ( $^{\circ}\text{C}$ )

$\Delta t_{oh}$  surriscaldamento in aspirazione (K)

Per il funzionamento in questa zona chiedere a Frascold

Massima pressione lato aspirazione 20,5 bar  
Massima pressione lato mandata 30 bar

Unlimited application range, with  $t_{oh} 20\text{ }^{\circ}\text{C}$

Supplementary cooling or reduced suction gas temperature, with  $\Delta t_{oh} < 20\text{ }^{\circ}\text{C}$

$t_{oh}$  suction gas temperature ( $^{\circ}\text{C}$ )

$\Delta t_{oh}$  suction superheating (K)

For application in this zone, ask to Frascold

Suction side maximum pressure 20,5 bar  
Discharge side maximum pressure 30 bar

Einsatzbereich ohne Einschränkung  $t_{oh} 20\text{ }^{\circ}\text{C}$

Zusatzkühlung oder begrenzte Sauggas-Temperatur  $\Delta t_{oh} < 20\text{ }^{\circ}\text{C}$

$t_{oh}$  Sauggas-Temperatur ( $^{\circ}\text{C}$ )

$\Delta t_{oh}$  Sauggas-Überhitzung (K)

Für Anwendung in dieser Bereich, fragen an Frascold

Max. zulässiger Druck Saugseite 20,5 bar  
Max. zulässiger Druck Druckseite 30 bar

## Limiti operativi Operating limits Einsatzgrenzen

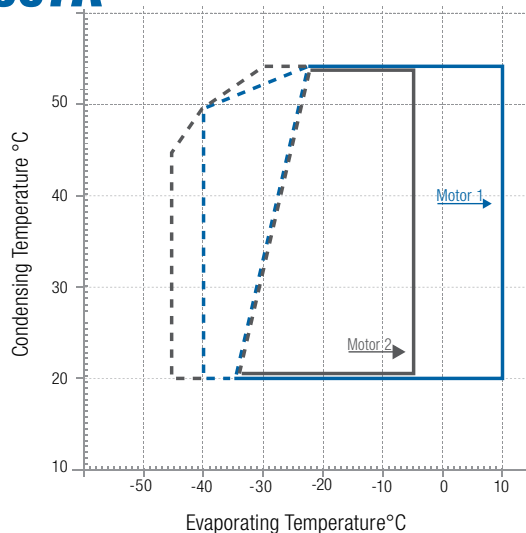
Il funzionamento dei compressori è possibile all'interno dei diagrammi di applicazione; prestare attenzione alle zone differenti. Per i limiti operativi di ogni singolo compressore consultare il Frascold Selection Software (vedi pagina 37).  
Compressore al 100% della capacità

Compressor operation is possible within the limits shown on the application diagrams. Please note the different zones. For the operating limits of each compressor, please see Frascold Selection Software (see page 37).  
Capacity of the compressor 100%

Der Betrieb der Verdichter ist innerhalb der Anwendungsdiagramme möglich; achten Sie auf die unterschiedlichen Zonen. Die Betriebsgrenzen der einzelnen Verdichter entnehmen Sie der Frascold Selection Software (siehe Seite 37). Verdichter bei 100% Leistung

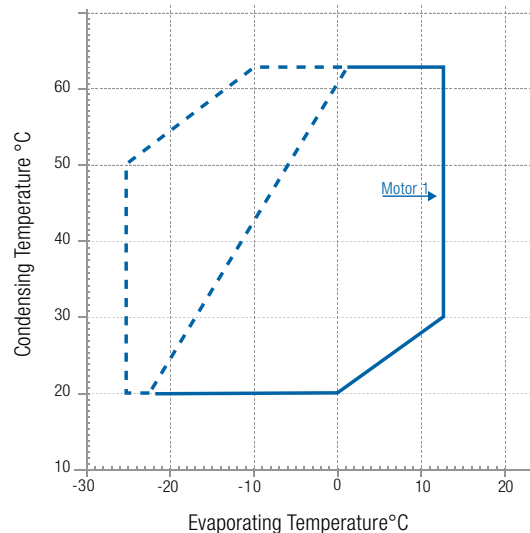
### R404A R507A

Motore taglia 1-2  
Motor size 1-2  
Kennziffer für Motorgröße 1-2



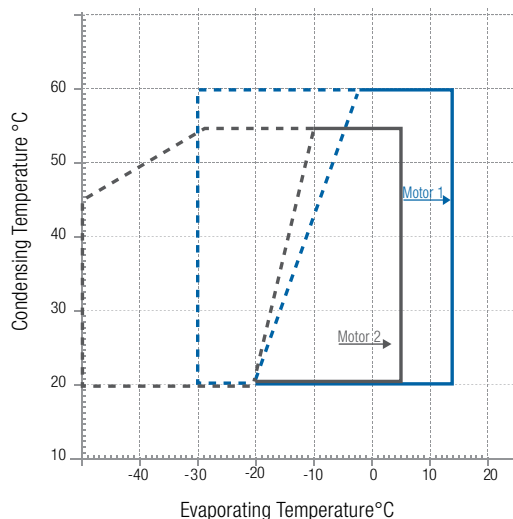
### R407C

Motore taglia 1  
Motor size 1  
Kennziffer für Motorgröße 1



### R22

Motore taglia 1-2  
Motor size 1-2  
Kennziffer für Motorgröße 1-2



— Zona di funzionamento senza alcuna limitazione con  $t_{oh} < 20\text{ °C}$

--- Raffreddamento supplementare o limitata temperatura di aspirazione, con  $\Delta t_{oh} < 20\text{ °C}$

$t_{oh}$  temperatura di aspirazione (°C)

$\Delta t_{oh}$  surriscaldamento in aspirazione (K)

Massima pressione lato aspirazione 20,5 bar  
Massima pressione lato mandata 30 bar

— Unlimited application range, with  $t_{oh} < 20\text{ °C}$

--- Supplementary cooling or reduced suction gas temperature, with  $\Delta t_{oh} < 20\text{ °C}$

$t_{oh}$  suction gas temperature (°C)

$\Delta t_{oh}$  suction superheating (K)

Suction side maximum pressure 20,5 bar  
Discharge side maximum pressure 30 bar

— Einsatzbereich ohne Einschränkung  $t_{oh} < 20\text{ °C}$

--- Zusatzkühlung oder begrenzte Sauggas-Temperatur  $\Delta t_{oh} < 20\text{ °C}$

$t_{oh}$  Sauggas-Temperatur (°C)

$\Delta t_{oh}$  Sauggas-Überhitzung (K)

Max. zulässiger Druck Saugseite 20,5 bar  
Max. zulässiger Druck Druckseite 30 bar

**Dati tecnici**  
**Technical data**  
**Technischen Daten**

| Compressore<br>Compressor<br>Verdichter | Cilindri<br>Cylinder<br>Zylinder | Volume spostato<br>Displacement<br>Förder-<br>volumen | Motore: Versione /<br>Connessione<br>Motor: Version /<br>Connections<br>Motorausführung /<br>Anschlüsse |  | CC gradini<br>CC steps<br>CC Stufen                 | Dati elettrici [A]<br>Electrical data [A]<br>Elektrische Daten [A] |           | Max potenza consumata<br>Max power consumption<br>Max Leistungsaufnahme | Funzion. Inverter<br>Inverter operation<br>Inverter Betrieb   | Carica olio<br>Oil charge<br>Öl-<br>füllung | Connessione linee<br>Aspirazione Compressione<br>Pipe connections<br>Suction line Discharge line<br>Rohranschlüsse<br>Saugleistung Druckleistung |      |        |      | Peso<br>Weight<br>Gewicht |
|---|----------------------------------|---|---|--|---|--|-----------|---|---|---|--|------|--------|------|---------------------------|
|   | Nr.                              | m <sup>3</sup> /h [50Hz]                              | ②   | ③  | % ④   | [MRA] ⑤ ⑦  | [LRA] ⑥ ⑦ | kW ⑦  |   | l ⑧   | inch ⑨   | mm ⑨ | inch ⑨ | mm ⑨ | kg ⑩                      |
|   |                                  | ①   |   |  |   |  |           |   |   |   |  |      |        |      |                           |
| <b>A05-4Y</b>                           | 2                                | 3,95  | 1   | 220...240V - 380...420V / 3 / 50 // 265...290V - 440...480V / 3 / 60 | Non disponibile<br>Not available<br>Nicht verfügbar | 2,8  | 10,7      | 1,6   | Per i limiti in applicazioni con inverter, vedere pagina 7<br>The limits for application with inverter are shown at page 7<br>Für die Anwendung des Frequenzumrichter siehe Seite 7 | 1   | %  | 15,8 | ½      | 12,7 | 36                        |
| <b>A05-5Y</b>                           | 2                                | 4,93  | 2   |  |   | 2,7  | 10,7      | 1,5   |   | 1   | %  | 15,8 | ½      | 12,7 | 36                        |
| <b>A07-5Y</b>                           | 2                                | 5,47  | 1   |  |   | 2,7  | 10,7      | 1,5   |   | 1   | %  | 15,8 | ½      | 12,7 | 36                        |
| <b>A07-6Y</b>                           | 2                                | 6,91  | 2   |  |   | 2,8  | 10,7      | 1,6   |   | 1   | %  | 15,8 | ½      | 12,7 | 36                        |
| <b>A1-6Y</b>                            | 2                                | 7,65  | 1   |  |   | 3,6  | 13,6      | 2,0   |   | 1   | %  | 15,8 | ½      | 12,7 | 36                        |
| <b>A1-7Y</b>                            | 2                                | 8,96  | 2   |  |   | 3,7  | 13,6      | 2,1   |   | 1   | %  | 15,8 | ½      | 12,7 | 36                        |
| <b>A1.5-7Y</b>                          | 2                                | 9,88  | 1   |  |   | 4,5  | 20,6      | 2,3   |   | 1   | %  | 15,8 | ½      | 12,7 | 36                        |
| <b>A1.5-8Y</b>                          | 2                                | 11,26   | 1   |  |   | 4,8  | 20,6      | 2,3   |   | 1   | %  | 15,8 | ½      | 12,7 | 36                        |
| <b>B1.5-9.1Y</b>                        | 2                                | 13,15   | 2   |  |   | 5,9  | 26,8      | 3,3   |   | 1   | %  | 15,8 | ½      | 12,7 | 38                        |
| <b>B1.5-10.1Y</b>                       | 2                                | 15,36   | 2   |  |   | 5,5  | 26,8      | 3,1   |   | 1   | %  | 15,8 | ½      | 12,7 | 38                        |
| <b>B2-10.1Y</b>                         | 2                                | 16,40   | 1   |  |   | 6,7  | 35,9      | 3,6   |   | 1   | %  | 15,8 | ½      | 12,7 | 40                        |
| <b>D2-11.1Y</b>                         | 2                                | 17,93   | 1   |  |   | 7,1  | 35,9      | 4,1   |   | 1,1   | ¾  | 22,2 | ¾      | 15,8 | 45                        |
| <b>D2-13.1Y</b>                         | 2                                | 19,12   | 2   |  |   | 7,1  | 35,9      | 4,1   |   | 1,1   | ¾  | 22,2 | ¾      | 15,8 | 45                        |
| <b>D3-13.1Y</b>                         | 2                                | 21,18   | 1   |  |   | 8,8  | 43,7      | 4,8   |   | 1,1   | 1 ½  | 28,6 | ¾      | 15,8 | 49                        |
| <b>D2-15.1Y</b>                         | 2                                | 23,91   | 2   |  |   | 8,4  | 35,9      | 4,7   |   | 1,1   | ¾  | 22,2 | ¾      | 15,8 | 45                        |
| <b>D3-15.1Y</b>                         | 2                                | 24,69   | 1   |  |   | 10,1   | 43,7      | 5,7   |   | 1,1   | 1 ½  | 28,6 | ¾      | 15,8 | 49                        |
| <b>D3-16.1Y</b>                         | 2                                | 28,02   | 2   |  |   | 9,9  | 43,7      | 5,4   |   | 1,1   | 1 ½  | 28,6 | ¾      | 15,8 | 49                        |
| <b>D4-16.1Y</b>                         | 2                                | 32,66   | 1   |  |   | 11,6   | 52,0      | 6,2   |   | 1,2   | 1 ½  | 28,6 | ¾      | 19,0 | 51                        |
| <b>D3-18.1Y</b>                         | 2                                | 35,86   | 2   |  |   | 10,0   | 43,7      | 5,5   |   | 1,1   | 1 ½  | 28,6 | ¾      | 15,8 | 49                        |
| <b>D4-18.1Y</b>                         | 2                                |   | 1   |  |   | 12,5   | 52,0      | 6,7   |   | 1,2   | 1 ½  | 28,6 | ¾      | 19,0 | 51                        |
| <b>D3-19.1Y</b>                         | 2                                |   | 2   | 9,8  | 43,7  | 5,4  | 1,1       | 1 ½   | 28,6  | ¾   | 15,8   | 49   |        |      |                           |
| <b>D4-19.1Y</b>                         | 2                                |   | 1   | 11,8   | 52,0  | 6,4  | 1,2       | 1 ½   | 28,6  | ¾   | 19,0   | 51   |        |      |                           |
| <b>Q4-20.1E</b>                         | 4                                |   | 3   | 6,1  | 56,3  | 3,1  | 1,6       | 1 ½   | 28,6  | ¾   | 19,0   | 74   |        |      |                           |
| <b>Q4-20.1Y</b>                         | 4                                |   | 2   | 10,1   | 53,2  | 5,7  | 1,6       | 1 ½   | 28,6  | ¾   | 19,0   | 74   |        |      |                           |
| <b>Q4-21.1Y</b>                         | 4                                |   | 2   | 10,0   | 53,2  | 5,7  | 1,6       | 1 ½   | 28,6  | ¾   | 19,0   | 79   |        |      |                           |
| <b>Q5-21.1Y</b>                         | 4                                |   | 1   | 11,6   | 63,1  | 6,6  | 1,6       | 1 ½   | 28,6  | ¾   | 19,0   | 79   |        |      |                           |
| <b>Q4-24.1E</b>                         | 4                                |   | 3   | 7,2  | 56,3  | 4,0  | 1,6       | 1 ½   | 28,6  | ¾   | 19,0   | 79   |        |      |                           |
| <b>Q4-24.1Y</b>                         | 4                                |   | 2   | 11,7   | 53,2  | 6,8  | 1,6       | 1 ½   | 28,6  | ¾   | 19,0   | 79   |        |      |                           |
| <b>Q5-24.1Y</b>                         | 4                                |   | 1   | 13,8   | 63,1  | 7,9  | 1,6       | 1 ½   | 28,6  | ¾   | 22,2   | 79   |        |      |                           |
| <b>Q4-25.1Y</b>                         | 4                                |   | 2   | 11,0   | 54,2  | 7,0  | 1,6       | 1 ½   | 28,6  | ¾   | 19,0   | 77   |        |      |                           |
| <b>Q5-25.1Y</b>                         | 4                                |   | 2   | 12,7   | 63,1  | 8,5  | 1,6       | 1 ½   | 28,6  | ¾   | 22,2   | 79   |        |      |                           |
| <b>Q7-25.1Y</b>                         | 4                                |   | 1   | 15,4   | 87,3  | 8,4  | 1,6       | 1 ½   | 28,6  | ¾   | 22,2   | 79   |        |      |                           |
| <b>Q5-28.1E</b>                         | 4                                |   | 3   | 7,9  | 54,7  | 4,7  | 1,6       | 1 ½   | 35  | ¾   | 22,2   | 79   |        |      |                           |
| <b>Q5-28.1Y</b>                         | 4                                |   | 2   | 14,0   | 63,1  | 8,2  | 1,6       | 1 ½   | 35  | ¾   | 22,2   | 79   |        |      |                           |
| <b>Q7-28.1Y</b>                         | 4                                |   | 1   | 17,6   | 87,3  | 9,5  | 1,6       | 1 ½   | 35  | 1 ½   | 28,6   | 79   |        |      |                           |
| <b>Q5-33.1E</b>                         | 4                                |   | 3   | 9,3  | 54,7  | 5,6  | 1,6       | 1 ½   | 35  | 1 ½   | 28,6   | 79   |        |      |                           |
| <b>Q5-33.1Y</b>                         | 4                                |   | 2   | 14,4   | 63,1  | 8,3  | 1,6       | 1 ½   | 35  | 1 ½   | 28,6   | 79   |        |      |                           |
| <b>Q7-33.1Y</b>                         | 4                                |   | 1   | 20,0   | 87,3  | 11,2   | 1,6       | 1 ½   | 35  | 1 ½   | 28,6   | 79   |        |      |                           |
| <b>Q5-36.1Y</b>                         | 4                                |   | 3   | 11,8   | 63,1  | 6,9  | 1,6       | 1 ½   | 35  | 1 ½   | 28,6   | 79   |        |      |                           |
| <b>Q7-36.1Y</b>                         | 4                                |   | 1   | 19,4   | 87,3  | 10,8   | 1,6       | 1 ½   | 35  | 1 ½   | 28,6   | 79   |        |      |                           |

- ① Fattore di conversione per 60Hz = 1,2
- ② Taglia motore: Vedi limiti operativi a pag. 10, 11
- ③ Tolleranza ±10% riferita al valore medio del campo di tensione. Altri voltaggi forniti su richiesta
- ④ 230V/AC/50-60Hz
- ⑤ Massima corrente operativa [400V]. Per i modelli S, V, Z, W, collegamento PWS
- ⑥ Corrente di avviamento [400V]. Per i modelli S, V, Z, W, collegamento PWS
- ⑦ Dimensionare i contattori, cavi e fusibili considerando la massima corrente operativa. Considerare anche ③
- ⑧ Carica olio poliolester
- ⑨ Rubinetti con attacchi a saldare
- ⑩ Peso netto. Incluso rubinetti, carica olio, supporti in gomma

- ① Conversion factor for 60 Hz = 1,2
- ② Motor size: Operating range on page 10, 11
- ③ Tolerance ± 10% based on mean value of voltage range. Other voltages upon request
- ④ 230V/AC/50-60Hz
- ⑤ Max operating current [400V]. For model S, V, Z, W, PWS connection
- ⑥ Locked rotor current [400V]. For model S, V, Z, W, PWS connection
- ⑦ For the selection of contactors, cables and fuses consider maximum operating current. Consider also ③
- ⑧ Polyolester oil charge
- ⑨ Valves with solder connections
- ⑩ Net weight. Including valves, oil charge, rubber mounts

- ① Umwandlungsfaktor für 60 Hz = 1,2
- ② Motorgroße: Einsatzgrenze auf Seite 10, 11
- ③ Toleranz ± 10% basiert auf Mittelwert des Spannungen. Andere Spannungen auf Anfrage
- ④ 230V/AC/50-60Hz
- ⑤ Maximaler Betriebsstrom [400V]. Verdichter S, V, Z, W, Motoranschluss PWS
- ⑥ Anlaufstrom [400V]. Verdichter S, V, Z, W, Motoranschluss PWS
- ⑦ Für die Selektion von Kontaktgeber, Kabel und Sicherungen betrachten Maximaler Betriebsstrom und ③
- ⑧ Polyolesteröl Füllung
- ⑨ Ventile mit Lötanschlüssen
- ⑩ Nettogewicht einschließlich Ventilen, Ölfüllung, Dämpfer

**Dati tecnici**  
**Technical data**  
**Technischen Daten**

| Compressore<br>Compressor<br>Verdichter | Cilindri<br>Cylindr<br>Zylinder | Volume<br>spostato<br>Displace-<br>ment<br>Förder-<br>volumen | Motore: Versione /<br>Connessione<br>Motor: Version /<br>Connections<br>Motorausführeng /<br>Anschlüsse |   | CC<br>gradini<br>CC<br>steps<br>CC<br>Stufen | Dati elettrici<br>[A]<br>Electrical<br>data [A]<br>Elektrische<br>Daten [A] |              | Max potenza<br>consumata<br>Max power<br>consumption<br>Max<br>Leistungsaufnahme | Funzion.<br>Inverter<br>Inverter<br>operation<br>Inverter<br>Betrieb | Carica<br>olio<br>Oil<br>charge<br>Öl-<br>füllung | Connessione linee<br>Aspirazione      Compressione<br>Pipe connections<br>Suction line      Discharge line<br>Rohranschlüsse<br>Saugleistung      Druckleistung |         |           |         | Peso<br>Weight<br>Gewicht |
|---|---------------------------------|---|---|---|--|---|--------------|--|--|---|---|---------|-----------|---------|---------------------------|
|   | Nr.                             | m <sup>3</sup> /h [50Hz]                                      | ②   | ③ | %<br>④                                       | [MRA]<br>⑤ ⑦  | [LRA]<br>⑥ ⑦ | kW<br>⑦  |  | l<br>⑧  | inch<br>⑨   | mm<br>⑩ | inch<br>⑪ | mm<br>⑫ | kg<br>⑬                   |
|   |                                 | ①   |   |   |  |   |              |  |  |   |   |         |           |         |                           |
| S5-33Y                                  | 4                               |   | 2   |   |  | 15,9  | 35,5         | 7,8  |  | 2,9   | 1 3/8   | 35      | 1 1/2     | 28,6    | 115                       |
| S7-33Y                                  | 4                               | 32,80   | 1   |   |  | 20,4  | 47,0         | 11,1   |  | 2,9   | 1 3/8   | 35      | 1 1/2     | 28,6    | 117                       |
| S8-42E                                  | 4                               |   | 3   |   |  | 12,8  | 52,7         | 7,30   |  | 2,9   | 1 3/8   | 35      | 1 1/2     | 28,6    | 117                       |
| S8-42Y                                  | 4                               | 41,32   | 2   |   |  | 20,3  | 52,7         | 11,8   |  | 2,9   | 1 3/8   | 35      | 1 1/2     | 28,6    | 117                       |
| S12-42Y                                 | 4                               |   | 1   |   |  | 22,4  | 59,1         | 12,9   |  | 2,9   | 1 3/8   | 35      | 1 1/2     | 28,6    | 120                       |
| S10-52E                                 | 4                               |   | 3   |   |  | 14,7  | 59,5         | 8,4  |  | 2,9   | 1 3/8   | 35      | 1 1/2     | 28,6    | 120                       |
| S10-52Y                                 | 4                               | 51,50   | 2   |   |  | 24,5  | 59,1         | 14,9   |  | 2,9   | 1 3/8   | 35      | 1 1/2     | 28,6    | 120                       |
| S15-52Y                                 | 4                               |   | 1   |   |  | 32,4  | 74,8         | 17,8   |  | 2,9   | 1 1/2   | 42      | 1 1/2     | 28,6    | 126                       |
| S12-56E                                 | 4                               |   | 3   |   |  | 16,1  | 59,5         | 9,0  |  | 2,9   | 1 1/2   | 42      | 1 1/2     | 28,6    | 130                       |
| S15-56Y                                 | 4                               | 56,00   | 2   |   |  | 30,7  | 74,8         | 16,5   |  | 2,9   | 1 1/2   | 42      | 1 1/2     | 28,6    | 130                       |
| S20.56Y                                 | 4                               |   | 1   |   |  | 38,4  | 87,5         | 19,6   |  | 2,9   | 1 1/2   | 42      | 1 1/2     | 28,6    | 132                       |
| V15-59E                                 | 4                               |   | 3   |   |  | 17,5  | 59,5         | 10,2   |  | 4,0   | 1 1/2   | 42      | 1 1/2     | 28,6    | 170                       |
| V15-59Y                                 | 4                               | 58,48   | 2   |   |  | 31,1  | 74,8         | 17,8   |  | 4,0   | 1 1/2   | 42      | 1 1/2     | 28,6    | 170                       |
| V20-59Y                                 | 4                               |   | 1   |   |  | 35,3  | 106,6        | 19,6   |  | 4,0   | 1 1/2   | 42      | 1 1/2     | 28,6    | 174                       |
| V15-71E                                 | 4                               |   | 3   |   |  | 20,2  | 59,5         | 12,0   |  | 4,0   | 1 1/2   | 42      | 1 1/2     | 28,6    | 174                       |
| V15-71Y                                 | 4                               | 70,77   | 2   |   |  | 32,2  | 74,8         | 19,6   |  | 4,0   | 1 1/2   | 42      | 1 1/2     | 28,6    | 174                       |
| V25-71Y                                 | 4                               |   | 1   |   |  | 43,5  | 118,3        | 23,6   |  | 4,0   | 2 1/2   | 54      | 1 1/2     | 35      | 184                       |
| V20-84E                                 | 4                               |   | 3   |   |  | 27,2  | 89,9         | 14,2   |  | 4,0   | 1 1/2   | 42      | 1 1/2     | 28,6    | 180                       |
| V20-84Y                                 | 4                               | 83,81   | 2   |   |  | 46,2  | 106,6        | 24,2   |  | 4,0   | 2 1/2   | 54      | 1 1/2     | 35      | 180                       |
| V30-84Y                                 | 4                               |   | 1   |   |  | 49,2  | 132,6        | 28,4   |  | 4,0   | 2 1/2   | 54      | 1 1/2     | 35      | 187                       |
| V25-93Y                                 | 4                               |   | 2   |   |  | 52,3  | 118,3        | 25,8   |  | 4,0   | 2 1/2   | 54      | 1 1/2     | 35      | 200                       |
| V32-93Y                                 | 4                               | 93,05   | 1   |   |  | 53,1  | 144,5        | 30,9   |  | 4,0   | 2 1/2   | 54      | 1 1/2     | 35      | 192                       |
| V25-103E                                | 4                               |   | 3   |   |  | 29,9  | 122,7        | 16,9   |  | 4,0   | 2 1/2   | 54      | 1 1/2     | 35      | 204                       |
| V25-103Y                                | 4                               | 102,90  | 2   |   |  | 52,3  | 118,3        | 28,8   |  | 4,0   | 2 1/2   | 54      | 1 1/2     | 35      | 204                       |
| V35-103Y                                | 4                               |   | 1   |   |  | 61,0  | 144,5        | 38,5   |  | 4,0   | 2 1/2   | 54      | 1 1/2     | 35      | 207                       |
| Z25-106E                                | 6                               |   | 3   |   |  | 30,2  | 122,7        | 17,1   |  | 3,7   | 2 1/2   | 54      | 1 1/2     | 35      | 220                       |
| Z25-106Y                                | 6                               | 106,16  | 2   |   |  | 53,6  | 118,3        | 31,9   |  | 3,7   | 2 1/2   | 54      | 1 1/2     | 35      | 220                       |
| Z35-106Y                                | 6                               |   | 1   |   |  | 60,2  | 144,5        | 35,1   |  | 3,7   | 2 1/2   | 54      | 1 1/2     | 35      | 223                       |
| Z30-126E                                | 6                               |   | 3   |   |  | 33,8  | 122,7        | 19,7   |  | 7,2   | 2 1/2   | 54      | 1 1/2     | 35      | 229                       |
| Z30-126Y                                | 6                               | 125,72  | 2   |   |  | 55,7  | 132,6        | 35,0   |  | 7,2   | 2 1/2   | 54      | 1 1/2     | 35      | 229                       |
| Z40-126Y                                | 6                               |   | 1   |   |  | 71,9  | 159,2        | 40,7   |  | 7,2   | 2 1/2   | 67      | 1 1/2     | 42      | 240                       |
| Z40-154E                                | 6                               |   | 3   |   |  | 41,1  | 144,5        | 23,8   |  | 7,2   | 2 1/2   | 67      | 1 1/2     | 42      | 240                       |
| Z40-154Y                                | 6                               | 154,38  | 2   |   |  | 77,9  | 159,2        | 37,9   |  | 7,2   | 2 1/2   | 67      | 1 1/2     | 42      | 240                       |
| Z50-154Y                                | 6                               |   | 1   |   |  | 94,4  | 188,8        | 52,1   |  | 7,2   | 2 1/2   | 67      | 1 1/2     | 42      | 244                       |
| W40-142Y                                | 8                               | 141,50  | 2   |   |  | 89,3  | 215          | 42,3   |  | 7,7   | 2 1/2   | 67      | 1 1/2     | 42      | 295                       |
| W40-168Y                                | 8                               |   | 2   |   |  | 71,4  | 215          | 37,3   |  | 7,7   | 2 1/2   | 67      | 1 1/2     | 42      | 299                       |
| W50-168Y                                | 8                               | 167,60  | 1   |   |  | 94,8  | 258          | 55,2   |  | 7,7   | 3 1/2   | 79,4    | 1 1/2     | 42      | 305                       |
| W50-187Y                                | 8                               |   | 2   |   |  | 89,1  | 258          | 50,2   |  | 7,7   | 3 1/2   | 79,4    | 1 1/2     | 42      | 311                       |
| W60-187Y                                | 8                               | 186,10  | 1   |   |  | 103,5   | 326          | 59,9   |  | 7,7   | 3 1/2   | 79,4    | 1 1/2     | 42      | 315                       |
| W60-206Y                                | 8                               |   | 2   |   |  | 98,8  | 326          | 56,7   |  | 7,7   | 3 1/2   | 79,4    | 2 1/2     | 54      | 320                       |
| W70-206Y                                | 8                               | 205,80  | 1   |   |  | 116,8   | 390          | 66,8   |  | 7,7   | 3 1/2   | 79,4    | 2 1/2     | 54      | 328                       |
| W70-228Y                                | 8                               |   | 2   |   |  | 109,5   | 390          | 61,9   |  | 7,7   | 3 1/2   | 79,4    | 2 1/2     | 54      | 328                       |
| W75-228Y                                | 8                               | 227,77  | 1   |   |  | 128,4   | 417          | 74,2   |  | 7,7   | 3 1/2   | 79,4    | 2 1/2     | 54      | 328                       |
| W75-240Y                                | 8                               |   | 2   |   |  | 115,3   | 417          | 65,4   |  | 7,7   | 3 1/2   | 79,4    | 2 1/2     | 54      | 328                       |
| W80-240Y                                | 8                               | 239,02  | 1   |   |  | 135,7   | 417          | 78,9   |  | 7,7   | 3 1/2   | 79,4    | 2 1/2     | 54      | 328                       |

380...420V/3/50 // 440...480V/3/60 PWS - Motor PWS = Winding partition 50%/50% - Motor PWS = Wicklungsteilung 50%/50%  
 Motore PWS = Frazionamento 50%/50% - Motor PWS = Winding partition 50%/50% - Motor PWS = Wicklungsteilung 50%/50%

Controllo capacità: 100%-50%  
 Capacity control: 100%-50%  
 Leistungsregler: 100%-50%

Controllo capacità: 100%-66%-33%  
 Capacity control: 100%-66%-33%  
 Leistungsregler: 100%-66%-33%

Controllo capacità: 100%-75%-50%  
 Capacity control: 100%-75%-50%  
 Leistungsregler: 100%-75%-50%

Per i limiti in applicazioni con inverter, vedere pagina 7  
 The limits for application with inverter are shown at page 7  
 Für die Anwendung des Frequenzumrichter siehe Seite 7



**Prestazioni**  
**Performance**  
**Leistungswerte**

Dati riferiti ad una temperatura del gas aspirato di 20°C e senza sottoraffreddamento del liquido

Data referred to 20°C suction gas temperature without liquid subcooling

Bezogen auf Sauggasttemperatur 20°C ohne Flüssigkeits-Unterkühlung

## R134a

| Compressore<br>Compressor<br>Verdichter | Vers. motore<br>Motor version<br>Motorversion | Conden.<br>Temp [°C] | Qo [Watt]<br>Pe [kW]<br>50Hz | ❶ Potenza frigorifera<br>❶ Potenza assorbita |      | ❷ Cooling capacity<br>❷ Power consumption |      | ❸ Kälteleistung<br>❸ Leistungsaufnahme |      |      |      |                             |      |      |      |
|---|---|----------------------|------------------------------|--|------|---|------|--|------|------|------|-----------------------------|------|------|------|
|   |   |                      |                              | Temperatura Evaporazione [°C]                |      |   |      | Evaporation Temperature [°C]           |      |      |      | Verdampfungstemperatur [°C] |      |      |      |
|   |   |                      |                              | 12,5   | 10   | 7,5                                       | 5    | 0                                      | -5   | -10  | -15  | -20                         | -25  | -30  |      |
|   |   |                      |                              | Qo   |      | Pe  |      | Qo                                     |      | Pe   |      | Qo                          |      | Pe   |      |
| <b>A05-4Y</b>                           | 1   | 30                   | Qo                           | 3535   | 3204 | 2895                                      | 2607 | 2091                                   | 1648 | 1273 | 958  | 698                         | 485  | 314  |      |
|   |   |                      | Pe                           | 0,61   | 0,59 | 0,57                                      | 0,55 | 0,51                                   | 0,48 | 0,44 | 0,40 | 0,36                        | 0,31 | 0,26 | 0,26 |
|   |   | 40                   | Qo                           | 3128   | 2831 | 2554                                      | 2296 | 1835                                   | 1439 | 1103 | 821  | 585                         | 390  | 229  | 229  |
|   |   |                      | Pe                           | 0,70   | 0,68 | 0,66                                      | 0,63 | 0,59                                   | 0,55 | 0,50 | 0,45 | 0,39                        | 0,33 | 0,26 | 0,26 |
|   |   | 50                   | Qo                           | 2745   | 2482 | 2237                                      | 2010 | 1602                                   | 1254 | 958  | 707  | 496                         | 318  | 166  | 166  |
|   |   |                      | Pe                           | 0,81   | 0,78 | 0,75                                      | 0,72 | 0,67                                   | 0,61 | 0,56 | 0,49 | 0,42                        | 0,34 | 0,24 | 0,24 |
| <b>A05-5Y</b>                           | 2   | 30                   | Qo                           | 4379   | 3974 | 3595                                      | 3241 | 2604                                   | 2057 | 1591 | 1199 | 875                         | 609  | 396  |      |
|   |   |                      | Pe                           | 0,76   | 0,73 | 0,71                                      | 0,68 | 0,64                                   | 0,60 | 0,55 | 0,50 | 0,45                        | 0,39 | 0,32 | 0,32 |
|   |   | 40                   | Qo                           | 3873   | 3510 | 3170                                      | 2854 | 2284                                   | 1795 | 1379 | 1027 | 733                         | 489  | 288  | 288  |
|   |   |                      | Pe                           | 0,88   | 0,85 | 0,82                                      | 0,79 | 0,74                                   | 0,68 | 0,62 | 0,56 | 0,49                        | 0,41 | 0,32 | 0,32 |
|   |   | 50                   | Qo                           | 3399   | 3077 | 2777                                      | 2497 | 1995                                   | 1564 | 1196 | 884  | 620                         | 397  | 208  | 208  |
|   |   |                      | Pe                           | 1,01   | 0,97 | 0,94                                      | 0,90 | 0,84                                   | 0,77 | 0,69 | 0,61 | 0,52                        | 0,42 | 0,30 | 0,30 |
| <b>A07-5Y</b>                           | 1   | 50                   | Qo                           | 3368   | 3047 | 2747                                      | 2467 | 1966                                   | 1536 | 1169 | 857  | 593                         | 369  | 178  |      |
|   |   |                      | Pe                           | 0,99   | 0,96 | 0,93                                      | 0,90 | 0,83                                   | 0,76 | 0,69 | 0,61 | 0,52                        | 0,42 | 0,31 | 0,31 |
|   |   | 60                   | Qo                           | 2911   | 2628 | 2366                                      | 2121 | 1685                                   | 1311 | 991  | 719  | 486                         | 284  | 284  | 284  |
|   |   |                      | Pe                           | 1,12   | 1,08 | 1,04                                      | 1,00 | 0,92                                   | 0,84 | 0,74 | 0,64 | 0,53                        | 0,40 | 0,40 | 0,40 |
|   |   | 70                   | Qo                           | 2465   | 2222 | 1996                                      | 1787 | 1414                                   | 1096 | 823  | 590  | 387                         | 246  | 246  | 246  |
|   |   |                      | Pe                           | 1,23   | 1,19 | 1,14                                      | 1,09 | 1,00                                   | 0,89 | 0,78 | 0,65 | 0,52                        | 0,40 | 0,40 | 0,40 |
| <b>A07-6Y</b>                           | 2   | 30                   | Qo                           | 4755   | 4315 | 3904                                      | 3521 | 2835                                   | 2246 | 1745 | 1321 | 964                         | 665  | 414  |      |
|   |   |                      | Pe                           | 0,79   | 0,77 | 0,76                                      | 0,74 | 0,70                                   | 0,67 | 0,62 | 0,57 | 0,51                        | 0,43 | 0,35 | 0,35 |
|   |   | 40                   | Qo                           | 4161   | 3767 | 3399                                      | 3058 | 2447                                   | 1925 | 1481 | 1105 | 787                         | 518  | 287  | 287  |
|   |   |                      | Pe                           | 0,92   | 0,90 | 0,88                                      | 0,86 | 0,81                                   | 0,76 | 0,69 | 0,62 | 0,54                        | 0,45 | 0,33 | 0,33 |
|   |   | 50                   | Qo                           | 3614   | 3265 | 2940                                      | 2638 | 2101                                   | 1644 | 1255 | 925  | 645                         | 404  | 192  | 192  |
|   |   |                      | Pe                           | 1,05   | 1,02 | 1,00                                      | 0,97 | 0,91                                   | 0,84 | 0,76 | 0,67 | 0,57                        | 0,45 | 0,31 | 0,31 |
| <b>A1-6Y</b>                            | 1   | 50                   | Qo                           | 3585   | 3246 | 2929                                      | 2633 | 2104                                   | 1648 | 1259 | 927  | 645                         | 403  | 194  |      |
|   |   |                      | Pe                           | 1,04   | 1,01 | 0,98                                      | 0,96 | 0,90                                   | 0,83 | 0,75 | 0,66 | 0,55                        | 0,43 | 0,30 | 0,30 |
|   |   | 60                   | Qo                           | 3101   | 2803 | 2525                                      | 2266 | 1804                                   | 1408 | 1069 | 778  | 529                         | 312  | 312  | 312  |
|   |   |                      | Pe                           | 1,16   | 1,13 | 1,10                                      | 1,07 | 0,99                                   | 0,91 | 0,81 | 0,70 | 0,57                        | 0,43 | 0,43 | 0,43 |
|   |   | 70                   | Qo                           | 2636   | 2379 | 2140                                      | 1918 | 1523                                   | 1186 | 897  | 649  | 433                         | 263  | 263  | 263  |
|   |   |                      | Pe                           | 1,29   | 1,26 | 1,22                                      | 1,18 | 1,10                                   | 0,99 | 0,88 | 0,75 | 0,60                        | 0,46 | 0,46 | 0,46 |
| <b>A1-7Y</b>                            | 2   | 30                   | Qo                           | 6223   | 5663 | 5141                                      | 4655 | 3785                                   | 3041 | 2411 | 1882 | 1442                        | 1080 | 782  |      |
|   |   |                      | Pe                           | 0,91   | 0,90 | 0,89                                      | 0,88 | 0,85                                   | 0,82 | 0,78 | 0,73 | 0,67                        | 0,61 | 0,53 | 0,53 |
|   |   | 40                   | Qo                           | 5494   | 4989 | 4520                                      | 4084 | 3305                                   | 2640 | 2077 | 1605 | 1209                        | 879  | 602  | 602  |
|   |   |                      | Pe                           | 1,11   | 1,09 | 1,07                                      | 1,05 | 1,00                                   | 0,94 | 0,88 | 0,80 | 0,72                        | 0,62 | 0,52 | 0,52 |
|   |   | 50                   | Qo                           | 4787   | 4338 | 3921                                      | 3534 | 2845                                   | 2258 | 1762 | 1344 | 992                         | 693  | 435  | 435  |
|   |   |                      | Pe                           | 1,29   | 1,26 | 1,23                                      | 1,20 | 1,13                                   | 1,05 | 0,96 | 0,85 | 0,74                        | 0,62 | 0,48 | 0,48 |
| <b>A1.5-7Y</b>                          | 1   | 50                   | Qo                           | 4722   | 4289 | 3886                                      | 3510 | 2836                                   | 2258 | 1763 | 1343 | 986                         | 681  | 418  |      |
|   |   |                      | Pe                           | 1,28   | 1,25 | 1,23                                      | 1,20 | 1,13                                   | 1,06 | 0,97 | 0,87 | 0,76                        | 0,64 | 0,50 | 0,50 |
|   |   | 60                   | Qo                           | 4072   | 3689 | 3334                                      | 3003 | 2411                                   | 1905 | 1472 | 1103 | 787                         | 513  | 513  | 513  |
|   |   |                      | Pe                           | 1,44   | 1,40 | 1,37                                      | 1,33 | 1,24                                   | 1,14 | 1,03 | 0,90 | 0,76                        | 0,61 | 0,61 | 0,61 |
|   |   | 70                   | Qo                           | 3422   | 3090 | 2782                                      | 2496 | 1988                                   | 1554 | 1185 | 868  | 594                         | 342  | 342  | 342  |
|   |   |                      | Pe                           | 1,60   | 1,55 | 1,50                                      | 1,45 | 1,34                                   | 1,21 | 1,08 | 0,92 | 0,76                        | 0,60 | 0,60 | 0,60 |
| <b>A1.5-8Y</b>                          | 1   | 30                   | Qo                           | 6715   | 6144 | 5607                                      | 5103 | 4186                                   | 3387 | 2698 | 2109 | 1614                        | 1205 | 873  |      |
|   |   |                      | Pe                           | 1,00   | 0,99 | 0,99                                      | 0,98 | 0,96                                   | 0,93 | 0,88 | 0,83 | 0,76                        | 0,69 | 0,60 | 0,60 |
|   |   | 40                   | Qo                           | 5987   | 5468 | 4981                                      | 4523 | 3694                                   | 2972 | 2350 | 1820 | 1374                        | 1004 | 702  | 702  |
|   |   |                      | Pe                           | 1,22   | 1,20 | 1,18                                      | 1,16 | 1,11                                   | 1,05 | 0,98 | 0,90 | 0,81                        | 0,71 | 0,60 | 0,60 |
|   |   | 50                   | Qo                           | 5261   | 4795 | 4357                                      | 3947 | 3206                                   | 2563 | 2010 | 1540 | 1143                        | 814  | 543  | 543  |
|   |   |                      | Pe                           | 1,43   | 1,40 | 1,36                                      | 1,33 | 1,25                                   | 1,16 | 1,06 | 0,95 | 0,84                        | 0,71 | 0,58 | 0,58 |
| <b>B1.5-9.1Y</b>                        | 2   | 30                   | Qo                           | 8072   | 7370 | 6713                                      | 6100 | 4999                                   | 4050 | 3241 | 2556 | 1983                        | 1505 | 1110 |      |
|   |   |                      | Pe                           | 1,44   | 1,40 | 1,36                                      | 1,31 | 1,21                                   | 1,11 | 1,00 | 0,89 | 0,78                        | 0,68 | 0,58 | 0,58 |
|   |   | 40                   | Qo                           | 7181   | 6547 | 5955                                      | 5403 | 4410                                   | 3554 | 2821 | 2197 | 1668                        | 1218 | 835  | 835  |
|   |   |                      | Pe                           | 1,67   | 1,60 | 1,54                                      | 1,47 | 1,33                                   | 1,19 | 1,05 | 0,92 | 0,79                        | 0,68 | 0,57 | 0,57 |
|   |   | 50                   | Qo                           | 6279   | 5715 | 5188                                      | 4697 | 3814                                   | 3052 | 2397 | 1834 | 1350                        | 930  | 559  | 559  |
|   |   |                      | Pe                           | 1,86   | 1,77 | 1,68                                      | 1,59 | 1,41                                   | 1,24 | 1,08 | 0,93 | 0,79                        | 0,67 | 0,57 | 0,57 |
| <b>B1.5-10.1Y</b>                       | 2   | 30                   | Qo                           | 9101   | 8311 | 7572                                      | 6883 | 5644                                   | 4578 | 3669 | 2900 | 2257                        | 1722 | 1280 |      |
|   |   |                      | Pe                           | 1,56   | 1,52 | 1,48                                      | 1,44 | 1,34                                   | 1,22 | 1,10 | 0,98 | 0,86                        | 0,76 | 0,66 | 0,66 |
|   |   | 40                   | Qo                           | 8092   | 7381 | 6716                                      | 6096 | 4982                                   | 4023 | 3201 | 2502 | 1908                        | 1404 | 974  | 974  |
|   |   |                      | Pe                           | 1,85   | 1,78 | 1,71                                      | 1,64 | 1,48                                   | 1,33 | 1,17 | 1,02 | 0,88                        | 0,76 | 0,66 | 0,66 |
|   |   | 50                   | Qo                           | 7076   | 6444 | 5855                                      | 5305 | 4316                                   | 3464 | 2730 | 2100 | 1557                        | 1085 | 668  | 668  |
|   |   |                      | Pe                           | 2,08   | 1,98 | 1,89                                      | 1,79 | 1,59                                   | 1,39 | 1,21 | 1,04 | 0,88                        | 0,75 | 0,65 | 0,65 |
| <b>B2-10.1Y</b>                         | 1   | 50                   | Qo                           | 6871   | 6261 | 5688                                      | 5152 | 4181                                   | 3339 | 2617 | 2004 | 1490                        | 1065 | 720  |      |
|   |   |                      | Pe                           | 2,02   | 2,00 | 1,96                                      | 1,91 | 1,79                                   | 1,63 | 1,46 | 1,27 | 1,07                        | 0,88 | 0,69 | 0,69 |
|   |   | 60                   | Qo                           | 5846   | 5313 | 4814                                      | 4347 | 3505                                   | 2776 | 2151 | 1620 | 1173                        | 799  | 799  | 799  |
|   |   |                      | Pe                           | 2,38   | 2,32 | 2,24                                      | 2,16 | 1,97                                   | 1,75 | 1,52 | 1,28 | 1,04                        | 0,82 | 0,82 | 0,82 |
|   |   | 70                   | Qo                           | 4832   | 4377 | 3951                                      | 3554 | 2840                                   | 2223 | 1695 | 1246 | 865                         | 565  | 565  | 565  |
|   |   |                      | Pe                           | 2,69   | 2,58 | 2,47                                      | 2,35 | 2,09                                   | 1,82 | 1,53 | 1,25 | 0,97                        | 0,76 | 0,76 | 0,76 |
| <b>D2-11.1Y</b>                         | 1   | 50                   | Qo                           | 7846   | 7151 | 6493                                      | 5872 | 4743                                   | 3760 | 2913 | 2195 | 1593                        | 1143 | 1143 |      |
|   |   |                      | Pe                           | 2,15   | 2,11 | 2,06                                      | 2,01 | 1,87                                   | 1,72 | 1,56 | 1,38 | 1,20                        | 1,04 | 1,04 | 1,04 |
|   |   | 60                   | Qo                           | 6574   | 5980 | 5416                                      | 4883 | 3909                                   | 3056 | 2316 | 1681 | 1143                        | 799  | 799  | 799  |
|   |   |                      | Pe                           | 2,45   | 2,38 | 2,30                                      | 2,21 | 2,02                                   | 1,82 | 1,62 | 1,40 | 1,19                        | 1,04 | 1,04 | 1,04 |
|   |   | 70                   | Qo                           | 5327   | 4829 | 4356                                      | 3906 | 3080                                   | 2349 | 1710 | 1154 | 675                         | 465  | 465  | 465  |
|   |   |                      | Pe                           | 2,70   | 2,59 | 2,48                                      | 2,37 | 2,13                                   | 1,88 | 1,64 | 1,39 | 1,16                        | 0,94 | 0,94 | 0,94 |



**Prestazioni**  
**Performance**  
**Leistungswerte**

Dati riferiti ad una temperatura del gas aspirato di 20°C e senza sottoraffreddamento del liquido  
Data referred to 20°C suction gas temperature without liquid subcooling  
Bezogen auf Sauggastemperatur 20°C ohne Flüssigkeits-Unterkühlung

## R134a

| Compressore<br>Compressor<br>Verdichter | Vers. motore<br>Motor version<br>Motorversion | Condens.<br>Temp [°C] | Qo [Watt]<br>Pe [kW]<br>50Hz | ❶ Potenza frigorifera<br>❶ Cooling capacity<br>❶ Kälteleistung |       | ❷ Potenza assorbita<br>❷ Power consumption<br>❷ Leistungsaufnahme |       | Evaporation Temperature [°C] |      |      |      |      |      |      |
|---|---|-----------------------|------------------------------|--|-------|---|-------|------------------------------|------|------|------|------|------|------|
|   |   |                       |                              | Temperatura Evaporazione [°C]                                  |       |   |       | Verdampfungstemperatur [°C]  |      |      |      |      |      |      |
|   |   |                       |                              | 12,5   | 10    | 7,5   | 5     | 0                            | -5   | -10  | -15  | -20  | -25  | -30  |
| <b>D2-13.1Y</b><br>                     | 2   | 30                    | Qo                           | 12215  | 11137 | 10128   | 9187  | 7499                         | 6054 | 4829 | 3800 | 2937 |      |      |
|   |   |                       | Pe                           | 1,65   | 1,70  | 1,72  | 1,73  | 1,72                         | 1,65 | 1,56 | 1,44 | 1,31 |      |      |
|   |   | 40                    | Qo                           | 10750  | 9793  | 8897  | 8061  | 6560                         | 5274 | 4183 | 3264 | 2491 |      |      |
|   |   |                       | Pe                           | 2,17   | 2,16  | 2,13  | 2,10  | 2,00                         | 1,87 | 1,72 | 1,55 | 1,39 |      |      |
|   |   | 50                    | Qo                           | 9282   | 8447  | 7666  | 6935  | 5624                         | 4500 | 3546 | 2742 | 2064 |      |      |
|   |   |                       | Pe                           | 2,60   | 2,55  | 2,48  | 2,40  | 2,23                         | 2,04 | 1,84 | 1,65 | 1,47 |      |      |
| <b>D3-13.1Y</b><br>                     | 1   | 50                    | Qo                           | 9370   | 8481  | 7651  | 6879  | 5504                         | 4342 | 3373 | 2574 | 1922 |      |      |
|   |   |                       | Pe                           | 2,61   | 2,55  | 2,48  | 2,41  | 2,23                         | 2,03 | 1,83 | 1,63 | 1,44 |      |      |
|   |   | 60                    | Qo                           | 7882   | 7114  | 6398  | 5732  | 4549                         | 3553 | 2728 | 2055 | 1511 |      |      |
|   |   |                       | Pe                           | 2,96   | 2,86  | 2,74  | 2,63  | 2,38                         | 2,13 | 1,89 | 1,66 | 1,47 |      |      |
|   |   | 70                    | Qo                           | 6406   | 5764  | 5165  | 4609  | 3624                         | 2799 | 2120 | 1574 | 1139 |      |      |
|   |   |                       | Pe                           | 3,26   | 3,11  | 2,96  | 2,81  | 2,51                         | 2,22 | 1,95 | 1,71 | 1,53 |      |      |
| <b>D2-15.1Y</b>                         | 2   | 30                    | Qo                           | 13790  | 12605 | 11496   | 10458 | 8586                         | 6967 | 5578 | 4395 | 3396 | 2556 | 1854 |
|   |   |                       | Pe                           | 2,60   | 2,48  | 2,36  | 2,25  | 2,02                         | 1,80 | 1,59 | 1,39 | 1,21 | 1,04 | 0,89 |
|   |   | 40                    | Qo                           | 12249  | 11179 | 10177   | 9240  | 7551                         | 6088 | 4829 | 3750 | 2828 | 2041 | 1364 |
|   |   |                       | Pe                           | 2,88   | 2,73  | 2,59  | 2,44  | 2,17                         | 1,91 | 1,67 | 1,45 | 1,25 | 1,08 | 0,93 |
|   |   | 50                    | Qo                           | 10688  | 9734  | 8840  | 8006  | 6502                         | 5198 | 4072 | 3100 | 2258 | 1524 | 875  |
|   |   |                       | Pe                           | 3,11   | 2,93  | 2,76  | 2,60  | 2,29                         | 2,00 | 1,73 | 1,50 | 1,29 | 1,12 | 0,99 |
| <b>D3-15.1Y</b>                         | 1   | 50                    | Qo                           | 10714  | 9741  | 8832  | 7984  | 6458                         | 5140 | 4006 | 3032 | 2195 | 1470 | 833  |
|   |   |                       | Pe                           | 2,92   | 2,78  | 2,64  | 2,50  | 2,24                         | 1,99 | 1,75 | 1,54 | 1,35 | 1,18 | 1,03 |
|   |   | 60                    | Qo                           | 9140   | 8284  | 7485  | 6741  | 5404                         | 4247 | 3249 | 2383 | 1628 | 959  |      |
|   |   |                       | Pe                           | 3,09   | 2,93  | 2,77  | 2,62  | 2,32                         | 2,05 | 1,80 | 1,58 | 1,39 | 1,23 |      |
|   |   | 70                    | Qo                           | 7554   | 6817  | 6131  | 5492  | 4346                         | 3355 | 2494 | 1741 | 1071 |      |      |
|   |   |                       | Pe                           | 3,23   | 3,05  | 2,88  | 2,71  | 2,39                         | 2,11 | 1,86 | 1,64 | 1,45 |      |      |
| <b>D3-16.1Y</b>                         | 2   | 30                    | Qo                           | 14515  | 13238 | 12044   | 10931 | 8934                         | 7217 | 5756 | 4522 | 3489 | 2629 | 1916 |
|   |   |                       | Pe                           | 2,41   | 2,38  | 2,33  | 2,28  | 2,16                         | 2,01 | 1,84 | 1,65 | 1,44 | 1,23 | 1,01 |
|   |   | 40                    | Qo                           | 12860  | 11710 | 10637   | 9637  | 7841                         | 6297 | 4977 | 3854 | 2901 | 2092 | 1398 |
|   |   |                       | Pe                           | 2,87   | 2,79  | 2,70  | 2,61  | 2,41                         | 2,19 | 1,96 | 1,72 | 1,48 | 1,23 | 1,00 |
|   |   | 50                    | Qo                           | 11196  | 10175 | 9222  | 8335  | 6743                         | 5371 | 4193 | 3182 | 2310 | 1551 | 878  |
|   |   |                       | Pe                           | 3,25   | 3,12  | 2,99  | 2,86  | 2,59                         | 2,31 | 2,02 | 1,74 | 1,47 | 1,20 | 0,95 |
| <b>D4-16.1Y</b><br>                     | 1   | 50                    | Qo                           | 11383  | 10375 | 9431  | 8548  | 6963                         | 5604 | 4448 | 3470 | 2642 |      |      |
|   |   |                       | Pe                           | 3,56   | 3,47  | 3,38  | 3,28  | 3,07                         | 2,84 | 2,59 | 2,33 | 2,04 |      |      |
|   |   | 60                    | Qo                           | 9702   | 8837  | 8026  | 7267  | 5903                         | 4732 | 3734 | 2890 | 2172 |      |      |
|   |   |                       | Pe                           | 4,02   | 3,89  | 3,76  | 3,63  | 3,34                         | 3,05 | 2,73 | 2,40 | 2,06 |      |      |
|   |   | 70                    | Qo                           | 8052   | 7330  | 6653  | 6018  | 4876                         | 3894 | 3056 | 2345 | 1740 |      |      |
|   |   |                       | Pe                           | 4,46   | 4,29  | 4,12  | 3,95  | 3,60                         | 3,23 | 2,85 | 2,46 | 2,06 |      |      |
| <b>D3-18.1Y</b>                         | 2   | 30                    | Qo                           | 16438  | 15008 | 13669   | 12420 | 10182                        | 8268 | 6648 | 5288 | 4150 |      |      |
|   |   |                       | Pe                           | 2,64   | 2,63  | 2,61  | 2,58  | 2,49                         | 2,37 | 2,22 | 2,06 | 1,89 |      |      |
|   |   | 40                    | Qo                           | 14527  | 13259 | 12072   | 10963 | 8974                         | 7271 | 5827 | 4610 | 3587 |      |      |
|   |   |                       | Pe                           | 3,26   | 3,20  | 3,14  | 3,06  | 2,89                         | 2,69 | 2,48 | 2,26 | 2,04 |      |      |
|   |   | 50                    | Qo                           | 12588  | 11483 | 10448   | 9481  | 7745                         | 6257 | 4993 | 3927 | 3027 |      |      |
|   |   |                       | Pe                           | 3,82   | 3,71  | 3,60  | 3,48  | 3,23                         | 2,96 | 2,69 | 2,42 | 2,15 |      |      |
| <b>D4-18.1Y</b>                         | 1   | 50                    | Qo                           | 13431  | 12203 | 11059   | 9993  | 8084                         | 6443 | 5035 | 3828 | 2788 | 1883 | 1079 |
|   |   |                       | Pe                           | 3,40   | 3,30  | 3,19  | 3,07  | 2,82                         | 2,55 | 2,27 | 1,98 | 1,69 | 1,42 | 1,16 |
|   |   | 60                    | Qo                           | 11445  | 10371 | 9371  | 8441  | 6776                         | 5342 | 4105 | 3034 | 2094 | 1252 |      |
|   |   |                       | Pe                           | 3,77   | 3,63  | 3,48  | 3,32  | 3,00                         | 2,67 | 2,33 | 2,00 | 1,68 | 1,38 |      |
|   |   | 70                    | Qo                           | 9455   | 8535  | 7680  | 6887  | 5467                         | 4243 | 3181 | 2247 | 1409 |      |      |
|   |   |                       | Pe                           | 4,08   | 3,90  | 3,71  | 3,52  | 3,13                         | 2,74 | 2,35 | 1,98 | 1,63 |      |      |
| <b>D3-19.1Y</b>                         | 2   | 30                    | Qo                           | 18611  | 16991 | 15475   | 14060 | 11516                        | 9326 | 7459 | 5883 | 4567 | 3479 | 2587 |
|   |   |                       | Pe                           | 2,91   | 2,86  | 2,81  | 2,74  | 2,58                         | 2,39 | 2,18 | 1,95 | 1,71 | 1,46 | 1,22 |
|   |   | 40                    | Qo                           | 16486  | 15033 | 13674   | 12406 | 10125                        | 8158 | 6474 | 5042 | 3829 | 2804 | 1936 |
|   |   |                       | Pe                           | 3,50   | 3,39  | 3,27  | 3,15  | 2,89                         | 2,62 | 2,34 | 2,06 | 1,77 | 1,50 | 1,25 |
|   |   | 50                    | Qo                           | 14354  | 13067 | 11865   | 10744 | 8726                         | 6983 | 5483 | 4194 | 3085 | 2124 | 1279 |
|   |   |                       | Pe                           | 3,99   | 3,82  | 3,65  | 3,48  | 3,13                         | 2,78 | 2,44 | 2,11 | 1,80 | 1,51 | 1,25 |
| <b>D4-19.1Y</b><br>                     | 1   | 50                    | Qo                           | 13476  | 12299 | 11198   | 10169 | 8320                         | 6729 | 5374 | 4235 | 3287 |      |      |
|   |   |                       | Pe                           | 4,10   | 4,01  | 3,92  | 3,80  | 3,55                         | 3,27 | 2,97 | 2,67 | 2,38 |      |      |
|   |   | 60                    | Qo                           | 11428  | 10418 | 9475  | 8596  | 7019                         | 5667 | 4517 | 3546 | 2734 |      |      |
|   |   |                       | Pe                           | 4,67   | 4,53  | 4,38  | 4,22  | 3,88                         | 3,52 | 3,16 | 2,81 | 2,50 |      |      |
|   |   | 70                    | Qo                           | 9381   | 8540  | 7757  | 7030  | 5731                         | 4622 | 3680 | 2883 | 2210 |      |      |
|   |   |                       | Pe                           | 5,17   | 4,98  | 4,78  | 4,57  | 4,15                         | 3,72 | 3,31 | 2,93 | 2,59 |      |      |
| <b>Q4-20.1Y</b>                         | 2   | 30                    | Qo                           | 14644  | 13347 | 12128   | 10983 | 8912                         | 7115 | 5576 | 4275 | 3197 | 2322 | 1634 |
|   |   |                       | Pe                           | 3,57   | 3,51  | 3,43  | 3,34  | 3,12                         | 2,87 | 2,60 | 2,30 | 2,00 | 1,70 | 1,41 |
|   |   | 40                    | Qo                           | 12582  | 11445 | 10377   | 9377  | 7567                         | 6000 | 4657 | 3520 | 2571 | 1794 | 1170 |
|   |   |                       | Pe                           | 4,19   | 4,08  | 3,95  | 3,81  | 3,50                         | 3,16 | 2,81 | 2,44 | 2,08 | 1,72 | 1,38 |
|   |   | 50                    | Qo                           | 10498  | 9526  | 8614  | 7762  | 6224                         | 4895 | 3757 | 2792 | 1983 |      |      |
|   |   |                       | Pe                           | 4,77   | 4,60  | 4,42  | 4,23  | 3,83                         | 3,41 | 2,97 | 2,54 | 2,11 |      |      |
| <b>Q4-21.1Y</b><br>                     | 2   | 30                    | Qo                           | 19518  | 17709 | 16019   | 14444 | 11630                        | 9236 | 7224 | 5552 | 4173 |      |      |
|   |   |                       | Pe                           | 2,47   | 2,51  | 2,53  | 2,53  | 2,47                         | 2,35 | 2,18 | 1,98 | 1,77 |      |      |
|   |   | 40                    | Qo                           | 17212  | 15587 | 14068   | 12653 | 10125                        | 7977 | 6174 | 4679 | 3450 |      |      |
|   |   |                       | Pe                           | 3,25   | 3,20  | 3,14  | 3,07  | 2,87                         | 2,64 | 2,38 | 2,11 | 1,84 |      |      |
|   |   | 50                    | Qo                           | 14784  | 13355 | 12019   | 10775 | 8556                         | 6675 | 5104 | 3809 | 2751 |      |      |
|   |   |                       | Pe                           | 3,86   | 3,74  | 3,60  | 3,46  | 3,15                         | 2,83 | 2,49 | 2,17 | 1,88 |      |      |

**Prestazioni**  
**Performance**  
**Leistungswerte**

Dati riferiti ad una temperatura del gas aspirato di 20°C e senza sottoraffreddamento del liquido

Data referred to 20°C suction gas temperature without liquid subcooling

Bezogen auf Sauggastemperatur 20°C ohne Flüssigkeits-Unterkühlung

## R134a

| Compressore<br>Compressor<br>Verdichter | Vers. motore<br>Motor version<br>Motorversion | Conden.<br>Temp [°C] | Qo [Watt]<br>Pe [kW]<br>50Hz | ❶ Potenza frigorifera<br>❶ Potenza assorbita |       | ❷ Cooling capacity<br>❷ Power consumption |                              | ❸ Kälteleistung<br>❸ Leistungsaufnahme |       |                             |       |      |      |      |  |  |
|---|---|----------------------|------------------------------|--|-------|---|------------------------------|--|-------|-----------------------------|-------|------|------|------|--|--|
|   |   |                      |                              | Temperatura Evaporazione [°C]                |       |   | Evaporation Temperature [°C] |  |       | Verdampfungstemperatur [°C] |       |      |      |      |  |  |
|   |   |                      |                              | 12,5   | 10    | 7,5                                       | 5                            | 0                                      | -5    | -10                         | -15   | -20  | -25  | -30  |  |  |
|   |   |                      |                              |  |       |   |                              |  |       |                             |       |      |      |      |  |  |
|   | 1   | 50                   | Qo                           | 14952  | 13498 | 12137                                     | 10871                        | 8609                                   | 6692  | 5092                        | 3774  | 2702 |      |      |  |  |
|   |   |                      | Pe                           | 3,78   | 3,67  | 3,55                                      | 3,42                         | 3,14                                   | 2,83  | 2,51                        | 2,19  | 1,88 |      |      |  |  |
|   |   | 60                   | Qo                           | 12641  | 11369 | 10179                                     | 9072                         | 7100                                   | 5435  | 4054                        | 2929  | 2028 |      |      |  |  |
|   |   |                      | Pe                           | 4,26   | 4,09  | 3,92                                      | 3,74                         | 3,36                                   | 2,97  | 2,58                        | 2,21  | 1,86 |      |      |  |  |
|   |   | 70                   | Qo                           | 10308  | 9229  | 8222                                      | 7284                         | 5618                                   | 4219  | 3070                        | 2146  | 1420 |      |      |  |  |
|   |   |                      | Pe                           | 4,63   | 4,41  | 4,18                                      | 3,95                         | 3,49                                   | 3,02  | 2,58                        | 2,16  | 1,77 |      |      |  |  |
|   | 2   | 30                   | Qo                           | 21805  | 19829 | 17980                                     | 16255                        | 13164                                  | 10524 | 8294                        | 6428  | 4877 |      |      |  |  |
|   |   |                      | Pe                           | 2,90   | 2,93  | 2,93                                      | 2,92                         | 2,85                                   | 2,71  | 2,53                        | 2,32  | 2,08 |      |      |  |  |
|   |   | 40                   | Qo                           | 19092  | 17349 | 15718                                     | 14194                        | 11462                                  | 9123  | 7144                        | 5481  | 4090 |      |      |  |  |
|   |   |                      | Pe                           | 3,68   | 3,64  | 3,58                                      | 3,50                         | 3,31                                   | 3,06  | 2,79                        | 2,48  | 2,18 |      |      |  |  |
|   |   | 50                   | Qo                           | 16415  | 14903 | 13485                                     | 12161                        | 9782                                   | 7744  | 6013                        | 4555  | 3327 |      |      |  |  |
|   |   |                      | Pe                           | 4,38   | 4,27  | 4,15                                      | 4,01                         | 3,70                                   | 3,36  | 2,99                        | 2,61  | 2,24 |      |      |  |  |
|   | 1   | 50                   | Qo                           | 16817  | 15218 | 13722                                     | 12328                        | 9835                                   | 7711  | 5920                        | 4422  | 3171 |      |      |  |  |
|   |   |                      | Pe                           | 4,33   | 4,20  | 4,05                                      | 3,90                         | 3,58                                   | 3,23  | 2,87                        | 2,51  | 2,16 |      |      |  |  |
|   |   | 60                   | Qo                           | 14181  | 12798 | 11503                                     | 10296                        | 8137                                   | 6298  | 4748                        | 3453  | 2374 |      |      |  |  |
|   |   |                      | Pe                           | 4,90   | 4,71  | 4,51                                      | 4,30                         | 3,87                                   | 3,43  | 3,00                        | 2,58  | 2,18 |      |      |  |  |
|   |   | 70                   | Qo                           | 11519  | 10359 | 9273                                      | 8259                         | 6445                                   | 4902  | 3603                        | 2521  | 1622 |      |      |  |  |
|   |   |                      | Pe                           | 5,40   | 5,15  | 4,89                                      | 4,63                         | 4,10                                   | 3,58  | 3,08                        | 2,60  | 2,16 |      |      |  |  |
|   | 2   | 30                   | Qo                           | 21889  | 19944 | 18119                                     | 16410                        | 13323                                  | 10650 | 8360                        | 6421  | 4800 | 3466 | 2385 |  |  |
|   |   |                      | Pe                           | 2,92   | 2,93  | 2,92                                      | 2,90                         | 2,81                                   | 2,67  | 2,48                        | 2,26  | 2,01 | 1,76 | 1,50 |  |  |
|   |   | 40                   | Qo                           | 19181  | 17426 | 15783                                     | 14247                        | 11480                                  | 9095  | 7059                        | 5340  | 3906 | 2724 | 1763 |  |  |
|   |   |                      | Pe                           | 3,76   | 3,69  | 3,61                                      | 3,52                         | 3,29                                   | 3,03  | 2,73                        | 2,42  | 2,09 | 1,77 | 1,45 |  |  |
|   |   | 50                   | Qo                           | 16550  | 14984 | 13522                                     | 12159                        | 9713                                   | 7615  | 5832                        | 4333  | 3084 | 2055 | 1212 |  |  |
|   |   |                      | Pe                           | 4,49   | 4,35  | 4,20                                      | 4,03                         | 3,68                                   | 3,31  | 2,91                        | 2,51  | 2,12 | 1,73 | 1,37 |  |  |
|   | 2   | 30                   | Qo                           | 23014  | 21009 | 19139                                     | 17398                        | 14281                                  | 11613 | 9350                        | 7445  | 5854 | 4531 | 3432 |  |  |
|   |   |                      | Pe                           | 2,85   | 2,91  | 2,94                                      | 2,95                         | 2,91                                   | 2,80  | 2,65                        | 2,46  | 2,26 | 2,04 | 1,84 |  |  |
|   |   | 40                   | Qo                           | 20508  | 18708 | 17030                                     | 15469                        | 12676                                  | 10282 | 8244                        | 6515  | 5051 | 3806 | 2735 |  |  |
|   |   |                      | Pe                           | 3,78   | 3,76  | 3,72                                      | 3,66                         | 3,49                                   | 3,28  | 3,02                        | 2,75  | 2,47 | 2,19 | 1,94 |  |  |
|   |   | 50                   | Qo                           | 17980  | 16385 | 14901                                     | 13521                        | 11053                                  | 8936  | 7125                        | 5574  | 4238 | 3073 | 2033 |  |  |
|   |   |                      | Pe                           | 4,66   | 4,57  | 4,45                                      | 4,33                         | 4,03                                   | 3,70  | 3,35                        | 2,98  | 2,62 | 2,29 | 1,98 |  |  |
|   | 1   | 50                   | Qo                           | 18412  | 16773 | 15246                                     | 13826                        | 11285                                  | 9104  | 7240                        | 5648  | 4283 | 3101 | 2057 |  |  |
|   |   |                      | Pe                           | 4,79   | 4,70  | 4,60                                      | 4,48                         | 4,21                                   | 3,89  | 3,54                        | 3,18  | 2,81 | 2,45 | 2,11 |  |  |
|   |   | 60                   | Qo                           | 15888  | 14449 | 13111                                     | 11868                        | 9646                                   | 7739  | 6103                        | 4692  | 3463 | 2371 | 1372 |  |  |
|   |   |                      | Pe                           | 5,56   | 5,41  | 5,25                                      | 5,07                         | 4,67                                   | 4,25  | 3,81                        | 3,36  | 2,91 | 2,49 | 2,09 |  |  |
|   |   | 70                   | Qo                           | 13325  | 12089 | 10942                                     | 9879                         | 7982                                   | 6355  | 4952                        | 3730  | 2643 | 1647 |      |  |  |
|   |   |                      | Pe                           | 6,28   | 6,06  | 5,83                                      | 5,59                         | 5,08                                   | 4,55  | 4,01                        | 3,48  | 2,96 | 2,47 |      |  |  |
|   | 2   | 30                   | Qo                           | 25263  | 22987 | 20859                                     | 18878                        | 15335                                  | 12319 | 9780                        | 7660  | 5900 |      |      |  |  |
|   |   |                      | Pe                           | 3,58   | 3,58  | 3,56                                      | 3,52                         | 3,39                                   | 3,22  | 2,99                        | 2,74  | 2,47 |      |      |  |  |
|   |   | 40                   | Qo                           | 22361  | 20332 | 18435                                     | 16667                        | 13503                                  | 10807 | 8533                        | 6631  | 5045 |      |      |  |  |
|   |   |                      | Pe                           | 4,53   | 4,44  | 4,34                                      | 4,23                         | 3,96                                   | 3,65  | 3,32                        | 2,98  | 2,62 |      |      |  |  |
|   |   | 50                   | Qo                           | 19394  | 17617 | 15954                                     | 14404                        | 11629                                  | 9262  | 7265                        | 5592  | 4195 |      |      |  |  |
|   |   |                      | Pe                           | 5,37   | 5,20  | 5,02                                      | 4,83                         | 4,43                                   | 4,00  | 3,57                        | 3,13  | 2,71 |      |      |  |  |
|   | 1   | 50                   | Qo                           | 19590  | 17750 | 16033                                     | 14435                        | 11588                                  | 9172  | 7144                        | 5454  | 4047 |      |      |  |  |
|   |   |                      | Pe                           | 5,33   | 5,17  | 4,99                                      | 4,81                         | 4,43                                   | 4,02  | 3,60                        | 3,17  | 2,75 |      |      |  |  |
|   |   | 60                   | Qo                           | 16626  | 15037 | 13552                                     | 12171                        | 9708                                   | 7620  | 5869                        | 4413  | 3202 |      |      |  |  |
|   |   |                      | Pe                           | 6,02   | 5,78  | 5,54                                      | 5,29                         | 4,77                                   | 4,26  | 3,74                        | 3,23  | 2,74 |      |      |  |  |
|   |   | 70                   | Qo                           | 13641  | 12308 | 11063                                     | 9903                         | 7835                                   | 6083  | 4617                        | 3400  | 2392 |      |      |  |  |
|   |   |                      | Pe                           | 6,61   | 6,30  | 5,99                                      | 5,67                         | 5,04                                   | 4,41  | 3,81                        | 3,23  | 2,68 |      |      |  |  |
|   | 2   | 30                   | Qo                           | 28870  | 26294 | 23894                                     | 21665                        | 17691                                  | 14305 | 11429                       | 8977  | 6860 |      |      |  |  |
|   |   |                      | Pe                           | 4,38   | 4,31  | 4,24                                      | 4,16                         | 3,97                                   | 3,75  | 3,48                        | 3,17  | 2,81 |      |      |  |  |
|   |   | 40                   | Qo                           | 25324  | 23075 | 20980                                     | 19032                        | 15555                                  | 12583 | 10047                       | 7870  | 5969 |      |      |  |  |
|   |   |                      | Pe                           | 5,34   | 5,20  | 5,06                                      | 4,91                         | 4,60                                   | 4,27  | 3,90                        | 3,49  | 3,05 |      |      |  |  |
|   |   | 50                   | Qo                           | 21931  | 19994 | 18188                                     | 16507                        | 13500                                  | 10921 | 8707                        | 6790  | 5095 |      |      |  |  |
|   |   |                      | Pe                           | 6,29   | 6,09  | 5,88                                      | 5,66                         | 5,23                                   | 4,77  | 4,29                        | 3,79  | 3,25 |      |      |  |  |
|   | 1   | 50                   | Qo                           | 22783  | 20740 | 18822                                     | 17029                        | 13803                                  | 11029 | 8666                        | 6666  | 4974 |      |      |  |  |
|   |   |                      | Pe                           | 6,44   | 6,29  | 6,11                                      | 5,91                         | 5,44                                   | 4,92  | 4,37                        | 3,82  | 3,31 |      |      |  |  |
|   |   | 60                   | Qo                           | 19398  | 17645 | 15999                                     | 14458                        | 11682                                  | 9294  | 7258                        | 5531  | 4067 |      |      |  |  |
|   |   |                      | Pe                           | 7,25   | 7,01  | 6,75                                      | 6,46                         | 5,87                                   | 5,25  | 4,64                        | 4,06  | 3,55 |      |      |  |  |
|   |   | 70                   | Qo                           | 15993  | 14538 | 13169                                     | 11887                        | 9576                                   | 7585  | 5888                        | 4448  | 3226 |      |      |  |  |
|   |   |                      | Pe                           | 7,95   | 7,63  | 7,30                                      | 6,96                         | 6,27                                   | 5,59  | 4,95                        | 4,38  | 3,91 |      |      |  |  |
|   | 3   | 30                   | Qo                           |  |       |   |                              | 19384                                  | 15834 | 12776                       | 10170 | 7973 | 6144 | 4641 |  |  |
|   |   |                      | Pe                           |  |       |   |                              | 4,49                                   | 4,22  | 3,91                        | 3,56  | 3,20 | 2,84 | 2,48 |  |  |
|   |   | 40                   | Qo                           |  |       |   |                              | 17177                                  | 13970 | 11216                       | 8875  | 6903 | 5260 | 3904 |  |  |
|   |   |                      | Pe                           |  |       |   |                              | 5,33                                   | 4,89  | 4,43                        | 3,96  | 3,48 | 3,02 | 2,59 |  |  |
|   |   | 50                   | Qo                           |  |       |   |                              | 14864                                  | 12016 | 9582                        | 7520  | 5790 | 4348 | 3154 |  |  |
|   |   |                      | Pe                           |  |       |   |                              | 6,02                                   | 5,43  | 4,83                        | 4,23  | 3,66 | 3,12 | 2,62 |  |  |
|   | 1   | 30                   | Qo                           | 32386  | 29867 | 27470                                     | 25195                        | 21001                                  | 17273 | 14000                       | 11170 | 8771 |      |      |  |  |
|   |   |                      | Pe                           | 6,44   | 6,03  | 5,69                                      | 5,40                         | 4,99                                   | 4,72  | 4,53                        | 4,33  | 4,08 |      |      |  |  |
|   |   | 40                   | Qo                           | 29174  | 26828 | 24598                                     | 22482                        | 18586                                  | 15128 | 12097                       | 9480  | 7267 |      |      |  |  |
|   |   |                      | Pe                           | 7,13   | 6,66  | 6,25                                      | 5,91                         | 5,37                                   | 4,98  | 4,66                        | 4,34  | 3,97 |      |      |  |  |
|   |   | 50                   | Qo                           | 25985  | 23844 | 21812                                     | 19886                        | 16350                                  | 13225 | 10498                       | 8158  | 6193 |      |      |  |  |
|   |   |                      | Pe                           | 8,02   | 7,50  | 7,05                                      | 6,66                         | 6,03                                   | 5,54  | 5,12                        | 4,71  | 4,24 |      |      |  |  |

**Prestazioni  
Performance  
Leistungswerte**

Dati riferiti ad una temperatura del gas aspirato di 20°C e senza sottoraffreddamento del liquido  
Data referred to 20°C suction gas temperature without liquid subcooling  
Bezogen auf Sauggastemperatur 20°C ohne Flüssigkeits-Unterkühlung

## R134a

| Compressore<br>Compressor<br>Verdichter | Vers. motore<br>Motor version<br>Motorversion | Conden.<br>Temp [°C] | Qo [Watt]<br>Pe [kW]<br>50Hz | ❶ Potenza frigorifera<br>❶ Cooling capacity<br>❶ Kälteleistung |       | ❷ Potenza assorbita<br>❷ Power consumption<br>❷ Leistungsaufnahme |                              | Evaporazione Temperature [°C] |       |                             |       |       |       |      |  |
|---|---|----------------------|------------------------------|--|-------|---|------------------------------|-------------------------------|-------|-----------------------------|-------|-------|-------|------|--|
|   |   |                      |                              | Temperatura Evaporazione [°C]                                  |       |   | Evaporation Temperature [°C] |                               |       | Verdampfungstemperatur [°C] |       |       |       |      |  |
|   |   |                      |                              | 12,5   | 10    | 7,5   | 5                            | 0                             | -5    | -10                         | -15   | -20   | -25   | -30  |  |
| <b>S5-33Y</b>                           | 2   | 30                   | Qo                           | 30264  | 27652 | 25213   | 22940                        | 18865                         | 15368 | 12394                       | 9884  | 7781  | 6029  | 4571 |  |
|   |   |                      | Pe                           | 4,80   | 4,78  | 4,73  | 4,65                         | 4,40                          | 4,07  | 3,70                        | 3,31  | 2,94  | 2,62  | 2,38 |  |
|   |   | 40                   | Qo                           | 27006  | 24658 | 22467   | 20426                        | 16768                         | 13627 | 10944                       | 8664  | 6728  | 5081  | 3663 |  |
|   |   |                      | Pe                           | 6,03   | 5,88  | 5,70  | 5,51                         | 5,06                          | 4,59  | 4,10                        | 3,65  | 3,26  | 2,95  | 2,78 |  |
|   |   | 50                   | Qo                           | 23724  | 21640 | 19697   | 17890                        | 14651                         | 11866 | 9477                        | 7427  | 5660  | 4118  | 2744 |  |
|   |   |                      | Pe                           | 7,06   | 6,79  | 6,52  | 6,23                         | 5,63                          | 5,05  | 4,50                        | 4,02  | 3,64  | 3,40  | 3,32 |  |
| <b>S7-33Y</b>                           | 1   | 50                   | Qo                           | 23743  | 21622 | 19646   | 17809                        | 14521                         | 11698 | 9283                        | 7217  | 5442  | 3901  | 2535 |  |
|   |   |                      | Pe                           | 6,17   | 6,02  | 5,85  | 5,65                         | 5,21                          | 4,72  | 4,20                        | 3,65  | 3,10  | 2,58  | 2,08 |  |
|   |   | 60                   | Qo                           | 20418  | 18562 | 16836   | 15233                        | 12365                         | 9901  | 7782                        | 5951  | 4350  | 2919  | 1602 |  |
|   |   |                      | Pe                           | 7,14   | 6,89  | 6,62  | 6,33                         | 5,73                          | 5,08  | 4,42                        | 3,77  | 3,12  | 2,52  | 1,96 |  |
|   |   | 70                   | Qo                           | 17059  | 15470 | 13996   | 12629                        | 10187                         | 8087  | 6271                        | 4680  | 3257  | 1943  |      |  |
|   |   |                      | Pe                           | 7,99   | 7,64  | 7,28  | 6,90                         | 6,13                          | 5,34  | 4,55                        | 3,78  | 3,05  | 2,37  |      |  |
| <b>S8-42Y</b>                           | 2   | 30                   | Qo                           | 40831  | 37265 | 33932   | 30821                        | 25232                         | 20426 | 16333                       | 12881 | 9997  | 7610  | 5649 |  |
|   |   |                      | Pe                           | 5,60   | 5,72  | 5,77  | 5,76                         | 5,59                          | 5,24  | 4,77                        | 4,22  | 3,65  | 3,09  | 2,60 |  |
|   |   | 40                   | Qo                           | 36822  | 33509 | 30416   | 27535                        | 22373                         | 17951 | 14198                       | 11040 | 8408  | 6229  | 4430 |  |
|   |   |                      | Pe                           | 7,85   | 7,69  | 7,49  | 7,25                         | 6,65                          | 5,95  | 5,20                        | 4,45  | 3,73  | 3,11  | 2,63 |  |
|   |   | 50                   | Qo                           | 32600  | 29548 | 26705   | 24063                        | 19347                         | 15326 | 11930                       | 9086  | 6722  | 4768  | 3152 |  |
|   |   |                      | Pe                           | 9,58   | 9,18  | 8,75  | 8,30                         | 7,34                          | 6,35  | 5,37                        | 4,47  | 3,67  | 3,04  | 2,61 |  |
| <b>S12-42Y</b>                          | 1   | 50                   | Qo                           | 29272  | 26614 | 24122   | 21790                        | 17583                         | 13950 | 10844                       | 8222  | 6039  | 4250  | 2810 |  |
|   |   |                      | Pe                           | 7,16   | 6,94  | 6,70  | 6,44                         | 5,89                          | 5,30  | 4,68                        | 4,03  | 3,39  | 2,75  | 2,13 |  |
|   |   | 60                   | Qo                           | 25144  | 22761 | 20533   | 18455                        | 14722                         | 11519 | 8801                        | 6522  | 4639  | 3106  | 1879 |  |
|   |   |                      | Pe                           | 8,09   | 7,78  | 7,44  | 7,10                         | 6,38                          | 5,64  | 4,88                        | 4,12  | 3,36  | 2,64  | 1,95 |  |
|   |   | 70                   | Qo                           | 21034  | 18934 | 16978   | 15160                        | 11916                         | 9158  | 6841                        | 4920  | 3351  | 2089  |      |  |
|   |   |                      | Pe                           | 9,02   | 8,61  | 8,19  | 7,76                         | 6,88                          | 5,99  | 5,11                        | 4,23  | 3,39  | 2,59  |      |  |
| <b>S10-52Y</b>                          | 2   | 30                   | Qo                           | 46921  | 42849 | 39048   | 35507                        | 29159                         | 23718 | 19096                       | 15204 | 11956 | 9263  | 7037 |  |
|   |   |                      | Pe                           | 6,72   | 6,72  | 6,69  | 6,60                         | 6,33                          | 5,93  | 5,45                        | 4,92  | 4,36  | 3,82  | 3,33 |  |
|   |   | 40                   | Qo                           | 41766  | 38113 | 34704   | 31530                        | 25842                         | 20960 | 16796                       | 13262 | 10271 | 7734  | 5565 |  |
|   |   |                      | Pe                           | 8,59   | 8,42  | 8,22  | 7,98                         | 7,43                          | 6,79  | 6,12                        | 5,43  | 4,77  | 4,17  | 3,66 |  |
|   |   | 50                   | Qo                           | 36593  | 33358 | 30344   | 27538                        | 22511                         | 18189 | 14485                       | 11311 | 8579  | 6200  | 4088 |  |
|   |   |                      | Pe                           | 10,24  | 9,91  | 9,55  | 9,17                         | 8,37                          | 7,53  | 6,69                        | 5,89  | 5,15  | 4,51  | 4,01 |  |
| <b>S15-52Y</b>                          | 1   | 50                   | Qo                           | 36604  | 33327 | 30276   | 27439                        | 22363                         | 18008 | 14283                       | 11099 | 8363  | 5984  | 3873 |  |
|   |   |                      | Pe                           | 8,65   | 8,49  | 8,30  | 8,08                         | 7,57                          | 6,97  | 6,30                        | 5,59  | 4,84  | 4,09  | 3,34 |  |
|   |   | 60                   | Qo                           | 31463  | 28593 | 25926   | 23450                        | 19024                         | 15224 | 11960                       | 9140  | 6675  | 4472  | 2442 |  |
|   |   |                      | Pe                           | 10,10  | 9,80  | 9,48  | 9,14                         | 8,39                          | 7,57  | 6,70                        | 5,81  | 4,90  | 4,00  | 3,13 |  |
|   |   | 70                   | Qo                           | 26268  | 23811 | 21533   | 19422                        | 15656                         | 12421 | 9626                        | 7182  | 4996  | 2979  |      |  |
|   |   |                      | Pe                           | 11,42  | 10,99 | 10,53   | 10,06                        | 9,07                          | 8,03  | 6,96                        | 5,88  | 4,81  | 3,76  |      |  |
| <b>S15-56Y</b>                          | 2   | 30                   | Qo                           | 51659  | 47184 | 43006   | 39111                        | 32123                         | 26126 | 21025                       | 16723 | 13125 | 10136 | 7661 |  |
|   |   |                      | Pe                           | 8,59   | 8,54  | 8,43  | 8,28                         | 7,87                          | 7,32  | 6,68                        | 5,97  | 5,24  | 4,52  | 3,83 |  |
|   |   | 40                   | Qo                           | 46068  | 42045 | 38290   | 34792                        | 28517                         | 23125 | 18520                       | 14608 | 11292 | 8476  | 6066 |  |
|   |   |                      | Pe                           | 10,67  | 10,41 | 10,11   | 9,77                         | 9,02                          | 8,19  | 7,31                        | 6,41  | 5,54  | 4,72  | 3,99 |  |
|   |   | 50                   | Qo                           | 40436  | 36865 | 33536   | 30436                        | 24878                         | 20095 | 15992                       | 12473 | 9442  | 6804  | 4464 |  |
|   |   |                      | Pe                           | 12,45  | 11,99 | 11,50   | 11,00                        | 9,94                          | 8,86  | 7,77                        | 6,71  | 5,73  | 4,84  | 4,10 |  |
| <b>S20-56Y</b>                          | 1   | 50                   | Qo                           | 40994  | 37342 | 33938   | 30772                        | 25102                         | 20233 | 16065                       | 12500 | 9440  | 6786  | 4439 |  |
|   |   |                      | Pe                           | 10,68  | 10,40 | 10,08   | 9,74                         | 8,98                          | 8,14  | 7,27                        | 6,39  | 5,52  | 4,69  | 3,94 |  |
|   |   | 60                   | Qo                           | 35304  | 32103 | 29126   | 26359                        | 21409                         | 17154 | 13495                       | 10334 | 7572  | 5110  | 2851 |  |
|   |   |                      | Pe                           | 12,15  | 11,71 | 11,25   | 10,77                        | 9,76                          | 8,72  | 7,66                        | 6,63  | 5,64  | 4,73  | 3,93 |  |
|   |   | 70                   | Qo                           | 29536  | 26793 | 24247   | 21886                        | 17667                         | 14038 | 10900                       | 8153  | 5701  | 3444  |      |  |
|   |   |                      | Pe                           | 13,43  | 12,85 | 12,25   | 11,65                        | 10,41                         | 9,16  | 7,94                        | 6,77  | 5,69  | 4,71  |      |  |
| <b>V15-59Y</b>                          | 2   | 30                   | Qo                           | 54947  | 50179 | 45727   | 41575                        | 34128                         | 27736 | 22297                       | 17710 | 13873 | 10684 | 8041 |  |
|   |   |                      | Pe                           | 8,57   | 8,50  | 8,39  | 8,23                         | 7,79                          | 7,23  | 6,57                        | 5,85  | 5,11  | 4,36  | 3,65 |  |
|   |   | 40                   | Qo                           | 48975  | 44687 | 40684   | 36955                        | 30265                         | 24516 | 19605                       | 15431 | 11893 | 8889  | 6316 |  |
|   |   |                      | Pe                           | 10,59  | 10,31 | 10,00   | 9,65                         | 8,89                          | 8,04  | 7,14                        | 6,23  | 5,34  | 4,50  | 3,75 |  |
|   |   | 50                   | Qo                           | 42957  | 39149 | 35599   | 32294                        | 26366                         | 21263 | 16885                       | 13129 | 9894  | 7078  | 4580 |  |
|   |   |                      | Pe                           | 12,28  | 11,81 | 11,32   | 10,81                        | 9,73                          | 8,63  | 7,53                        | 6,46  | 5,46  | 4,55  | 3,78 |  |
| <b>V20-59Y</b>                          | 1   | 50                   | Qo                           | 43798  | 39839 | 36150   | 32717                        | 26565                         | 21278 | 16752                       | 12880 | 9556  | 6675  | 4132 |  |
|   |   |                      | Pe                           | 10,67  | 10,32 | 9,95  | 9,55                         | 8,70                          | 7,81  | 6,89                        | 5,97  | 5,08  | 4,25  | 3,51 |  |
|   |   | 60                   | Qo                           | 37564  | 34090 | 30857   | 27852                        | 22473                         | 17847 | 13868                       | 10431 | 7431  | 4761  | 2316 |  |
|   |   |                      | Pe                           | 11,97  | 11,48 | 10,97   | 10,44                        | 9,36                          | 8,27  | 7,18                        | 6,14  | 5,16  | 4,27  | 3,50 |  |
|   |   | 70                   | Qo                           | 31268  | 28285 | 25514   | 22943                        | 18348                         | 14394 | 10975                       | 7985  | 5320  | 2872  |      |  |
|   |   |                      | Pe                           | 13,07  | 12,44 | 11,81   | 11,16                        | 9,88                          | 8,61  | 7,38                        | 6,23  | 5,18  | 4,25  |      |  |
| <b>V15-71Y</b>                          | 2   | 30                   | Qo                           | 64862  | 59249 | 54008   | 49123                        | 40362                         | 32844 | 26447                       | 21051 | 16533 | 12773 | 9648 |  |
|   |   |                      | Pe                           | 9,96   | 9,90  | 9,78  | 9,60                         | 9,10                          | 8,45  | 7,68                        | 6,85  | 5,99  | 5,16  | 4,39 |  |
|   |   | 40                   | Qo                           | 57731  | 52698 | 48002   | 43627                        | 35782                         | 29041 | 23283                       | 18386 | 14228 | 10690 | 7648 |  |
|   |   |                      | Pe                           | 12,46  | 12,14 | 11,78   | 11,38                        | 10,48                         | 9,47  | 8,41                        | 7,35  | 6,31  | 5,35  | 4,52 |  |
|   |   | 50                   | Qo                           | 50581  | 46127 | 41975   | 38109                        | 31179                         | 25213 | 20091                       | 15692 | 11894 | 8575  | 5614 |  |
|   |   |                      | Pe                           | 14,57  | 14,03 | 13,45   | 12,84                        | 11,56                         | 10,25 | 8,94                        | 7,67  | 6,49  | 5,45  | 4,59 |  |
| <b>V25-71Y</b>                          | 1   | 50                   | Qo                           | 50416  | 45814 | 41501   | 37467                        | 30192                         | 23908 | 18532                       | 13983 | 10177 | 7033  | 4469 |  |
|   |   |                      | Pe                           | 14,37  | 13,89 | 13,38   | 12,85                        | 11,72                         | 10,52 | 9,28                        | 8,03  | 6,80  | 5,61  | 4,49 |  |
|   |   | 60                   | Qo                           | 42548  | 38555 | 34822   | 31340                        | 25084                         | 19704 | 15120                       | 11247 | 8005  | 5310  | 3081 |  |
|   |   |                      | Pe                           | 15,87  | 15,21 | 14,52   | 13,82                        | 12,39                         | 10,92 | 9,45                        | 8,01  | 6,61  | 5,29  | 4,07 |  |
|   |   | 70                   | Qo                           | 35040  | 31650 | 28492   | 25556                        | 20306                         | 15820 | 12014                       | 8807  | 6116  | 3858  |      |  |
|   |   |                      | Pe                           | 17,11  | 16,28 | 15,44   | 14,59                        | 12,88                         | 11,17 | 9,50                        | 7,88  | 6,36  | 4,94  |      |  |



**Prestazioni**  
**Performance**  
**Leistungswerte**

Dati riferiti ad una temperatura del gas aspirato di 20°C e senza sottoraffreddamento del liquido

Data referred to 20°C suction gas temperature without liquid subcooling

Bezogen auf Sauggastemperatur 20°C ohne Flüssigkeits-Unterkühlung

## R134a

| Compressore<br>Compressor<br>Verdichter | Vers. motore<br>Motor version<br>Motorversion | Conden.<br>Temp [°C] | Qo [Watt]<br>Pe [kW]<br>50Hz | ❶ Potenza frigorifera<br>❶ Potenza assorbita |        | ❷ Cooling capacity<br>❷ Power consumption |                              | ❸ Kälteleistung<br>❸ Leistungsaufnahme |       |                             |       |       |       |       |  |  |
|---|---|----------------------|------------------------------|--|--------|---|------------------------------|--|-------|-----------------------------|-------|-------|-------|-------|--|--|
|   |   |                      |                              | Temperatura Evaporazione [°C]                |        |   | Evaporation Temperature [°C] |  |       | Verdampfungstemperatur [°C] |       |       |       |       |  |  |
|   |   |                      |                              | 12,5   | 10     | 7,5                                       | 5                            | 0                                      | -5    | -10                         | -15   | -20   | -25   | -30   |  |  |
|   |   |                      |                              |  |        |   |                              |  |       |                             |       |       |       |       |  |  |
|   | 2   | 30                   | Qo                           | 76087  | 69392  | 63112                                     | 57234                        | 46623                                  | 37447 | 29591                       | 22943 | 17389 | 12815 | 9108  |  |  |
|   |   |                      | Pe                           | 12,04  | 11,87  | 11,66                                     | 11,41                        | 10,77                                  | 10,00 | 9,12                        | 8,17  | 7,18  | 6,17  | 5,18  |  |  |
|   |   | 40                   | Qo                           | 66637  | 60649  | 55044                                     | 49808                        | 40387                                  | 32273 | 25352                       | 19512 | 14638 | 10617 | 7336  |  |  |
|   |   |                      | Pe                           | 14,41  | 14,03  | 13,62                                     | 13,17                        | 12,17                                  | 11,08 | 9,93                        | 8,73  | 7,53  | 6,36  | 5,24  |  |  |
|   |   | 50                   | Qo                           | 57687  | 52395  | 47454                                     | 42851                        | 34599                                  | 27527 | 21521                       | 16468 | 12254 | 8766  | 5890  |  |  |
|   |   |                      | Pe                           | 16,44  | 15,87  | 15,27                                     | 14,65                        | 13,34                                  | 11,97 | 10,57                       | 9,17  | 7,80  | 6,50  | 5,29  |  |  |
|   | 1   | 50                   | Qo                           | 57001  | 51914  | 47145                                     | 42682                        | 34627                                  | 27655 | 21669                       | 16576 | 12281 | 8689  | 5706  |  |  |
|   |   |                      | Pe                           | 16,15  | 15,66  | 15,13                                     | 14,58                        | 13,40                                  | 12,14 | 10,83                       | 9,49  | 8,16  | 6,85  | 5,59  |  |  |
|   |   | 60                   | Qo                           | 48767  | 44288  | 40097                                     | 36183                        | 29137                                  | 23057 | 17846                       | 13411 | 9655  | 6486  | 3807  |  |  |
|   |   |                      | Pe                           | 17,93  | 17,25  | 16,54                                     | 15,82                        | 14,31                                  | 12,76 | 11,19                       | 9,62  | 8,08  | 6,59  | 5,18  |  |  |
|   |   | 70                   | Qo                           | 40614  | 36745  | 33136                                     | 29774                        | 23744                                  | 18562 | 14132                       | 10360 | 7151  | 4410  |       |  |  |
|   |   |                      | Pe                           | 19,39  | 18,53  | 17,66                                     | 16,77                        | 14,96                                  | 13,13 | 11,31                       | 9,52  | 7,78  | 6,13  |       |  |  |
|   | 2   | 30                   | Qo                           | 81620  | 75169  | 69026                                     | 63184                        | 52389                                  | 42746 | 34216                       | 26761 | 20343 | 14924 | 10467 |  |  |
|   |   |                      | Pe                           | 14,00  | 13,85  | 13,62                                     | 13,32                        | 12,55                                  | 11,58 | 10,48                       | 9,29  | 8,07  | 6,86  | 5,73  |  |  |
|   |   | 40                   | Qo                           | 73511  | 67539  | 61861                                     | 56470                        | 46535                                  | 37695 | 29913                       | 23151 | 17370 | 12532 | 8599  |  |  |
|   |   |                      | Pe                           | 17,25  | 16,77  | 16,23                                     | 15,64                        | 14,34                                  | 12,93 | 11,45                       | 9,97  | 8,54  | 7,20  | 6,01  |  |  |
|   |   | 50                   | Qo                           | 65085  | 59638  | 54469                                     | 49575                        | 40590                                  | 32645 | 25703                       | 19723 | 14670 | 10504 | 7187  |  |  |
|   |   |                      | Pe                           | 19,98  | 19,19  | 18,37                                     | 17,51                        | 15,75                                  | 13,95 | 12,16                       | 10,45 | 8,85  | 7,44  | 6,25  |  |  |
|   | 1   | 50                   | Qo                           | 65978  | 59742  | 53894                                     | 48422                        | 38556                                  | 30044 | 22786                       | 16683 | 11636 | 7544  | 4309  |  |  |
|   |   |                      | Pe                           | 17,93  | 17,37  | 16,76                                     | 16,11                        | 14,70                                  | 13,19 | 11,62                       | 10,02 | 8,45  | 6,93  | 5,51  |  |  |
|   |   | 60                   | Qo                           | 55632  | 50138  | 45001                                     | 40207                        | 31600                                  | 24220 | 17966                       | 12739 | 8439  | 4967  | 2223  |  |  |
|   |   |                      | Pe                           | 19,63  | 18,85  | 18,03                                     | 17,17                        | 15,40                                  | 13,56 | 11,70                       | 9,86  | 8,08  | 6,41  | 4,88  |  |  |
|   |   | 70                   | Qo                           | 45538  | 40793  | 36373                                     | 32264                        | 24933                                  | 18700 | 13464                       | 9128  | 5590  | 2753  |       |  |  |
|   |   |                      | Pe                           | 20,89  | 19,89  | 18,87                                     | 17,83                        | 15,71                                  | 13,58 | 11,46                       | 9,41  | 7,47  | 5,68  |       |  |  |
|   | 2   | 30                   | Qo                           | 86780  | 79531  | 72676                                     | 66208                        | 54392                                  | 44004 | 34970                       | 27211 | 20653 | 15217 | 10829 |  |  |
|   |   |                      | Pe                           | 13,81  | 13,83  | 13,75                                     | 13,58                        | 13,02                                  | 12,20 | 11,19                       | 10,04 | 8,81  | 7,56  | 6,37  |  |  |
|   |   | 40                   | Qo                           | 76401  | 69884  | 63735                                     | 57943                        | 47392                                  | 38155 | 30157                       | 23320 | 17568 | 12825 | 9014  |  |  |
|   |   |                      | Pe                           | 17,65  | 17,30  | 16,88                                     | 16,39                        | 15,23                                  | 13,90 | 12,45                       | 10,94 | 9,43  | 7,99  | 6,66  |  |  |
|   |   | 50                   | Qo                           | 66790  | 60990  | 55529                                     | 50396                        | 41078                                  | 32960 | 25965                       | 20017 | 15039 | 10956 | 7689  |  |  |
|   |   |                      | Pe                           | 20,99  | 20,30  | 19,55                                     | 18,75                        | 17,05                                  | 15,24 | 13,40                       | 11,57 | 9,83  | 8,23  | 6,83  |  |  |
|   | 1   | 50                   | Qo                           | 71722  | 65372  | 59448                                     | 53930                        | 44030                                  | 35508 | 28201                       | 21947 | 16582 | 11943 | 7867  |  |  |
|   |   |                      | Pe                           | 20,12  | 19,45  | 18,73                                     | 17,97                        | 16,34                                  | 14,63 | 12,87                       | 11,13 | 9,44  | 7,87  | 6,47  |  |  |
|   |   | 60                   | Qo                           | 61592  | 56054  | 50894                                     | 46092                        | 37478                                  | 30051 | 23646                       | 18101 | 13252 | 8937  | 4992  |  |  |
|   |   |                      | Pe                           | 22,89  | 21,92  | 20,91                                     | 19,88                        | 17,77                                  | 15,65 | 13,56                       | 11,55 | 9,68  | 8,00  | 6,56  |  |  |
|   |   | 70                   | Qo                           | 51381  | 46661  | 42270                                     | 38188                        | 30873                                  | 24550 | 19057                       | 14231 | 9909  | 5928  |       |  |  |
|   |   |                      | Pe                           | 25,30  | 24,04  | 22,77                                     | 21,49                        | 18,94                                  | 16,45 | 14,07                       | 11,84 | 9,83  | 8,08  |       |  |  |
|   | 2   | 30                   | Qo                           | 97622  | 88968  | 80855                                     | 73266                        | 59583                                  | 47778 | 37707                       | 29225 | 22190 | 16457 | 11883 |  |  |
|   |   |                      | Pe                           | 16,05  | 15,81  | 15,51                                     | 15,15                        | 14,29                                  | 13,26 | 12,10                       | 10,86 | 9,58  | 8,30  | 7,07  |  |  |
|   |   | 40                   | Qo                           | 83812  | 76231  | 69144                                     | 62532                        | 50661                                  | 40475 | 31830                       | 24583 | 18591 | 13709 | 9794  |  |  |
|   |   |                      | Pe                           | 19,00  | 18,48  | 17,91                                     | 17,29                        | 15,96                                  | 14,52 | 13,01                       | 11,48 | 9,97  | 8,51  | 7,16  |  |  |
|   |   | 50                   | Qo                           | 71204  | 64657  | 58554                                     | 52878                        | 42737                                  | 34088 | 26789                       | 20695 | 15664 | 11551 | 8214  |  |  |
|   |   |                      | Pe                           | 21,45  | 20,68  | 19,87                                     | 19,04                        | 17,31                                  | 15,53 | 13,74                       | 11,98 | 10,31 | 8,75  | 7,35  |  |  |
|   | 1   | 50                   | Qo                           | 75477  | 68770  | 62518                                     | 56700                        | 46272                                  | 37306 | 29621                       | 23039 | 17379 | 12460 | 8103  |  |  |
|   |   |                      | Pe                           | 18,43  | 17,83  | 17,18                                     | 16,50                        | 15,02                                  | 13,45 | 11,84                       | 10,24 | 8,70  | 7,27  | 6,01  |  |  |
|   |   | 60                   | Qo                           | 64877  | 59015  | 53559                                     | 48485                        | 39399                                  | 31575 | 24835                       | 18997 | 13882 | 9310  | 5101  |  |  |
|   |   |                      | Pe                           | 20,93  | 20,06  | 19,15                                     | 18,22                        | 16,31                                  | 14,37 | 12,46                       | 10,62 | 8,92  | 7,39  | 6,09  |  |  |
|   |   | 70                   | Qo                           | 54178  | 49167  | 44513                                     | 40193                        | 32462                                  | 25796 | 20013                       | 14934 | 10379 | 6168  |       |  |  |
|   |   |                      | Pe                           | 23,10  | 21,97  | 20,82                                     | 19,67                        | 17,36                                  | 15,09 | 12,92                       | 10,88 | 9,05  | 7,45  |       |  |  |
|   | 2   | 30                   | Qo                           | 115255                                       | 105213 | 95794                                     | 86975                        | 71054                                  | 57277 | 45473                       | 35469 | 27093 | 20172 | 14535 |  |  |
|   |   |                      | Pe                           | 17,31  | 17,16  | 16,94                                     | 16,65                        | 15,87                                  | 14,87 | 13,69                       | 12,38 | 10,99 | 9,57  | 8,14  |  |  |
|   |   | 40                   | Qo                           | 101354                                       | 92322  | 83866                                     | 75964                        | 61739                                  | 49475 | 38999                       | 30139 | 22723 | 16579 | 11535 |  |  |
|   |   |                      | Pe                           | 21,12  | 20,64  | 20,09                                     | 19,48                        | 18,12                                  | 16,60 | 14,95                       | 13,24 | 11,50 | 9,78  | 8,12  |  |  |
|   |   | 50                   | Qo                           | 87864  | 79835  | 72335                                     | 65345                        | 52803                                  | 42039 | 32878                       | 25150 | 18682 | 13302 | 8837  |  |  |
|   |   |                      | Pe                           | 24,40  | 23,59  | 22,74                                     | 21,85                        | 19,95                                  | 17,95 | 15,89                       | 13,81 | 11,76 | 9,79  | 7,95  |  |  |
|   | 1   | 50                   | Qo                           | 89585  | 81551  | 74065                                     | 67100                        | 54624                                  | 43901 | 34710                       | 26830 | 20041 | 14122 | 8852  |  |  |
|   |   |                      | Pe                           | 22,81  | 22,10  | 21,34                                     | 20,51                        | 18,71                                  | 16,77 | 14,74                       | 12,69 | 10,67 | 8,75  | 6,99  |  |  |
|   |   | 60                   | Qo                           | 76694  | 69683  | 63160                                     | 57097                        | 46242                                  | 36897 | 28841                       | 21854 | 15714 | 10201 | 5094  |  |  |
|   |   |                      | Pe                           | 25,88  | 24,84  | 23,74                                     | 22,61                        | 20,25                                  | 17,82 | 15,39                       | 13,00 | 10,72 | 8,61  | 6,74  |  |  |
|   |   | 70                   | Qo                           | 63760  | 57776  | 52219                                     | 47062                        | 37835                                  | 29875 | 22962                       | 16874 | 11391 | 6291  |       |  |  |
|   |   |                      | Pe                           | 28,50  | 27,12  | 25,72                                     | 24,30                        | 21,42                                  | 18,55 | 15,74                       | 13,06 | 10,56 | 8,30  |       |  |  |
|   | 2   | 30                   | Qo                           | 139527                                       | 127216 | 115688                                    | 104916                       | 85532                                  | 68845 | 54634                       | 42682 | 32769 | 24675 | 18182 |  |  |
|   |   |                      | Pe                           | 19,31  | 19,22  | 19,02                                     | 18,74                        | 17,93                                  | 16,83 | 15,53                       | 14,06 | 12,51 | 10,92 | 9,37  |  |  |
|   |   | 40                   | Qo                           | 122877                                       | 111831 | 101510                                    | 91885                        | 74617                                  | 59807 | 47236                       | 36686 | 27937 | 20770 | 14966 |  |  |
|   |   |                      | Pe                           | 24,39  | 23,84  | 23,21                                     | 22,50                        | 20,91                                  | 19,13 | 17,22                       | 15,23 | 13,24 | 11,31 | 9,48  |  |  |
|   |   | 50                   | Qo                           | 106046                                       | 96283  | 87184                                     | 78722                        | 63602                                  | 50702 | 39804                       | 30688 | 23136 | 16928 | 11846 |  |  |
|   |   |                      | Pe                           | 28,70  | 27,72  | 26,68                                     | 25,59                        | 23,28                                  | 20,88 | 18,42                       | 15,98 | 13,62 | 11,39 | 9,37  |  |  |
|   | 1   | 50                   | Qo                           | 108377                                       | 98551  | 89353                                     | 80759                        | 65299                                  | 51988 | 40647                       | 31095 | 23151 | 16634 | 11364 |  |  |
|   |   |                      | Pe                           | 28,51  | 27,59  | 26,60                                     | 25,55                        | 23,31                                  | 20,94 | 18,48                       | 16,02 | 13,60 | 11,30 | 9,18  |  |  |
|   |   | 60                   | Qo                           | 91619  | 83068  | 75089                                     | 67658                        | 54351                                  | 42966 | 33322                       | 25239 | 18537 | 13034 |       |  |  |
|   |   |                      | Pe                           | 32,01  | 30,71  | 29,36                                     | 27,97                        | 25,10                                  | 22,18 | 19,26                       | 16,41 | 13,69 | 11,16 |       |  |  |
|   |   | 70                   | Qo                           | 74981  | 67734  | 61000                                     | 54758                        | 43657                                  | 34251 | 26359                       | 19799 |       |       |       |  |  |
|   |   |                      | Pe                           | 34,78  | 33,13  | 31,45                                     | 29,75                        | 26,33                                  | 22,93 | 19,61                       | 16,44 |       |       |       |  |  |



**Prestazioni**  
**Performance**  
**Leistungswerte**

Dati riferiti ad una temperatura del gas aspirato di 20°C e senza sottoraffreddamento del liquido  
Data referred to 20°C suction gas temperature without liquid subcooling  
Bezogen auf Sauggastemperatur 20°C ohne Flüssigkeits-Unterkühlung

## R134a

| Compressore<br>Compressor<br>Verdichter | Vers. motore<br>Motor version<br>Motorversion | Conden.<br>Temp [°C] | Qo [Watt]<br>Pe [kW]<br>50Hz | ❶ Potenza frigorifera<br>❶ Cooling capacity<br>❶ Kälteleistung |        | ❷ Potenza assorbita<br>❷ Power consumption<br>❷ Leistungsaufnahme |        | Temperatura Evaporazione [°C] |        |       |       |                             |       |       |  |  |  |  |
|---|---|----------------------|------------------------------|--|--------|---|--------|-------------------------------|--------|-------|-------|-----------------------------|-------|-------|--|--|--|--|
|   |   |                      |                              | Temperatura Evaporazione [°C]                                  |        |   |        | Evaporation Temperature [°C]  |        |       |       | Verdampfungstemperatur [°C] |       |       |  |  |  |  |
|   |   |                      |                              | 12,5   | 10     | 7,5   | 5      | 0                             | -5     | -10   | -15   | -20                         | -25   | -30   |  |  |  |  |
|   | 2   | 50                   | Qo                           | 101545   | 92241  | 83527   | 75384  | 60730                         | 48116  | 37379 | 28357 | 20887                       | 14806 | 9953  |  |  |  |  |
|   |   |                      | Pe                           | 27,82  | 27,19  | 26,49   | 25,72  | 24,00                         | 22,09  | 20,07 | 18,00 | 15,94                       | 13,96 | 12,12 |  |  |  |  |
|   |   | 60                   | Qo                           | 86613  | 78420  | 70768   | 63638  | 50862                         | 39929  | 30677 | 22943 | 16564                       | 11377 | 7221  |  |  |  |  |
|   |   |                      | Pe                           | 31,14  | 30,15  | 29,09   | 27,98  | 25,65                         | 23,21  | 20,73 | 18,27 | 15,90                       | 13,68 | 11,69 |  |  |  |  |
|   |   | 70                   | Qo                           | 71910  | 64838  | 58260   | 52153  | 41277                         | 32046  | 24300 | 17874 | 12608                       | 8337  |       |  |  |  |  |
|   |   |                      | Pe                           | 33,89  | 32,55  | 31,16   | 29,75  | 26,85                         | 23,92  | 21,03 | 18,24 | 15,61                       | 13,21 |       |  |  |  |  |
|   | 2   | 30                   | Qo                           | 154175   | 140760 | 128243  | 116585 | 95697                         | 77789  | 62556 | 49691 | 38887                       | 29840 | 22243 |  |  |  |  |
|   |   |                      | Pe                           | 21,56  | 21,54  | 21,39   | 21,09  | 20,17                         | 18,85  | 17,26 | 15,47 | 13,58                       | 11,70 | 9,91  |  |  |  |  |
|   |   | 40                   | Qo                           | 137734   | 125619 | 114326  | 103817 | 85000                         | 68860  | 55093 | 43392 | 33451                       | 24964 | 17624 |  |  |  |  |
|   |   |                      | Pe                           | 27,40  | 26,83  | 26,15   | 25,37  | 23,55                         | 21,46  | 19,21 | 16,89 | 14,59                       | 12,41 | 10,45 |  |  |  |  |
|   |   | 50                   | Qo                           | 121093   | 110285 | 100224  | 90872  | 74141                         | 59786  | 47501 | 36980 | 27917                       | 20005 | 12940 |  |  |  |  |
|   |   |                      | Pe                           | 32,44  | 31,36  | 30,20   | 28,96  | 26,33                         | 23,55  | 20,73 | 17,95 | 15,31                       | 12,92 | 10,86 |  |  |  |  |
|   | 1   | 50                   | Qo                           | 117573   | 107089 | 97270   | 88091  | 71550                         | 57257  | 45006 | 34590 | 25800                       | 18431 | 12274 |  |  |  |  |
|   |   |                      | Pe                           | 30,07  | 29,26  | 28,37   | 27,41  | 25,28                         | 22,96  | 20,50 | 17,97 | 15,42                       | 12,92 | 10,53 |  |  |  |  |
|   |   | 60                   | Qo                           | 99853  | 90648  | 82046   | 74021  | 59599                         | 47175  | 36542 | 27491 | 19817                       | 13312 |       |  |  |  |  |
|   |   |                      | Pe                           | 33,78  | 32,60  | 31,35   | 30,04  | 27,27                         | 24,37  | 21,38 | 18,38 | 15,42                       | 12,58 |       |  |  |  |  |
|   |   | 70                   | Qo                           | 82255  | 74332  | 66948   | 60079  | 47781                         | 37229  | 28216 | 20536 |                             |       |       |  |  |  |  |
|   |   |                      | Pe                           | 36,70  | 35,15  | 33,56   | 31,92  | 28,54                         | 25,08  | 21,60 | 18,16 |                             |       |       |  |  |  |  |
|   | 2   | 30                   | Qo                           | 172708   | 157507 | 143247  | 129895 | 105783                        | 84904  | 66990 | 51775 | 38992                       | 28376 | 19658 |  |  |  |  |
|   |   |                      | Pe                           | 23,76  | 23,96  | 24,02   | 23,95  | 23,44                         | 22,50  | 21,20 | 19,61 | 17,81                       | 15,86 | 13,84 |  |  |  |  |
|   |   | 40                   | Qo                           | 151891   | 138198 | 125376  | 113391 | 91800                         | 73158  | 57200 | 43656 | 32262                       | 22751 | 14855 |  |  |  |  |
|   |   |                      | Pe                           | 29,50  | 29,17  | 28,73   | 28,17  | 26,74                         | 24,97  | 22,92 | 20,67 | 18,28                       | 15,82 | 13,38 |  |  |  |  |
|   |   | 50                   | Qo                           | 131781   | 119586 | 108192  | 97563  | 78473                         | 62049  | 48024 | 36132 | 26106                       | 17680 | 10585 |  |  |  |  |
|   |   |                      | Pe                           | 34,46  | 33,64  | 32,72   | 31,70  | 29,43                         | 26,88  | 24,15 | 21,28 | 18,37                       | 15,47 | 12,66 |  |  |  |  |
|   | 1   | 50                   | Qo                           | 131008   | 118924 | 107604  | 97017  | 77929                         | 61426  | 47272 | 35234 | 25078                       | 16568 | 9470  |  |  |  |  |
|   |   |                      | Pe                           | 33,65  | 32,64  | 31,53   | 30,33  | 27,73                         | 24,88  | 21,87 | 18,75 | 15,61                       | 12,50 | 9,50  |  |  |  |  |
|   |   | 60                   | Qo                           | 110716   | 100209 | 90389   | 81226  | 64757                         | 50566  | 38419 | 28081 | 19319                       | 11898 |       |  |  |  |  |
|   |   |                      | Pe                           | 37,71  | 36,23  | 34,68   | 33,07  | 29,68                         | 26,13  | 22,50 | 18,84 | 15,23                       | 11,74 |       |  |  |  |  |
|   |   | 70                   | Qo                           | 91435  | 82493  | 74162   | 66411  | 52537                         | 40634  | 30470 | 21810 |                             |       |       |  |  |  |  |
|   |   |                      | Pe                           | 41,15  | 39,24  | 37,29   | 35,29  | 31,18                         | 27,00  | 22,81 | 18,68 |                             |       |       |  |  |  |  |
|   | 2   | 30                   | Qo                           | 190762   | 174146 | 158579  | 144024 | 117803                        | 95187  | 75885 | 59602 | 46044                       | 34919 | 25932 |  |  |  |  |
|   |   |                      | Pe                           | 26,17  | 26,07  | 25,82   | 25,45  | 24,37                         | 22,89  | 21,11 | 19,13 | 17,02                       | 14,87 | 12,77 |  |  |  |  |
|   |   | 40                   | Qo                           | 170121   | 154962 | 140787  | 127560 | 103801                        | 83392  | 66039 | 51449 | 39327                       | 29381 | 21316 |  |  |  |  |
|   |   |                      | Pe                           | 32,64  | 31,99  | 31,23   | 30,37  | 28,37                         | 26,07  | 23,58 | 20,97 | 18,34                       | 15,77 | 13,34 |  |  |  |  |
|   |   | 50                   | Qo                           | 149259   | 135582 | 122826  | 110953 | 89709                         | 71559  | 56209 | 43364 | 32731                       | 24017 | 16927 |  |  |  |  |
|   |   |                      | Pe                           | 38,24  | 37,09  | 35,84   | 34,51  | 31,66                         | 28,61  | 25,46 | 22,30 | 19,20                       | 16,26 | 13,58 |  |  |  |  |
|   | 1   | 50                   | Qo                           | 147748   | 134204 | 121544  | 109735 | 88540                         | 70358  | 54928 | 41989 | 31280                       | 22539 | 15506 |  |  |  |  |
|   |   |                      | Pe                           | 38,07  | 36,98  | 35,78   | 34,49  | 31,68                         | 28,65  | 25,49 | 22,30 | 19,17                       | 16,21 | 13,51 |  |  |  |  |
|   |   | 60                   | Qo                           | 125142   | 113426 | 102508  | 92355  | 74214                         | 58742  | 45677 | 34758 | 25725                       | 18315 |       |  |  |  |  |
|   |   |                      | Pe                           | 42,44  | 40,88  | 39,24   | 37,54  | 33,98                         | 30,30  | 26,60 | 22,98 | 19,53                       | 16,35 |       |  |  |  |  |
|   |   | 70                   | Qo                           | 102877   | 93005  | 83844   | 75362  | 60305                         | 47572  | 36902 | 28034 |                             |       |       |  |  |  |  |
|   |   |                      | Pe                           | 45,92  | 43,94  | 41,91   | 39,84  | 35,63                         | 31,42  | 27,29 | 23,34 |                             |       |       |  |  |  |  |
|   | 2   | 30                   | Qo                           | 208464   | 190058 | 172817  | 156701 | 127683                        | 102678 | 81363 | 63414 | 48507                       | 36318 | 26522 |  |  |  |  |
|   |   |                      | Pe                           | 28,01  | 28,07  | 27,97   | 27,70  | 26,76                         | 25,34  | 23,56 | 21,51 | 19,29                       | 17,02 | 14,78 |  |  |  |  |
|   |   | 40                   | Qo                           | 185643   | 168871 | 153192  | 138567 | 112315                        | 89791  | 70672 | 54632 | 41348                       | 30496 | 21752 |  |  |  |  |
|   |   |                      | Pe                           | 35,18  | 34,60  | 33,89   | 33,04  | 31,03                         | 28,66  | 26,04 | 23,27 | 20,46                       | 17,70 | 15,11 |  |  |  |  |
|   |   | 50                   | Qo                           | 162898   | 147780 | 133685  | 120572 | 97130                         | 77129  | 60247 | 46159 | 34541                       | 25070 | 17420 |  |  |  |  |
|   |   |                      | Pe                           | 41,43  | 40,25  | 38,96   | 37,58  | 34,57                         | 31,33  | 27,95 | 24,55 | 21,22                       | 18,07 | 15,19 |  |  |  |  |
|   | 1   | 50                   | Qo                           | 159842   | 144893 | 130936  | 117936 | 94659                         | 74772  | 57986 | 44011 | 32558                       | 23336 | 16057 |  |  |  |  |
|   |   |                      | Pe                           | 40,16  | 38,99  | 37,71   | 36,33  | 33,31                         | 30,06  | 26,68 | 23,29 | 19,99                       | 16,91 | 14,14 |  |  |  |  |
|   |   | 60                   | Qo                           | 135580   | 122516 | 110360  | 99076  | 78981                         | 61942  | 47668 | 35870 | 26259                       | 18544 |       |  |  |  |  |
|   |   |                      | Pe                           | 45,65  | 43,87  | 42,03   | 40,08  | 36,08                         | 31,98  | 27,90 | 23,95 | 20,24                       | 16,87 |       |  |  |  |  |
|   |   | 70                   | Qo                           | 112093   | 100916 | 90563   | 81000  | 64093                         | 49907  | 38151 | 28535 |                             |       |       |  |  |  |  |
|   |   |                      | Pe                           | 50,24  | 47,90  | 45,51   | 43,09  | 38,21                         | 33,38  | 28,71 | 24,31 |                             |       |       |  |  |  |  |
|   | 2   | 30                   | Qo                           | 223232   | 203865 | 185702  | 168702 | 138016                        | 111461 | 88694 | 69371 | 53149                       | 39683 | 28629 |  |  |  |  |
|   |   |                      | Pe                           | 30,56  | 30,47  | 30,22   | 29,83  | 28,63                         | 26,96  | 24,91 | 22,57 | 20,03                       | 17,38 | 14,69 |  |  |  |  |
|   |   | 40                   | Qo                           | 195689   | 178368 | 162156  | 147009 | 119741                        | 96219  | 76099 | 59038 | 44691                       | 32716 | 22767 |  |  |  |  |
|   |   |                      | Pe                           | 37,72  | 37,03  | 36,20   | 35,25  | 33,00                         | 30,39  | 27,51 | 24,42 | 21,24                       | 18,04 | 14,91 |  |  |  |  |
|   |   | 50                   | Qo                           | 169274   | 153969 | 139676  | 126353 | 102441                        | 81891  | 64357 | 49497 | 36965                       | 26419 | 17515 |  |  |  |  |
|   |   |                      | Pe                           | 43,83  | 42,58  | 41,22   | 39,75  | 36,57                         | 33,11  | 29,48 | 25,75 | 22,02                       | 18,37 | 14,89 |  |  |  |  |
|   | 1   | 50                   | Qo                           | 167659   | 152092 | 137551  | 123999 | 99713                         | 78934  | 61362 | 46697 | 34639                       | 24889 | 17146 |  |  |  |  |
|   |   |                      | Pe                           | 44,81  | 43,66  | 42,38   | 41,00  | 37,96                         | 34,66  | 31,22 | 27,73 | 24,33                       | 21,12 | 18,21 |  |  |  |  |
|   |   | 60                   | Qo                           | 142149   | 128553 | 115896  | 104141 | 83182                         | 65377  | 50427 | 38030 | 27889                       | 19702 |       |  |  |  |  |
|   |   |                      | Pe                           | 49,93  | 48,19  | 46,35   | 44,44  | 40,45                         | 36,34  | 32,21 | 28,18 | 24,37                       | 20,89 |       |  |  |  |  |
|   |   | 70                   | Qo                           | 117438   | 105816 | 95045   | 85087  | 67459                         | 52632  | 40307 | 30183 |                             |       |       |  |  |  |  |
|   |   |                      | Pe                           | 54,11  | 51,82  | 49,48   | 47,10  | 42,27                         | 37,45  | 32,75 | 28,29 |                             |       |       |  |  |  |  |

❶ Dati indicati secondo EN12900 e funzionamento a 50 Hz. Per dati in punti operativi diversi vedi Frascold Selection Software. I dati non certificati sono provvisori e suscettibili di variazioni. Dati a 60 Hz = \*1.2

❷ Data based on EN12900 and 50 Hz operation. Performance data for individual conditions see Frascold Selection Software. Not certified data are provisional and variations are possible. 60 Hz data = \*1.2

❸ Daten gemäß EN12900 und Betrieb bei 50 Hz. Daten für abweichende Betriebspunkte entnehmen Sie der Frascold Selection Software. Nicht zertifizierte Daten sind vorläufig und können Veränderungen unterliegen. Daten bei 60 Hz = \*1.2

❹ Raffreddamento supplementare o limitata temperatura di aspirazione

❺ Additional cooling or limited suction temperature

❻ Zusatzkühlung oder begrenzte Sauggas-Temperatur

**Prestazioni**  
**Performance**  
**Leistungswerte**

Data riferiti ad una temperatura del gas aspirato di 20°C e senza sottoraffreddamento del liquido

Data referred to 20°C suction gas temperature without liquid subcooling

Bezogen auf Sauggastemperatur 20°C ohne Flüssigkeits-Unterkühlung



| Compressore<br>Compressor<br>Verdichter | Vers. motore<br>Motor version<br>Motorversion | Conden.<br>Temp [°C] | Qo [Watt]<br>Pe [kW]<br>50Hz | ❶ Potenza frigorifera<br>❶ Potenza assorbita |       | ❷ Cooling capacity<br>❷ Power consumption |       | ❸ Kälteleistung<br>❸ Leistungsaufnahme |       |      |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
|---|---|----------------------|------------------------------|--|-------|---|-------|--|-------|------|--|-----------------------------|--|--|--|-----|--|--|--|-----|--|--|--|-----|--|--|--|-----|--|--|--|
|   |   |                      |                              | Temperatura Evaporazione [°C]                |       |   |       | Evaporation Temperature [°C]           |       |      |  | Verdampfungstemperatur [°C] |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
|   |   |                      |                              | 0  |       |   |       | -5                                     |       |      |  | -10                         |  |  |  | -15 |  |  |  | -20 |  |  |  | -25 |  |  |  | -30 |  |  |  |
|   |   |                      |                              | 0  |       |   |       | -5                                     |       |      |  | -10                         |  |  |  | -15 |  |  |  | -20 |  |  |  | -25 |  |  |  | -30 |  |  |  |
| <b>Q4-20.1E</b><br>                     | 20  | 3                    | Qo                           | 13132  | 10643 | 8520                                      | 6743  | 5294                                   | 4156  | 3310 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
|   |   |                      | Pe                           | 1,68   | 1,70  | 1,68                                      | 1,61  | 1,51                                   | 1,38  | 1,24 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
|   | 30  |                      | Qo                           | 12193  | 9843  | 7826                                      | 6125  | 4721                                   | 3595  | 2731 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
|   |   |                      | Pe                           | 2,31   | 2,22  | 2,08                                      | 1,92  | 1,74                                   | 1,54  | 1,33 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
|   | 40  |                      | Qo                           | 10752  | 8620  | 6790                                      | 5244  | 3963                                   | 2930  | 2126 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
|   |   |                      | Pe                           | 2,79   | 2,60  | 2,38                                      | 2,14  | 1,90                                   | 1,65  | 1,41 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
|   | 50  |                      | Qo                           | 8913   | 7079  | 5515                                      | 4203  | 3126                                   | 2264  | 1601 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
|   |   |                      | Pe                           | 3,09   | 2,82  | 2,53                                      | 2,24  | 1,96                                   | 1,68  | 1,43 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
| <b>Q4-24.1E</b><br>                     | 20  | 3                    | Qo                           | 16102  | 12894 | 10182                                     | 7930  | 6106                                   | 4675  | 3604 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
|   |   |                      | Pe                           | 2,40   | 2,38  | 2,28                                      | 2,12  | 1,94                                   | 1,77  | 1,63 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
|   | 30  |                      | Qo                           | 14163  | 11297 | 8873                                      | 6857  | 5216                                   | 3916  | 2922 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
|   |   |                      | Pe                           | 2,83   | 2,71  | 2,52                                      | 2,29  | 2,03                                   | 1,79  | 1,59 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
|   | 40  |                      | Qo                           | 12293  | 9762  | 7620                                      | 5834  | 4370                                   | 3194  | 2272 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
|   |   |                      | Pe                           | 3,26   | 3,05  | 2,78                                      | 2,46  | 2,14                                   | 1,83  | 1,58 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
|   | 50  |                      | Qo                           | 10487  | 8284  | 6419                                      | 4856  | 3563                                   | 2505  | 1649 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
|   |   |                      | Pe                           | 3,67   | 3,37  | 3,01                                      | 2,63  | 2,23                                   | 1,87  | 1,57 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
| <b>Q5-28.1E</b><br>                     | 20  | 3                    | Qo                           | 17756  | 14375 | 11500                                     | 9093  | 7112                                   | 5518  | 4270 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
|   |   |                      | Pe                           | 2,69   | 2,61  | 2,49                                      | 2,34  | 2,16                                   | 1,97  | 1,76 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
|   | 30  |                      | Qo                           | 15765  | 12699 | 10097                                     | 7920  | 6127                                   | 4679  | 3534 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
|   |   |                      | Pe                           | 3,35   | 3,16  | 2,93                                      | 2,68  | 2,42                                   | 2,15  | 1,87 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
|   | 40  |                      | Qo                           | 13794  | 11045 | 8719                                      | 6774  | 5171                                   | 3869  | 2829 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
|   |   |                      | Pe                           | 3,91   | 3,61  | 3,28                                      | 2,94  | 2,60                                   | 2,26  | 1,93 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
|   | 50  |                      | Qo                           | 11856  | 9426  | 7376                                      | 5665  | 4253                                   | 3101  | 2168 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
|   |   |                      | Pe                           | 4,38   | 3,97  | 3,54                                      | 3,12  | 2,70                                   | 2,30  | 1,92 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
| <b>Q5-33.1E</b><br>                     | 20  | 3                    | Qo                           | 21167  | 17253 | 13873                                     | 10966 | 8469                                   | 6322  | 4462 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
|   |   |                      | Pe                           | 3,26   | 3,14  | 2,97                                      | 2,76  | 2,49                                   | 2,17  | 1,80 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
|   | 30  |                      | Qo                           | 18449  | 14984 | 12001                                     | 9438  | 7232                                   | 5323  | 3648 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
|   |   |                      | Pe                           | 3,87   | 3,64  | 3,38                                      | 3,08  | 2,73                                   | 2,34  | 1,89 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
|   | 40  |                      | Qo                           | 16033  | 12987 | 10370                                     | 8119  | 6173                                   | 4471  | 2950 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
|   |   |                      | Pe                           | 4,50   | 4,16  | 3,80                                      | 3,40  | 2,97                                   | 2,50  | 1,98 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
|   | 50  |                      | Qo                           | 13827  | 11168 | 8885                                      | 6916  | 5199                                   | 3672  | 2274 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
|   |   |                      | Pe                           | 5,10   | 4,66  | 4,19                                      | 3,70  | 3,17                                   | 2,62  | 2,02 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
| <b>Q5-36.1Y</b><br><br>                 | 20  | 3                    | Qo                           | 23072  | 18902 | 15304                                     | 12234 | 9647                                   | 7497  | 5740 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
|   |   |                      | Pe                           | 3,57   | 3,48  | 3,32                                      | 3,12  | 2,89                                   | 2,63  | 2,35 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
|   | 30  |                      | Qo                           | 20843  | 17026 | 13738                                     | 10936 | 8573                                   | 6607  | 4991 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
|   |   |                      | Pe                           | 4,51   | 4,24  | 3,93                                      | 3,59  | 3,23                                   | 2,86  | 2,50 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
|   | 40  |                      | Qo                           | 18470  | 15021 | 12061                                     | 9543  | 7423                                   | 5656  | 4198 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
|   |   |                      | Pe                           | 5,32   | 4,89  | 4,43                                      | 3,96  | 3,49                                   | 3,02  | 2,58 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
|   | 50  |                      | Qo                           | 15983  | 12920 | 10303                                     | 8086  | 6225                                   | 4675  | 3391 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
|   |   |                      | Pe                           | 6,00   | 5,41  | 4,82                                      | 4,22  | 3,65                                   | 3,10  | 2,59 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
| <b>S8-42E</b><br>                       | 20  | 3                    | Qo                           | 29370  | 23902 | 19236                                     | 15176 | 11941                                  | 8754  | 6167 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
|   |   |                      | Pe                           | 3,97   | 3,99  | 3,90                                      | 3,70  | 3,52                                   | 3,10  | 2,69 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
|   | 30  |                      | Qo                           | 26517  | 21465 | 17170                                     | 13428 | 10412                                  | 7400  | 5058 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
|   |   |                      | Pe                           | 5,03   | 4,87  | 4,60                                      | 4,24  | 3,93                                   | 3,35  | 2,77 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
|   | 40  |                      | Qo                           | 23385  | 18798 | 14810                                     | 11410 | 8700                                   | 6030  | 3955 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
|   |   |                      | Pe                           | 5,98   | 5,60  | 5,10                                      | 4,62  | 4,13                                   | 3,40  | 2,68 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
|   | 50  |                      | Qo                           | 19951  | 15849 | 12323                                     | 9366  | 6872                                   | 4511  | 2690 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
|   |   |                      | Pe                           | 6,68   | 6,09  | 5,43                                      | 4,79  | 4,08                                   | 3,23  | 2,40 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
| <b>S10-52E</b><br>                      | 20  | 3                    | Qo                           | 35106  | 28055 | 21995                                     | 16899 | 12696                                  | 9288  | 6525 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
|   |   |                      | Pe                           | 4,82   | 4,74  | 4,55                                      | 4,24  | 3,83                                   | 3,37  | 2,87 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
|   | 30  |                      | Qo                           | 30841  | 24563 | 19205                                     | 14610 | 10849                                  | 7791  | 5316 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
|   |   |                      | Pe                           | 5,98   | 5,67  | 5,25                                      | 4,74  | 4,16                                   | 3,55  | 2,90 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
|   | 40  |                      | Qo                           | 26660  | 21119 | 16434                                     | 12373 | 8946                                   | 6207  | 4073 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
|   |   |                      | Pe                           | 6,94   | 6,42  | 5,79                                      | 5,09  | 4,34                                   | 3,57  | 2,79 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
|   | 50  |                      | Qo                           | 22345  | 17612 | 13541                                     | 10119 | 7170                                   | 4745  | 2825 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
|   |   |                      | Pe                           | 7,70   | 6,94  | 6,12                                      | 5,25  | 4,34                                   | 3,43  | 2,52 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
| <b>S12-56E</b><br>                      | 20  | 3                    | Qo                           | 37765  | 30053 | 23510                                     | 18020 | 13511                                  | 9874  | 6936 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
|   |   |                      | Pe                           | 5,19   | 5,10  | 4,87                                      | 4,52  | 4,06                                   | 3,53  | 2,95 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
|   | 30  |                      | Qo                           | 33093  | 26290 | 20529                                     | 15594 | 11572                                  | 8318  | 5694 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
|   |   |                      | Pe                           | 6,42   | 6,09  | 5,64                                      | 5,07  | 4,42                                   | 3,72  | 2,99 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
|   | 40  |                      | Qo                           | 28524  | 22586 | 17574                                     | 13224 | 9563                                   | 6655  | 4410 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
|   |   |                      | Pe                           | 7,46   | 6,90  | 6,21                                      | 5,43  | 4,58                                   | 3,74  | 2,90 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
|   | 50  |                      | Qo                           | 23888  | 18820 | 14483                                     | 10847 | 7711                                   | 5144  | 3127 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
|   |   |                      | Pe                           | 8,27   | 7,48  | 6,58                                      | 5,62  | 4,64                                   | 3,61  | 2,63 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
| <b>V15-59E</b><br>                      | 20  | 3                    | Qo                           | 41098  | 32894 | 25941                                     | 20178 | 15386                                  | 11420 | 8192 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
|   |   |                      | Pe                           | 5,63   | 5,54  | 5,32                                      | 4,99  | 4,58                                   | 4,09  | 3,57 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
|   | 30  |                      | Qo                           | 37157  | 29455 | 22935                                     | 17543 | 13160                                  | 9546  | 6576 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
|   |   |                      | Pe                           | 7,06   | 6,65  | 6,14                                      | 5,56  | 4,91                                   | 4,24  | 3,55 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
|   | 40  |                      | Qo                           | 32648  | 25533 | 19691                                     | 14860 | 10922                                  | 7688  | 5029 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
|   |   |                      | Pe                           | 8,28   | 7,57  | 6,79                                      | 5,97  | 5,12                                   | 4,27  | 3,44 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
|   | 50  |                      | Qo                           | 27971  | 21678 | 16498                                     | 12244 | 8796                                   | 5978  | 3658 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |
|   |   |                      | Pe                           | 9,34   | 8,34  | 7,31                                      | 6,26  | 5,22                                   | 4,21  | 3,26 |  |                             |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |     |  |  |  |

**Prestazioni**  
**Performance**  
**Leistungswerte**

Dati riferiti ad una temperatura del gas aspirato di 20°C e senza sottoraffreddamento del liquido

Data referred to 20°C suction gas temperature without liquid subcooling

Bezogen auf Sauggastemperatur 20°C ohne Flüssigkeits-Unterkühlung

| Compressore<br>Compressor<br>Verdichter | Vers. motore<br>Motor version<br>Motorversion | Conden.<br>Temp. [°C] | Qo [Watt]<br>Pe [kW]<br>50Hz | ① Potenza frigorifera<br>① Potenza assorbita |       |       | ① Cooling capacity<br>① Power consumption |       |       | ① Kälteleistung<br>① Leistungsaufnahme |  |  |  |
|---|---|-----------------------|------------------------------|--|-------|-------|---|-------|-------|--|--|--|--|
|   |   |                       |                              | Temperatura Evaporazione [°C]                |       |       | Evaporation Temperature [°C]              |       |       | Verdampfungstemperatur [°C]            |  |  |  |
|   |   |                       |                              | 0  | -5    | -10   | -15                                       | -20   | -25   | -30                                    |  |  |  |
| <b>V15-71E</b><br>                      | 20  | 3                     | Qo                           | 47145  | 38124 | 30278 | 23627                                     | 18042 | 13399 | 9605                                   |  |  |  |
|   |   |                       | Pe                           | 6,50   | 6,43  | 6,19  | 5,81                                      | 5,32  | 4,75  | 4,12                                   |  |  |  |
|   | 30  |                       | Qo                           | 42762  | 33989 | 26562 | 20347                                     | 15285 | 11083 | 7651                                   |  |  |  |
|   |   |                       | Pe                           | 8,19   | 7,73  | 7,14  | 6,45                                      | 5,70  | 4,90  | 4,10                                   |  |  |  |
|   | 40  |                       | Qo                           | 37665  | 29532 | 22821 | 17284                                     | 12743 | 9022  | 6016                                   |  |  |  |
|   |   |                       | Pe                           | 9,62   | 8,81  | 7,91  | 6,96                                      | 5,98  | 5,00  | 4,05                                   |  |  |  |
|   | 50  |                       | Qo                           | 32593  | 25374 | 19429 | 14543                                     | 10575 | 7355  | 4747                                   |  |  |  |
|   |   |                       | Pe                           | 10,89  | 9,76  | 8,59  | 7,41                                      | 6,25  | 5,13  | 4,08                                   |  |  |  |
| <b>V20-84E</b><br>                      | 20  | 3                     | Qo                           | 54741  | 44711 | 35849 | 27661                                     | 21750 | 15157 | 10970                                  |  |  |  |
|   |   |                       | Pe                           | 7,61   | 7,54  | 7,26  | 6,66                                      | 6,19  | 5,08  | 4,37                                   |  |  |  |
|   | 30  |                       | Qo                           | 49916  | 40152 | 31662 | 23951                                     | 18472 | 12532 | 8846                                   |  |  |  |
|   |   |                       | Pe                           | 9,63   | 9,08  | 8,38  | 7,37                                      | 6,56  | 5,13  | 4,20                                   |  |  |  |
|   | 40  |                       | Qo                           | 44318  | 35094 | 27362 | 20379                                     | 15354 | 10313 | 7192                                   |  |  |  |
|   |   |                       | Pe                           | 11,36  | 10,37 | 9,26  | 7,87                                      | 6,74  | 5,16  | 4,25                                   |  |  |  |
|   | 50  |                       | Qo                           | 38677  | 30351 | 23347 | 17079                                     | 12538 | 8470  | 5850                                   |  |  |  |
|   |   |                       | Pe                           | 12,87  | 11,47 | 9,97  | 8,23                                      | 6,80  | 5,23  | 4,31                                   |  |  |  |
| <b>V25-103E</b><br>                     | 20  | 3                     | Qo                           | 67295  | 55141 | 44334 | 35100                                     | 27259 | 20655 | 15198                                  |  |  |  |
|   |   |                       | Pe                           | 10,05  | 9,76  | 9,26  | 8,60                                      | 7,82  | 6,95  | 6,03                                   |  |  |  |
|   | 30  |                       | Qo                           | 60506  | 48923 | 38962 | 30481                                     | 23462 | 17556 | 12618                                  |  |  |  |
|   |   |                       | Pe                           | 12,17  | 11,42 | 10,52 | 9,50                                      | 8,39  | 7,24  | 6,09                                   |  |  |  |
|   | 40  |                       | Qo                           | 52839  | 42326 | 33526 | 26013                                     | 19742 | 14426 | 9969                                   |  |  |  |
|   |   |                       | Pe                           | 13,97  | 12,79 | 11,51 | 10,15                                     | 8,76  | 7,36  | 6,00                                   |  |  |  |
|   | 50  |                       | Qo                           | 45372  | 36200 | 28444 | 21811                                     | 16218 | 11446 | 7426                                   |  |  |  |
|   |   |                       | Pe                           | 15,48  | 13,92 | 12,29 | 10,62                                     | 8,97  | 7,35  | 5,82                                   |  |  |  |
| <b>Z25-106E</b><br>                     | 20  | 3                     | Qo                           | 70873  | 57495 | 46141 | 36549                                     | 28458 | 21606 | 15732                                  |  |  |  |
|   |   |                       | Pe                           | 10,10  | 9,84  | 9,48  | 9,00                                      | 8,37  | 7,57  | 6,56                                   |  |  |  |
|   | 30  |                       | Qo                           | 64336  | 51850 | 41308 | 32447                                     | 25005 | 18722 | 13334                                  |  |  |  |
|   |   |                       | Pe                           | 12,56  | 11,73 | 10,88 | 9,97                                      | 8,98  | 7,88  | 6,65                                   |  |  |  |
|   | 40  |                       | Qo                           | 56301  | 44912 | 35385 | 27458                                     | 20869 | 15357 | 10660                                  |  |  |  |
|   |   |                       | Pe                           | 14,56  | 13,25 | 11,98 | 10,72                                     | 9,45  | 8,14  | 6,76                                   |  |  |  |
|   | 50  |                       | Qo                           | 47400  | 37311 | 29003 | 22213                                     | 16680 | 12143 | 8339                                   |  |  |  |
|   |   |                       | Pe                           | 16,19  | 14,47 | 12,87 | 11,34                                     | 9,87  | 8,43  | 6,99                                   |  |  |  |
| <b>Z30-126E</b><br>                     | 20  | 3                     | Qo                           | 85431  | 68684 | 54601 | 42863                                     | 33151 | 25146 | 18531                                  |  |  |  |
|   |   |                       | Pe                           | 12,35  | 11,96 | 11,34 | 10,55                                     | 9,62  | 8,60  | 7,54                                   |  |  |  |
|   | 30  |                       | Qo                           | 74905  | 59956 | 47438 | 37031                                     | 28417 | 21277 | 15293                                  |  |  |  |
|   |   |                       | Pe                           | 15,00  | 14,06 | 12,94 | 11,70                                     | 10,38 | 9,03  | 7,69                                   |  |  |  |
|   | 40  |                       | Qo                           | 64690  | 51506 | 40520 | 31411                                     | 23862 | 17554 | 12168                                  |  |  |  |
|   |   |                       | Pe                           | 17,17  | 15,72 | 14,15 | 12,51                                     | 10,86 | 9,22  | 7,66                                   |  |  |  |
|   | 50  |                       | Qo                           | 54932  | 43481 | 33993 | 26150                                     | 19633 | 14123 | 9301                                   |  |  |  |
|   |   |                       | Pe                           | 18,89  | 16,98 | 15,02 | 13,04                                     | 11,10 | 9,23  | 7,50                                   |  |  |  |
| <b>Z40-154E</b><br>                     | 20  | 3                     | Qo                           | 98035  | 79207 | 63217 | 49787                                     | 38638 | 29492 | 22070                                  |  |  |  |
|   |   |                       | Pe                           | 14,30  | 14,00 | 13,35 | 12,43                                     | 11,34 | 10,15 | 8,96                                   |  |  |  |
|   | 30  |                       | Qo                           | 87766  | 70603 | 56077 | 43908                                     | 33819 | 25530 | 18762                                  |  |  |  |
|   |   |                       | Pe                           | 17,71  | 16,70 | 15,41 | 13,94                                     | 12,36 | 10,78 | 9,26                                   |  |  |  |
|   | 40  |                       | Qo                           | 76968  | 61546 | 48559 | 37728                                     | 28774 | 21418 | 15382                                  |  |  |  |
|   |   |                       | Pe                           | 20,56  | 18,91 | 17,06 | 15,10                                     | 13,12 | 11,21 | 9,44                                   |  |  |  |
|   | 50  |                       | Qo                           | 65835  | 52231 | 40860 | 31442                                     | 23700 | 17354 | 12125                                  |  |  |  |
|   |   |                       | Pe                           | 22,80  | 20,58 | 18,24 | 15,86                                     | 13,54 | 11,37 | 9,42                                   |  |  |  |

① Dati indicati secondo EN12900 e funzionamento a 50 Hz. Per dati in punti operativi diversi vedi Frascold Selection Software. I dati non certificati sono provvisori e suscettibili di variazioni. Dati a 60 Hz = \*1.2

① Data based on EN12900 and 50 Hz operation. Performance data for individual conditions see Frascold Selection Software. Not certified data are provisional and variations are possible. 60 Hz data = \*1.2

① Daten gemäß EN12900 und Betrieb bei 50 Hz. Daten für abweichende Betriebspunkte entnehmen Sie der Frascold Selection Software. Nicht zertifizierte Daten sind vorläufig und können Veränderungen unterliegen. Daten bei 60 Hz = \*1.2

☐☐☐ Raffreddamento supplementare o limitata temperatura di aspirazione

☐☐☐ Additional cooling or limited suction temperature

☐☐☐ Zusatzkühlung oder begrenzte Sauggas-Temperatur

### Prestazioni Performance Leistungswerte

Dati riferiti ad una temperatura del gas aspirato di 20°C e senza sottoraffreddamento del liquido

Data referred to 20°C suction gas temperature without liquid subcooling

Bezogen auf Sauggasttemperatur 20°C ohne Flüssigkeits-Unterkühlung

| Compressore<br>Compressor<br>Verdichter | Vers. motore<br>Motor version<br>Motorversion | Conden.<br>Temp [°C] | Qo [Watt]<br>Pe [kW]<br>50Hz | ❶ Potenza frigorifera<br>❶ Potenza assorbita |       | ❷ Cooling capacity<br>❷ Power consumption |      | ❸ Kälteleistung<br>❸ Leistungsaufnahme |      |      |      |                             |      |      |  |
|---|---|----------------------|------------------------------|--|-------|---|------|--|------|------|------|-----------------------------|------|------|--|
|   |   |                      |                              | Temperatura Evaporazione [°C]                |       |   |      | Evaporation Temperature [°C]           |      |      |      | Verdampfungstemperatur [°C] |      |      |  |
|   |   |                      |                              | 5  | 0     | -5  | -10  | -15                                    | -20  | -25  | -30  | -35                         | -40  | -45  |  |
|   |   |                      |                              |  |       |   |      |  |      |      |      |                             |      |      |  |
| <b>A05-4Y</b>                           | 1   | 30                   | Qo                           | 4293   | 3577  | 2945                                      | 2391 | 1910                                   | 1495 | 1141 | 842  | 591                         | 384  |      |  |
|   |   |                      | Pe                           | 0,80   | 0,78  | 0,76                                      | 0,74 | 0,71                                   | 0,67 | 0,62 | 0,56 | 0,49                        | 0,40 |      |  |
|   |   | 40                   | Qo                           | 3509   | 2912  | 2388                                      | 1930 | 1533                                   | 1190 | 896  | 645  | 432                         | 250  |      |  |
|   |   |                      | Pe                           | 0,95   | 0,92  | 0,88                                      | 0,83 | 0,78                                   | 0,72 | 0,64 | 0,56 | 0,46                        | 0,35 |      |  |
|   |   | 50                   | Qo                           | 2784   | 2301  | 1878                                      | 1510 | 1191                                   | 914  | 675  | 467  | 285                         | 122  |      |  |
|   |   |                      | Pe                           | 1,10   | 1,05  | 0,98                                      | 0,92 | 0,84                                   | 0,75 | 0,66 | 0,55 | 0,42                        | 0,28 |      |  |
| <b>A05-5Y</b>                           | 2   | 30                   | Qo                           |  |       | 3754                                      | 3026 | 2402                                   | 1872 | 1429 | 1065 | 773                         | 544  | 369  |  |
|   |   |                      | Pe                           |  |       | 0,99                                      | 0,96 | 0,91                                   | 0,84 | 0,76 | 0,68 | 0,59                        | 0,51 | 0,45 |  |
|   |   | 40                   | Qo                           |  |       | 3054                                      | 2443 | 1922                                   | 1484 | 1121 | 824  | 586                         | 398  | 254  |  |
|   |   |                      | Pe                           |  |       | 1,14                                      | 1,07 | 0,98                                   | 0,88 | 0,78 | 0,68 | 0,58                        | 0,50 | 0,43 |  |
|   |   | 50                   | Qo                           |  |       | 2396                                      | 1899 | 1481                                   | 1132 | 846  | 615  | 429                         | 282  |      |  |
|   |   |                      | Pe                           |  |       | 1,27                                      | 1,16 | 1,04                                   | 0,92 | 0,80 | 0,68 | 0,58                        | 0,50 |      |  |
| <b>A07-5Y</b>                           | 1   | 30                   | Qo                           | 5648   | 4658  | 3794                                      | 3048 | 2410                                   | 1871 | 1424 | 1059 | 766                         | 538  | 366  |  |
|   |   |                      | Pe                           | 0,97   | 0,99  | 0,98                                      | 0,95 | 0,90                                   | 0,84 | 0,76 | 0,68 | 0,60                        | 0,52 | 0,45 |  |
|   |   | 40                   | Qo                           | 4663   | 3818  | 3086                                      | 2459 | 1927                                   | 1483 | 1116 | 818  | 581                         | 395  | 251  |  |
|   |   |                      | Pe                           | 1,22   | 1,19  | 1,13                                      | 1,06 | 0,98                                   | 0,88 | 0,79 | 0,69 | 0,59                        | 0,51 | 0,44 |  |
|   |   | 50                   | Qo                           |  |       | 2421                                      | 1911 | 1484                                   | 1131 | 843  | 611  | 427                         | 281  |      |  |
|   |   |                      | Pe                           |  |       | 1,26                                      | 1,15 | 1,04                                   | 0,92 | 0,80 | 0,69 | 0,59                        | 0,51 |      |  |
| <b>A07-6Y</b>                           | 2   | 30                   | Qo                           |  |       | 4043                                      | 3285 | 2635                                   | 2081 | 1613 | 1222 | 895                         | 622  | 393  |  |
|   |   |                      | Pe                           |  |       | 1,05                                      | 1,01 | 0,95                                   | 0,89 | 0,82 | 0,74 | 0,65                        | 0,55 | 0,44 |  |
|   |   | 40                   | Qo                           |  |       | 3347                                      | 2702 | 2152                                   | 1685 | 1291 | 959  | 678                         | 439  | 229  |  |
|   |   |                      | Pe                           |  |       | 1,22                                      | 1,15 | 1,06                                   | 0,97 | 0,87 | 0,76 | 0,64                        | 0,51 | 0,37 |  |
|   |   | 50                   | Qo                           |  |       | 2700                                      | 2162 | 1705                                   | 1317 | 989  | 710  | 468                         | 254  |      |  |
|   |   |                      | Pe                           |  |       | 1,38                                      | 1,27 | 1,15                                   | 1,03 | 0,89 | 0,75 | 0,60                        | 0,44 |      |  |
| <b>A1-6Y</b>                            | 1   | 30                   | Qo                           | 6217   | 5190  | 4277                                      | 3472 | 2770                                   | 2165 | 1652 | 1226 | 880                         | 610  | 410  |  |
|   |   |                      | Pe                           | 1,08   | 1,10  | 1,09                                      | 1,05 | 1,00                                   | 0,92 | 0,84 | 0,75 | 0,66                        | 0,57 | 0,49 |  |
|   |   | 40                   | Qo                           | 5156   | 4285  | 3514                                      | 2836 | 2247                                   | 1742 | 1313 | 957  | 668                         | 439  | 267  |  |
|   |   |                      | Pe                           | 1,34   | 1,31  | 1,26                                      | 1,18 | 1,09                                   | 0,98 | 0,87 | 0,76 | 0,66                        | 0,56 | 0,48 |  |
|   |   | 50                   | Qo                           | 4106   | 3392  | 2763                                      | 2213 | 1738                                   | 1331 | 988  | 702  | 469                         | 283  |      |  |
|   |   |                      | Pe                           | 1,57   | 1,49  | 1,40                                      | 1,28 | 1,16                                   | 1,03 | 0,90 | 0,77 | 0,65                        | 0,55 |      |  |
| <b>A1-7Y</b>                            | 2   | 30                   | Qo                           |  |       | 5400                                      | 4429 | 3587                                   | 2862 | 2244 | 1721 | 1280                        | 912  | 604  |  |
|   |   |                      | Pe                           |  |       | 1,52                                      | 1,44 | 1,35                                   | 1,25 | 1,14 | 1,01 | 0,89                        | 0,75 | 0,61 |  |
|   |   | 40                   | Qo                           |  |       | 4488                                      | 3659 | 2943                                   | 2329 | 1804 | 1358 | 979                         | 656  | 377  |  |
|   |   |                      | Pe                           |  |       | 1,73                                      | 1,61 | 1,48                                   | 1,33 | 1,18 | 1,02 | 0,86                        | 0,69 | 0,52 |  |
|   |   | 50                   | Qo                           |  |       | 3611                                      | 2919 | 2324                                   | 1815 | 1379 | 1005 | 683                         | 400  |      |  |
|   |   |                      | Pe                           |  |       | 1,91                                      | 1,75 | 1,57                                   | 1,38 | 1,19 | 1,00 | 0,79                        | 0,59 |      |  |
| <b>A1.5-7Y</b>                          | 1   | 30                   | Qo                           | 8113   | 6743  | 5540                                      | 4493 | 3591                                   | 2823 | 2177 | 1642 | 1208                        | 862  |      |  |
|   |   |                      | Pe                           | 1,48   | 1,45  | 1,40                                      | 1,33 | 1,25                                   | 1,15 | 1,05 | 0,94 | 0,83                        | 0,72 |      |  |
|   |   | 40                   | Qo                           | 6816   | 5638  | 4611                                      | 3723 | 2963                                   | 2320 | 1782 | 1339 | 980                         | 693  |      |  |
|   |   |                      | Pe                           | 1,77   | 1,69  | 1,59                                      | 1,48 | 1,36                                   | 1,23 | 1,10 | 0,97 | 0,84                        | 0,73 |      |  |
|   |   | 50                   | Qo                           | 5587   | 4592  | 3730                                      | 2991 | 2363                                   | 1836 | 1397 | 1036 | 742                         | 504  |      |  |
|   |   |                      | Pe                           | 2,01   | 1,89  | 1,75                                      | 1,60 | 1,45                                   | 1,29 | 1,14 | 0,99 | 0,85                        | 0,73 |      |  |
| <b>A1.5-8Y</b>                          | 1   | 30                   | Qo                           | 8418   | 7014  | 5794                                      | 4742 | 3841                                   | 3075 | 2428 | 1884 | 1425                        | 1037 | 702  |  |
|   |   |                      | Pe                           | 1,69   | 1,67  | 1,62                                      | 1,55 | 1,46                                   | 1,34 | 1,22 | 1,09 | 0,95                        | 0,80 | 0,66 |  |
|   |   | 40                   | Qo                           | 7171   | 5937  | 4872                                      | 3960 | 3185                                   | 2529 | 1977 | 1512 | 1118                        | 779  | 478  |  |
|   |   |                      | Pe                           | 2,02   | 1,95  | 1,84                                      | 1,72 | 1,58                                   | 1,43 | 1,28 | 1,11 | 0,95                        | 0,79 | 0,63 |  |
|   |   | 50                   | Qo                           | 5957   | 4893  | 3982                                      | 3208 | 2556                                   | 2008 | 1549 | 1162 | 830                         | 539  |      |  |
|   |   |                      | Pe                           | 2,32   | 2,18  | 2,03                                      | 1,87 | 1,69                                   | 1,51 | 1,32 | 1,13 | 0,95                        | 0,77 |      |  |
| <b>B1.5-9.1Y</b>                        | 2   | 30                   | Qo                           | 9835   | 8180  | 6734                                      | 5483 | 4412                                   | 3505 | 2747 | 2123 | 1618                        | 1217 | 904  |  |
|   |   |                      | Pe                           | 2,08   | 2,02  | 1,93                                      | 1,83 | 1,70                                   | 1,57 | 1,43 | 1,29 | 1,15                        | 1,02 | 0,91 |  |
|   |   | 40                   | Qo                           | 8401   | 6953  | 5697                                      | 4617 | 3699                                   | 2927 | 2286 | 1762 | 1338                        | 1000 | 733  |  |
|   |   |                      | Pe                           | 2,53   | 2,39  | 2,24                                      | 2,07 | 1,89                                   | 1,71 | 1,54 | 1,37 | 1,21                        | 1,07 | 0,95 |  |
|   |   | 50                   | Qo                           | 6908   | 5674  | 4614                                      | 3713 | 2955                                   | 2326 | 1810 | 1392 | 1057                        | 790  |      |  |
|   |   |                      | Pe                           | 2,90   | 2,70  | 2,48                                      | 2,26 | 2,04                                   | 1,82 | 1,61 | 1,42 | 1,25                        | 1,10 |      |  |
| <b>B1.5-10.1Y</b>                       | 2   | 30                   | Qo                           |  |       | 7300                                      | 6022 | 4902                                   | 3928 | 3089 | 2373 | 1767                        | 1261 | 842  |  |
|   |   |                      | Pe                           |  |       | 2,15                                      | 2,07 | 1,96                                   | 1,81 | 1,63 | 1,44 | 1,25                        | 1,06 | 0,88 |  |
|   |   | 40                   | Qo                           |  |       | 6145                                      | 5049 | 4093                                   | 3265 | 2553 | 1946 | 1431                        | 997  | 633  |  |
|   |   |                      | Pe                           |  |       | 2,46                                      | 2,31 | 2,13                                   | 1,93 | 1,71 | 1,49 | 1,27                        | 1,07 | 0,88 |  |
|   |   | 50                   | Qo                           |  |       | 5048                                      | 4132 | 3338                                   | 2654 | 2068 | 1567 | 1142                        | 779  |      |  |
|   |   |                      | Pe                           |  |       | 2,75                                      | 2,53 | 2,30                                   | 2,05 | 1,80 | 1,55 | 1,32                        | 1,11 |      |  |
| <b>B2-10.1Y</b>                         | 1   | 30                   | Qo                           | 10763  | 9009  | 7463                                      | 6111 | 4939                                   | 3933 | 3081 | 2367 | 1778                        | 1301 |      |  |
|   |   |                      | Pe                           | 2,31   | 2,29  | 2,23                                      | 2,13 | 2,01                                   | 1,86 | 1,70 | 1,52 | 1,35                        | 1,19 |      |  |
|   |   | 40                   | Qo                           | 9107   | 7601  | 6280                                      | 5131 | 4140                                   | 3292 | 2575 | 1974 | 1476                        | 1066 |      |  |
|   |   |                      | Pe                           | 2,76   | 2,66  | 2,53                                      | 2,37 | 2,19                                   | 1,99 | 1,79 | 1,59 | 1,41                        | 1,23 |      |  |
|   |   | 50                   | Qo                           | 7508   | 6248  | 5151                                      | 4202 | 3389                                   | 2698 | 2113 | 1623 | 1213                        |      |      |  |
|   |   |                      | Pe                           | 3,17   | 3,00  | 2,80                                      | 2,58 | 2,35                                   | 2,11 | 1,88 | 1,67 | 1,47                        |      |      |  |
| <b>D2-11.1Y</b>                         | 1   | 30                   | Qo                           | 12862  | 10744 | 8884                                      | 7265 | 5868                                   | 4672 | 3659 | 2809 | 2104                        | 1525 |      |  |
|   |   |                      | Pe                           | 2,48   | 2,46  | 2,40                                      | 2,29 | 2,16                                   | 1,99 | 1,82 | 1,63 | 1,44                        | 1,26 |      |  |
|   |   | 40                   | Qo                           | 10864  | 9050  | 7465                                      | 6089 | 4904                                   | 3891 | 3029 | 2301 | 1686                        | 1166 |      |  |
|   |   |                      | Pe                           | 3,01   | 2,90  | 2,76                                      | 2,58 | 2,38                                   | 2,16 | 1,94 | 1,71 | 1,50                        | 1,31 |      |  |
|   |   | 50                   | Qo                           | 8845   | 7337  | 6027                                      | 4896 | 3924                                   | 3094 | 2386 | 1779 | 1257                        |      |      |  |
|   |   |                      | Pe                           | 3,47   | 3,28  | 3,06                                      | 2,81 | 2,55                                   | 2,29 | 2,03 | 1,78 | 1,55                        |      |      |  |







**Prestazioni**  
**Performance**  
**Leistungswerte**

Dati riferiti ad una temperatura del gas aspirato di 20°C e senza sottoraffreddamento del liquido

Data referred to 20°C suction gas temperature without liquid subcooling

Bezogen auf Sauggastemperatur 20°C ohne Flüssigkeits-Unterkühlung

| Compressore<br>Compressor<br>Verdichter | Vers. motore<br>Motor version | Conden.<br>Temp [°C] | Qo [Watt]<br>Pe [kW]<br>50Hz | ❶ Potenza frigorifera<br>❶ Potenza assorbita |       | ❷ Cooling capacity<br>❷ Power consumption |       |                              |       | ❸ Kälteleistung<br>❸ Leistungsaufnahme |      |                             |      |      |  |
|---|-------------------------------|----------------------|------------------------------|--|-------|---|-------|------------------------------|-------|--|------|-----------------------------|------|------|--|
|   |                               |                      |                              | Temperatura Evaporazione [°C]                |       |   |       | Evaporation Temperature [°C] |       |  |      | Verdampfungstemperatur [°C] |      |      |  |
|   |                               |                      |                              | 5  | 0     | -5  | -10   | -15                          | -20   | -25                                    | -30  | -35                         | -40  | -45  |  |
|   |                               |                      |                              |  |       |   |       |                              |       |  |      |                             |      |      |  |
|   | 1                             | 30                   | Qo                           | 23567  | 19812 | 16466                                     | 13502 | 10895                        | 8618  | 6644                                   | 4948 |                             |      |      |  |
|   |                               |                      | Pe                           | 4,16   | 4,18  | 4,11                                      | 3,95  | 3,71                         | 3,40  | 3,04                                   | 2,61 |                             |      |      |  |
|   |                               | 40                   | Qo                           | 19832  | 16633 | 13785                                     | 11262 | 9038                         | 7086  | 5381                                   | 3895 |                             |      |      |  |
|   |                               |                      | Pe                           | 5,07   | 4,95  | 4,75                                      | 4,46  | 4,10                         | 3,67  | 3,19                                   | 2,66 |                             |      |      |  |
|   |                               | 50                   | Qo                           | 16070  | 13429 | 11081                                     | 9001  | 7162                         | 5538  | 4103                                   | 2830 |                             |      |      |  |
|   |                               |                      | Pe                           | 5,82   | 5,57  | 5,24                                      | 4,83  | 4,35                         | 3,81  | 3,21                                   | 2,57 |                             |      |      |  |
|   | 2                             | 30                   | Qo                           |  |       | 18258                                     | 15039 | 12223                        | 9781  | 7683                                   | 5900 | 4402                        | 3159 | 2143 |  |
|   |                               |                      | Pe                           |  |       | 4,81                                      | 4,52  | 4,19                         | 3,83  | 3,45                                   | 3,05 | 2,65                        | 2,25 | 1,87 |  |
|   |                               | 40                   | Qo                           |  |       | 15275                                     | 12534 | 10143                        | 8074  | 6297                                   | 4782 | 3500                        | 2421 | 1516 |  |
|   |                               |                      | Pe                           |  |       | 5,61                                      | 5,16  | 4,69                         | 4,21  | 3,72                                   | 3,23 | 2,74                        | 2,28 | 1,85 |  |
|   |                               | 50                   | Qo                           |  |       | 12383                                     | 10108 | 8130                         | 6422  | 4953                                   | 3695 | 2617                        | 1690 |      |  |
|   |                               |                      | Pe                           |  |       | 6,28                                      | 5,69  | 5,09                         | 4,49  | 3,90                                   | 3,33 | 2,78                        | 2,26 |      |  |
|   | 1                             | 30                   | Qo                           | 27077  | 22624 | 18707                                     | 15286 | 12324                        | 9781  | 7621                                   | 5804 |                             |      |      |  |
|   |                               |                      | Pe                           | 5,03   | 4,94  | 4,77                                      | 4,53  | 4,23                         | 3,88  | 3,50                                   | 3,09 |                             |      |      |  |
|   |                               | 40                   | Qo                           | 22873  | 19060 | 15716                                     | 12801 | 10279                        | 8109  | 6254                                   | 4676 |                             |      |      |  |
|   |                               |                      | Pe                           | 6,11   | 5,85  | 5,52                                      | 5,13  | 4,70                         | 4,24  | 3,75                                   | 3,26 |                             |      |      |  |
|   |                               | 50                   | Qo                           | 18574  | 15425 | 12677                                     | 10292 | 8233                         | 6459  | 4934                                   | 3618 |                             |      |      |  |
|   |                               |                      | Pe                           | 7,10   | 6,67  | 6,19                                      | 5,66  | 5,10                         | 4,53  | 3,94                                   | 3,36 |                             |      |      |  |
|   | 2                             | 30                   | Qo                           |  |       | 18778                                     | 15437 | 12512                        | 9973  | 7794                                   | 5944 | 4396                        | 3121 | 2090 |  |
|   |                               |                      | Pe                           |  |       | 4,89                                      | 4,59  | 4,24                         | 3,85  | 3,44                                   | 3,01 | 2,58                        | 2,15 | 1,74 |  |
|   |                               | 40                   | Qo                           |  |       | 15813                                     | 12913 | 10388                        | 8207  | 6343                                   | 4767 | 3450                        | 2364 | 1481 |  |
|   |                               |                      | Pe                           |  |       | 5,70                                      | 5,22  | 4,71                         | 4,18  | 3,64                                   | 3,11 | 2,58                        | 2,08 | 1,62 |  |
|   |                               | 50                   | Qo                           |  |       | 12924                                     | 10468 | 8343                         | 6521  | 4974                                   | 3673 | 2589                        | 1694 |      |  |
|   |                               |                      | Pe                           |  |       | 6,40                                      | 5,75  | 5,09                         | 4,42  | 3,77                                   | 3,14 | 2,54                        | 1,98 |      |  |
|   | 1                             | 30                   | Qo                           | 27872  | 23293 | 19273                                     | 15771 | 12747                        | 10159 | 7968                                   | 6134 | 4615                        | 3370 |      |  |
|   |                               |                      | Pe                           | 5,17   | 5,09  | 4,94                                      | 4,72  | 4,44                         | 4,10  | 3,73                                   | 3,32 | 2,88                        | 2,44 |      |  |
|   |                               | 40                   | Qo                           | 23541  | 19641 | 16228                                     | 13262 | 10702                        | 8507  | 6637                                   | 5051 | 3709                        | 2571 |      |  |
|   |                               |                      | Pe                           | 6,34   | 6,08  | 5,76                                      | 5,38  | 4,95                         | 4,48  | 3,98                                   | 3,46 | 2,93                        | 2,40 |      |  |
|   |                               | 50                   | Qo                           | 19188  | 15968 | 13164                                     | 10735 | 8639                         | 6838  | 5290                                   | 3954 |                             |      |      |  |
|   |                               |                      | Pe                           | 7,37   | 6,93  | 6,44                                      | 5,90  | 5,33                         | 4,73  | 4,12                                   | 3,49 |                             |      |      |  |
|   | 1                             | 30                   | Qo                           | 28897  | 23966 | 19659                                     | 15930 | 12738                        | 10037 | 7783                                   | 5933 | 4443                        | 3269 |      |  |
|   |                               |                      | Pe                           | 5,33   | 5,24  | 5,06                                      | 4,80  | 4,48                         | 4,12  | 3,74                                   | 3,35 | 2,96                        | 2,61 |      |  |
|   |                               | 40                   | Qo                           | 24066  | 19892 | 16270                                     | 13157 | 10508                        | 8280  | 6429                                   | 4910 | 3681                        | 2696 |      |  |
|   |                               |                      | Pe                           | 6,43   | 6,14  | 5,78                                      | 5,37  | 4,92                         | 4,46  | 3,99                                   | 3,54 | 3,12                        | 2,74 |      |  |
|   |                               | 50                   | Qo                           | 19537  | 16097 | 13139                                     | 10618 | 8490                         | 6712  | 5240                                   | 4030 |                             |      |      |  |
|   |                               |                      | Pe                           | 7,37   | 6,91  | 6,40                                      | 5,86  | 5,30                         | 4,76  | 4,23                                   | 3,74 |                             |      |      |  |
|   | 2                             | 30                   | Qo                           |  |       | 21828                                     | 18036 | 14716                        | 11833 | 9353                                   | 7241 | 5464                        | 3987 | 2776 |  |
|   |                               |                      | Pe                           |  |       | 5,90                                      | 5,55  | 5,16                         | 4,73  | 4,28                                   | 3,80 | 3,30                        | 2,79 | 2,28 |  |
|   |                               | 40                   | Qo                           |  |       | 18419                                     | 15164 | 12325                        | 9866  | 7755                                   | 5956 | 4435                        | 3158 | 2092 |  |
|   |                               |                      | Pe                           |  |       | 6,79                                      | 6,28  | 5,75                         | 5,18  | 4,60                                   | 4,01 | 3,41                        | 2,81 | 2,23 |  |
|   |                               | 50                   | Qo                           |  |       | 15037                                     | 12320 | 9962                         | 7928  | 6185                                   | 4699 | 3435                        | 2358 |      |  |
|   |                               |                      | Pe                           |  |       | 7,54                                      | 6,88  | 6,21                         | 5,51  | 4,82                                   | 4,12 | 3,43                        | 2,75 |      |  |
|   | 1                             | 30                   | Qo                           | 31964  | 26815 | 22280                                     | 18314 | 14870                        | 11906 | 9374                                   | 7231 |                             |      |      |  |
|   |                               |                      | Pe                           | 6,34   | 6,15  | 5,90                                      | 5,61  | 5,26                         | 4,87  | 4,44                                   | 3,98 |                             |      |      |  |
|   |                               | 40                   | Qo                           | 27134  | 22726 | 18856                                     | 15479 | 12550                        | 10024 | 7855                                   | 6000 |                             |      |      |  |
|   |                               |                      | Pe                           | 7,51   | 7,15  | 6,74                                      | 6,29  | 5,81                         | 5,29  | 4,75                                   | 4,18 |                             |      |      |  |
|   |                               | 50                   | Qo                           | 22283  | 18615 | 15409                                     | 12621 | 10205                        | 8117  | 6310                                   | 4741 |                             |      |      |  |
|   |                               |                      | Pe                           | 8,60   | 8,07  | 7,50                                      | 6,91  | 6,29                         | 5,65  | 4,99                                   | 4,32 |                             |      |      |  |
|   | 2                             | 30                   | Qo                           |  |       | 25201                                     | 20904 | 17148                        | 13892 | 11091                                  | 8703 | 6685                        | 4994 | 3588 |  |
|   |                               |                      | Pe                           |  |       | 6,90                                      | 6,58  | 6,15                         | 5,65  | 5,09                                   | 4,51 | 3,93                        | 3,37 | 2,87 |  |
|   |                               | 40                   | Qo                           |  |       | 21309                                     | 17614 | 14401                        | 11628 | 9251                                   | 7227 | 5514                        | 4068 | 2847 |  |
|   |                               |                      | Pe                           |  |       | 8,22                                      | 7,61  | 6,93                         | 6,22  | 5,49                                   | 4,76 | 4,07                        | 3,44 | 2,90 |  |
|   |                               | 50                   | Qo                           |  |       |   |       | 11799                        | 9500  | 7537                                   | 5868 | 4450                        | 3240 |      |  |
|   |                               |                      | Pe                           |  |       |   |       | 7,63                         | 6,72  | 5,83                                   | 4,98 | 4,20                        | 3,51 |      |  |
|   | 1                             | 30                   | Qo                           | 36974  | 30974 | 25708                                     | 21122 | 17162                        | 13774 | 10905                                  | 8500 |                             |      |      |  |
|   |                               |                      | Pe                           | 7,48   | 7,29  | 6,99                                      | 6,59  | 6,12                         | 5,61  | 5,08                                   | 4,57 |                             |      |      |  |
|   |                               | 40                   | Qo                           | 31368  | 26248 | 21766                                     | 17867 | 14497                        | 11603 | 9130                                   | 7025 |                             |      |      |  |
|   |                               |                      | Pe                           | 8,84   | 8,42  | 7,91                                      | 7,33  | 6,69                         | 6,04  | 5,40                                   | 4,79 |                             |      |      |  |
|   |                               | 50                   | Qo                           | 25698  | 21468 | 17778                                     | 14574 | 11804                        | 9412  | 7344                                   | 5548 |                             |      |      |  |
|   |                               |                      | Pe                           | 10,07  | 9,44  | 8,74                                      | 7,99  | 7,21                         | 6,44  | 5,69                                   | 5,01 |                             |      |      |  |
|   | 1                             | 30                   | Qo                           |  |       | 29191                                     | 24167 | 19770                        | 15951 | 12666                                  | 9868 | 7511                        | 5549 | 3936 |  |
|   |                               |                      | Pe                           |  |       | 7,88                                      | 7,42  | 6,9                          | 6,33  | 5,72                                   | 5,09 | 4,45                        | 3,82 | 3,20 |  |
|   |                               | 40                   | Qo                           |  |       | 24673                                     | 20325 | 16534                        | 13256 | 10442                                  | 8048 | 6028                        | 4334 | 2921 |  |
|   |                               |                      | Pe                           |  |       | 9,10                                      | 8,40  | 7,65                         | 6,88  | 6,10                                   | 5,31 | 4,54                        | 3,79 | 3,08 |  |
|   |                               | 50                   | Qo                           |  |       | 20173                                     | 16505 | 13328                        | 10594 | 8258                                   | 6273 | 4594                        | 3173 |      |  |
|   |                               |                      | Pe                           |  |       | 10,11                                     | 9,18  | 8,23                         | 7,27  | 6,33                                   | 5,40 | 4,51                        | 3,66 |      |  |
|   | 2                             | 30                   | Qo                           |  |       | 25844                                     | 21322 | 17467                        | 14197 | 11429                                  | 9081 | 7071                        | 5317 | 3737 |  |
|   |                               |                      | Pe                           |  |       | 6,30                                      | 6,15  | 5,89                         | 5,54  | 5,11                                   | 4,63 | 4,11                        | 3,57 | 3,03 |  |
|   |                               | 40                   | Qo                           |  |       | 22272                                     | 18313 | 14954                        | 12113 | 9708                                   | 7657 | 5878                        | 4289 | 2807 |  |
|   |                               |                      | Pe                           |  |       | 7,68                                      | 7,34  | 6,90                         | 6,36  | 5,76                                   | 5,11 | 4,43                        | 3,73 | 3,04 |  |
|   |                               | 50                   | Qo                           |  |       |   |       | 15270                        | 12393 | 9968                                   | 7913 | 6145                        | 4583 | 3145 |  |
|   |                               |                      | Pe                           |  |       |   |       | 8,48                         | 7,83  | 7,10                                   | 6,31 | 5,47                        | 4,60 | 3,72 |  |

### Prestazioni Performance Leistungswerte

Dati riferiti ad una temperatura del gas aspirato di 20°C e senza sottoraffreddamento del liquido  
Data referred to 20°C suction gas temperature without liquid subcooling  
Bezogen auf Sauggastemperatur 20°C ohne Flüssigkeits-Unterkühlung

| Compressore<br>Compressor<br>Verdichter | Vers. motore<br>Motor version<br>Motorversion | Conden.<br>Temp [°C] | Qo [Watt]<br>Pe [kW]<br>50Hz | ❶ Potenza frigorifera<br>❶ Cooling capacity<br>❶ Kälteleistung |       | ❷ Potenza assorbita<br>❷ Power consumption<br>❷ Leistungsaufnahme |       | Temperatura Evaporazione [°C] |       |       |       |                             |       |      |  |  |  |  |  |
|---|---|----------------------|------------------------------|--|-------|---|-------|-------------------------------|-------|-------|-------|-----------------------------|-------|------|--|--|--|--|--|
|   |   |                      |                              | Temperatura Evaporazione [°C]                                  |       |   |       | Evaporation Temperature [°C]  |       |       |       | Verdampfungstemperatur [°C] |       |      |  |  |  |  |  |
|   |   |                      |                              | 5  | 0     | -5  | -10   | -15                           | -20   | -25   | -30   | -35                         | -40   | -45  |  |  |  |  |  |
| <b>S7-33Y</b>                           | 1   | 30                   | Qo                           | 36857  | 30862 | 25662   | 21178 | 17327                         | 14029 | 11201 | 8763  | 6633                        | 4730  |      |  |  |  |  |  |
|   |   |                      | Pe                           | 6,82   | 6,80  | 6,64  | 6,35  | 5,95                          | 5,48  | 4,95  | 4,39  | 3,82                        | 3,27  |      |  |  |  |  |  |
|   |   | 40                   | Qo                           | 31575  | 26422 | 21963   | 18114 | 14796                         | 11926 | 9424  | 7207  | 5195                        | 3307  |      |  |  |  |  |  |
|   |   |                      | Pe                           | 8,60   | 8,31  | 7,89  | 7,37  | 6,77                          | 6,11  | 5,43  | 4,73  | 4,05                        | 3,42  |      |  |  |  |  |  |
|   |   | 50                   | Qo                           | 26225  | 21915 | 18194   | 14981 | 12194                         | 9752  | 7574  | 5578  |                             |       |      |  |  |  |  |  |
|   |   |                      | Pe                           | 10,20  | 9,64  | 8,97  | 8,23  | 7,43                          | 6,60  | 5,76  | 4,94  |                             |       |      |  |  |  |  |  |
| <b>S8-42Y</b>                           | 2   | 30                   | Qo                           |  |       | 33430   | 27691 | 22663                         | 18287 | 14504 | 11257 | 8487                        | 6137  | 4147 |  |  |  |  |  |
|   |   |                      | Pe                           |  |       | 8,67  | 8,15  | 7,56                          | 6,91  | 6,22  | 5,49  | 4,74                        | 3,97  | 3,21 |  |  |  |  |  |
|   |   | 40                   | Qo                           |  |       | 28341   | 23401 | 19083                         | 15328 | 12078 | 9276  | 6862                        | 4778  | 2967 |  |  |  |  |  |
|   |   |                      | Pe                           |  |       | 9,93  | 9,17  | 8,35                          | 7,50  | 6,62  | 5,73  | 4,83                        | 3,94  | 3,07 |  |  |  |  |  |
|   |   | 50                   | Qo                           |  |       | 22954   | 18862 | 15302                         | 12218 | 9550  | 7240  | 5230                        | 3463  |      |  |  |  |  |  |
|   |   |                      | Pe                           |  |       | 10,91   | 9,92  | 8,91                          | 7,88  | 6,84  | 5,80  | 4,78                        | 3,78  |      |  |  |  |  |  |
| <b>S12-42Y</b>                          | 1   | 30                   | Qo                           | 45911  | 38508 | 31958   | 26205 | 21195                         | 16872 | 13181 | 10068 |                             |       |      |  |  |  |  |  |
|   |   |                      | Pe                           | 8,63   | 8,37  | 7,98  | 7,50  | 6,94                          | 6,31  | 5,64  | 4,95  |                             |       |      |  |  |  |  |  |
|   |   | 40                   | Qo                           | 39041  | 32568 | 26869   | 21889 | 17573                         | 13866 | 10713 | 8059  |                             |       |      |  |  |  |  |  |
|   |   |                      | Pe                           | 10,32  | 9,75  | 9,09  | 8,36  | 7,57                          | 6,74  | 5,90  | 5,06  |                             |       |      |  |  |  |  |  |
|   |   | 50                   | Qo                           | 32203  | 26668 | 21829   | 17629 | 14016                         | 10933 | 8325  | 6138  |                             |       |      |  |  |  |  |  |
|   |   |                      | Pe                           | 11,76  | 10,90 | 9,98  | 9,02  | 8,02                          | 7,01  | 6,01  | 5,04  |                             |       |      |  |  |  |  |  |
| <b>S10-52Y</b>                          | 2   | 30                   | Qo                           |  |       | 39744   | 32862 | 26979                         | 21974 | 17724 | 14105 | 10995                       | 8270  | 5809 |  |  |  |  |  |
|   |   |                      | Pe                           |  |       | 10,59   | 10,06 | 9,37                          | 8,56  | 7,68  | 6,76  | 5,85                        | 4,99  | 4,22 |  |  |  |  |  |
|   |   | 40                   | Qo                           |  |       | 34176   | 28191 | 23096                         | 18767 | 15081 | 11915 | 9146                        | 6651  | 4308 |  |  |  |  |  |
|   |   |                      | Pe                           |  |       | 12,48   | 11,61 | 10,62                         | 9,54  | 8,42  | 7,30  | 6,22                        | 5,23  | 4,35 |  |  |  |  |  |
|   |   | 50                   | Qo                           |  |       | 28585   | 23477 | 19147                         | 15471 | 12327 | 9591  | 7142                        | 4855  |      |  |  |  |  |  |
|   |   |                      | Pe                           |  |       | 14,16   | 12,97 | 11,69                         | 10,36 | 9,01  | 7,70  | 6,46                        | 5,34  |      |  |  |  |  |  |
| <b>S15-52Y</b>                          | 1   | 30                   | Qo                           | 58615  | 49134 | 40907   | 33806 | 27703                         | 22470 | 17979 | 14102 |                             |       |      |  |  |  |  |  |
|   |   |                      | Pe                           | 10,59  | 10,48 | 10,17   | 9,67  | 9,04                          | 8,31  | 7,51  | 6,69  |                             |       |      |  |  |  |  |  |
|   |   | 40                   | Qo                           | 50269  | 42130 | 35080   | 28990 | 23731                         | 19177 | 15200 | 11671 |                             |       |      |  |  |  |  |  |
|   |   |                      | Pe                           | 13,15  | 12,62 | 11,93   | 11,10 | 10,18                         | 9,20  | 8,19  | 7,20  |                             |       |      |  |  |  |  |  |
|   |   | 50                   | Qo                           | 41797  | 35001 | 29128   | 24050 | 19638                         | 15764 | 12301 | 9121  |                             |       |      |  |  |  |  |  |
|   |   |                      | Pe                           | 15,44  | 14,51 | 13,46   | 12,32 | 11,12                         | 9,90  | 8,71  | 7,57  |                             |       |      |  |  |  |  |  |
| <b>S15-56Y</b>                          | 2   | 30                   | Qo                           |  |       | 44655   | 36854 | 30178                         | 24491 | 19660 | 15549 | 12024                       | 8950  | 6192 |  |  |  |  |  |
|   |   |                      | Pe                           |  |       | 11,46   | 10,88 | 10,15                         | 9,29  | 8,35  | 7,38  | 6,41                        | 5,48  | 4,65 |  |  |  |  |  |
|   |   | 40                   | Qo                           |  |       | 38401   | 31601 | 25801                         | 20867 | 16665 | 13059 | 9914                        | 7097  | 4472 |  |  |  |  |  |
|   |   |                      | Pe                           |  |       | 13,35   | 12,43 | 11,37                         | 10,23 | 9,04  | 7,85  | 6,70                        | 5,63  | 4,69 |  |  |  |  |  |
|   |   | 50                   | Qo                           |  |       | 32058   | 26245 | 21309                         | 17114 | 13527 | 10412 | 7635                        | 5061  |      |  |  |  |  |  |
|   |   |                      | Pe                           |  |       | 15,03   | 13,76 | 12,40                         | 10,98 | 9,55  | 8,15  | 6,83                        | 5,63  |      |  |  |  |  |  |
| <b>S20-56Y</b>                          | 1   | 30                   | Qo                           | 64238  | 53901 | 44920   | 37160 | 30483                         | 24753 | 19832 | 15584 |                             |       |      |  |  |  |  |  |
|   |   |                      | Pe                           | 12,21  | 11,97 | 11,50   | 10,86 | 10,07                         | 9,19  | 8,26  | 7,32  |                             |       |      |  |  |  |  |  |
|   |   | 40                   | Qo                           | 55173  | 46291 | 38587   | 31922 | 26161                         | 21166 | 16801 | 12928 |                             |       |      |  |  |  |  |  |
|   |   |                      | Pe                           | 14,84  | 14,14 | 13,27   | 12,27 | 11,18                         | 10,05 | 8,93  | 7,85  |                             |       |      |  |  |  |  |  |
|   |   | 50                   | Qo                           | 45928  | 38509 | 32087   | 26525 | 21687                         | 17435 | 13632 | 10142 |                             |       |      |  |  |  |  |  |
|   |   |                      | Pe                           | 17,12  | 15,99 | 14,74   | 13,42 | 12,07                         | 10,72 | 9,44  | 8,24  |                             |       |      |  |  |  |  |  |
| <b>V15-59Y</b>                          | 2   | 30                   | Qo                           |  |       | 45831   | 37860 | 31040                         | 25231 | 20293 | 16089 | 12478                       | 9322  | 6482 |  |  |  |  |  |
|   |   |                      | Pe                           |  |       | 12,54   | 11,85 | 10,99                         | 10,00 | 8,93  | 7,83  | 6,74                        | 5,72  | 4,81 |  |  |  |  |  |
|   |   | 40                   | Qo                           |  |       | 39416   | 32480 | 26565                         | 21532 | 17241 | 13554 | 10332                       | 7435  | 4725 |  |  |  |  |  |
|   |   |                      | Pe                           |  |       | 14,55   | 13,47 | 12,25                         | 10,95 | 9,61  | 8,27  | 6,99                        | 5,82  | 4,80 |  |  |  |  |  |
|   |   | 50                   | Qo                           |  |       | 32917   | 26999 | 21972                         | 17697 | 14036 | 10849 | 7997                        | 5342  |      |  |  |  |  |  |
|   |   |                      | Pe                           |  |       | 16,29   | 14,83 | 13,28                         | 11,67 | 10,07 | 8,51  | 7,06                        | 5,74  |      |  |  |  |  |  |
| <b>V20-59Y</b>                          | 1   | 30                   | Qo                           | 67598  | 56526 | 46781   | 38270 | 30897                         | 24569 | 19190 | 14667 | 10904                       | 7807  |      |  |  |  |  |  |
|   |   |                      | Pe                           | 12,17  | 12,00 | 11,63   | 11,08 | 10,39                         | 9,58  | 8,68  | 7,74  | 6,77                        | 5,81  |      |  |  |  |  |  |
|   |   | 40                   | Qo                           | 57529  | 47884 | 39434   | 32083 | 25736                         | 20300 | 15680 | 11781 | 8509                        | 5769  |      |  |  |  |  |  |
|   |   |                      | Pe                           | 14,89  | 14,27 | 13,48   | 12,55 | 11,51                         | 10,39 | 9,23  | 8,06  | 6,90                        | 5,79  |      |  |  |  |  |  |
|   |   | 50                   | Qo                           | 47184  | 39011 | 31899   | 25752 | 20476                         | 15977 | 12159 | 8929  |                             |       |      |  |  |  |  |  |
|   |   |                      | Pe                           | 17,16  | 16,11 | 14,93   | 13,64 | 12,29                         | 10,90 | 9,49  | 8,12  |                             |       |      |  |  |  |  |  |
| <b>V15-71Y</b>                          | 2   | 30                   | Qo                           |  |       | 54745   | 45194 | 37045                         | 30119 | 24241 | 19231 | 14913                       | 11109 | 7642 |  |  |  |  |  |
|   |   |                      | Pe                           |  |       | 14,83   | 14,10 | 13,14                         | 12,00 | 10,74 | 9,43  | 8,13                        | 6,89  | 5,77 |  |  |  |  |  |
|   |   | 40                   | Qo                           |  |       | 46892   | 38600 | 31552                         | 25571 | 20480 | 16100 | 12255                       | 8767  | 5459 |  |  |  |  |  |
|   |   |                      | Pe                           |  |       | 17,42   | 16,22 | 14,82                         | 13,29 | 11,68 | 10,06 | 8,48                        | 7,01  | 5,71 |  |  |  |  |  |
|   |   | 50                   | Qo                           |  |       |   |       | 26046                         | 20980 | 16646 | 12867 | 9466                        | 6264  |      |  |  |  |  |  |
|   |   |                      | Pe                           |  |       |   |       | 16,18                         | 14,27 | 12,32 | 10,39 | 8,55                        | 6,86  |      |  |  |  |  |  |
| <b>V25-71Y</b>                          | 1   | 30                   | Qo                           | 81879  | 68373 | 56522   | 46204 | 37297                         | 29680 | 23229 | 17822 | 13339                       | 9656  |      |  |  |  |  |  |
|   |   |                      | Pe                           | 15,78  | 15,34 | 14,68   | 13,83 | 12,84                         | 11,73 | 10,54 | 9,31  | 8,08                        | 6,87  |      |  |  |  |  |  |
|   |   | 40                   | Qo                           | 69095  | 57486 | 47345   | 38552 | 30983                         | 24517 | 19031 | 14405 | 10514                       | 7238  |      |  |  |  |  |  |
|   |   |                      | Pe                           | 18,55  | 17,65 | 16,58   | 15,35 | 14,01                         | 12,60 | 11,15 | 9,70  | 8,28                        | 6,92  |      |  |  |  |  |  |
|   |   | 50                   | Qo                           | 56514  | 46784 | 38338   | 31053 | 24806                         | 19475 | 14939 | 11076 |                             |       |      |  |  |  |  |  |
|   |   |                      | Pe                           | 20,85  | 19,53 | 18,07   | 16,50 | 14,85                         | 13,17 | 11,48 | 9,83  |                             |       |      |  |  |  |  |  |
| <b>V20-84Y</b>                          | 2   | 30                   | Qo                           |  |       | 65085   | 53815 | 43922                         | 35312 | 27891 | 21565 | 16241                       | 11823 | 8219 |  |  |  |  |  |
|   |   |                      | Pe                           |  |       | 17,65   | 16,55 | 15,30                         | 13,95 | 12,52 | 11,04 | 9,55                        | 8,08  | 6,65 |  |  |  |  |  |
|   |   | 40                   | Qo                           |  |       | 54821   | 45222 | 36833                         | 29560 | 23310 | 17988 | 13501                       | 9755  | 6655 |  |  |  |  |  |
|   |   |                      | Pe                           |  |       | 20,36   | 18,71 | 16,98                         | 15,19 | 13,38 | 11,59 | 9,84                        | 8,16  | 6,59 |  |  |  |  |  |
|   |   | 50                   | Qo                           |  |       | 43855   | 36042 | 29273                         | 23454 | 18490 | 14288 | 10754                       | 7794  |      |  |  |  |  |  |
|   |   |                      | Pe                           |  |       | 22,36   | 20,24 | 18,10                         | 15,96 | 13,86 | 11,83 | 9,90                        | 8,10  |      |  |  |  |  |  |

**Prestazioni**  
**Performance**  
**Leistungswerte**

Dati riferiti ad una temperatura del gas aspirato di 20°C e senza sottoraffreddamento del liquido  
Data referred to 20°C suction gas temperature without liquid subcooling  
Bezogen auf Sauggasttemperatur 20°C ohne Flüssigkeits-Unterkühlung

| Compressore<br>Compressor<br>Verdichter | Vers. motore<br>Motor version | Conden.<br>Temp [°C] | Qo [Watt]<br>Pe [kW]<br>50Hz | ❶ Potenza frigorifera<br>❶ Potenza assorbita |        |        | ❷ Cooling capacity<br>❷ Power consumption |        |       | ❸ Kälteleistung<br>❸ Leistungsaufnahme |       |       |       |       |  |
|---|-------------------------------|----------------------|------------------------------|--|--------|--------|---|--------|-------|--|-------|-------|-------|-------|--|
|   |                               |                      |                              | Temperatura Evaporazione [°C]                |        |        | Evaporation Temperature [°C]              |        |       | Verdampfungstemperatur [°C]            |       |       |       |       |  |
|   |                               |                      |                              | 5  | 0      | -5     | -10                                       | -15    | -20   | -25                                    | -30   | -35   | -40   | -45   |  |
|   | 1                             | 30                   | Qo                           | 97012  | 81353  | 67543  | 55454                                     | 44960  | 35934 | 28248                                  | 21777 | 16394 | 11971 |       |  |
|   |                               |                      | Pe                           | 18,42  | 18,09  | 17,45  | 16,54                                     | 15,42  | 14,12 | 12,71                                  | 11,24 | 9,74  | 8,28  |       |  |
|   |                               | 40                   | Qo                           | 82435  | 68860  | 56942  | 46556                                     | 37575  | 29872 | 23320                                  | 17793 | 13163 | 9303  |       |  |
|   |                               |                      | Pe                           | 21,62  | 20,75  | 19,60  | 18,25                                     | 16,73  | 15,09 | 13,39                                  | 11,67 | 9,99  | 8,39  |       |  |
|   |                               | 50                   | Qo                           | 67966  | 56493  | 46488  | 37825                                     | 30377  | 24017 | 18617                                  | 14053 |       |       |       |  |
|   |                               |                      | Pe                           | 24,77  | 23,35  | 21,72  | 19,92                                     | 18,02  | 16,05 | 14,06                                  | 12,12 |       |       |       |  |
|   | 2                             | 30                   | Qo                           |  |        | 72170  | 59569                                     | 48522  | 38914 | 30631                                  | 23558 | 17580 | 12584 | 8454  |  |
|   |                               |                      | Pe                           |  |        | 19,79  | 18,46                                     | 16,99  | 15,40 | 13,73                                  | 12,00 | 10,26 | 8,52  | 6,81  |  |
|   |                               | 40                   | Qo                           |  |        | 60385  | 49539                                     | 40070  | 31864 | 24807                                  | 18783 | 13680 | 9381  | 5773  |  |
|   |                               |                      | Pe                           |  |        | 22,08  | 20,25                                     | 18,32  | 16,32 | 14,27                                  | 12,21 | 10,17 | 8,19  | 6,28  |  |
|   |                               | 50                   | Qo                           |  |        |        | 39869                                     | 31966  | 25150 | 19306                                  | 14321 | 10079 | 6466  |       |  |
|   |                               |                      | Pe                           |  |        |        | 21,59                                     | 19,24  | 16,86 | 14,47                                  | 12,12 | 9,83  | 7,62  |       |  |
|   | 1                             | 30                   | Qo                           | 107618                                       | 89777  | 74043  | 60276                                     | 48335  | 38082 | 29375                                  | 22075 | 16041 | 11133 |       |  |
|   |                               |                      | Pe                           | 20,68  | 20,15  | 19,29  | 18,16                                     | 16,81  | 15,29 | 13,66                                  | 11,96 | 10,26 | 8,60  |       |  |
|   |                               | 40                   | Qo                           | 90864  | 75419  | 61867  | 50068                                     | 39881  | 31167 | 23786                                  | 17597 | 12460 | 8236  |       |  |
|   |                               |                      | Pe                           | 24,26  | 23,02  | 21,52  | 19,81                                     | 17,95  | 15,99 | 13,98                                  | 11,97 | 10,02 | 8,18  |       |  |
|   |                               | 50                   | Qo                           | 74481  | 61445  | 50087  | 40268                                     | 31848  | 24686 | 18643                                  | 13578 |       |       |       |  |
|   |                               |                      | Pe                           | 27,22  | 25,33  | 23,25  | 21,03                                     | 18,71  | 16,37 | 14,04                                  | 11,78 |       |       |       |  |
|   | 2                             | 30                   | Qo                           |  |        | 78654  | 65632                                     | 53989  | 43660 | 34582                                  | 26689 | 19920 | 14208 | 9491  |  |
|   |                               |                      | Pe                           |  |        | 22,89  | 21,60                                     | 19,97  | 18,12 | 16,14                                  | 14,11 | 12,15 | 10,35 | 8,81  |  |
|   |                               | 40                   | Qo                           |  |        | 68233  | 56438                                     | 45967  | 36757 | 28742                                  | 21861 | 16047 | 11238 | 7369  |  |
|   |                               |                      | Pe                           |  |        | 26,46  | 24,51                                     | 22,30  | 19,93 | 17,50                                  | 15,11 | 12,84 | 10,81 | 9,10  |  |
|   |                               | 50                   | Qo                           |  |        |        | 46620                                     | 37433  | 29452 | 22613                                  | 16853 | 12107 | 8311  |       |  |
|   |                               |                      | Pe                           |  |        |        | 26,98                                     | 24,23  | 21,40 | 18,57                                  | 15,84 | 13,32 | 11,10 |       |  |
|   | 1                             | 30                   | Qo                           | 113342                                       | 95275  | 79413  | 65572                                     | 53568  | 43218 | 34337                                  | 26741 | 20246 | 14669 |       |  |
|   |                               |                      | Pe                           | 23,91  | 23,29  | 22,22  | 20,81                                     | 19,13  | 17,30 | 15,39                                  | 13,49 | 11,71 | 10,14 |       |  |
|   |                               | 40                   | Qo                           | 95848  | 80540  | 67121  | 55406                                     | 45211  | 36353 | 28646                                  | 21908 | 15955 | 10602 |       |  |
|   |                               |                      | Pe                           | 29,44  | 27,82  | 25,88  | 23,71                                     | 21,40  | 19,06 | 16,76                                  | 14,60 | 12,68 | 11,08 |       |  |
|   |                               | 50                   | Qo                           | 79234  | 66544  | 55425  | 45693                                     | 37165  | 29656 | 22982                                  | 16960 |       |       |       |  |
|   |                               |                      | Pe                           | 34,32  | 31,76  | 29,01  | 26,14                                     | 23,27  | 20,47 | 17,85                                  | 15,49 |       |       |       |  |
|   | 2                             | 30                   | Qo                           |  |        | 85968  | 70732                                     | 57390  | 45815 | 35877                                  | 27449 | 20401 | 14607 | 9936  |  |
|   |                               |                      | Pe                           |  |        | 21,98  | 20,98                                     | 19,64  | 18,03 | 16,23                                  | 14,31 | 12,35 | 10,42 | 8,59  |  |
|   |                               | 40                   | Qo                           |  |        | 72721  | 59543                                     | 48062  | 38147 | 29672                                  | 22507 | 16525 | 11597 | 7594  |  |
|   |                               |                      | Pe                           |  |        | 25,82  | 23,99                                     | 21,92  | 19,68 | 17,35                                  | 15,01 | 12,72 | 10,56 | 8,60  |  |
|   |                               | 50                   | Qo                           |  |        | 59331  | 48274                                     | 38714  | 30522 | 23571                                  | 17732 | 12876 | 8875  |       |  |
|   |                               |                      | Pe                           |  |        | 29,02  | 26,44                                     | 23,72  | 20,94 | 18,16                                  | 15,47 | 12,93 | 10,62 |       |  |
|   | 1                             | 30                   | Qo                           | 124926                                       | 104388 | 86345  | 70624                                     | 57057  | 45471 | 35697                                  | 27565 | 20902 | 15539 |       |  |
|   |                               |                      | Pe                           | 21,37  | 21,10  | 20,42  | 19,41                                     | 18,12  | 16,64 | 15,01                                  | 13,30 | 11,58 | 9,91  |       |  |
|   |                               | 40                   | Qo                           | 105423                                       | 87772  | 72352  | 58994                                     | 47526  | 37778 | 29579                                  | 22760 | 17148 | 12574 |       |  |
|   |                               |                      | Pe                           | 26,15  | 25,05  | 23,63  | 21,95                                     | 20,08  | 18,08 | 16,02                                  | 13,96 | 11,97 | 10,11 |       |  |
|   |                               | 50                   | Qo                           | 86184  | 71433  | 58651  | 47668                                     | 38314  | 30417 | 23808                                  | 18315 |       |       |       |  |
|   |                               |                      | Pe                           | 30,46  | 28,57  | 26,44  | 24,13                                     | 21,71  | 19,25 | 16,79                                  | 14,42 |       |       |       |  |
|   | 2                             | 30                   | Qo                           |  |        | 99297  | 81793                                     | 66481  | 53206 | 41816                                  | 32156 | 24074 | 17415 | 12026 |  |
|   |                               |                      | Pe                           |  |        | 24,72  | 23,44                                     | 21,86  | 20,03 | 18,03                                  | 15,91 | 13,74 | 11,59 | 9,51  |  |
|   |                               | 40                   | Qo                           |  |        | 83350  | 68385                                     | 55354  | 44102 | 34477                                  | 26323 | 19489 | 13820 | 9163  |  |
|   |                               |                      | Pe                           |  |        | 28,63  | 26,54                                     | 24,24  | 21,79 | 19,26                                  | 16,70 | 14,18 | 11,76 | 9,51  |  |
|   |                               | 50                   | Qo                           |  |        | 67440  | 55041                                     | 44317  | 35115 | 27280                                  | 20660 | 15100 | 10447 |       |  |
|   |                               |                      | Pe                           |  |        | 31,94  | 29,13                                     | 26,19  | 23,19 | 20,20                                  | 17,28 | 14,48 | 11,88 |       |  |
|   | 1                             | 30                   | Qo                           | 145126                                       | 121334 | 100364 | 82032                                     | 66153  | 52543 | 41017                                  | 31390 | 23477 | 17094 |       |  |
|   |                               |                      | Pe                           | 25,88  | 25,50  | 24,66  | 23,43                                     | 21,89  | 20,11 | 18,18                                  | 16,16 | 14,14 | 12,19 |       |  |
|   |                               | 40                   | Qo                           | 123218                                       | 102617 | 84557  | 68853                                     | 55319  | 43771 | 34026                                  | 25897 | 19200 | 13750 |       |  |
|   |                               |                      | Pe                           | 31,31  | 29,90  | 28,13  | 26,08                                     | 23,82  | 21,43 | 18,98                                  | 16,56 | 14,23 | 12,08 |       |  |
|   |                               | 50                   | Qo                           | 100631                                       | 83359  | 68345  | 55404                                     | 44352  | 35003 | 27174                                  | 20680 |       |       |       |  |
|   |                               |                      | Pe                           | 35,70  | 33,36  | 30,77  | 28,00                                     | 25,12  | 22,22 | 19,36                                  | 16,63 |       |       |       |  |
|   | 2                             | 30                   | Qo                           |  |        | 120493 | 99607                                     | 81793  | 66655 | 53799                                  | 42826 | 33342 | 24950 | 17254 |  |
|   |                               |                      | Pe                           |  |        | 31,36  | 29,90                                     | 27,95  | 25,62 | 23,03                                  | 20,31 | 17,57 | 14,93 | 12,52 |  |
|   |                               | 40                   | Qo                           |  |        | 103000 | 85017                                     | 69718  | 56707 | 45588                                  | 35965 | 27441 | 19621 | 12108 |  |
|   |                               |                      | Pe                           |  |        | 37,07  | 34,59                                     | 31,71  | 28,55 | 25,23                                  | 21,86 | 18,57 | 15,47 | 12,70 |  |
|   |                               | 50                   | Qo                           |  |        |        | 70438                                     | 57532  | 46526 | 37022                                  | 28626 | 20941 |       |       |  |
|   |                               |                      | Pe                           |  |        |        | 38,67                                     | 34,89  | 30,91 | 26,87                                  | 22,87 | 19,04 |       |       |  |
|   | 1                             | 30                   | Qo                           | 174579                                       | 146356 | 121442 | 99609                                     | 80630  | 64275 | 50316                                  | 38525 | 28674 | 20535 |       |  |
|   |                               |                      | Pe                           | 33,81  | 32,74  | 31,20  | 29,27                                     | 27,02  | 24,53 | 21,86                                  | 19,10 | 16,31 | 13,56 |       |  |
|   |                               | 40                   | Qo                           | 148915                                       | 124386 | 102824 | 84002                                     | 67691  | 53664 | 41691                                  | 31545 | 22997 | 15819 |       |  |
|   |                               |                      | Pe                           | 40,26  | 38,07  | 35,51  | 32,66                                     | 29,58  | 26,35 | 23,05                                  | 19,74 | 16,50 | 13,40 |       |  |
|   |                               | 50                   | Qo                           | 122548                                       | 101845 | 83769  | 68090                                     | 54582  | 43015 | 33161                                  | 24792 |       |       |       |  |
|   |                               |                      | Pe                           | 45,61  | 42,40  | 38,91  | 35,22                                     | 31,40  | 27,52 | 23,66                                  | 19,89 |       |       |       |  |
|   | 2                             | 30                   | Qo                           |  |        | 146740 | 121924                                    | 100318 | 81599 | 65447                                  | 51539 | 39553 |       |       |  |
|   |                               |                      | Pe                           |  |        | 29,44  | 28,99                                     | 27,96  | 26,44 | 24,54                                  | 22,34 | 19,95 |       |       |  |
|   |                               | 40                   | Qo                           |  |        | 126830 | 104956                                    | 85998  | 69634 | 55543                                  | 43402 | 32891 |       |       |  |
|   |                               |                      | Pe                           |  |        | 35,93  | 34,30                                     | 32,21  | 29,76 | 27,03                                  | 24,13 | 21,16 |       |       |  |
|   |                               | 50                   | Qo                           |  |        |        | 86292                                     | 70382  | 56772 | 45142                                  | 35168 | 26530 |       |       |  |
|   |                               |                      | Pe                           |  |        |        | 38,57                                     | 35,54  | 32,27 | 28,85                                  | 25,38 | 21,95 |       |       |  |

### Prestazioni Performance Leistungswerte

Dati riferiti ad una temperatura del gas aspirato di 20°C e senza sottoraffreddamento del liquido  
Data referred to 20°C suction gas temperature without liquid subcooling  
Bezogen auf Sauggastemperatur 20°C ohne Flüssigkeits-Unterkühlung

| Compressore<br>Compressor<br>Verdichter | Vers. motore<br>Motor version<br>Motorversion | Conden.<br>Temp [°C] | Qo [Watt]<br>Pe [kW]<br>50Hz | ❶ Potenza frigorifera<br>❶ Cooling capacity<br>❶ Kälteleistung |        | ❷ Potenza assorbita<br>❷ Power consumption<br>❷ Leistungsaufnahme |        | Temperatura Evaporazione [°C] |        |       |       |                             |       |       |  |  |  |  |
|---|---|----------------------|------------------------------|--|--------|---|--------|-------------------------------|--------|-------|-------|-----------------------------|-------|-------|--|--|--|--|
|   |   |                      |                              | Temperatura Evaporazione [°C]                                  |        |   |        | Evaporation Temperature [°C]  |        |       |       | Verdampfungstemperatur [°C] |       |       |  |  |  |  |
|   |   |                      |                              | 5  | 0      | -5  | -10    | -15                           | -20    | -25   | -30   | -35                         | -40   | -45   |  |  |  |  |
| <b>W40-168Y</b>                         | 2   | 30                   | Qo                           |  |        |   | 110488 | 89506                         | 71187  | 55404 | 42028 | 30932                       | 21988 |       |  |  |  |  |
|   |   |                      | Pe                           |  |        |   | 31,39  | 29,16                         | 26,72  | 24,09 | 21,27 | 18,26                       | 15,07 |       |  |  |  |  |
|   |   | 40                   | Qo                           |  |        |   | 93106  | 74989                         | 59181  | 45552 | 33977 | 24327                       | 16474 |       |  |  |  |  |
|   |   |                      | Pe                           |  |        |   | 35,38  | 32,26                         | 28,97  | 25,52 | 21,92 | 18,15                       | 14,24 |       |  |  |  |  |
|   |   | 50                   | Qo                           |  |        |   | 60541  | 47331                         | 35946  | 26259 | 18143 |                             |       |       |  |  |  |  |
|   |   |                      | Pe                           |  |        |   | 34,65  | 30,50                         | 26,22  | 21,81 | 17,28 |                             |       |       |  |  |  |  |
| <b>W50-168Y</b><br>                     | 1   | 30                   | Qo                           | 197603   | 165215 | 136778  | 112000 | 90593                         | 72266  | 56729 | 43692 |                             |       |       |  |  |  |  |
|   |   |                      | Pe                           | 33,80  | 33,50  | 32,55   | 31,06  | 29,12                         | 26,83  | 24,30 | 21,63 |                             |       |       |  |  |  |  |
|   |   | 40                   | Qo                           | 168617   | 140687 | 116238  | 94980  | 76624                         | 60879  | 47455 | 36063 |                             |       |       |  |  |  |  |
|   |   |                      | Pe                           | 41,70  | 40,05  | 37,88   | 35,29  | 32,39                         | 29,28  | 26,05 | 22,80 |                             |       |       |  |  |  |  |
|   |   | 50                   | Qo                           | 138101   | 114875 | 94662   | 77171  | 62113                         | 49197  | 38134 | 28633 |                             |       |       |  |  |  |  |
|   |   |                      | Pe                           | 48,26  | 45,37  | 42,10   | 38,55  | 34,81                         | 30,98  | 27,17 | 23,48 |                             |       |       |  |  |  |  |
| <b>W50-187Y</b><br>                     | 2   | 30                   | Qo                           |  |        | 149041  | 122022 | 98508                         | 78232  | 60923 | 46312 | 34130                       | 24108 | 15975 |  |  |  |  |
|   |   |                      | Pe                           |  |        | 36,86   | 34,44  | 31,83                         | 29,03  | 26,08 | 22,98 | 19,75                       | 16,41 | 12,99 |  |  |  |  |
|   |   | 40                   | Qo                           |  |        | 125232  | 102014 | 81884                         | 64574  | 49813 | 37333 | 26864                       | 18136 |       |  |  |  |  |
|   |   |                      | Pe                           |  |        | 41,84   | 38,45  | 34,92                         | 31,25  | 27,46 | 23,58 | 19,62                       | 15,60 |       |  |  |  |  |
|   |   | 50                   | Qo                           |  |        | 102048  | 82551  | 65725                         | 51299  | 39006 | 28575 | 19738                       |       |       |  |  |  |  |
|   |   |                      | Pe                           |  |        | 46,03   | 41,67  | 37,20                         | 32,65  | 28,03 | 23,35 | 18,65                       |       |       |  |  |  |  |
| <b>W60-187Y</b><br>                     | 1   | 30                   | Qo                           | 217230   | 180960 | 149290  | 121880 | 98365                         | 78405  | 61645 | 47733 |                             |       |       |  |  |  |  |
|   |   |                      | Pe                           | 39,24  | 38,37  | 36,85   | 34,80  | 32,34                         | 29,57  | 26,61 | 23,58 |                             |       |       |  |  |  |  |
|   |   | 40                   | Qo                           | 184200   | 153140 | 126130  | 102810 | 82831                         | 65836  | 51475 | 39398 |                             |       |       |  |  |  |  |
|   |   |                      | Pe                           | 47,46  | 45,07  | 42,20   | 38,94  | 35,43                         | 31,76  | 28,06 | 24,44 |                             |       |       |  |  |  |  |
|   |   | 50                   | Qo                           | 150320   | 124620 | 102400  | 83297  | 66971                         | 53068  | 41234 | 31120 |                             |       |       |  |  |  |  |
|   |   |                      | Pe                           | 54,23  | 50,46  | 46,36   | 42,03  | 37,59                         | 33,16  | 28,84 | 24,75 |                             |       |       |  |  |  |  |
| <b>W60-206Y</b><br>                     | 2   | 30                   | Qo                           |  |        | 165282  | 136066 | 110478                        | 88268  | 69187 | 52986 | 39415                       | 28226 | 19170 |  |  |  |  |
|   |   |                      | Pe                           |  |        | 41,17   | 38,79  | 36,06                         | 33,04  | 29,77 | 26,32 | 22,73                       | 19,05 | 15,34 |  |  |  |  |
|   |   | 40                   | Qo                           |  |        | 140019  | 114679 | 92593                         | 73510  | 57182 | 43359 | 31792                       | 22232 |       |  |  |  |  |
|   |   |                      | Pe                           |  |        | 47,09   | 43,49  | 39,66                         | 35,64  | 31,48 | 27,24 | 22,97                       | 18,72 |       |  |  |  |  |
|   |   | 50                   | Qo                           |  |        | 114725  | 93351  | 74855                         | 58988  | 45501 | 34145 |                             |       |       |  |  |  |  |
|   |   |                      | Pe                           |  |        | 51,96   | 47,25  | 42,40                         | 37,48  | 32,54 | 27,61 |                             |       |       |  |  |  |  |
| <b>W70-206Y</b><br>                     | 1   | 30                   | Qo                           | 236553   | 198055 | 164244  | 134768 | 109272                        | 87404  | 68812 | 53142 |                             |       |       |  |  |  |  |
|   |   |                      | Pe                           | 42,40  | 41,61  | 40,10   | 37,99  | 35,40                         | 32,43  | 29,19 | 25,80 |                             |       |       |  |  |  |  |
|   |   | 40                   | Qo                           | 201959   | 168599 | 139386  | 113969 | 91994                         | 73108  | 56958 | 43192 |                             |       |       |  |  |  |  |
|   |   |                      | Pe                           | 51,02  | 48,73  | 45,86   | 42,52  | 38,83                         | 34,89  | 30,81 | 26,72 |                             |       |       |  |  |  |  |
|   |   | 50                   | Qo                           | 167009   | 138897 | 114394  | 93147  | 74804                         | 59011  | 45415 | 33664 |                             |       |       |  |  |  |  |
|   |   |                      | Pe                           | 58,39  | 54,71  | 50,58   | 46,11  | 41,41                         | 36,60  | 31,79 | 27,08 |                             |       |       |  |  |  |  |
| <b>W70-228Y</b><br>                     | 2   | 30                   | Qo                           |  |        | 178117  | 146921 | 119621                        | 95947  | 75624 | 58381 | 43943                       | 32039 | 22396 |  |  |  |  |
|   |   |                      | Pe                           |  |        | 44,86   | 42,20  | 39,20                         | 35,91  | 32,38 | 28,66 | 24,79                       | 20,82 | 16,80 |  |  |  |  |
|   |   | 40                   | Qo                           |  |        | 151627  | 124421 | 100729                        | 80278  | 62795 | 48007 | 35642                       | 25427 |       |  |  |  |  |
|   |   |                      | Pe                           |  |        | 51,07   | 47,21  | 43,09                         | 38,77  | 34,29 | 29,71 | 25,06                       | 20,41 |       |  |  |  |  |
|   |   | 50                   | Qo                           |  |        | 125475  | 102297 | 82249                         | 65058  | 50451 | 38157 |                             |       |       |  |  |  |  |
|   |   |                      | Pe                           |  |        | 56,53   | 51,50  | 46,31                         | 41,00  | 35,62 | 30,22 |                             |       |       |  |  |  |  |
| <b>W75-228Y</b><br>                     | 1   | 30                   | Qo                           | 256359   | 214290 | 177319  | 145065 | 117149                        | 93188  | 72802 | 55609 |                             |       |       |  |  |  |  |
|   |   |                      | Pe                           | 48,66  | 47,27  | 45,15   | 42,42  | 39,19                         | 35,57  | 31,69 | 27,65 |                             |       |       |  |  |  |  |
|   |   | 40                   | Qo                           | 217997   | 181780 | 150041  | 122400 | 98476                         | 77887  | 60252 | 45192 |                             |       |       |  |  |  |  |
|   |   |                      | Pe                           | 57,75  | 54,74  | 51,16   | 47,10  | 42,70                         | 38,05  | 33,28 | 28,51 |                             |       |       |  |  |  |  |
|   |   | 50                   | Qo                           | 178406   | 148286 | 122023  | 99239  | 79551                         | 62579  | 47941 | 35257 |                             |       |       |  |  |  |  |
|   |   |                      | Pe                           | 65,17  | 60,71  | 55,80   | 50,57  | 45,14                         | 39,61  | 34,11 | 28,75 |                             |       |       |  |  |  |  |
| <b>W75-240Y</b><br>                     | 2   | 30                   | Qo                           |  |        | 188831  | 154944 | 125511                        | 100209 | 78720 | 60721 | 45892                       | 33912 | 24460 |  |  |  |  |
|   |   |                      | Pe                           |  |        | 46,77   | 44,19  | 41,10                         | 37,61  | 33,86 | 29,95 | 26,02                       | 22,19 | 18,56 |  |  |  |  |
|   |   | 40                   | Qo                           |  |        | 160044  | 130583 | 105157                        | 83446  | 65129 | 49885 | 37393                       | 27332 |       |  |  |  |  |
|   |   |                      | Pe                           |  |        | 53,83   | 49,69  | 45,21                         | 40,53  | 35,76 | 31,03 | 26,45                       | 22,15 |       |  |  |  |  |
|   |   | 50                   | Qo                           |  |        | 132000  | 106959 | 85536                         | 67411  | 52261 | 39767 |                             |       |       |  |  |  |  |
|   |   |                      | Pe                           |  |        | 59,70   | 54,14  | 48,43                         | 42,70  | 37,07 | 31,65 |                             |       |       |  |  |  |  |
| <b>W80-240Y</b><br>                     | 1   | 30                   | Qo                           | 265713   | 222270 | 184136  | 150917 | 122218                        | 97646  | 76806 | 59305 |                             |       |       |  |  |  |  |
|   |   |                      | Pe                           | 50,95  | 49,45  | 47,21   | 44,36  | 41,01                         | 37,30  | 33,36 | 29,31 |                             |       |       |  |  |  |  |
|   |   | 40                   | Qo                           | 226857   | 189061 | 155992  | 127254 | 102454                        | 81197  | 63089 | 47736 |                             |       |       |  |  |  |  |
|   |   |                      | Pe                           | 60,70  | 57,45  | 53,62   | 49,33  | 44,70                         | 39,87  | 34,96 | 30,09 |                             |       |       |  |  |  |  |
|   |   | 50                   | Qo                           | 187191   | 155213 | 127379  | 103292 | 82560                         | 64788  | 49582 | 36547 |                             |       |       |  |  |  |  |
|   |   |                      | Pe                           | 68,93  | 64,04  | 58,72   | 53,09  | 47,28                         | 41,42  | 35,64 | 30,06 |                             |       |       |  |  |  |  |

❶ Dati indicati secondo EN12900 e funzionamento a 50 Hz. Per dati in punti operativi diversi vedi Frascold Selection Software. Certificazioni e dati validi per R404A, per R507A considerare leggere variazioni (vedi Frascold Selection Software). I dati non certificati sono provvisori e suscettibili di variazioni. Dati a 60 Hz = \*1.2

❶ Data based on EN12900 and 50 Hz operation. Performance data for individual conditions see Frascold Selection Software. Certification and data valid for R404A. For R507A slight variations have to be considered (see Frascold selection Software). Not certified data are provisional and variations are possible. 60 Hz data = \*1.2

❶ Daten gemäß EN12900 und Betrieb bei 50 Hz. Daten für abweichende Betriebspunkte entnehmen Sie der Frascold Selection Software. Zertifizierungen und Daten gelten für R404A. Leichte Abweichungen bei R507A (siehe Frascold Selection Software). Nicht zertifizierte Daten sind vorläufig und können Veränderungen unterliegen. Daten bei 60 Hz = \*1.2

❷❷ Raffreddamento supplementare o limitata temperatura di aspirazione

❷❷ Additional cooling or limited suction temperature

❷❷ Zusatzkühlung oder begrenzte Sauggas-Temperatur



**Prestazioni**  
**Performance**  
**Leistungswerte**

Data riferiti ad una temperatura del gas aspirato di 20°C e senza sottoraffreddamento del liquido

Data referred to 20°C suction gas temperature without liquid subcooling

Bezogen auf Sauggasttemperatur 20°C ohne Flüssigkeits-Unterkühlung

**R407C**

| Compressore<br>Compressor<br>Verdichter | Vers. motore<br>Motor version<br>Motorversion | Conden.<br>Temp [°C] | Qo [Watt]<br>Pe [kW]<br>50Hz | ❶ Potenza frigorifera<br>❶ Potenza assorbita |       | ❷ Cooling capacity<br>❷ Power consumption |       | ❸ Kälteleistung<br>❸ Leistungsaufnahme |       |      |      |                             |  |  |  |
|---|---|----------------------|------------------------------|--|-------|---|-------|--|-------|------|------|-----------------------------|--|--|--|
|   |   |                      |                              | Temperatura Evaporazione [°C]                |       |   |       | Evaporation Temperature [°C]           |       |      |      | Verdampfungstemperatur [°C] |  |  |  |
|   |   |                      |                              | 12,5   | 10    | 5   | 0     | -5                                     | -10   | -15  | -20  | -25                         |  |  |  |
|   |   |                      |                              |  |       |   |       |  |       |      |      |                             |  |  |  |
| <b>A05-4Y</b>                           | 1   | 30                   | Qo                           | 5204   | 4733  | 3881                                      | 3143  | 2510                                   | 1973  | 1524 | 1153 | 853                         |  |  |  |
|   |   |                      | Pe                           | 0,61   | 0,64  | 0,67                                      | 0,69  | 0,69                                   | 0,66  | 0,63 | 0,60 |                             |  |  |  |
|   |   | 40                   | Qo                           | 4478   | 4057  | 3301                                      | 2649  | 2093                                   | 1625  | 1236 | 916  | 658                         |  |  |  |
|   |   |                      | Pe                           | 0,83   | 0,83  | 0,83                                      | 0,81  | 0,79                                   | 0,75  | 0,70 | 0,66 | 0,61                        |  |  |  |
|   |   | 50                   | Qo                           | 3757   | 3389  | 2729                                      | 2166  | 1689                                   | 1292  | 964  | 697  | 482                         |  |  |  |
|   |   |                      | Pe                           | 1,01   | 1,00  | 0,96                                      | 0,91  | 0,86                                   | 0,79  | 0,73 | 0,67 | 0,61                        |  |  |  |
| <b>A07-5Y</b>                           | 1   | 30                   | Qo                           | 6667   | 6042  | 4920                                      | 3957  | 3140                                   | 2454  | 1888 | 1426 | 1056                        |  |  |  |
|   |   |                      | Pe                           | 0,83   | 0,85  | 0,86                                      | 0,85  | 0,83                                   | 0,79  | 0,74 | 0,69 | 0,63                        |  |  |  |
|   |   | 40                   | Qo                           | 5695   | 5147  | 4168                                      | 3332  | 2627                                   | 2038  | 1552 | 1157 | 838                         |  |  |  |
|   |   |                      | Pe                           | 1,12   | 1,11  | 1,07                                      | 1,02  | 0,96                                   | 0,88  | 0,81 | 0,73 | 0,66                        |  |  |  |
|   |   | 50                   | Qo                           | 4722   | 4252  | 3417                                      | 2710  | 2117                                   | 1627  | 1224 | 896  | 629                         |  |  |  |
|   |   |                      | Pe                           | 1,36   | 1,32  | 1,24                                      | 1,15  | 1,05                                   | 0,95  | 0,86 | 0,76 | 0,68                        |  |  |  |
| <b>A1-6Y</b>                            | 1   | 30                   | Qo                           | 7352   | 6673  | 5447                                      | 4389  | 3484                                   | 2721  | 2086 | 1566 | 1148                        |  |  |  |
|   |   |                      | Pe                           | 0,88   | 0,92  | 0,95                                      | 0,95  | 0,93                                   | 0,88  | 0,81 | 0,74 | 0,66                        |  |  |  |
|   |   | 40                   | Qo                           | 6335   | 5731  | 4646                                      | 3715  | 2923                                   | 2260  | 1711 | 1264 | 906                         |  |  |  |
|   |   |                      | Pe                           | 1,20   | 1,20  | 1,17                                      | 1,12  | 1,05                                   | 0,97  | 0,87 | 0,78 | 0,69                        |  |  |  |
|   |   | 50                   | Qo                           | 5311   | 4785  | 3844                                      | 3044  | 2371                                   | 1812  | 1354 | 984  | 690                         |  |  |  |
|   |   |                      | Pe                           | 1,46   | 1,43  | 1,35                                      | 1,26  | 1,15                                   | 1,04  | 0,92 | 0,81 | 0,72                        |  |  |  |
| <b>A1.5-7Y</b>                          | 1   | 30                   | Qo                           | 9393   | 8552  | 7033                                      | 5717  | 4589                                   | 3631  | 2828 | 2163 | 1622                        |  |  |  |
|   |   |                      | Pe                           | 1,26   | 1,27  | 1,28                                      | 1,26  | 1,21                                   | 1,15  | 1,08 | 0,99 | 0,91                        |  |  |  |
|   |   | 40                   | Qo                           | 8196   | 7447  | 6097                                      | 4932  | 3938                                   | 3097  | 2393 | 1811 | 1334                        |  |  |  |
|   |   |                      | Pe                           | 1,63   | 1,61  | 1,56                                      | 1,48  | 1,39                                   | 1,29  | 1,18 | 1,07 | 0,96                        |  |  |  |
|   |   | 50                   | Qo                           | 6990   | 6333  | 5156                                      | 4147  | 3291                                   | 2571  | 1971 | 1475 | 1067                        |  |  |  |
|   |   |                      | Pe                           | 1,95   | 1,90  | 1,79                                      | 1,66  | 1,53                                   | 1,39  | 1,25 | 1,12 | 0,99                        |  |  |  |
| <b>A1.5-8Y</b>                          | 1   | 30                   | Qo                           | 10504  | 9541  | 7809                                      | 6318  | 5050                                   | 3983  | 3098 | 2374 | 1793                        |  |  |  |
|   |   |                      | Pe                           | 1,42   | 1,43  | 1,43                                      | 1,39  | 1,34                                   | 1,26  | 1,17 | 1,08 | 0,98                        |  |  |  |
|   |   | 40                   | Qo                           | 9098   | 8246  | 6721                                      | 5417  | 4313                                   | 3391  | 2628 | 2007 | 1506                        |  |  |  |
|   |   |                      | Pe                           | 1,84   | 1,81  | 1,73                                      | 1,64  | 1,52                                   | 1,40  | 1,28 | 1,15 | 1,04                        |  |  |  |
|   |   | 50                   | Qo                           | 7754   | 7013  | 5692                                      | 4572  | 3631                                   | 2849  | 2207 | 1684 | 1261                        |  |  |  |
|   |   |                      | Pe                           | 2,21   | 2,14  | 2,00                                      | 1,85  | 1,68                                   | 1,52  | 1,37 | 1,22 | 1,09                        |  |  |  |
| <b>B2-10.1Y</b>                         | 1   | 30                   | Qo                           | 12924  | 11811 | 9805                                      | 8070  | 6579                                   | 5308  | 4231 | 3322 | 2556                        |  |  |  |
|   |   |                      | Pe                           | 1,99   | 2,01  | 1,99                                      | 1,92  | 1,82                                   | 1,69  | 1,54 | 1,38 | 1,23                        |  |  |  |
|   |   | 40                   | Qo                           | 11328  | 10348 | 8584                                      | 7057  | 5743                                   | 4615  | 3648 | 2817 | 2096                        |  |  |  |
|   |   |                      | Pe                           | 2,54   | 2,50  | 2,40                                      | 2,26  | 2,09                                   | 1,90  | 1,70 | 1,51 | 1,34                        |  |  |  |
|   |   | 50                   | Qo                           | 9688   | 8843  | 7324                                      | 6009  | 4874                                   | 3892  | 3039 | 2289 | 1616                        |  |  |  |
|   |   |                      | Pe                           | 3,01   | 2,93  | 2,75                                      | 2,54  | 2,31                                   | 2,08  | 1,85 | 1,64 | 1,45                        |  |  |  |
| <b>D2-11.1Y</b>                         | 1   | 30                   | Qo                           | 15698  | 14338 | 11885                                     | 9764  | 7943                                   | 6392  | 5079 | 3975 | 3049                        |  |  |  |
|   |   |                      | Pe                           | 2,39   | 2,40  | 2,37                                      | 2,29  | 2,16                                   | 2,01  | 1,83 | 1,64 | 1,45                        |  |  |  |
|   |   | 40                   | Qo                           | 13737  | 12536 | 10373                                     | 8504  | 6897                                   | 5521  | 4346 | 3342 | 2477                        |  |  |  |
|   |   |                      | Pe                           | 3,06   | 3,01  | 2,87                                      | 2,68  | 2,47                                   | 2,25  | 2,01 | 1,78 | 1,56                        |  |  |  |
|   |   | 50                   | Qo                           | 11741  | 10702 | 8832                                      | 7218  | 5827                                   | 4631  | 3597 | 2695 | 1894                        |  |  |  |
|   |   |                      | Pe                           | 3,65   | 3,54  | 3,29                                      | 3,02  | 2,74                                   | 2,45  | 2,16 | 1,89 | 1,65                        |  |  |  |
| <b>D3-13.1Y</b>                         | 1   | 30                   | Qo                           | 17792  | 16261 | 13502                                     | 11116 | 9066                                   | 7315  | 5829 | 4569 | 3501                        |  |  |  |
|   |   |                      | Pe                           | 2,88   | 2,85  | 2,75                                      | 2,62  | 2,45                                   | 2,26  | 2,05 | 1,85 | 1,65                        |  |  |  |
|   |   | 40                   | Qo                           | 15678  | 14315 | 11862                                     | 9742  | 7918                                   | 6356  | 5017 | 3867 | 2868                        |  |  |  |
|   |   |                      | Pe                           | 3,51   | 3,41  | 3,20                                      | 2,96  | 2,71                                   | 2,46  | 2,21 | 1,98 | 1,77                        |  |  |  |
|   |   | 50                   | Qo                           | 13515  | 12320 | 10175                                     | 8323  | 6729                                   | 5356  | 4168 | 3129 | 2202                        |  |  |  |
|   |   |                      | Pe                           | 4,05   | 3,90  | 3,59                                      | 3,27  | 2,95                                   | 2,64  | 2,36 | 2,12 | 1,91                        |  |  |  |
| <b>D3-15.1Y</b>                         | 1   | 30                   | Qo                           | 20498  | 18714 | 15503                                     | 12732 | 10359                                  | 8338  | 6627 | 5182 | 3960                        |  |  |  |
|   |   |                      | Pe                           | 2,92   | 2,94  | 2,93                                      | 2,85  | 2,72                                   | 2,55  | 2,35 | 2,14 | 1,92                        |  |  |  |
|   |   | 40                   | Qo                           | 17961  | 16382 | 13546                                     | 11101 | 9003                                   | 7209  | 5674 | 4356 | 3211                        |  |  |  |
|   |   |                      | Pe                           | 3,77   | 3,71  | 3,56                                      | 3,35  | 3,12                                   | 2,85  | 2,59 | 2,32 | 2,07                        |  |  |  |
|   |   | 50                   | Qo                           | 15375  | 14004 | 11544                                     | 9426  | 7606                                   | 6039  | 4683 | 3493 | 2426                        |  |  |  |
|   |   |                      | Pe                           | 4,56   | 4,43  | 4,13                                      | 3,81  | 3,47                                   | 3,13  | 2,79 | 2,48 | 2,21                        |  |  |  |
| <b>D4-16.1Y</b>                         | 1   | 30                   | Qo                           | 22082  | 20163 | 16708                                     | 13725 | 11168                                  | 8990  | 7143 | 5582 | 4259                        |  |  |  |
|   |   |                      | Pe                           | 3,35   | 3,36  | 3,33                                      | 3,23  | 3,08                                   | 2,87  | 2,64 | 2,39 | 2,14                        |  |  |  |
|   |   | 40                   | Qo                           | 19384  | 17682 | 14622                                     | 11983 | 9717                                   | 7778  | 6119 | 4694 | 3455                        |  |  |  |
|   |   |                      | Pe                           | 4,23   | 4,16  | 3,99                                      | 3,76  | 3,49                                   | 3,19  | 2,88 | 2,58 | 2,29                        |  |  |  |
|   |   | 50                   | Qo                           | 16622  | 15139 | 12478                                     | 10185 | 8215                                   | 6519  | 5052 | 3766 | 2615                        |  |  |  |
|   |   |                      | Pe                           | 5,01   | 4,87  | 4,56                                      | 4,21  | 3,84                                   | 3,46  | 3,09 | 2,74 | 2,43                        |  |  |  |
| <b>D4-18.1Y</b>                         | 1   | 30                   | Qo                           | 24487  | 22369 | 18561                                     | 15278 | 12468                                  | 10079 | 8056 | 6347 | 4899                        |  |  |  |
|   |   |                      | Pe                           | 3,24   | 3,29  | 3,32                                      | 3,27  | 3,15                                   | 2,99  | 2,79 | 2,58 | 2,36                        |  |  |  |
|   |   | 40                   | Qo                           | 21537  | 19661 | 16293                                     | 13393 | 10908                                  | 8785  | 6971 | 5414 | 4060                        |  |  |  |
|   |   |                      | Pe                           | 4,22   | 4,19  | 4,07                                      | 3,89  | 3,66                                   | 3,41  | 3,14 | 2,87 | 2,62                        |  |  |  |
|   |   | 50                   | Qo                           | 18507  | 16876 | 13953                                     | 11441 | 9286                                   | 7436  | 5836 | 4435 | 3180                        |  |  |  |
|   |   |                      | Pe                           | 5,13   | 5,02  | 4,76                                      | 4,47  | 4,14                                   | 3,81  | 3,48 | 3,17 | 2,90                        |  |  |  |
| <b>Q5-21.1Y</b>                         | 1   | 30                   | Qo                           | 28126  | 25635 | 21127                                     | 17210 | 13839                                  | 10968 | 8553 | 6547 | 4906                        |  |  |  |
|   |   |                      | Pe                           | 3,16   | 3,30  | 3,46                                      | 3,48  | 3,38                                   | 3,18  | 2,93 | 2,63 | 2,31                        |  |  |  |
|   |   | 40                   | Qo                           | 24501  | 22289 | 18297                                     | 14845 | 11887                                  | 9379  | 7274 | 5528 | 4095                        |  |  |  |
|   |   |                      | Pe                           | 4,42   | 4,44  | 4,37                                      | 4,19  | 3,92                                   | 3,59  | 3,22 | 2,83 | 2,46                        |  |  |  |
|   |   | 50                   | Qo                           | 20801  | 18878 | 15426                                     | 12462 | 9941                                   | 7818  | 6047 | 4583 | 3380                        |  |  |  |
|   |   |                      | Pe                           | 5,53   | 5,43  | 5,16                                      | 4,80  | 4,39                                   | 3,94  | 3,48 | 3,04 | 2,63                        |  |  |  |





**Prestazioni**  
**Performance**  
**Leistungswerte**

Dati riferiti ad una temperatura del gas aspirato di 20°C e senza sottoraffreddamento del liquido  
Data referred to 20°C suction gas temperature without liquid subcooling  
Bezogen auf Sauggastemperatur 20°C ohne Flüssigkeits-Unterkühlung

## R407C

| Compressore<br>Compressor<br>Verdichter | Vers. motore<br>Motor version<br>Motorversion | Conden.<br>Temp. [°C] | Qo [Watt]<br>Pe [kW]<br>50Hz | ❶ Potenza frigorifera<br>❶ Cooling capacity<br>❶ Kälteleistung |        | ❷ Potenza assorbita<br>❷ Power consumption<br>❷ Leistungsaufnahme |       | Temperatura Evaporazione [°C] |       |       |                             |       |  |  |
|---|---|-----------------------|------------------------------|--|--------|---|-------|-------------------------------|-------|-------|-----------------------------|-------|--|--|
|   |   |                       |                              | Temperatura Evaporazione [°C]                                  |        |   |       | Evaporation Temperature [°C]  |       |       | Verdampfungstemperatur [°C] |       |  |  |
|   |   |                       |                              | 12,5   | 10     | 5   | 0     | -5                            | -10   | -15   | -20                         | -25   |  |  |
|   | 1   | 30                    | Qo                           | 31934  | 29099  | 23984   | 19559 | 15769                         | 12555 | 9859  | 7626                        | 5797  |  |  |
|   |   |                       | Pe                           | 3,62   | 3,78   | 3,96  | 3,98  | 3,87                          | 3,66  | 3,38  | 3,05                        | 2,70  |  |  |
|   |   | 40                    | Qo                           | 27692  | 25196  | 20709   | 16844 | 13546                         | 10757 | 8419  | 6475                        | 4868  |  |  |
|   |   |                       | Pe                           | 5,16   | 5,17   | 5,08  | 4,86  | 4,55                          | 4,16  | 3,74  | 3,31                        | 2,89  |  |  |
|   |   | 50                    | Qo                           | 23622  | 21459  | 17586   | 14269 | 11451                         | 9073  | 7079  | 5412                        | 4014  |  |  |
|   |   |                       | Pe                           | 6,48   | 6,35   | 6,01  | 5,58  | 5,08                          | 4,56  | 4,02  | 3,50                        | 3,04  |  |  |
|   | 1   | 30                    | Qo                           | 32170  | 29401  | 24381   | 20005 | 16219                         | 12972 | 10209 | 7876                        | 5921  |  |  |
|   |   |                       | Pe                           | 4,20   | 4,27   | 4,33  | 4,29  | 4,16                          | 3,96  | 3,70  | 3,40                        | 3,06  |  |  |
|   |   | 40                    | Qo                           | 28243  | 25767  | 21286   | 17392 | 14029                         | 11146 | 8687  | 6601                        | 4832  |  |  |
|   |   |                       | Pe                           | 5,59   | 5,54   | 5,39  | 5,15  | 4,85                          | 4,49  | 4,10  | 3,67                        | 3,24  |  |  |
|   |   | 50                    | Qo                           | 24378  | 22195  | 18257   | 14845 | 11907                         | 9388  | 7236  | 5397                        | 3817  |  |  |
|   |   |                       | Pe                           | 6,83   | 6,68   | 6,32  | 5,90  | 5,44                          | 4,93  | 4,41  | 3,87                        | 3,35  |  |  |
|   | 1   | 30                    | Qo                           | 37384  | 34121  | 28217   | 23091 | 18678                         | 14915 | 11738 | 9083                        | 6887  |  |  |
|   |   |                       | Pe                           | 4,99   | 5,04   | 5,04  | 4,95  | 4,76                          | 4,50  | 4,18  | 3,79                        | 3,37  |  |  |
|   |   | 40                    | Qo                           | 32608  | 29743  | 24571   | 20092 | 16241                         | 12955 | 10170 | 7822                        | 5848  |  |  |
|   |   |                       | Pe                           | 6,41   | 6,35   | 6,15  | 5,87  | 5,51                          | 5,09  | 4,62  | 4,10                        | 3,56  |  |  |
|   |   | 50                    | Qo                           | 27977  | 25502  | 21046   | 17197 | 13891                         | 11066 | 8656  | 6599                        | 4830  |  |  |
|   |   |                       | Pe                           | 7,71   | 7,54   | 7,15  | 6,69  | 6,16                          | 5,58  | 4,96  | 4,32                        | 3,66  |  |  |
|   | 1   | 30                    | Qo                           | 43662  | 39906  | 33062   | 27070 | 21886                         | 17465 | 13763 | 10736                       | 8339  |  |  |
|   |   |                       | Pe                           | 6,30   | 6,30   | 6,21  | 6,00  | 5,70                          | 5,32  | 4,90  | 4,46                        | 4,01  |  |  |
|   |   | 40                    | Qo                           | 37663  | 34447  | 28597   | 23486 | 19068                         | 15299 | 12136 | 9533                        | 7446  |  |  |
|   |   |                       | Pe                           | 7,81   | 7,72   | 7,43  | 7,05  | 6,58                          | 6,06  | 5,50  | 4,93                        | 4,37  |  |  |
|   |   | 50                    | Qo                           | 32202  | 29478  | 24527   | 20201 | 16454                         | 13242 | 10521 | 8246                        | 6373  |  |  |
|   |   |                       | Pe                           | 9,37   | 9,16   | 8,67  | 8,08  | 7,43                          | 6,73  | 6,02  | 5,30                        | 4,60  |  |  |
|   | 1   | 30                    | Qo                           | 48203  | 44197  | 36887   | 30472 | 24900                         | 20121 | 16083 | 12735                       | 10026 |  |  |
|   |   |                       | Pe                           | 7,08   | 7,01   | 6,79  | 6,51  | 6,17                          | 5,78  | 5,36  | 4,91                        | 4,44  |  |  |
|   |   | 40                    | Qo                           | 42089  | 38590  | 32224   | 26656 | 21835                         | 17710 | 14231 | 11345                       | 9002  |  |  |
|   |   |                       | Pe                           | 8,97   | 8,78   | 8,35  | 7,86  | 7,32                          | 6,75  | 6,14  | 5,52                        | 4,90  |  |  |
|   |   | 50                    | Qo                           | 36565  | 33520  | 27989   | 23159 | 18981                         | 15402 | 12372 | 9840                        | 7755  |  |  |
|   |   |                       | Pe                           | 10,86  | 10,54  | 9,87  | 9,14  | 8,37                          | 7,58  | 6,77  | 5,95                        | 5,14  |  |  |
|   | 1   | 30                    | Qo                           | 46476  | 42420  | 35119   | 28818 | 23419                         | 18825 | 14939 | 11665                       | 8904  |  |  |
|   |   |                       | Pe                           | 5,37   | 5,50   | 5,64  | 5,63  | 5,48                          | 5,22  | 4,87  | 4,46                        | 4,01  |  |  |
|   |   | 40                    | Qo                           | 40884  | 37264  | 30760   | 25157 | 20358                         | 16265 | 12782 | 9810                        | 7254  |  |  |
|   |   |                       | Pe                           | 7,38   | 7,38   | 7,24  | 6,98  | 6,60                          | 6,13  | 5,60  | 5,02                        | 4,42  |  |  |
|   |   | 50                    | Qo                           | 35130  | 31954  | 26264   | 21377 | 17194                         | 13618 | 10553 | 7902                        | 5567  |  |  |
|   |   |                       | Pe                           | 9,31   | 9,16   | 8,76  | 8,24  | 7,63                          | 6,95  | 6,23  | 5,48                        | 4,73  |  |  |
|   | 1   | 30                    | Qo                           | 58017  | 53096  | 44113   | 36214 | 29324                         | 23369 | 18274 | 13966                       | 10369 |  |  |
|   |   |                       | Pe                           | 7,73   | 7,73   | 7,60  | 7,32  | 6,92                          | 6,41  | 5,83  | 5,21                        | 4,56  |  |  |
|   |   | 40                    | Qo                           | 50828  | 46363  | 38238   | 31121 | 24938                         | 19614 | 15076 | 11248                       | 8057  |  |  |
|   |   |                       | Pe                           | 9,83   | 9,64   | 9,16  | 8,56  | 7,87                          | 7,11  | 6,31  | 5,49                        | 4,68  |  |  |
|   |   | 50                    | Qo                           | 43521  | 39530  | 32294   | 25991 | 20547                         | 15888 | 11938 | 8624                        | 5871  |  |  |
|   |   |                       | Pe                           | 11,66  | 11,30  | 10,48   | 9,58  | 8,62                          | 7,62  | 6,61  | 5,62                        | 4,67  |  |  |
|   | 1   | 30                    | Qo                           | 70801  | 64647  | 53564   | 43993 | 35789                         | 28805 | 22896 | 17917                       | 13721 |  |  |
|   |   |                       | Pe                           | 8,70   | 8,84   | 8,92  | 8,78  | 8,44                          | 7,96  | 7,36  | 6,70                        | 6,01  |  |  |
|   |   | 40                    | Qo                           | 62309  | 56826  | 46968   | 38468 | 31180                         | 24959 | 19659 | 15134                       | 11239 |  |  |
|   |   |                       | Pe                           | 11,59  | 11,50  | 11,15   | 10,62 | 9,93                          | 9,15  | 8,29  | 7,42                        | 6,55  |  |  |
|   |   | 50                    | Qo                           | 53577  | 48775  | 40166   | 32761 | 26414                         | 20980 | 16312 | 12266                       | 8696  |  |  |
|   |   |                       | Pe                           | 14,29  | 13,97  | 13,20   | 12,29 | 11,28                         | 10,20 | 9,10  | 8,02                        | 7,00  |  |  |
|   | 1   | 30                    | Qo                           | 77910  | 71213  | 59146   | 48720 | 39776                         | 32159 | 25710 | 20273                       | 15690 |  |  |
|   |   |                       | Pe                           | 9,68   | 9,83   | 9,90  | 9,73  | 9,36                          | 8,84  | 8,21  | 7,51                        | 6,79  |  |  |
|   |   | 40                    | Qo                           | 68920  | 62939  | 52182   | 42901 | 34939                         | 28138 | 22343 | 17395                       | 13139 |  |  |
|   |   |                       | Pe                           | 12,76  | 12,66  | 12,27   | 11,70 | 10,98                         | 10,16 | 9,28  | 8,39                        | 7,54  |  |  |
|   |   | 50                    | Qo                           | 59589  | 54342  | 44931   | 36831 | 29886                         | 23939 | 18833 | 14410                       | 10515 |  |  |
|   |   |                       | Pe                           | 15,60  | 15,26  | 14,45   | 13,50 | 12,47                         | 11,38 | 10,29 | 9,25                        | 8,29  |  |  |
|   | 1   | 30                    | Qo                           | 77608  | 70945  | 58859   | 48320 | 39202                         | 31378 | 24720 | 19103                       | 14399 |  |  |
|   |   |                       | Pe                           | 10,01  | 10,14  | 10,21   | 10,05 | 9,68                          | 9,16  | 8,50  | 7,73                        | 6,90  |  |  |
|   |   | 40                    | Qo                           | 67988  | 62040  | 51277   | 41918 | 33835                         | 26901 | 20991 | 15976                       | 11730 |  |  |
|   |   |                       | Pe                           | 13,16  | 13,03  | 12,60   | 11,99 | 11,22                         | 10,32 | 9,34  | 8,30                        | 7,23  |  |  |
|   |   | 50                    | Qo                           | 58530  | 53298  | 43859   | 35680 | 28633                         | 22591 | 17428 | 13017                       | 9230  |  |  |
|   |   |                       | Pe                           | 15,95  | 15,57  | 14,67   | 13,64 | 12,48                         | 11,25 | 9,97  | 8,67                        | 7,39  |  |  |
|   | 1   | 30                    | Qo                           | 93977  | 85755  | 70894   | 58014 | 46958                         | 37571 | 29695 | 23175                       | 17854 |  |  |
|   |   |                       | Pe                           | 12,11  | 12,24  | 12,27   | 12,02 | 11,55                         | 10,9  | 10,12 | 9,25                        | 8,34  |  |  |
|   |   | 40                    | Qo                           | 81686  | 74479  | 61498   | 50299 | 40726                         | 32622 | 25831 | 20196                       | 15562 |  |  |
|   |   |                       | Pe                           | 15,93  | 15,72  | 15,13   | 14,33 | 13,37                         | 12,31 | 11,18 | 10,04                       | 8,94  |  |  |
|   |   | 50                    | Qo                           | 70261  | 64036  | 52872   | 43289 | 35134                         | 28249 | 22477 | 17663                       | 13651 |  |  |
|   |   |                       | Pe                           | 19,37  | 18,86  | 17,7  | 16,41 | 15,03                         | 13,62 | 12,21 | 10,86                       | 9,61  |  |  |
|   | 1   | 30                    | Qo                           | 115528   | 105739 | 87987   | 72515 | 59132                         | 47652 | 37885 | 29644                       | 22738 |  |  |
|   |   |                       | Pe                           | 14,22  | 14,41  | 14,50   | 14,26 | 13,74                         | 12,98 | 12,04 | 10,95                       | 9,77  |  |  |
|   |   | 40                    | Qo                           | 102008   | 93210  | 77290   | 63447 | 51492                         | 41238 | 32495 | 25075                       | 18790 |  |  |
|   |   |                       | Pe                           | 18,72  | 18,54  | 17,96   | 17,10 | 16,01                         | 14,74 | 13,34 | 11,86                       | 10,34 |  |  |
|   |   | 50                    | Qo                           | 88378  | 80580  | 66510   | 54315 | 43806                         | 34796 | 27095 | 20516                       | 14869 |  |  |
|   |   |                       | Pe                           | 22,70  | 22,17  | 20,94   | 19,48 | 17,85                         | 16,10 | 14,27 | 12,41                       | 10,58 |  |  |

**Prestazioni**  
**Performance**  
**Leistungswerte**

Dati riferiti ad una temperatura del gas aspirato di 20°C e senza sottoraffreddamento del liquido

Data referred to 20°C suction gas temperature without liquid subcooling

Bezogen auf Sauggasttemperatur 20°C ohne Flüssigkeits-Unterkühlung

## R407C

| Compressore<br>Compressor<br>Verdichter | Vers. motore<br>Motor version<br>Motorversion | Conden.<br>Temp [°C] | Qo [Watt]<br>Pe [kW]<br>50Hz | ❶ Potenza frigorifera<br>❶ Potenza assorbita |        | ❷ Cooling capacity<br>❷ Power consumption |        | ❸ Kälteleistung<br>❸ Leistungsaufnahme |        |        |       |                             |  |  |  |
|---|---|----------------------|------------------------------|--|--------|---|--------|--|--------|--------|-------|-----------------------------|--|--|--|
|   |   |                      |                              | Temperatura Evaporazione [°C]                |        |   |        | Evaporation Temperature [°C]           |        |        |       | Verdampfungstemperatur [°C] |  |  |  |
|   |   |                      |                              | 12,5   | 10     | 5   | 0      | -5                                     | -10    | -15    | -20   | -25                         |  |  |  |
|   | 1   | 30                   | Qo                           | 128091                                       | 117027 | 96959                                     | 79461  | 64323                                  | 51334  | 40282  | 30956 | 23146                       |  |  |  |
|   |   | 40                   | Qo                           | 112689                                       | 102729 | 84699                                     | 69015  | 55466                                  | 43842  | 33930  | 25521 | 18402                       |  |  |  |
|   |   | 50                   | Qo                           | 97201  | 88355  | 72387                                     | 58540  | 46604                                  | 36368  | 27621  | 20151 | 13748                       |  |  |  |
|   | 1   | 30                   | Qo                           | 139768                                       | 127899 | 106297                                    | 87381  | 70951                                  | 56813  | 44768  | 34621 | 26173                       |  |  |  |
|   |   | 40                   | Qo                           | 124224                                       | 113374 | 93705                                     | 76580  | 61802                                  | 49173  | 38498  | 29579 | 22218                       |  |  |  |
|   |   | 50                   | Qo                           | 107236                                       | 97494  | 79935                                     | 64779  | 51829                                  | 40888  | 31760  | 24246 | 18150                       |  |  |  |
|   | 1   | 30                   | Qo                           | 146457                                       | 133580 | 110314                                    | 90162  | 72882                                  | 58231  | 45964  | 35840 | 27614                       |  |  |  |
|   |   | 40                   | Qo                           | 127556                                       | 116089 | 95456                                     | 77690  | 62545                                  | 49780  | 39151  | 30415 | 23328                       |  |  |  |
|   |   | 50                   | Qo                           | 108960                                       | 98921  | 80957                                     | 65609  | 52634                                  | 41790  | 32833  | 25519 | 19607                       |  |  |  |
|   | 1   | 30                   | Qo                           | 171216                                       | 156424 | 129601                                    | 106229 | 86034                                  | 68739  | 54068  | 41746 | 31497                       |  |  |  |
|   |   | 40                   | Qo                           | 149873                                       | 136771 | 113057                                    | 92437  | 74633                                  | 59370  | 46372  | 35364 | 26070                       |  |  |  |
|   |   | 50                   | Qo                           | 127713                                       | 116347 | 95837                                     | 78061  | 62743                                  | 49606  | 38375  | 28776 | 20530                       |  |  |  |
|   | 1   | 30                   | Qo                           | 209564                                       | 191549 | 158874                                    | 130388 | 105744                                 | 84598  | 66603  | 51416 | 38690                       |  |  |  |
|   |   | 40                   | Qo                           | 182691                                       | 166718 | 137823                                    | 112708 | 91028                                  | 72438  | 56591  | 43144 | 31751                       |  |  |  |
|   |   | 50                   | Qo                           | 156770                                       | 142826 | 117682                                    | 95911  | 77166                                  | 61103  | 47377  | 35642 | 25553                       |  |  |  |
|   | 1   | 30                   | Qo                           | 199701                                       | 182220 | 150560                                    | 123035 | 99320                                  | 79093  | 62030  | 47809 | 36105                       |  |  |  |
|   |   | 40                   | Qo                           | 175042                                       | 159452 | 131303                                    | 106930 | 86009                                  | 68217  | 53230  | 40724 | 30378                       |  |  |  |
|   |   | 50                   | Qo                           | 151152                                       | 137452 | 112814                                    | 91593  | 73465                                  | 58107  | 45195  | 34405 | 25416                       |  |  |  |
|   | 1   | 30                   | Qo                           | 234600                                       | 214261 | 177378                                    | 145228 | 117420                                 | 93559  | 73255  | 56115 | 41746                       |  |  |  |
|   |   | 40                   | Qo                           | 205892                                       | 187707 | 154806                                    | 126205 | 101512                                 | 80334  | 62279  | 46955 | 33969                       |  |  |  |
|   |   | 50                   | Qo                           | 177870                                       | 161842 | 132930                                    | 107885 | 86315                                  | 67827  | 52029  | 38528 | 26933                       |  |  |  |
|   | 1   | 30                   | Qo                           | 258495                                       | 236185 | 195711                                    | 160415 | 129872                                 | 103657 | 81344  | 62510 | 46729                       |  |  |  |
|   |   | 40                   | Qo                           | 228189                                       | 208166 | 171913                                    | 140365 | 113097                                 | 89684  | 69702  | 52725 | 38329                       |  |  |  |
|   |   | 50                   | Qo                           | 196412                                       | 178789 | 146982                                    | 119408 | 95642                                  | 75258  | 57832  | 42939 | 30154                       |  |  |  |
|   | 1   | 30                   | Qo                           | 284549                                       | 259978 | 215437                                    | 176628 | 143070                                 | 114281 | 89779  | 69081 | 51706                       |  |  |  |
|   |   | 40                   | Qo                           | 250481                                       | 228461 | 188640                                    | 154043 | 124189                                 | 98594  | 76778  | 58258 | 42552                       |  |  |  |
|   |   | 50                   | Qo                           | 217121                                       | 197662 | 162582                                    | 132218 | 106087                                 | 83708  | 64599  | 48277 | 34261                       |  |  |  |
|   | 1   | 30                   | Qo                           | 302664                                       | 276804 | 229922                                    | 189072 | 153749                                 | 123448 | 97667  | 75900 | 57644                       |  |  |  |
|   |   | 40                   | Qo                           | 267390                                       | 244188 | 202218                                    | 165741 | 134253                                 | 107250 | 84228  | 64682 | 48109                       |  |  |  |
|   |   | 50                   | Qo                           | 232468                                       | 211940 | 174915                                    | 142845 | 115226                                 | 91553  | 71324  | 54033 | 39176                       |  |  |  |
|   | 1   | 30                   | Qo                           | 329627                                       | 301013 | 249200                                    | 204160 | 165356                                 | 132253 | 104315 | 81006 | 61791                       |  |  |  |
|   |   | 40                   | Qo                           | 292621                                       | 266820 | 220223                                    | 179852 | 145171                                 | 115645 | 90737  | 69913 | 52635                       |  |  |  |
|   |   | 50                   | Qo                           | 253254                                       | 230441 | 189410                                    | 154058 | 123850                                 | 98250  | 76723  | 58732 | 43743                       |  |  |  |

❶ Dati indicati secondo EN12900 e funzionamento a 50 Hz. Per dati in punti operativi diversi vedi Frascold Selection Software. I dati non certificati sono provvisori e suscettibili di variazioni. Dati a 60 Hz = \*1.2

❶ Data based on EN12900 and 50 Hz operation. Performance data for individual conditions see Frascold Selection Software. Not certified data are provisional and variations are possible. 60 Hz data = \*1.2

❶ Daten gemäß EN12900 und Betrieb bei 50 Hz. Daten für abweichende Betriebspunkte entnehmen Sie der Frascold Selection Software. Nicht zertifizierte Daten sind vorläufig und können Veränderungen unterliegen. Daten bei 60 Hz = \*1.2

❷ Raffreddamento supplementare o limitata temperatura di aspirazione

❷ Additional cooling or limited suction temperature

❷ Zusatzkühlung oder begrenzte Sauggas-Temperatur

**Prestazioni**  
**Performance**  
**Leistungswerte**

Dati riferiti ad una temperatura del gas aspirato di 20°C e senza sottoraffreddamento del liquido

Data referred to 20°C suction gas temperature without liquid subcooling

Bezogen auf Sauggastemperatur 20°C ohne Flüssigkeits-Unterkühlung

**R22**

| Compressore<br>Compressor<br>Verdichter | Vers. motore<br>Motor version<br>Motorversion | Condens.<br>Temp. [°C] | Qo [Watt]<br>Pe [kW]<br>50Hz | ❶ Potenza frigorifera<br>❶ Cooling capacity<br>❶ Kälteleistung |       | ❷ Potenza assorbita<br>❷ Power consumption<br>❷ Leistungsaufnahme |      | Evaporation Temperature [°C] |      |      |      |      |      |      |
|---|---|------------------------|------------------------------|--|-------|---|------|------------------------------|------|------|------|------|------|------|
|   |   |                        |                              | Temperatura Evaporazione [°C]                                  |       |   |      | Verdampfungstemperatur [°C]  |      |      |      |      |      |      |
|   |   |                        |                              | 10   | 5     | 0   | -5   | -10                          | -15  | -20  | -25  | -30  | -35  | -40  |
| <b>A05-4Y</b>                           | 1   | 30                     | Qo                           | 4657   | 3878  | 3196  | 2604 | 2095                         | 1661 | 1296 | 991  | 739  | 534  | 368  |
|   |   |                        | Pe                           | 0,60   | 0,64  | 0,66  | 0,65 | 0,64                         | 0,61 | 0,57 | 0,53 | 0,47 | 0,42 | 0,37 |
|   |   | 40                     | Qo                           | 4124   | 3422  | 2809  | 2279 | 1825                         | 1439 | 1114 | 843  | 618  | 433  | 279  |
|   |   |                        | Pe                           | 0,82   | 0,82  | 0,80  | 0,76 | 0,72                         | 0,66 | 0,60 | 0,54 | 0,47 | 0,41 | 0,35 |
|   |   | 50                     | Qo                           | 3588   | 2962  | 2420  | 1953 | 1555                         | 1217 | 934  | 698  | 500  | 335  | 195  |
|   |   |                        | Pe                           | 1,06   | 1,01  | 0,95  | 0,88 | 0,80                         | 0,72 | 0,63 | 0,55 | 0,46 | 0,39 | 0,31 |
| <b>A05-5Y</b>                           | 2   | 30                     | Qo                           |  |       |   | 3265 | 2634                         | 2098 | 1647 | 1272 | 961  | 705  | 493  |
|   |   |                        | Pe                           |  |       |   | 0,81 | 0,78                         | 0,75 | 0,70 | 0,64 | 0,57 | 0,50 | 0,43 |
|   |   | 40                     | Qo                           |  |       |   | 2867 | 2300                         | 1821 | 1419 | 1084 | 807  | 578  | 385  |
|   |   |                        | Pe                           |  |       |   | 0,98 | 0,91                         | 0,84 | 0,75 | 0,67 | 0,58 | 0,50 | 0,42 |
|   |   | 50                     | Qo                           |  |       |   | 2471 | 1967                         | 1545 | 1192 | 900  | 658  | 455  | 282  |
|   |   |                        | Pe                           |  |       |   | 1,15 | 1,04                         | 0,93 | 0,81 | 0,70 | 0,59 | 0,48 | 0,39 |
| <b>A07-5Y</b>                           | 1   | 30                     | Qo                           | 5801   | 4839  | 3997  | 3266 | 2637                         | 2101 | 1648 | 1270 | 956  | 699  | 489  |
|   |   |                        | Pe                           | 0,73   | 0,78  | 0,80  | 0,80 | 0,78                         | 0,74 | 0,69 | 0,64 | 0,57 | 0,51 | 0,44 |
|   |   | 40                     | Qo                           | 5125   | 4263  | 3511  | 2861 | 2303                         | 1828 | 1426 | 1090 | 809  | 574  | 377  |
|   |   |                        | Pe                           | 1,02   | 1,02  | 1,00  | 0,95 | 0,90                         | 0,83 | 0,75 | 0,66 | 0,58 | 0,50 | 0,42 |
|   |   | 50                     | Qo                           | 4440   | 3680  | 3020  | 2451 | 1966                         | 1553 | 1205 | 912  | 665  | 455  | 272  |
|   |   |                        | Pe                           | 1,35   | 1,29  | 1,21  | 1,12 | 1,02                         | 0,91 | 0,80 | 0,69 | 0,58 | 0,48 | 0,39 |
| <b>A07-6Y</b>                           | 2   | 30                     | Qo                           |  |       |   | 3601 | 2905                         | 2315 | 1819 | 1407 | 1067 | 788  | 558  |
|   |   |                        | Pe                           |  |       |   | 0,89 | 0,87                         | 0,82 | 0,76 | 0,69 | 0,62 | 0,54 | 0,46 |
|   |   | 40                     | Qo                           |  |       |   | 3161 | 2535                         | 2006 | 1565 | 1199 | 898  | 649  | 442  |
|   |   |                        | Pe                           |  |       |   | 1,09 | 1,01                         | 0,93 | 0,83 | 0,74 | 0,64 | 0,54 | 0,45 |
|   |   | 50                     | Qo                           |  |       |   | 2733 | 2174                         | 1706 | 1317 | 996  | 731  | 512  | 326  |
|   |   |                        | Pe                           |  |       |   | 1,28 | 1,16                         | 1,03 | 0,90 | 0,77 | 0,64 | 0,53 | 0,42 |
| <b>A1-6Y</b>                            | 1   | 30                     | Qo                           | 6473   | 5401  | 4462  | 3647 | 2945                         | 2347 | 1841 | 1419 | 1070 | 783  | 548  |
|   |   |                        | Pe                           | 0,81   | 0,86  | 0,89  | 0,89 | 0,87                         | 0,83 | 0,78 | 0,71 | 0,65 | 0,57 | 0,50 |
|   |   | 40                     | Qo                           | 5742   | 4776  | 3933  | 3204 | 2578                         | 2045 | 1596 | 1219 | 905  | 644  | 425  |
|   |   |                        | Pe                           | 1,11   | 1,11  | 1,09  | 1,05 | 0,99                         | 0,91 | 0,83 | 0,74 | 0,65 | 0,57 | 0,48 |
|   |   | 50                     | Qo                           | 5008   | 4148  | 3403  | 2760 | 2211                         | 1745 | 1352 | 1022 | 745  | 510  | 307  |
|   |   |                        | Pe                           | 1,45   | 1,39  | 1,31  | 1,22 | 1,12                         | 1,00 | 0,89 | 0,77 | 0,65 | 0,54 | 0,45 |
| <b>A1-7Y</b>                            | 2   | 30                     | Qo                           |  |       |   | 4655 | 3779                         | 3035 | 2409 | 1886 | 1452 | 1092 | 794  |
|   |   |                        | Pe                           |  |       |   | 1,13 | 1,11                         | 1,06 | 0,99 | 0,91 | 0,82 | 0,72 | 0,63 |
|   |   | 40                     | Qo                           |  |       |   | 4124 | 3337                         | 2671 | 2112 | 1646 | 1258 | 934  | 660  |
|   |   |                        | Pe                           |  |       |   | 1,40 | 1,32                         | 1,22 | 1,11 | 0,99 | 0,87 | 0,74 | 0,63 |
|   |   | 50                     | Qo                           |  |       |   | 3600 | 2900                         | 2310 | 1817 | 1406 | 1062 | 772  | 522  |
|   |   |                        | Pe                           |  |       |   | 1,67 | 1,53                         | 1,38 | 1,22 | 1,06 | 0,90 | 0,75 | 0,61 |
| <b>A1.5-7Y</b>                          | 1   | 30                     | Qo                           | 8294   | 6938  | 5754  | 4727 | 3844                         | 3090 | 2452 | 1915 | 1466 | 1090 |      |
|   |   |                        | Pe                           | 1,02   | 1,09  | 1,12  | 1,13 | 1,11                         | 1,07 | 1,01 | 0,94 | 0,86 | 0,78 |      |
|   |   | 40                     | Qo                           | 7423   | 6197  | 5129  | 4206 | 3413                         | 2736 | 2162 | 1677 | 1266 | 916  |      |
|   |   |                        | Pe                           | 1,40   | 1,41  | 1,39  | 1,34 | 1,27                         | 1,19 | 1,10 | 1,00 | 0,90 | 0,80 |      |
|   |   | 50                     | Qo                           | 6545   | 5449  | 4498  | 3679 | 2977                         | 2379 | 1870 | 1436 | 1064 | 740  |      |
|   |   |                        | Pe                           | 1,83   | 1,77  | 1,68  | 1,57 | 1,46                         | 1,33 | 1,20 | 1,06 | 0,93 | 0,80 |      |
| <b>A1.5-8Y</b>                          | 1   | 30                     | Qo                           | 9460   | 7883  | 6517  | 5342 | 4340                         | 3492 | 2778 | 2179 | 1676 | 1251 | 883  |
|   |   |                        | Pe                           | 1,22   | 1,31  | 1,34  | 1,34 | 1,31                         | 1,24 | 1,16 | 1,06 | 0,94 | 0,83 | 0,71 |
|   |   | 40                     | Qo                           | 8437   | 7011  | 5781  | 4727 | 3832                         | 3075 | 2438 | 1902 | 1448 | 1055 | 706  |
|   |   |                        | Pe                           | 1,70   | 1,70  | 1,67  | 1,60 | 1,50                         | 1,39 | 1,26 | 1,12 | 0,97 | 0,83 | 0,70 |
|   |   | 50                     | Qo                           | 7409   | 6133  | 5039  | 4107 | 3319                         | 2655 | 2096 | 1623 | 1216 | 858  | 528  |
|   |   |                        | Pe                           | 2,20   | 2,12  | 2,01  | 1,87 | 1,71                         | 1,54 | 1,36 | 1,17 | 0,99 | 0,82 | 0,67 |
| <b>B1.5-9.1Y</b>                        | 2   | 30                     | Qo                           |  | 9243  | 7656  | 6291 | 5127                         | 4142 | 3315 | 2623 | 2045 | 1560 | 1144 |
|   |   |                        | Pe                           |  | 1,56  | 1,61  | 1,61 | 1,57                         | 1,49 | 1,39 | 1,26 | 1,13 | 0,99 | 0,85 |
|   |   | 40                     | Qo                           |  | 8211  | 6781  | 5557 | 4517                         | 3640 | 2903 | 2286 | 1766 | 1321 | 931  |
|   |   |                        | Pe                           |  | 2,05  | 2,00  | 1,92 | 1,80                         | 1,66 | 1,50 | 1,33 | 1,16 | 0,99 | 0,83 |
|   |   | 50                     | Qo                           |  | 7193  | 5917  | 4830 | 3911                         | 3138 | 2489 | 1943 | 1477 | 1071 | 702  |
|   |   |                        | Pe                           |  | 2,54  | 2,40  | 2,23 | 2,04                         | 1,83 | 1,62 | 1,40 | 1,18 | 0,98 | 0,80 |
| <b>B1.5-10.1Y</b>                       | 2   | 30                     | Qo                           |  |       |   | 7064 | 5753                         | 4645 | 3717 | 2943 | 2297 | 1756 | 1294 |
|   |   |                        | Pe                           |  |       |   | 1,79 | 1,76                         | 1,68 | 1,57 | 1,43 | 1,28 | 1,12 | 0,95 |
|   |   | 40                     | Qo                           |  |       |   | 6273 | 5088                         | 4091 | 3259 | 2566 | 1986 | 1496 | 1070 |
|   |   |                        | Pe                           |  |       |   | 2,15 | 2,04                         | 1,89 | 1,72 | 1,53 | 1,33 | 1,13 | 0,93 |
|   |   | 50                     | Qo                           |  |       |   | 5505 | 4440                         | 3548 | 2806 | 2188 | 1669 | 1224 | 829  |
|   |   |                        | Pe                           |  |       |   | 2,49 | 2,30                         | 2,09 | 1,85 | 1,61 | 1,36 | 1,12 | 0,90 |
| <b>B2-10.1Y</b>                         | 1   | 30                     | Qo                           | 12391  | 10394 | 8648  | 7131 | 5821                         | 4695 | 3732 | 2910 | 2207 |      |      |
|   |   |                        | Pe                           | 1,61   | 1,76  | 1,84  | 1,88 | 1,85                         | 1,79 | 1,67 | 1,52 | 1,32 |      |      |
|   |   | 40                     | Qo                           | 11006  | 9210  | 7645  | 6290 | 5122                         | 4121 | 3263 | 2526 | 1890 |      |      |
|   |   |                        | Pe                           | 2,16   | 2,21  | 2,21  | 2,16 | 2,06                         | 1,92 | 1,75 | 1,53 | 1,28 |      |      |
|   |   | 50                     | Qo                           | 9611   | 8019  | 6639  | 5450 | 4430                         | 3556 | 2807 | 2161 | 1596 |      |      |
|   |   |                        | Pe                           | 2,67   | 2,63  | 2,54  | 2,41 | 2,24                         | 2,03 | 1,79 | 1,51 | 1,22 |      |      |
| <b>D2-11.1Y</b>                         | 1   | 30                     | Qo                           | 13995  | 11703 | 9703  | 7970 | 6479                         | 5206 | 4126 | 3214 | 2446 | 1797 |      |
|   |   |                        | Pe                           | 1,96   | 2,10  | 2,16  | 2,16 | 2,09                         | 1,97 | 1,82 | 1,63 | 1,43 | 1,22 |      |
|   |   | 40                     | Qo                           | 12465  | 10417 | 8635  | 7094 | 5770                         | 4637 | 3671 | 2848 | 2142 | 1529 |      |
|   |   |                        | Pe                           | 2,54   | 2,57  | 2,54  | 2,44 | 2,29                         | 2,10 | 1,88 | 1,65 | 1,40 | 1,15 |      |
|   |   | 50                     | Qo                           | 10971  | 9164  | 7595  | 6242 | 5079                         | 4082 | 3226 | 2486 | 1838 | 1257 |      |
|   |   |                        | Pe                           | 3,06   | 3,00  | 2,88  | 2,71 | 2,49                         | 2,24 | 1,97 | 1,69 | 1,41 | 1,14 |      |

**Prestazioni**  
**Performance**  
**Leistungswerte**

Dati riferiti ad una temperatura del gas aspirato di 20°C e senza sottoraffreddamento del liquido

Data referred to 20°C suction gas temperature without liquid subcooling

Bezogen auf Sauggasttemperatur 20°C ohne Flüssigkeits-Unterkühlung

**R22**

| Compressore<br>Compressor<br>Verdichter | Vers. motore<br>Motor version<br>Motorversion | Conden.<br>Temp [°C] | Qo [Watt]<br>Pe [kW]<br>50Hz | ❶ Potenza frigorifera<br>❶ Potenza assorbita |       |       | ❷ Cooling capacity<br>❷ Power consumption |       |      | ❸ Kälteleistung<br>❸ Leistungsaufnahme |      |      |      |       |
|---|---|----------------------|------------------------------|--|-------|-------|---|-------|------|--|------|------|------|-------|
|   |   |                      |                              | Temperatura Evaporazione [°C]                |       |       | Evaporation Temperature [°C]              |       |      | Verdampfungstemperatur [°C]            |      |      |      |       |
|   |   |                      |                              | 10   | 5     | 0     | -5  | -10   | -15  | -20                                    | -25  | -30  | -35  | -40   |
|   |   |                      |                              | Qo   | Pe    | Pe    | Qo  | Pe    | Pe   | Qo                                     | Pe   | Pe   | Qo   | Pe    |
| <b>D2-13.1Y</b>                         | 2   | 30                   | Qo                           |  | 13960 | 11610 | 9586                                      | 7843  | 6354 | 5091                                   | 4023 | 3120 | 2352 | 1688  |
|   |   |                      | Pe                           |  | 2,29  | 2,42  | 2,47                                      | 2,44  | 2,35 | 2,21                                   | 2,02 | 1,79 | 1,54 | 1,28  |
|   |   | 40                   | Qo                           |  | 12330 | 10250 | 8444                                      | 6899  | 5581 | 4458                                   | 3502 | 2681 | 1967 | 1329  |
|   |   |                      | Pe                           |  | 2,92  | 2,94  | 2,88                                      | 2,76  | 2,58 | 2,36                                   | 2,09 | 1,80 | 1,49 | 1,17  |
|   |   | 50                   | Qo                           |  | 10730 | 8891  | 7310                                      | 5956  | 4799 | 3810                                   | 2958 | 2213 | 1545 | 924,5 |
|   |   |                      | Pe                           |  | 3,51  | 3,43  | 3,27                                      | 3,05  | 2,79 | 2,48                                   | 2,14 | 1,77 | 1,40 | 1,03  |
| <b>D3-13.1Y</b>                         | 1   | 30                   | Qo                           | 16798  | 14042 | 11649 | 9585                                      | 7817  | 6310 | 5030                                   | 3944 | 3016 |      |       |
|   |   |                      | Pe                           | 2,16   | 2,32  | 2,40  | 2,40                                      | 2,34  | 2,22 | 2,06                                   | 1,86 | 1,64 |      |       |
|   |   | 40                   | Qo                           | 14946  | 12470 | 10325 | 8477                                      | 6893  | 5537 | 4377                                   | 3378 | 2506 |      |       |
|   |   |                      | Pe                           | 2,82   | 2,87  | 2,84  | 2,74                                      | 2,59  | 2,39 | 2,16                                   | 1,90 | 1,63 |      |       |
|   |   | 50                   | Qo                           | 13109  | 10907 | 9004  | 7366                                      | 5960  | 4750 | 3703                                   | 2786 | 1963 |      |       |
|   |   |                      | Pe                           | 3,46   | 3,40  | 3,26  | 3,08                                      | 2,84  | 2,58 | 2,28                                   | 1,97 | 1,66 |      |       |
| <b>D2-15.1Y</b>                         | 2   | 30                   | Qo                           |  |       |       | 10648                                     | 8679  | 7017 | 5620                                   | 4451 | 3468 | 2632 | 1903  |
|   |   |                      | Pe                           |  |       |       | 2,75                                      | 2,70  | 2,59 | 2,42                                   | 2,21 | 1,96 | 1,69 | 1,41  |
|   |   | 40                   | Qo                           |  |       |       | 9420                                      | 7647  | 6154 | 4902                                   | 3852 | 2964 | 2197 | 1512  |
|   |   |                      | Pe                           |  |       |       | 3,25                                      | 3,10  | 2,88 | 2,62                                   | 2,32 | 2,00 | 1,66 | 1,32  |
|   |   | 50                   | Qo                           |  |       |       | 8227                                      | 6637  | 5303 | 4185                                   | 3243 | 2437 | 1729 | 1077  |
|   |   |                      | Pe                           |  |       |       | 3,69                                      | 3,43  | 3,12 | 2,77                                   | 2,39 | 1,99 | 1,59 | 1,20  |
| <b>D3-15.1Y</b>                         | 1   | 30                   | Qo                           |  | 15745 | 13055 | 10737                                     | 8752  | 7065 | 5637                                   | 4432 | 3413 | 2541 |       |
|   |   |                      | Pe                           |  | 2,60  | 2,71  | 2,74                                      | 2,69  | 2,58 | 2,42                                   | 2,22 | 1,99 | 1,74 |       |
|   |   | 40                   | Qo                           |  | 14003 | 11585 | 9505                                      | 7727  | 6213 | 4926                                   | 3829 | 2885 | 2057 |       |
|   |   |                      | Pe                           |  | 3,27  | 3,26  | 3,18                                      | 3,03  | 2,83 | 2,58                                   | 2,30 | 2,01 | 1,70 |       |
|   |   | 50                   | Qo                           |  | 12277 | 10124 | 8276                                      | 6697  | 5350 | 4198                                   | 3202 | 2327 | 1535 |       |
|   |   |                      | Pe                           |  | 3,91  | 3,78  | 3,59                                      | 3,34  | 3,04 | 2,72                                   | 2,37 | 2,01 | 1,64 |       |
| <b>D3-16.1Y</b>                         | 2   | 30                   | Qo                           |  | 16561 | 13803 | 11418                                     | 9370  | 7621 | 6134                                   | 4870 | 3792 | 2862 | 2042  |
|   |   |                      | Pe                           |  | 2,65  | 2,79  | 2,83                                      | 2,79  | 2,67 | 2,50                                   | 2,28 | 2,02 | 1,74 | 1,45  |
|   |   | 40                   | Qo                           |  | 14642 | 12191 | 10077                                     | 8262  | 6710 | 5382                                   | 4240 | 3247 | 2366 | 1557  |
|   |   |                      | Pe                           |  | 3,43  | 3,43  | 3,34                                      | 3,19  | 2,96 | 2,69                                   | 2,38 | 2,05 | 1,70 | 1,34  |
|   |   | 50                   | Qo                           |  | 12747 | 10596 | 8745                                      | 7157  | 5794 | 4618                                   | 3591 | 2676 | 1835 | 1030  |
|   |   |                      | Pe                           |  | 4,17  | 4,04  | 3,83                                      | 3,55  | 3,22 | 2,85                                   | 2,45 | 2,03 | 1,60 | 1,18  |
| <b>D4-16.1Y</b>                         | 1   | 30                   | Qo                           | 20075  | 16846 | 14041 | 11621                                     | 9543  | 7767 | 6252                                   | 4955 | 3837 |      |       |
|   |   |                      | Pe                           | 2,50   | 2,72  | 2,84  | 2,88                                      | 2,83  | 2,73 | 2,56                                   | 2,35 | 2,09 |      |       |
|   |   | 40                   | Qo                           | 17834  | 14949 | 12449 | 10294                                     | 8441  | 6849 | 5478                                   | 4286 | 3231 |      |       |
|   |   |                      | Pe                           | 3,35   | 3,43  | 3,42  | 3,33                                      | 3,18  | 2,97 | 2,72                                   | 2,42 | 2,10 |      |       |
|   |   | 50                   | Qo                           | 15556  | 13021 | 10831 | 8945                                      | 7322  | 5920 | 4698                                   | 3615 | 2630 |      |       |
|   |   |                      | Pe                           | 4,15   | 4,09  | 3,95  | 3,75                                      | 3,49  | 3,19 | 2,85                                   | 2,49 | 2,11 |      |       |
| <b>D3-18.1Y</b>                         | 2   | 30                   | Qo                           |  |       |       | 12784                                     | 10448 | 8472 | 6809                                   | 5411 | 4230 | 3219 | 2331  |
|   |   |                      | Pe                           |  |       |       | 3,15                                      | 3,11  | 3,00 | 2,82                                   | 2,60 | 2,33 | 2,04 | 1,72  |
|   |   | 40                   | Qo                           |  |       |       | 11350                                     | 9235  | 7453 | 5954                                   | 4693 | 3621 | 2692 | 1856  |
|   |   |                      | Pe                           |  |       |       | 3,74                                      | 3,58  | 3,36 | 3,09                                   | 2,77 | 2,42 | 2,05 | 1,66  |
|   |   | 50                   | Qo                           |  |       |       | 9930                                      | 8027  | 6429 | 5087                                   | 3954 | 2982 | 2124 | 1332  |
|   |   |                      | Pe                           |  |       |       | 4,29                                      | 4,02  | 3,69 | 3,32                                   | 2,91 | 2,47 | 2,02 | 1,57  |
| <b>D4-18.1Y</b>                         | 1   | 30                   | Qo                           | 22651  | 18945 | 15742 | 12992                                     | 10645 | 8650 | 6958                                   | 5520 | 4284 |      |       |
|   |   |                      | Pe                           | 2,88   | 3,09  | 3,20  | 3,23                                      | 3,18  | 3,06 | 2,89                                   | 2,67 | 2,42 |      |       |
|   |   | 40                   | Qo                           | 20260  | 16920 | 14041 | 11571                                     | 9461  | 7661 | 6121                                   | 4791 | 3621 |      |       |
|   |   |                      | Pe                           | 3,81   | 3,85  | 3,81  | 3,70                                      | 3,53  | 3,32 | 3,06                                   | 2,78 | 2,48 |      |       |
|   |   | 50                   | Qo                           | 17843  | 14867 | 12307 | 10115                                     | 8239  | 6630 | 5239                                   | 4014 | 2907 |      |       |
|   |   |                      | Pe                           | 4,72   | 4,60  | 4,41  | 4,18                                      | 3,90  | 3,60 | 3,27                                   | 2,93 | 2,59 |      |       |
| <b>D3-19.1Y</b>                         | 2   | 30                   | Qo                           |  |       |       | 13222                                     | 10797 | 8752 | 7035                                   | 5596 | 4384 | 3348 | 2438  |
|   |   |                      | Pe                           |  |       |       | 3,48                                      | 3,39  | 3,23 | 3,00                                   | 2,72 | 2,41 | 2,08 | 1,75  |
|   |   | 40                   | Qo                           |  |       |       | 11675                                     | 9513  | 7696 | 6173                                   | 4893 | 3807 | 2863 | 2009  |
|   |   |                      | Pe                           |  |       |       | 4,27                                      | 4,02  | 3,70 | 3,34                                   | 2,95 | 2,54 | 2,12 | 1,72  |
|   |   | 50                   | Qo                           |  |       |       | 10115                                     | 8213  | 6622 | 5292                                   | 4170 | 3208 | 2353 | 1555  |
|   |   |                      | Pe                           |  |       |       | 5,04                                      | 4,62  | 4,15 | 3,66                                   | 3,14 | 2,63 | 2,13 | 1,65  |
| <b>D4-19.1Y</b>                         | 1   | 30                   | Qo                           |  | 20373 | 16983 | 14012                                     | 11428 | 9201 | 7300                                   | 5694 | 4353 | 3244 | 2339  |
|   |   |                      | Pe                           |  | 3,52  | 3,66  | 3,69                                      | 3,60  | 3,43 | 3,19                                   | 2,90 | 2,56 | 2,21 | 1,86  |
|   |   | 40                   | Qo                           |  | 18291 | 15183 | 12467                                     | 10113 | 8088 | 6364                                   | 4907 | 3689 | 2678 | 1842  |
|   |   |                      | Pe                           |  | 4,54  | 4,52  | 4,38                                      | 4,15  | 3,85 | 3,48                                   | 3,07 | 2,64 | 2,20 | 1,78  |
|   |   | 50                   | Qo                           |  | 16191 | 13369 | 10912                                     | 8790  | 6972 | 5427                                   | 4124 | 3033 | 2122 | 1361  |
|   |   |                      | Pe                           |  | 5,46  | 5,26  | 4,97                                      | 4,60  | 4,16 | 3,67                                   | 3,16 | 2,63 | 2,11 | 1,61  |
| <b>Q4-20.1Y</b>                         | 2   | 30                   | Qo                           |  |       |       | 13722                                     | 11242 | 9118 | 7316                                   | 5799 | 4531 | 3477 | 2600  |
|   |   |                      | Pe                           |  |       |       | 3,42                                      | 3,34  | 3,18 | 2,96                                   | 2,69 | 2,39 | 2,06 | 1,73  |
|   |   | 40                   | Qo                           |  |       |       | 12366                                     | 10121 | 8203 | 6575                                   | 5202 | 4048 | 3076 | 2251  |
|   |   |                      | Pe                           |  |       |       | 4,17                                      | 3,94  | 3,65 | 3,31                                   | 2,93 | 2,52 | 2,11 | 1,71  |
|   |   | 50                   | Qo                           |  |       |       | 11037                                     | 9031  | 7320 | 5870                                   | 4643 | 3604 | 2718 |       |
|   |   |                      | Pe                           |  |       |       | 4,84                                      | 4,47  | 4,04 | 3,58                                   | 3,09 | 2,60 | 2,10 |       |
| <b>Q4-21.1Y</b>                         | 2   | 30                   | Qo                           |  | 19134 | 15854 | 12993                                     | 10517 | 8392 | 6584                                   | 5060 | 3784 | 2724 |       |
|   |   |                      | Pe                           |  | 4,04  | 3,97  | 3,82                                      | 3,62  | 3,35 | 3,04                                   | 2,69 | 2,31 | 1,91 |       |
|   |   | 40                   | Qo                           |  | 17163 | 14142 | 11516                                     | 9251  | 7313 | 5668                                   | 4281 | 3120 | 2150 |       |
|   |   |                      | Pe                           |  | 5,09  | 4,81  | 4,48                                      | 4,09  | 3,68 | 3,23                                   | 2,76 | 2,28 | 1,80 |       |
|   |   | 50                   | Qo                           |  | 15148 | 12394 | 10011                                     | 7964  | 6219 | 4744                                   | 3503 | 2464 | 1591 |       |
|   |   |                      | Pe                           |  | 6,09  | 5,60  | 5,07                                      | 4,52  | 3,94 | 3,35                                   | 2,76 | 2,18 | 1,61 |       |



**Prestazioni**  
**Performance**  
**Leistungswerte**

Dati riferiti ad una temperatura del gas aspirato di 20°C e senza sottoraffreddamento del liquido

Data referred to 20°C suction gas temperature without liquid subcooling

Bezogen auf Sauggastemperatur 20°C ohne Flüssigkeits-Unterkühlung

**R22**

| Compressore<br>Compressor<br>Verdichter | Vers. motore<br>Motor version<br>Motorversion | Conden.<br>Temp. [°C] | Qo [Watt]<br>Pe [kW]<br>50Hz | ❶ Potenza frigorifera<br>❶ Cooling capacity<br>❶ Kälteleistung |       | ❷ Potenza assorbita<br>❷ Power consumption<br>❷ Leistungsaufnahme |       | Temperatura Evaporazione [°C] |       |       |        |      |      |      |  |
|---|---|-----------------------|------------------------------|--|-------|---|-------|-------------------------------|-------|-------|--------|------|------|------|--|
|   |   |                       |                              | Evaporation Temperature [°C]                                   |       |   |       | Verdampfungstemperatur [°C]   |       |       |        |      |      |      |  |
|   |   |                       |                              | 10   | 5     | 0   | -5    | -10                           | -15   | -20   | -25    | -30  | -35  | -40  |  |
| <b>Q5-21.1Y</b>                         | 1   | 30                    | Qo                           | 26021  | 21804 | 18109   | 14895 | 12120                         | 9744  | 7724  | 6021   | 4593 |      |      |  |
|   |   |                       | Pe                           | 3,01   | 3,32  | 3,50  | 3,57  | 3,52                          | 3,38  | 3,15  | 2,85   | 2,49 |      |      |  |
|   |   | 40                    | Qo                           | 23312  | 19473 | 16117   | 13204 | 10692                         | 8540  | 6708  | 5153   | 3835 |      |      |  |
|   |   |                       | Pe                           | 4,20   | 4,33  | 4,34  | 4,23  | 4,03                          | 3,75  | 3,39  | 2,96   | 2,49 |      |      |  |
|   |   | 50                    | Qo                           | 20556  | 17101 | 14091   | 11486 | 9243                          | 7323  | 5683  | 4284   |      |      |      |  |
|   |   |                       | Pe                           | 5,43   | 5,36  | 5,18  | 4,90  | 4,54                          | 4,09  | 3,59  | 3,03   |      |      |      |  |
| <b>Q4-24.1Y</b>                         | 2   | 30                    | Qo                           |  |       | 20706   | 17134 | 14012                         | 11307 | 8983  | 7006   | 5341 | 3955 | 2813 |  |
|   |   |                       | Pe                           |  |       | 4,31  | 4,27  | 4,13                          | 3,90  | 3,60  | 3,24   | 2,83 | 2,40 | 1,96 |  |
|   |   | 40                    | Qo                           |  |       | 18479   | 15197 | 12339                         | 9872  | 7762  | 5974   | 4473 | 3225 | 2195 |  |
|   |   |                       | Pe                           |  |       | 5,44  | 5,17  | 4,81                          | 4,39  | 3,92  | 3,42   | 2,89 | 2,35 | 1,82 |  |
|   |   | 50                    | Qo                           |  |       | 16243   | 13252 | 10661                         | 8437  | 6543  | 4946   | 3611 | 2504 | 1590 |  |
|   |   |                       | Pe                           |  |       | 6,49  | 5,98  | 5,42                          | 4,81  | 4,17  | 3,51   | 2,86 | 2,21 | 1,60 |  |
| <b>Q5-24.1Y</b>                         | 1   | 30                    | Qo                           | 29616  | 24814 | 20605   | 16942 | 13779                         | 11070 | 8769  | 6831   | 5207 |      |      |  |
|   |   |                       | Pe                           | 3,58   | 3,92  | 4,09  | 4,13  | 4,03                          | 3,84  | 3,56  | 3,21   | 2,83 |      |      |  |
|   |   | 40                    | Qo                           | 26582  | 22215 | 18395   | 15076 | 12212                         | 9757  | 7665  | 5890   | 4386 |      |      |  |
|   |   |                       | Pe                           | 5,00   | 5,11  | 5,06  | 4,89  | 4,61                          | 4,24  | 3,81  | 3,33   | 2,82 |      |      |  |
|   |   | 50                    | Qo                           | 23502  | 19575 | 16150   | 13182 | 10623                         | 8428  | 6551  | 4945   | 3565 |      |      |  |
|   |   |                       | Pe                           | 6,43   | 6,29  | 6,02  | 5,63  | 5,16                          | 4,61  | 4,02  | 3,39   | 2,76 |      |      |  |
| <b>Q4-25.1Y</b>                         | 2   | 30                    | Qo                           |  |       |   | 18202 | 14874                         | 12037 | 9631  | 7599   | 5882 | 4420 | 3157 |  |
|   |   |                       | Pe                           |  |       |   | 4,46  | 4,40                          | 4,24  | 3,98  | 3,64   | 3,24 | 2,79 | 2,31 |  |
|   |   | 40                    | Qo                           |  |       |   | 16156 | 13129                         | 10558 | 8386  | 6554   | 5004 | 3676 | 2512 |  |
|   |   |                       | Pe                           |  |       |   | 5,26  | 5,02                          | 4,68  | 4,27  | 3,79   | 3,27 | 2,71 | 2,14 |  |
|   |   | 50                    | Qo                           |  |       |   | 14097 | 11371                         | 9068  | 7130  | 5498   | 4115 | 2920 | 1857 |  |
|   |   |                       | Pe                           |  |       |   | 5,99  | 5,56                          | 5,05  | 4,48  | 3,87   | 3,22 | 2,56 | 1,89 |  |
| <b>Q5-25.1Y</b>                         | 1   | 30                    | Qo                           |  | 25546 | 21450   | 17842 | 14683                         | 11937 | 9565  | 7531   | 5797 | 4325 | 3078 |  |
|   |   |                       | Pe                           |  | 4,04  | 4,25  | 4,33  | 4,28                          | 4,12  | 3,88  | 3,55   | 3,17 | 2,75 | 2,30 |  |
|   |   | 40                    | Qo                           |  | 22770 | 19051   | 15784 | 12931                         | 10455 | 8318  | 6482   | 4911 | 3567 | 2412 |  |
|   |   |                       | Pe                           |  | 5,23  | 5,23  | 5,10  | 4,87                          | 4,54  | 4,14  | 3,68   | 3,18 | 2,65 | 2,10 |  |
|   |   | 50                    | Qo                           |  | 20159 | 16801   | 13859 | 11295                         | 9073  | 7155  | 5502   | 4078 | 2846 | 1767 |  |
|   |   |                       | Pe                           |  | 6,43  | 6,21  | 5,87  | 5,45                          | 4,95  | 4,39  | 3,78   | 3,14 | 2,49 | 1,83 |  |
| <b>Q7-25.1Y</b>                         | 1   | 30                    | Qo                           | 31308  | 26319 | 21943   | 18135 | 14846                         | 12031 | 9642  | 7631   | 5953 |      |      |  |
|   |   |                       | Pe                           | 3,76   | 4,10  | 4,27  | 4,30  | 4,20                          | 4,00  | 3,72  | 3,37   | 2,98 |      |      |  |
|   |   | 40                    | Qo                           | 28215  | 23647 | 19655   | 16192 | 13210                         | 10663 | 8504  | 6686   | 5161 |      |      |  |
|   |   |                       | Pe                           | 5,18   | 5,29  | 5,24  | 5,07  | 4,79                          | 4,42  | 3,99  | 3,51   | 3,00 |      |      |  |
|   |   | 50                    | Qo                           | 25104  | 20960 | 17353   | 14237 | 11565                         | 9288  | 7362  | 5737   | 4369 |      |      |  |
|   |   |                       | Pe                           | 6,58   | 6,45  | 6,18  | 5,8   | 5,33                          | 4,80  | 4,21  | 3,59   | 2,97 |      |      |  |
| <b>Q5-28.1Y</b>                         | 2   | 30                    | Qo                           |  |       | 23591   | 19438 | 15884                         | 12864 | 10310 | 8154   | 6331 | 4773 | 3412 |  |
|   |   |                       | Pe                           |  |       | 4,74  | 4,77  | 4,68                          | 4,46  | 4,15  | 3,77   | 3,33 | 2,86 | 2,37 |  |
|   |   | 40                    | Qo                           |  |       | 20972   | 17236 | 14050                         | 11346 | 9057  | 7115   | 5455 | 4008 | 2709 |  |
|   |   |                       | Pe                           |  |       | 5,92  | 5,71  | 5,38                          | 4,97  | 4,47  | 3,93   | 3,35 | 2,75 | 2,17 |  |
|   |   | 50                    | Qo                           |  |       | 18379   | 15046 | 12212                         | 9809  | 7769  | 6027   | 4514 | 3165 | 1911 |  |
|   |   |                       | Pe                           |  |       | 7,10  | 6,63  | 6,07                          | 5,43  | 4,74  | 4,02   | 3,29 | 2,57 | 1,87 |  |
| <b>Q7-28.1Y</b>                         | 1   | 30                    | Qo                           | 36064  | 30175 | 25049   | 20617 | 16810                         | 13559 | 10795 | 8450   | 6454 |      |      |  |
|   |   |                       | Pe                           | 4,43   | 4,77  | 4,93  | 4,93  | 4,80                          | 4,55  | 4,21  | 3,80   | 3,34 |      |      |  |
|   |   | 40                    | Qo                           | 32223  | 26890 | 22260   | 18263 | 14831                         | 11893 | 9383  | 7230   | 5366 |      |      |  |
|   |   |                       | Pe                           | 5,83   | 5,94  | 5,89  | 5,69  | 5,37                          | 4,95  | 4,45  | 3,90   | 3,31 |      |      |  |
|   |   | 50                    | Qo                           | 28371  | 23594 | 19458   | 15896 | 12837                         | 10213 | 7954  | 5993   | 4260 |      |      |  |
|   |   |                       | Pe                           | 7,12   | 7,02  | 6,77  | 6,39  | 5,90                          | 5,32  | 4,68  | 3,99   | 3,29 |      |      |  |
| <b>Q5-33.1Y</b>                         | 2   | 30                    | Qo                           |  |       |   | 22299 | 18559                         | 15280 | 12415 | 9919   | 7744 | 5844 | 4174 |  |
|   |   |                       | Pe                           |  |       |   | 5,14  | 5,15                          | 5,01  | 4,74  | 4,36   | 3,90 | 3,36 | 2,78 |  |
|   |   | 40                    | Qo                           |  |       |   | 20232 | 16805                         | 13795 | 11156 | 8843   | 6808 | 5004 | 3387 |  |
|   |   |                       | Pe                           |  |       |   | 6,37  | 6,21                          | 5,90  | 5,46  | 4,92   | 4,29 | 3,59 | 2,84 |  |
|   |   | 50                    | Qo                           |  |       |   | 17937 | 14818                         | 12074 | 9657  | 7522   | 5623 | 3912 | 2344 |  |
|   |   |                       | Pe                           |  |       |   | 7,50  | 7,15                          | 6,65  | 6,03  | 5,31   | 4,49 | 3,61 | 2,68 |  |
| <b>Q7-33.1Y</b>                         | 1   | 30                    | Qo                           | 39393  | 33090 | 27634   | 22943 | 18934                         | 15524 | 12630 | 10171  | 8063 |      |      |  |
|   |   |                       | Pe                           | 4,65   | 5,01  | 5,22  | 5,29  | 5,24                          | 5,09  | 4,84  | 4,52   | 4,14 |      |      |  |
|   |   | 40                    | Qo                           | 35627  | 29894 | 24945   | 20697 | 17066                         | 13972 | 11329 | 9057   | 7072 |      |      |  |
|   |   |                       | Pe                           | 6,28   | 6,38  | 6,36  | 6,22  | 5,99                          | 5,68  | 5,30  | 4,86   | 4,40 |      |      |  |
|   |   | 50                    | Qo                           | 31832  | 26665 | 22218   | 18408 | 15153                         | 12369 | 9974  | 7885   | 6019 |      |      |  |
|   |   |                       | Pe                           | 7,88   | 7,74  | 7,49  | 7,16  | 6,76                          | 6,30  | 5,79  | 5,26   | 4,73 |      |      |  |
| <b>Q7-36.1Y</b>                         | 1   | 30                    | Qo                           | 43478  | 36863 | 31097   | 26100 | 21793                         | 18096 | 14931 | 12217  | 9875 |      |      |  |
|   |   |                       | Pe                           | 5,29   | 5,54  | 5,70  | 5,75  | 5,71                          | 5,58  | 5,34  | 5,02   | 4,59 |      |      |  |
|   |   | 40                    | Qo                           | 39677  | 33581 | 28282   | 23698 | 19751                         | 16361 | 13448 | 10934  | 8737 |      |      |  |
|   |   |                       | Pe                           | 7,25   | 7,23  | 7,13  | 6,95  | 6,7                           | 6,37  | 5,96  | 5,48   | 4,92 |      |      |  |
|   |   | 50                    | Qo                           | 35842  | 30257 | 25414   | 21233 | 17635                         | 14541 | 11871 | 9545   | 7484 |      |      |  |
|   |   |                       | Pe                           | 9,15   | 8,86  | 8,51  | 8,1   | 7,64                          | 7,12  | 6,54  | 5,91   | 5,22 |      |      |  |
| <b>S5-33Y</b>                           | 2   | 30                    | Qo                           |  |       |   | 23632 | 19531                         | 15942 | 12822 | 10128  | 7817 | 5847 | 4173 |  |
|   |   |                       | Pe                           |  |       |   | 5,64  | 5,36                          | 4,99  | 4,56  | 4,08   | 3,57 | 3,03 | 2,50 |  |
|   |   | 40                    | Qo                           |  |       |   | 20835 | 17162                         | 13945 | 11143 | 8711,8 | 6609 | 4790 | 3214 |  |
|   |   |                       | Pe                           |  |       |   | 6,55  | 6,09                          | 5,56  | 4,99  | 4,39   | 3,78 | 3,17 | 2,59 |  |
|   |   | 50                    | Qo                           |  |       |   | 18055 | 14799                         | 11946 | 9451  | 7273   | 5367 | 3692 | 2203 |  |
|   |   |                       | Pe                           |  |       |   | 7,37  | 6,73                          | 6,04  | 5,33  | 4,62   | 3,91 | 3,23 | 2,59 |  |



**Prestazioni**  
**Performance**  
**Leistungswerte**

Dati riferiti ad una temperatura del gas aspirato di 20°C e senza sottoraffreddamento del liquido

Data referred to 20°C suction gas temperature without liquid subcooling

Bezogen auf Sauggasttemperatur 20°C ohne Flüssigkeits-Unterkühlung

**R22**

| Compressore<br>Compressor<br>Verdichter | Vers. motore<br>Motor version<br>Motorversion | Conden.<br>Temp [°C] | Qo [Watt]<br>Pe [kW]<br>50Hz | ❶ Potenza frigorifera<br>❶ Potenza assorbita |       | ❷ Cooling capacity<br>❷ Power consumption |                              | ❸ Kälteleistung<br>❸ Leistungsaufnahme |       |                             |       |        |       |      |  |
|---|---|----------------------|------------------------------|--|-------|---|------------------------------|--|-------|-----------------------------|-------|--------|-------|------|--|
|   |   |                      |                              | Temperatura Evaporazione [°C]                |       |   | Evaporation Temperature [°C] |  |       | Verdampfungstemperatur [°C] |       |        |       |      |  |
|   |   |                      |                              | 10   | 5     | 0   | -5                           | -10                                    | -15   | -20                         | -25   | -30    | -35   | -40  |  |
| <b>S7-33Y</b>                           | 1   | 30                   | Qo                           | 42461  | 36051 | 30286                                     | 25141                        | 20590                                  | 16609 | 13170                       | 10250 | 7822   |       |      |  |
|   |   |                      | Pe                           | 5,63   | 5,73  | 5,69                                      | 5,52                         | 5,26                                   | 4,90  | 4,48                        | 4,01  | 3,51   |       |      |  |
|   |   | 40                   | Qo                           | 37827  | 31927 | 26650                                     | 21970                        | 17863                                  | 14302 | 11263                       | 8719  | 6644   |       |      |  |
|   |   |                      | Pe                           | 7,07   | 6,94  | 6,69                                      | 6,34                         | 5,91                                   | 5,41  | 4,86                        | 4,28  | 3,69   |       |      |  |
|   |   | 50                   | Qo                           | 33252  | 27855 | 23060                                     | 18839                        | 15168                                  | 12022 | 9375                        | 7200  | 5474   |       |      |  |
|   |   |                      | Pe                           | 8,42   | 8,08  | 7,64                                      | 7,12                         | 6,53                                   | 5,89  | 5,23                        | 4,56  | 3,89   |       |      |  |
| <b>S8-42Y</b>                           | 2   | 30                   | Qo                           |  |       |   | 30383                        | 25143                                  | 20550 | 16552                       | 13094 | 10123  | 7587  | 5430 |  |
|   |   |                      | Pe                           |  |       |   | 7,27                         | 6,92                                   | 6,46  | 5,92                        | 5,31  | 4,66   | 4,01  | 3,37 |  |
|   |   | 40                   | Qo                           |  |       |   | 26778                        | 22052                                  | 17912 | 14305                       | 11176 | 8473,2 | 6142  | 4129 |  |
|   |   |                      | Pe                           |  |       |   | 8,40                         | 7,82                                   | 7,15  | 6,44                        | 5,69  | 4,93   | 4,20  | 3,51 |  |
|   |   | 50                   | Qo                           |  |       |   | 23206                        | 19014                                  | 15347 | 12150                       | 9370  | 6954   | 4848  | 2998 |  |
|   |   |                      | Pe                           |  |       |   | 9,42                         | 8,61                                   | 7,75  | 6,87                        | 5,99  | 5,14   | 4,34  | 3,62 |  |
| <b>S12-42Y</b>                          | 1   | 30                   | Qo                           | 54393  | 45470 | 37691                                     | 30958                        | 25171                                  | 20232 | 16042                       | 12501 | 9510   |       |      |  |
|   |   |                      | Pe                           | 7,01   | 7,18  | 7,16                                      | 7,00                         | 6,70                                   | 6,28  | 5,77                        | 5,19  | 4,56   |       |      |  |
|   |   | 40                   | Qo                           | 48687  | 40599 | 33569                                     | 27495                        | 22280                                  | 17825 | 14031                       | 10798 | 8028   |       |      |  |
|   |   |                      | Pe                           | 8,94   | 8,80  | 8,52                                      | 8,11                         | 7,59                                   | 6,98  | 6,30                        | 5,57  | 4,82   |       |      |  |
|   |   | 50                   | Qo                           | 42463  | 35286 | 29076                                     | 23737                        | 19168                                  | 15270 | 11946                       | 9095  | 6620   |       |      |  |
|   |   |                      | Pe                           | 10,70  | 10,30 | 9,78                                      | 9,14                         | 8,41                                   | 7,62  | 6,79                        | 5,94  | 5,09   |       |      |  |
| <b>S10-52Y</b>                          | 2   | 30                   | Qo                           |  |       |   | 37065                        | 30628                                  | 24992 | 20087                       | 15840 | 12179  | 9033  | 6329 |  |
|   |   |                      | Pe                           |  |       |   | 8,85                         | 8,44                                   | 7,89  | 7,22                        | 6,46  | 5,65   | 4,82  | 3,99 |  |
|   |   | 40                   | Qo                           |  |       |   | 32627                        | 26840                                  | 21781 | 17377                       | 13557 | 10249  | 7381  | 4881 |  |
|   |   |                      | Pe                           |  |       |   | 10,20                        | 9,53                                   | 8,71  | 7,81                        | 6,88  | 5,93   | 4,99  | 4,11 |  |
|   |   | 50                   | Qo                           |  |       |   | 28366                        | 23217                                  | 18720 | 14805                       | 11399 | 8431   | 5829  | 3520 |  |
|   |   |                      | Pe                           |  |       |   | 11,50                        | 10,50                                  | 9,40  | 8,29                        | 7,18  | 6,10   | 5,08  | 4,15 |  |
| <b>S15-52Y</b>                          | 1   | 30                   | Qo                           | 68090  | 56986 | 47235                                     | 38739                        | 31401                                  | 25124 | 19809                       | 15360 | 11678  |       |      |  |
|   |   |                      | Pe                           | 8,76   | 8,87  | 8,78                                      | 8,53                         | 8,13                                   | 7,60  | 6,96                        | 6,23  | 5,44   |       |      |  |
|   |   | 40                   | Qo                           | 61134  | 51021 | 42161                                     | 34455                        | 27807                                  | 22119 | 17293                       | 13232 | 9839   |       |      |  |
|   |   |                      | Pe                           | 10,90  | 10,70 | 10,30                                     | 9,75                         | 9,10                                   | 8,35  | 7,53                        | 6,65  | 5,75   |       |      |  |
|   |   | 50                   | Qo                           | 53521  | 44501 | 36633                                     | 29820                        | 23963                                  | 18966 | 14731                       | 11161 | 8157   |       |      |  |
|   |   |                      | Pe                           | 13,00  | 12,40 | 11,70                                     | 10,90                        | 10,00                                  | 9,09  | 8,10                        | 7,10  | 6,10   |       |      |  |
| <b>S15-56Y</b>                          | 2   | 30                   | Qo                           |  | 59380 | 49781                                     | 41359                        | 34015                                  | 27654 | 22177                       | 17486 | 13485  | 10077 | 7163 |  |
|   |   |                      | Pe                           |  | 10,40 | 10,30                                     | 9,93                         | 9,40                                   | 8,72  | 7,93                        | 7,08  | 6,20   | 5,33  | 4,51 |  |
|   |   | 40                   | Qo                           |  | 53467 | 44591                                     | 36830                        | 30088                                  | 24267 | 19270                       | 15000 | 11358  | 8248  | 5572 |  |
|   |   |                      | Pe                           |  | 12,70 | 12,20                                     | 11,40                        | 10,60                                  | 9,58  | 8,56                        | 7,51  | 6,48   | 5,50  | 4,62 |  |
|   |   | 50                   | Qo                           |  | 47385 | 39269                                     | 32208                        | 26105                                  | 20863 | 16384                       | 12571 | 9327   | 6553  | 4154 |  |
|   |   |                      | Pe                           |  | 14,80 | 13,80                                     | 12,70                        | 11,60                                  | 10,30 | 9,09                        | 7,87  | 6,71   | 5,66  | 4,75 |  |
| <b>S20-56Y</b>                          | 1   | 30                   | Qo                           | 73345  | 61080 | 50718                                     | 41985                        | 34607                                  | 28307 | 22813                       | 17849 | 13141  |       |      |  |
|   |   |                      | Pe                           | 10,40  | 10,30 | 10,10                                     | 9,84                         | 9,41                                   | 8,85  | 8,14                        | 7,30  | 6,30   |       |      |  |
|   |   | 40                   | Qo                           | 65501  | 54319 | 44930                                     | 37057                        | 30426                                  | 24763 | 19792                       | 15240 | 10830  |       |      |  |
|   |   |                      | Pe                           | 12,80  | 12,40 | 11,90                                     | 11,30                        | 10,50                                  | 9,71  | 8,76                        | 7,69  | 6,49   |       |      |  |
|   |   | 50                   | Qo                           | 57426  | 47392 | 39036                                     | 32086                        | 26265                                  | 21300 | 16915                       | 12837 | 8790   |       |      |  |
|   |   |                      | Pe                           | 15,00  | 14,30 | 13,40                                     | 12,50                        | 11,50                                  | 10,40 | 9,22                        | 7,93  | 6,54   |       |      |  |
| <b>V15-59Y</b>                          | 2   | 30                   | Qo                           |  | 61150 | 50984                                     | 42122                        | 34454                                  | 27868 | 22250                       | 17490 | 13475  | 10094 | 7233 |  |
|   |   |                      | Pe                           |  | 11,10 | 10,70                                     | 10,20                        | 9,53                                   | 8,78  | 7,93                        | 7,00  | 6,02   | 4,99  | 3,92 |  |
|   |   | 40                   | Qo                           |  | 55280 | 45840                                     | 37642                        | 30573                                  | 24522 | 19377                       | 15025 | 11355  | 8254  | 5612 |  |
|   |   |                      | Pe                           |  | 13,40 | 12,70                                     | 11,90                        | 11,00                                  | 9,98  | 8,90                        | 7,76  | 6,57   | 5,35  | 4,11 |  |
|   |   | 50                   | Qo                           |  | 49326 | 40642                                     | 33136                        | 26696                                  | 21210 | 16566                       | 12652 | 9357   | 6567  | 4171 |  |
|   |   |                      | Pe                           |  | 15,60 | 14,60                                     | 13,60                        | 12,40                                  | 11,20 | 9,91                        | 8,56  | 7,18   | 5,77  | 4,36 |  |
| <b>V20-59Y</b>                          | 1   | 30                   | Qo                           | 74143  | 61505 | 50951                                     | 42159                        | 34806                                  | 28572 | 23134                       | 18170 | 13359  |       |      |  |
|   |   |                      | Pe                           | 10,50  | 10,30 | 9,95                                      | 9,58                         | 9,13                                   | 8,58  | 7,89                        | 7,07  | 6,07   |       |      |  |
|   |   | 40                   | Qo                           | 66783  | 55212 | 45610                                     | 37655                        | 31025                                  | 25398 | 20453                       | 15868 | 11320  |       |      |  |
|   |   |                      | Pe                           | 12,80  | 12,30 | 11,70                                     | 11,10                        | 10,40                                  | 9,65  | 8,75                        | 7,71  | 6,51   |       |      |  |
|   |   | 50                   | Qo                           | 59329  | 48844 | 40213                                     | 33114                        | 27225                                  | 22225 | 17792                       | 13603 | 9337   |       |      |  |
|   |   |                      | Pe                           | 15,00  | 14,30 | 13,50                                     | 12,60                        | 11,70                                  | 10,70 | 9,61                        | 8,36  | 6,96   |       |      |  |
| <b>V15-71Y</b>                          | 2   | 30                   | Qo                           |  |       |   | 49224                        | 40523                                  | 32917 | 26309                       | 20602 | 15698  | 11501 | 7912 |  |
|   |   |                      | Pe                           |  |       |   | 12,10                        | 11,30                                  | 10,40 | 9,43                        | 8,33  | 7,15   | 5,91  | 4,64 |  |
|   |   | 40                   | Qo                           |  |       |   | 43995                        | 36061                                  | 29135 | 23120                       | 17919 | 13434  | 9568  | 6224 |  |
|   |   |                      | Pe                           |  |       |   | 14,10                        | 13,10                                  | 11,90 | 10,60                       | 9,24  | 7,83   | 6,38  | 4,92 |  |
|   |   | 50                   | Qo                           |  |       |   | 39162                        | 31946                                  | 25651 | 20180                       | 15435 | 11320  | 7736  | 4586 |  |
|   |   |                      | Pe                           |  |       |   | 16,20                        | 14,80                                  | 13,40 | 11,80                       | 10,20 | 8,62   | 6,98  | 5,34 |  |
| <b>V25-71Y</b>                          | 1   | 30                   | Qo                           | 88669  | 73592 | 60980                                     | 50456                        | 41643                                  | 34163 | 27638                       | 21692 | 15946  |       |      |  |
|   |   |                      | Pe                           | 12,80  | 12,40 | 12,10                                     | 11,60                        | 11,10                                  | 10,40 | 9,54                        | 8,52  | 7,30   |       |      |  |
|   |   | 40                   | Qo                           | 79933  | 66125 | 54647                                     | 45123                        | 37176                                  | 30426 | 24498                       | 19014 | 13595  |       |      |  |
|   |   |                      | Pe                           | 15,40  | 14,80 | 14,20                                     | 13,40                        | 12,60                                  | 11,70 | 10,60                       | 9,30  | 7,83   |       |      |  |
|   |   | 50                   | Qo                           | 71618  | 59029 | 48637                                     | 40064                        | 32932                                  | 26864 | 21483                       | 16411 | 11270  |       |      |  |
|   |   |                      | Pe                           | 18,20  | 17,20 | 16,30                                     | 15,30                        | 14,20                                  | 12,90 | 11,60                       | 10,00 | 8,27   |       |      |  |
| <b>V20-84Y</b>                          | 2   | 30                   | Qo                           |  |       |   | 58328                        | 47860                                  | 38840 | 31109                       | 24507 | 18877  | 14058 | 9893 |  |
|   |   |                      | Pe                           |  |       |   | 14,40                        | 13,30                                  | 12,20 | 11,20                       | 10,00 | 8,81   | 7,40  | 5,75 |  |
|   |   | 40                   | Qo                           |  |       |   | 51990                        | 42548                                  | 34418 | 27442                       | 21461 | 16315  | 11847 | 7896 |  |
|   |   |                      | Pe                           |  |       |   | 16,90                        | 15,40                                  | 14,10 | 12,70                       | 11,20 | 9,61   | 7,83  | 5,82 |  |
|   |   | 50                   | Qo                           |  |       |   | 46309                        | 37798                                  | 30464 | 24149                       | 18694 | 13939  | 9726  | 5896 |  |
|   |   |                      | Pe                           |  |       |   | 19,60                        | 17,80                                  | 16,10 | 14,40                       | 12,60 | 10,70  | 8,54  | 6,17 |  |

**Prestazioni**  
**Performance**  
**Leistungswerte**

Dati riferiti ad una temperatura del gas aspirato di 20°C e senza sottoraffreddamento del liquido  
Data referred to 20°C suction gas temperature without liquid subcooling  
Bezogen auf Sauggastemperatur 20°C ohne Flüssigkeits-Unterkühlung

**R22**

| Compressore<br>Compressor<br>Verdichter | Vers. motore<br>Motor version<br>Motorversion | Condens.<br>Temp. [°C] | Qo [Watt]<br>Pe [kW]<br>50Hz | ❶ Potenza frigorifera<br>❶ Cooling capacity<br>❶ Kälteleistung |        | ❷ Potenza assorbita<br>❷ Power consumption<br>❷ Leistungsaufnahme |        |        |       |                              |       |       |       |       |                             |  |  |  |  |
|---|---|------------------------|------------------------------|--|--------|---|--------|--------|-------|------------------------------|-------|-------|-------|-------|-----------------------------|--|--|--|--|
|   |   |                        |                              | Temperatura Evaporazione [°C]                                  |        |   |        |        |       | Evaporation Temperature [°C] |       |       |       |       | Verdampfungstemperatur [°C] |  |  |  |  |
|   |   |                        |                              | 10   | 5      | 0   | -5     | -10    | -15   | -20                          | -25   | -30   | -35   | -40   |                             |  |  |  |  |
| <b>V30-84Y</b>                          | 1   | 30                     | Qo                           | 104180   | 86407  | 71562   | 59200  | 48871  | 40130 | 32529                        | 25620 | 18955 |       |       |                             |  |  |  |  |
|   |   |                        | Pe                           | 15,50  | 15,00  | 14,50   | 13,90  | 13,20  | 12,40 | 11,40                        | 10,30 | 8,94  |       |       |                             |  |  |  |  |
|   |   | 40                     | Qo                           | 93890  | 77608  | 64103   | 52928  | 43634  | 35774 | 28901                        | 22568 | 16326 |       |       |                             |  |  |  |  |
|   |   |                        | Pe                           | 18,70  | 17,90  | 17,00   | 16,10  | 15,10  | 14,00 | 12,80                        | 11,50 | 9,94  |       |       |                             |  |  |  |  |
|   |   | 50                     | Qo                           | 84052  | 69229  | 57029   | 47005  | 38710  | 31697 | 25518                        | 19725 | 13871 |       |       |                             |  |  |  |  |
|   |   |                        | Pe                           | 22,10  | 20,90  | 19,70   | 18,50  | 17,20  | 15,80 | 14,30                        | 12,80 | 11,00 |       |       |                             |  |  |  |  |
| <b>V25-93Y</b>                          | 2   | 30                     | Qo                           |  |        |   | 64697  | 53238  | 43228 | 34542                        | 27056 | 20644 | 15181 | 10541 |                             |  |  |  |  |
|   |   |                        | Pe                           |  |        |   | 15,70  | 14,70  | 13,60 | 12,30                        | 10,80 | 9,28  | 7,66  | 5,99  |                             |  |  |  |  |
|   |   | 40                     | Qo                           |  |        |   | 57763  | 47339  | 38243 | 30350                        | 23534 | 17670 | 12634 | 8300  |                             |  |  |  |  |
|   |   |                        | Pe                           |  |        |   | 18,40  | 17,00  | 15,40 | 13,80                        | 12,00 | 10,20 | 8,25  | 6,31  |                             |  |  |  |  |
|   |   | 50                     | Qo                           |  |        |   | 50979  | 41579  | 33384 | 26271                        | 20113 | 14786 | 10166 | 6126  |                             |  |  |  |  |
|   |   |                        | Pe                           |  |        |   | 21,00  | 19,30  | 17,40 | 15,40                        | 13,30 | 11,20 | 8,99  | 6,80  |                             |  |  |  |  |
| <b>V32-93Y</b>                          | 1   | 30                     | Qo                           | 116640   | 96815  | 80220   | 66367  | 54763  | 44918 | 36338                        | 28532 | 21008 |       |       |                             |  |  |  |  |
|   |   |                        | Pe                           | 16,60  | 16,20  | 15,70   | 15,10  | 14,40  | 13,50 | 12,40                        | 11,10 | 9,56  |       |       |                             |  |  |  |  |
|   |   | 40                     | Qo                           | 105070   | 86916  | 71818   | 59282  | 48814  | 39925 | 32120                        | 24910 | 17802 |       |       |                             |  |  |  |  |
|   |   |                        | Pe                           | 20,10  | 19,30  | 18,50   | 17,50  | 16,40  | 15,20 | 13,80                        | 12,10 | 10,20 |       |       |                             |  |  |  |  |
|   |   | 50                     | Qo                           | 93346  | 76901  | 63330   | 52139  | 42837  | 34932 | 27933                        | 21348 | 14684 |       |       |                             |  |  |  |  |
|   |   |                        | Pe                           | 23,70  | 22,50  | 21,20   | 19,90  | 18,40  | 16,90 | 15,10                        | 13,10 | 11,00 |       |       |                             |  |  |  |  |
| <b>V25-103Y</b>                         | 2   | 30                     | Qo                           |  |        |   | 69690  | 57718  | 47162 | 37911                        | 29855 | 22882 | 16882 | 11743 |                             |  |  |  |  |
|   |   |                        | Pe                           |  |        |   | 17,40  | 16,30  | 15,00 | 13,60                        | 12,00 | 10,40 | 8,60  | 6,80  |                             |  |  |  |  |
|   |   | 40                     | Qo                           |  |        |   | 62070  | 51234  | 41680 | 33297                        | 25975 | 19602 | 14068 | 9262  |                             |  |  |  |  |
|   |   |                        | Pe                           |  |        |   | 20,20  | 18,70  | 17,00 | 15,20                        | 13,30 | 11,30 | 9,24  | 7,15  |                             |  |  |  |  |
|   |   | 50                     | Qo                           |  |        |   | 54790  | 45048  | 36454 | 28898                        | 22268 | 16455 | 11345 | 6830  |                             |  |  |  |  |
|   |   |                        | Pe                           |  |        |   | 23,10  | 21,20  | 19,20 | 17,00                        | 14,70 | 12,40 | 10,10 | 7,70  |                             |  |  |  |  |
| <b>V35-103Y</b>                         | 1   | 30                     | Qo                           | 129170   | 106120 | 87556   | 72631  | 60514  | 50370 | 41364                        | 32660 | 23424 |       |       |                             |  |  |  |  |
|   |   |                        | Pe                           | 18,30  | 17,90  | 17,40   | 16,90  | 16,30  | 15,40 | 14,30                        | 12,90 | 11,10 |       |       |                             |  |  |  |  |
|   |   | 40                     | Qo                           | 116280   | 95121  | 78237   | 64788  | 53940  | 44858 | 36705                        | 28647 | 19849 |       |       |                             |  |  |  |  |
|   |   |                        | Pe                           | 22,10  | 21,30  | 20,40   | 19,50  | 18,50  | 17,30 | 15,80                        | 14,00 | 11,80 |       |       |                             |  |  |  |  |
|   |   | 50                     | Qo                           | 103220   | 83990  | 68821   | 56882  | 47335  | 39346 | 32079                        | 24700 | 16373 |       |       |                             |  |  |  |  |
|   |   |                        | Pe                           | 25,90  | 24,70  | 23,40   | 22,10  | 20,70  | 19,10 | 17,30                        | 15,10 | 12,60 |       |       |                             |  |  |  |  |
| <b>Z25-106Y</b>                         | 2   | 30                     | Qo                           |  |        |   | 74149  | 61241  | 49854 | 39880                        | 31210 | 23736 | 17349 | 11941 |                             |  |  |  |  |
|   |   |                        | Pe                           |  |        |   | 18,20  | 17,00  | 15,70 | 14,20                        | 12,50 | 10,80 | 8,92  | 7,06  |                             |  |  |  |  |
|   |   | 40                     | Qo                           |  |        |   | 66389  | 54605  | 44215 | 35111                        | 27184 | 20327 | 14430 | 9385  |                             |  |  |  |  |
|   |   |                        | Pe                           |  |        |   | 21,40  | 19,80  | 18,00 | 16,00                        | 14,00 | 11,80 | 9,66  | 7,50  |                             |  |  |  |  |
|   |   | 50                     | Qo                           |  |        |   |        | 48324  | 38888 | 30611                        | 23386 | 17102 | 11653 |       |                             |  |  |  |  |
|   |   |                        | Pe                           |  |        |   |        | 22,50  | 20,20 | 17,90                        | 15,50 | 13,00 | 10,60 |       |                             |  |  |  |  |
| <b>Z35-106Y</b>                         | 1   | 30                     | Qo                           | 133810   | 111060 | 92031   | 76148  | 62843  | 51551 | 41702                        |       |       |       |       |                             |  |  |  |  |
|   |   |                        | Pe                           | 19,40  | 18,90  | 18,30   | 17,60  | 16,80  | 15,80 | 14,50                        |       |       |       |       |                             |  |  |  |  |
|   |   | 40                     | Qo                           | 120630   | 99794  | 82475   | 68100  | 56102  | 45912 | 36963                        |       |       |       |       |                             |  |  |  |  |
|   |   |                        | Pe                           | 23,40  | 22,50  | 21,50   | 20,40  | 19,20  | 17,70 | 16,10                        |       |       |       |       |                             |  |  |  |  |
|   |   | 50                     | Qo                           | 108080   | 89086  | 73405   | 60465  | 49698  | 40536 | 32413                        |       |       |       |       |                             |  |  |  |  |
|   |   |                        | Pe                           | 27,50  | 26,10  | 24,70   | 23,20  | 21,50  | 19,60 | 17,60                        |       |       |       |       |                             |  |  |  |  |
| <b>Z30-126Y</b>                         | 2   | 30                     | Qo                           |  |        |   | 85938  | 70924  | 57727 | 46218                        | 36265 | 27739 | 20510 | 14448 |                             |  |  |  |  |
|   |   |                        | Pe                           |  |        |   | 21,30  | 19,80  | 18,20 | 16,50                        | 14,70 | 12,70 | 10,50 | 8,20  |                             |  |  |  |  |
|   |   | 40                     | Qo                           |  |        |   | 76960  | 63314  | 51331 | 40882                        | 31837 | 24066 | 17439 | 11825 |                             |  |  |  |  |
|   |   |                        | Pe                           |  |        |   | 25,10  | 23,20  | 21,10 | 18,90                        | 16,60 | 14,10 | 11,40 | 8,56  |                             |  |  |  |  |
|   |   | 50                     | Qo                           |  |        |   | 68477  | 56154  | 45341 | 35910                        | 27729 | 20668 | 14599 |       |                             |  |  |  |  |
|   |   |                        | Pe                           |  |        |   | 29,00  | 26,60  | 24,10 | 21,40                        | 18,70 | 15,70 | 12,60 |       |                             |  |  |  |  |
| <b>Z40-126Y</b>                         | 1   | 30                     | Qo                           | 159430   | 131310 | 108700  | 90263  | 74657  | 60547 | 46595                        |       |       |       |       |                             |  |  |  |  |
|   |   |                        | Pe                           | 24,40  | 23,30  | 22,10   | 20,90  | 19,50  | 18,10 | 16,60                        |       |       |       |       |                             |  |  |  |  |
|   |   | 40                     | Qo                           | 146600   | 119880 | 98613   | 81473  | 67118  | 54211 | 41414                        |       |       |       |       |                             |  |  |  |  |
|   |   |                        | Pe                           | 29,80  | 28,00  | 26,20   | 24,40  | 22,50  | 20,70 | 18,80                        |       |       |       |       |                             |  |  |  |  |
|   |   | 50                     | Qo                           | 133140   | 107980 | 88222   | 72544  | 59603  | 48063 | 36585                        |       |       |       |       |                             |  |  |  |  |
|   |   |                        | Pe                           | 35,60  | 33,00  | 30,50   | 28,10  | 25,80  | 23,50 | 21,20                        |       |       |       |       |                             |  |  |  |  |
| <b>Z40-154Y</b>                         | 2   | 30                     | Qo                           |  |        |   | 128360 | 105677 | 86385 | 70112                        | 56489 | 45144 | 35707 | 27808 | 21077                       |  |  |  |  |
|   |   |                        | Pe                           |  |        |   | 26,27  | 26,23  | 25,39 | 23,90                        | 21,94 | 19,68 | 17,29 | 14,94 | 12,79                       |  |  |  |  |
|   |   | 40                     | Qo                           |  |        |   | 114726 | 94361  | 77091 | 62547                        | 50359 | 40155 | 31565 | 24220 | 17748                       |  |  |  |  |
|   |   |                        | Pe                           |  |        |   | 32,02  | 30,89  | 29,07 | 26,72                        | 24,02 | 21,14 | 18,24 | 15,49 | 13,07                       |  |  |  |  |
|   |   | 50                     | Qo                           |  |        |   | 101384 | 83260  | 67938 | 55048                        | 44219 | 35080 | 27262 | 20394 |                             |  |  |  |  |
|   |   |                        | Pe                           |  |        |   | 37,36  | 35,25  | 32,56 | 29,46                        | 26,13 | 22,73 | 19,43 | 16,41 |                             |  |  |  |  |
| <b>Z50-154Y</b>                         | 1   | 30                     | Qo                           | 187871   | 157360 | 130766  | 107762 | 88019  | 71207 | 56999                        |       |       |       |       |                             |  |  |  |  |
|   |   |                        | Pe                           | 23,29  | 25,16  | 25,95   | 25,81  | 24,92  | 23,42 | 21,48                        |       |       |       |       |                             |  |  |  |  |
|   |   | 40                     | Qo                           | 168933   | 141375 | 117388  | 96643  | 78810  | 63563 | 50571                        |       |       |       |       |                             |  |  |  |  |
|   |   |                        | Pe                           | 30,98  | 31,47  | 31,00   | 29,75  | 27,87  | 25,51 | 22,84                        |       |       |       |       |                             |  |  |  |  |
|   |   | 50                     | Qo                           | 150091   | 125451 | 104035  | 85512  | 69556  | 55837 | 44027                        |       |       |       |       |                             |  |  |  |  |
|   |   |                        | Pe                           | 38,47  | 37,72  | 36,14   | 33,91  | 31,17  | 28,09 | 24,82                        |       |       |       |       |                             |  |  |  |  |
| <b>W40-142Y</b>                         | 2   | 30                     | Qo                           | 175734   | 146695 | 121682  | 100302 | 82164  | 66876 | 54047                        |       |       |       |       |                             |  |  |  |  |
|   |   |                        | Pe                           | 23,25  | 24,56  | 24,91   | 24,44  | 23,33  | 21,71 | 19,75                        |       |       |       |       |                             |  |  |  |  |
|   |   | 40                     | Qo                           | 157939   | 131780 | 109291  | 90083  | 73764  | 59941 | 48224                        |       |       |       |       |                             |  |  |  |  |
|   |   |                        | Pe                           | 30,71  | 30,82  | 30,09   | 28,67  | 26,72  | 24,38 | 21,82                        |       |       |       |       |                             |  |  |  |  |
|   |   | 50                     | Qo                           | 140094   | 116774 | 96773   | 79698  | 65158  | 52762 | 42119                        |       |       |       |       |                             |  |  |  |  |
|   |   |                        | Pe                           | 36,30  | 35,62  | 34,22   | 32,25  | 29,86  | 27,21 | 24,46                        |       |       |       |       |                             |  |  |  |  |

**Prestazioni**  
**Performance**  
**Leistungswerte**

**R22**

| Compressore<br>Compressor<br>Verdichter | Vers. motore<br>Motor version<br>Motorversion | Conden.<br>Temp [°C] | Qo [Watt]<br>Pe [kW]<br>50Hz | ❶ Potenza frigorifera<br>❶ Potenza assorbita |        |        | ❶ Cooling capacity<br>❶ Power consumption |        |        | ❶ Kälteleistung<br>❶ Leistungsaufnahme |       |       |       |       |
|---|---|----------------------|------------------------------|--|--------|--------|---|--------|--------|--|-------|-------|-------|-------|
|   |   |                      |                              | Temperatura Evaporazione [°C]                |        |        | Evaporation Temperature [°C]              |        |        | Verdampfungstemperatur [°C]            |       |       |       |       |
|   |   |                      |                              | 10   | 5      | 0      | -5  | -10    | -15    | -20                                    | -25   | -30   | -35   | -40   |
| <b>W40-168Y</b>                         | 2   | 30                   | Qo                           |  |        |        | 119638                                    | 98195  | 80111  | 64948                                  | 52271 | 41643 | 32628 | 24790 |
|   |   |                      | Pe                           |  |        |        | 29,28                                     | 28,03  | 26,19  | 23,96                                  | 21,49 | 18,98 | 16,60 | 14,53 |
|   |   | 40                   | Qo                           |  |        |        | 107856                                    | 88369  | 71977  | 58244                                  | 46733 | 37009 | 28635 | 21174 |
|   |   |                      | Pe                           |  |        |        | 35,11                                     | 32,62  | 29,70  | 26,55                                  | 23,33 | 20,23 | 17,43 | 15,09 |
|   |   | 50                   | Qo                           |  |        |        |   |        | 63715  | 51371                                  | 40987 | 32126 | 24352 |       |
|   |   |                      | Pe                           |  |        |        |   |        | 32,79  | 28,87                                  | 25,05 | 21,50 | 18,42 |       |
| <b>W50-168Y</b>                         | 1   | 30                   | Qo                           | 211998                                       | 177122 | 147068 | 121365                                    | 99540  | 81122  | 65640                                  |       |       |       |       |
|   |   |                      | Pe                           | 29,01  | 30,59  | 31,01  | 30,44                                     | 29,09  | 27,12  | 24,74                                  |       |       |       |       |
|   |   | 40                   | Qo                           | 189187                                       | 158004 | 131189 | 108270                                    | 88775  | 72234  | 58174                                  |       |       |       |       |
|   |   |                      | Pe                           | 39,55  | 39,38  | 38,19  | 36,18                                     | 33,53  | 30,42  | 27,06                                  |       |       |       |       |
|   |   | 50                   | Qo                           |  |        | 114985 | 94873                                     | 77733  | 63090  | 50476                                  |       |       |       |       |
|   |   |                      | Pe                           |  |        | 44,64  | 41,43                                     | 37,75  | 33,76  | 29,67                                  |       |       |       |       |
| <b>W50-187Y</b>                         | 2   | 30                   | Qo                           |  |        | 162942 | 134308                                    | 109918 | 89324  | 72078                                  | 57731 | 45836 | 35944 | 27607 |
|   |   |                      | Pe                           |  |        | 33,64  | 33,21                                     | 31,91  | 29,93  | 27,49                                  | 24,80 | 22,06 | 19,48 | 17,28 |
|   |   | 40                   | Qo                           |  |        | 144994 | 119015                                    | 96993  | 78479  | 63027                                  | 50187 | 39511 | 30553 | 22863 |
|   |   |                      | Pe                           |  |        | 41,78  | 39,63                                     | 36,81  | 33,54  | 30,01                                  | 26,45 | 23,04 | 20,02 | 17,57 |
|   |   | 50                   | Qo                           |  |        |        | 103841                                    | 84204  | 67789  | 54148                                  | 42832 | 33395 | 25387 |       |
|   |   |                      | Pe                           |  |        |        | 45,71                                     | 41,47  | 36,99  | 32,47                                  | 28,12 | 24,14 | 20,75 |       |
| <b>W60-187Y</b>                         | 1   | 30                   | Qo                           | 237251                                       | 198393 | 164558 | 135325                                    | 110276 | 88992  | 71054                                  |       |       |       |       |
|   |   |                      | Pe                           | 30,02  | 31,96  | 32,41  | 31,64                                     | 29,90  | 27,45  | 24,53                                  |       |       |       |       |
|   |   | 40                   | Qo                           | 211763                                       | 176745 | 146285 | 119965                                    | 97366  | 78070  | 61657                                  |       |       |       |       |
|   |   |                      | Pe                           | 41,12  | 41,24  | 40,03  | 37,73                                     | 34,60  | 30,89  | 26,87                                  |       |       |       |       |
|   |   | 50                   | Qo                           | 185568                                       | 154436 | 127400 | 104041                                    | 83940  | 66679  | 51838                                  |       |       |       |       |
|   |   |                      | Pe                           | 51,00  | 49,59  | 46,98  | 43,43                                     | 39,19  | 34,52  | 29,67                                  |       |       |       |       |
| <b>W60-206Y</b>                         | 2   | 30                   | Qo                           |  |        | 185162 | 153035                                    | 125104 | 101062 | 80600                                  | 63410 | 49183 | 37609 | 28381 |
|   |   |                      | Pe                           |  |        | 36,49  | 36,21                                     | 34,64  | 32,10  | 28,88                                  | 25,29 | 21,63 | 18,21 | 15,33 |
|   |   | 40                   | Qo                           |  |        | 165114 | 135974                                    | 110708 | 89007  | 70562                                  | 55066 | 42209 | 31683 | 23178 |
|   |   |                      | Pe                           |  |        | 45,60  | 43,64                                     | 40,58  | 36,72  | 32,35                                  | 27,80 | 23,36 | 19,33 | 16,02 |
|   |   | 50                   | Qo                           |  |        | 144853 | 118774                                    | 96246  | 76959  | 60606                                  | 46877 | 35465 | 26060 |       |
|   |   |                      | Pe                           |  |        | 54,06  | 50,57                                     | 46,15  | 41,11  | 35,75                                  | 30,37 | 25,29 | 20,80 |       |
| <b>W70-206Y</b>                         | 1   | 30                   | Qo                           | 261472                                       | 220332 | 183937 | 151971                                    | 124119 | 100065 | 79494                                  |       |       |       |       |
|   |   |                      | Pe                           | 31,12  | 34,10  | 35,35  | 35,13                                     | 33,73  | 31,40  | 28,43                                  |       |       |       |       |
|   |   | 40                   | Qo                           | 233794                                       | 196925 | 164234 | 135404                                    | 110121 | 88069  | 68932                                  |       |       |       |       |
|   |   |                      | Pe                           | 43,26  | 44,44  | 43,96  | 42,08                                     | 39,09  | 35,24  | 30,81                                  |       |       |       |       |
|   |   | 50                   | Qo                           | 205356                                       | 172817 | 143887 | 118251                                    | 95595  | 75602  | 57958                                  |       |       |       |       |
|   |   |                      | Pe                           | 55,40  | 54,79  | 52,60  | 49,07                                     | 44,50  | 39,14  | 33,26                                  |       |       |       |       |
| <b>W70-228Y</b>                         | 2   | 30                   | Qo                           |  |        | 204997 | 169221                                    | 138114 | 111338 | 88558                                  | 69438 | 53641 | 40832 | 30674 |
|   |   |                      | Pe                           |  |        | 40,34  | 40,02                                     | 38,26  | 35,41  | 31,82                                  | 27,82 | 23,75 | 19,97 | 16,80 |
|   |   | 40                   | Qo                           |  |        | 182730 | 150153                                    | 121916 | 97681  | 77113                                  | 59876 | 45633 | 34049 | 24787 |
|   |   |                      | Pe                           |  |        | 50,20  | 47,97                                     | 44,51  | 40,18  | 35,31                                  | 30,24 | 25,32 | 20,88 | 17,26 |
|   |   | 50                   | Qo                           |  |        | 160632 | 131293                                    | 105964 | 84309  | 65992                                  | 50676 | 38027 |       |       |
|   |   |                      | Pe                           |  |        | 59,70  | 55,68                                     | 50,63  | 44,92  | 38,88                                  | 32,84 | 27,16 |       |       |
| <b>W75-228Y</b>                         | 1   | 30                   | Qo                           | 289394                                       | 243846 | 203581 | 168239                                    | 137461 | 110889 |  |       |       |       |       |
|   |   |                      | Pe                           | 34,53  | 37,84  | 39,25  | 39,06                                     | 37,56  | 35,04  |  |       |       |       |       |
|   |   | 40                   | Qo                           | 258694                                       | 217975 | 181888 | 150076                                    | 122178 | 97836  |  |       |       |       |       |
|   |   |                      | Pe                           | 47,95  | 49,21  | 48,66  | 46,60                                     | 43,32  | 39,10  |  |       |       |       |       |
|   |   | 50                   | Qo                           | 226728                                       | 190907 | 159069 | 130856                                    | 105908 | 83866  |  |       |       |       |       |
|   |   |                      | Pe                           | 61,52  | 60,71  | 58,19  | 54,24                                     | 49,15  | 43,24  |  |       |       |       |       |
| <b>W75-240Y</b>                         | 2   | 30                   | Qo                           |  |        | 213234 | 176683                                    | 144817 | 117316 | 93860                                  | 74131 | 57807 | 57807 | 34100 |
|   |   |                      | Pe                           |  |        | 42,00  | 41,61                                     | 39,90  | 37,16  | 33,69                                  | 29,79 | 25,74 | 25,74 | 18,44 |
|   |   | 40                   | Qo                           |  |        | 191247 | 157845                                    | 128814 | 103834 | 82585                                  | 64748 | 50002 | 50002 | 28507 |
|   |   |                      | Pe                           |  |        | 52,67  | 50,44                                     | 47,07  | 42,85  | 38,08                                  | 33,06 | 28,08 | 28,08 | 19,46 |
|   |   | 50                   | Qo                           |  |        | 169102 | 138922                                    | 112798 | 90410  | 71439                                  | 55566 | 42470 |       |       |
|   |   |                      | Pe                           |  |        | 62,93  | 58,93                                     | 53,97  | 48,35  | 42,36                                  | 36,29 | 30,46 |       |       |
| <b>W80-240Y</b>                         | 1   | 30                   | Qo                           | 303321                                       | 255556 | 213354 | 176334                                    | 144113 | 116310 |  |       |       |       |       |
|   |   |                      | Pe                           | 36,30  | 39,81  | 41,29  | 41,07                                     | 39,44  | 36,72  |  |       |       |       |       |
|   |   | 40                   | Qo                           | 270934                                       | 228233 | 190416 | 157102                                    | 127908 | 102453 |  |       |       |       |       |
|   |   |                      | Pe                           | 50,32  | 51,75  | 51,23  | 49,08                                     | 45,61  | 41,12  |  |       |       |       |       |
|   |   | 50                   | Qo                           | 237571                                       | 199954 | 166543 | 136955                                    | 110809 | 87722  |  |       |       |       |       |
|   |   |                      | Pe                           | 64,08  | 63,48  | 61,01  | 56,98                                     | 51,71  | 45,51  |  |       |       |       |       |

❶ Dati indicati secondo EN12900 e funzionamento a 50 Hz. Per dati in punti operativi diversi vedi Frascold Selection Software. I dati non certificati sono provvisori e suscettibili di variazioni. Dati a 60 Hz = \*1.2

❶ Data based on EN12900 and 50 Hz operation. Performance data for individual conditions see Frascold Selection Software. Not certified data are provisional and variations are possible. 60 Hz data = \*1.2

❶ Daten gemäß EN12900 und Betrieb bei 50 Hz. Daten für abweichende Betriebspunkte entnehmen Sie der Frascold Selection Software. Nicht zertifizierte Daten sind vorläufig und können Veränderungen unterliegen. Daten bei 60 Hz = \*1.2

❷ Raffreddamento supplementare o limitata temperatura di aspirazione

❷ Additional cooling or limited suction temperature

❷ Zusatzkühlung oder begrenzte Sauggas-Temperatur

## Software di selezione compressori Compressors selection software Verdichter Auswahl Software

### FSS (Frascold Selection Software)

è un programma che consente di selezionare il compressore rispondente alla capacità e alla condizione richiesta.

### Principali caratteristiche

Il programma è disponibile sul nostro sito [www.frascold.it](http://www.frascold.it), si aggiorna automaticamente e funziona anche se non si è collegati a internet.

Dal menu "extra" si possono selezionare diverse lingue e unità di misura.

### FSS (Frascold Selection Software)

is a software that allows you to select the compressor matching the cooling capacity and operating condition requirements

### Main features

The software is available on our website [www.frascold.it](http://www.frascold.it), it updates automatically and can work offline.

In the "extras" menu different languages and units of measurement can be selected.

### FSS (Frascold Selection Software)

es geht um ein Programm dass Auswahl Verdichter nach Kapazität und Arbeit-bedingungen erlaubt

### Grünzüge

Software findet man über unsere Website [www.frascold.it](http://www.frascold.it). Software sich aktualisiert automatisch. Software arbeitet auch ohne Internet Verbindung. Kann man Sprachen und Maßeinheiten über Menü "extras" auswählen.

## Grafico struttura software Software structure chart Schaubild der Softwarestruktur

### Dati in ingresso

- refrigerante
- alimentazione elettrica
- compressore / capacità frigorifera
- temperatura condensazione
- sottoraffreddamento
- temperatura di evaporazione
- surriscaldamento / temperatura di aspirazione
- surriscaldamento evaporatore / frazione utile di surriscaldamento

### Dati in uscita

- capacità frigorifera
- potenza assorbita
- dati elettrici
- portata massica
- temperature operative
- pressioni operative

### Strumenti

- dati tecnici  
Dati di resa frigorifera in punti operativi diversi.  
Dati dimensionali ed elettrici del compressore
- limiti operativi  
Campo di applicazione e condizioni di lavoro nel punto operativo selezionato
- stampa
- esporta dati in formato xls o txt

### Input data

- refrigerant
- power supply
- compressor / cooling capacity
- condensing temperature
- subcooling
- evaporating temperature
- superheating / suction temperature
- evaporator superheating / useful fraction of superheating

### Output data

- cooling capacity
- input power
- electrical data
- mass flow
- operational temperatures
- operational pressures

### Tools

- technical data  
Performance data in different operational conditions.  
Dimensions, electrical data of compressor
- operating limits  
Application envelope and selected operating point
- printout
- export  
Data in xls or txt formats

### Eingabedaten

- Kältemittel
- Spannungsversorgung
- Verdichtertyp / Kälteleistung
- Kondensationtemperatur
- Unterkühlung
- Verdampfungstemperatur
- Überhitzung / Sauggasttemperatur
- Verdampferüberhitzung / nutzbarer Anteil Sauggasüberhitzung

### Ausgabedaten

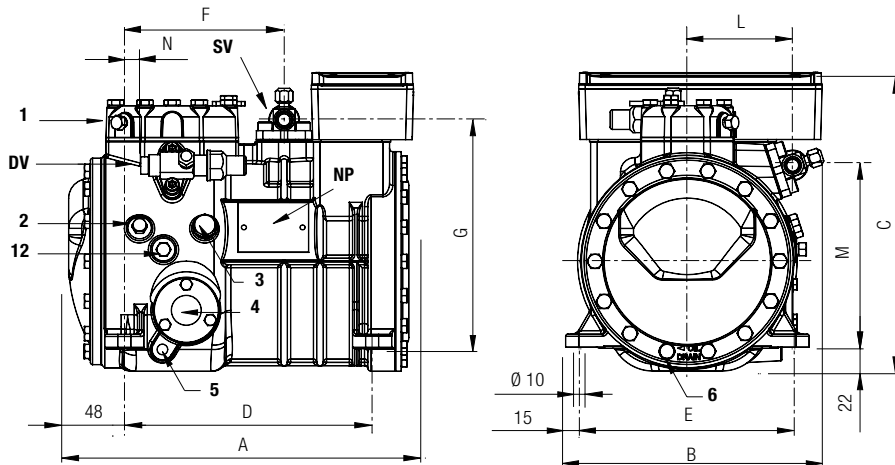
- Kälteleistung
- Leistungsaufnahme
- Elektrisches Daten
- Massenstrom
- Betriebstemperaturen
- Betriebsdrücke

### Extras

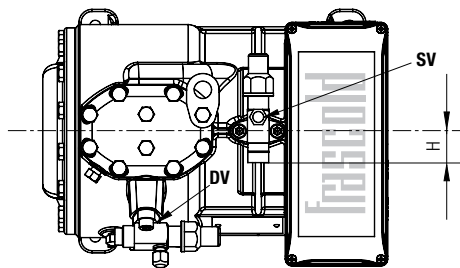
- Technische daten  
Kälteleistung verschiedene arbeiten-Punkte.  
Mass, Zeichnung und elektrischen Data der Verdichtere
- Einsatzgrenzen  
Einsatzgrenzen und arbeit Bedingungen in ausgewählte arbeit-Punkt
- Drucken
- Exportieren xls oder txt Data Format



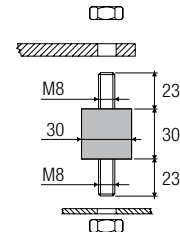
**Dimensioni di ingombro**  
**Dimensionale drawing**  
**Maßzeichnungen**



**Serie**  
**Series**  
**Reihe** **A**



Supporto antivibrante  
 Vibrator absorber  
 Vibrationsabsorber

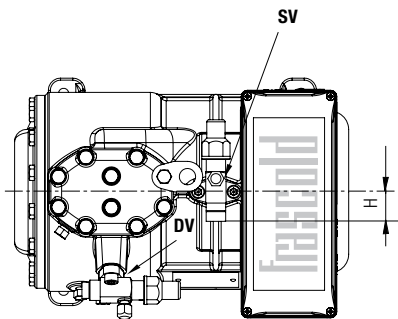
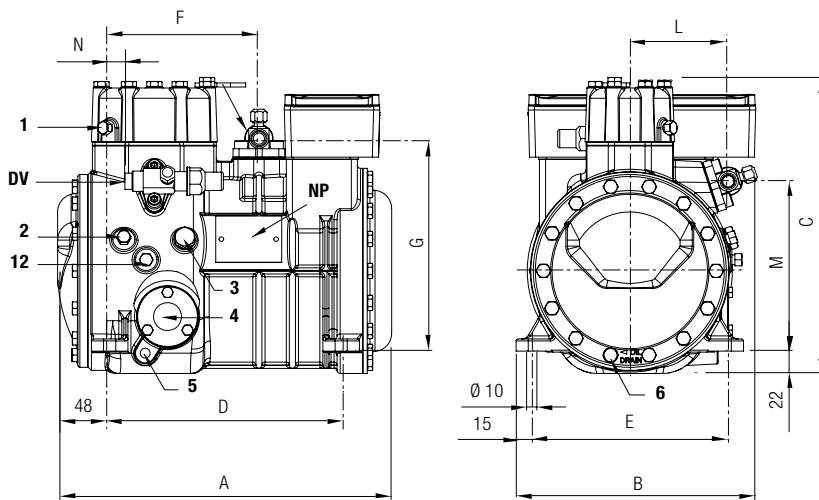


| Compressore<br>Compressor<br>Verdichter | Rubinetto aspirazione<br>Suction valve<br>Saugventil |         | Rubinetto compressione<br>Discharge valve<br>Druckventil |         | Lunghezza<br>Length<br>Länge | Larghezza<br>Width<br>Breite | Altezza<br>Height<br>Höhe | Interassi di fissaggio<br>Base mounting<br>Abstand Befestigungslöcher |                       | Rubinetto aspirazione<br>Suction valve<br>Saugventil |         |         | Rubinetto compressione<br>Discharge valve<br>Druckventil |         |         |
|---|--|---------|--|---------|------------------------------|------------------------------|---------------------------|---|-----------------------|--|---------|---------|--|---------|---------|
|   | Ø<br>"   | Ø<br>mm | Ø<br>"   | Ø<br>mm |                              |                              |                           | D<br>mm   | E<br>mm               | F<br>mm  | G<br>mm | H<br>mm | L<br>mm  | M<br>mm | N<br>mm |
| <b>A05-4Y</b>                           | 5/8  | 15,8    | 1/2  | 12,7    | 317                          | 237                          | 275                       | 234   | 194                   | 150  | 209     | 29      | 97   | 167     | 18      |
| <b>A05-5Y</b>                           | 5/8  | 15,8    | 1/2  | 12,7    | 317                          | 237                          | 275                       | 234   | 194                   | 150  | 209     | 29      | 97   | 167     | 18      |
| <b>A07-5Y</b>                           | 5/8  | 15,8    | 1/2  | 12,7    | 317                          | 237                          | 275                       | 234   | 194                   | 150  | 209     | 29      | 97   | 167     | 18      |
| <b>A07-6Y</b>                           | 5/8  | 15,8    | 1/2  | 12,7    | 317                          | 237                          | 275                       | 234   | 194                   | 150  | 209     | 29      | 97   | 167     | 18      |
| <b>A1-6Y</b>                            | 5/8  | 15,8    | 1/2  | 12,7    | 317                          | 237                          | 275                       | 234   | 194                   | 150  | 209     | 29      | 97   | 167     | 18      |
| <b>A1-7Y</b>                            | 5/8  | 15,8    | 1/2  | 12,7    | 317                          | 237                          | 275                       | 234   | 194                   | 150  | 209     | 29      | 97   | 167     | 18      |
| <b>A1.5-7Y</b>                          | 5/8  | 15,8    | 1/2  | 12,7    | 317                          | 237                          | 275                       | 234   | 194                   | 150  | 209     | 29      | 97   | 167     | 18      |
| <b>A1.5-8Y</b>                          | 5/8  | 15,8    | 1/2  | 12,7    | 317                          | 237                          | 275                       | 234   | 194                   | 150  | 209     | 29      | 97   | 167     | 18      |
| <b>1</b>                                | tappo di alta pressione                              |         |  |         | high pressure plug           |                              |                           |   | Stopfen Druckseite    |  |         |         | 1/8" NPT   |         |         |
| <b>2</b>                                | tappo di bassa pressione                             |         |  |         | low pressure plug            |                              |                           |   | Stopfen Saugseite     |  |         |         | 1/8" NPT   |         |         |
| <b>3</b>                                | tappo di carico olio                                 |         |  |         | oil charge plug              |                              |                           |   | Öleinfüll-Stopfen     |  |         |         | 1/4" GAS   |         |         |
| <b>4</b>                                | spia di livello olio                                 |         |  |         | oil level sight glass        |                              |                           |   | Schauglas Ölstand     |  |         |         |  |         |         |
| <b>5</b>                                | sede resistenza carter                               |         |  |         | crankcase heater seat        |                              |                           |   | Ölsumpfheizung        |  |         |         |  |         |         |
| <b>6</b>                                | tappo scarico olio                                   |         |  |         | oil drain plug               |                              |                           |   | Stopfen Ölablass      |  |         |         | M8 x 22 ISO4017  |         |         |
| <b>12</b>                               | tappo ritorno olio                                   |         |  |         | oil return plug              |                              |                           |   | Stopfen Ölrückführung |  |         |         | 1/8" NPT   |         |         |
| <b>DV</b>                               | rubinetto di compressione                            |         |  |         | discharge valve              |                              |                           |   | Druckventil           |  |         |         |  |         |         |
| <b>SV</b>                               | rubinetto di aspirazione                             |         |  |         | suction valve                |                              |                           |   | Saugventil            |  |         |         |  |         |         |
| <b>NP</b>                               | targhetta  |         |  |         | name plate                   |                              |                           |   | Verdichtertypschild   |  |         |         |  |         |         |

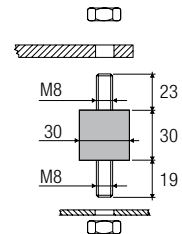


**Dimensioni di ingombro**  
**Dimensionale drawing**  
**Maßzeichnungen**

**Serie**  
**Series**  
**Reihe** **B**



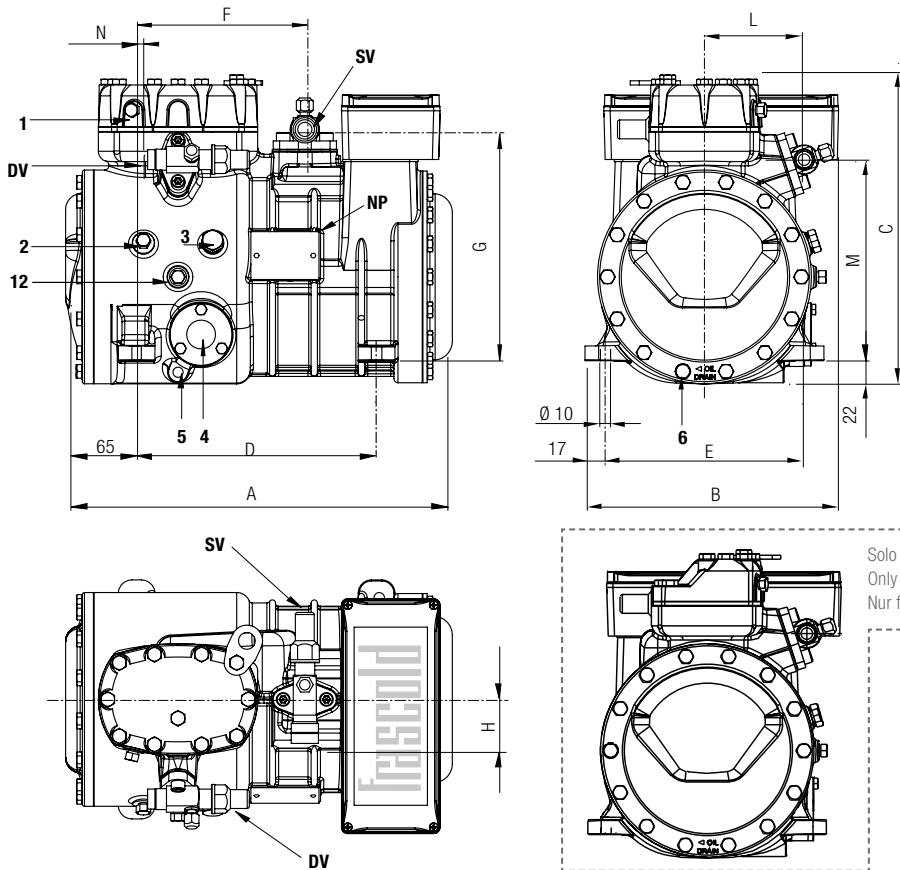
Supporto antivibrante  
 Vibration absorber  
 Vibrationsabsorber



| Compressore<br>Compressor<br>Verdichter | Rubinetto aspirazione<br>Suction valve<br>Saugventil |         | Rubinetto compressione<br>Discharge valve<br>Druckventil |         | Lunghezza<br>Length<br>Länge | Larghezza<br>Width<br>Breite | Altezza<br>Height<br>Höhe | Interassi di fissaggio<br>Base mounting<br>Abstand Befestigungslöcher |                       | Rubinetto aspirazione<br>Suction valve<br>Saugventil |         |         | Rubinetto compressione<br>Discharge valve<br>Druckventil |         |         |
|---|--|---------|--|---------|------------------------------|------------------------------|---------------------------|---|-----------------------|--|---------|---------|--|---------|---------|
|   | Ø<br>"   | Ø<br>mm | Ø<br>"   | Ø<br>mm |                              |                              |                           | D<br>mm   | E<br>mm               | F<br>mm  | G<br>mm | H<br>mm | L<br>mm  | M<br>mm | N<br>mm |
| <b>B1.5-9.1Y</b>                        | 5/8  | 15,8    | 1/2  | 12,7    | 329                          | 237                          | 292                       | 234   | 194                   | 150  | 209     | 29      | 97   | 167     | 18      |
| <b>B1.5-10.1Y</b>                       | 5/8  | 15,8    | 1/2  | 12,7    | 329                          | 237                          | 292                       | 234   | 194                   | 150  | 209     | 29      | 97   | 167     | 18      |
| <b>B2-10.1Y</b>                         | 3/4  | 19,0    | 5/8  | 15,8    | 334                          | 237                          | 292                       | 234   | 194                   | 150  | 209     | 31      | 97   | 167     | 18      |
| <b>1</b>                                | tappo di alta pressione                              |         |  |         | high pressure plug           |                              |                           |   | Stopfen Druckseite    |  |         |         | 1/8" NPT   |         |         |
| <b>2</b>                                | tappo di bassa pressione                             |         |  |         | low pressure plug            |                              |                           |   | Stopfen Saugseite     |  |         |         | 1/8" NPT   |         |         |
| <b>3</b>                                | tappo di carico olio                                 |         |  |         | oil charge plug              |                              |                           |   | Öleinfüll-Stopfen     |  |         |         | 1/4" GAS   |         |         |
| <b>4</b>                                | spia di livello olio                                 |         |  |         | oil level sight glass        |                              |                           |   | Schauglas Ölstand     |  |         |         |  |         |         |
| <b>5</b>                                | sede resistenza carter                               |         |  |         | crankcase heater seat        |                              |                           |   | Ölumpfheizung         |  |         |         |  |         |         |
| <b>6</b>                                | tappo scarico olio                                   |         |  |         | oil drain plug               |                              |                           |   | Stopfen Ölablass      |  |         |         | M8 x 18 ISO4017  |         |         |
| <b>12</b>                               | tappo ritorno olio                                   |         |  |         | oil return plug              |                              |                           |   | Stopfen Ölrückführung |  |         |         | 1/8" NPT   |         |         |
| <b>DV</b>                               | rubinetto di compressione                            |         |  |         | discharge valve              |                              |                           |   | Druckventil           |  |         |         |  |         |         |
| <b>SV</b>                               | rubinetto di aspirazione                             |         |  |         | suction valve                |                              |                           |   | Saugventil            |  |         |         |  |         |         |
| <b>NP</b>                               | targhetta  |         |  |         | name plate                   |                              |                           |   | Verdichtertypschild   |  |         |         |  |         |         |

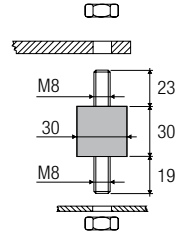
Dimensioni di ingombro  
Dimensional drawing  
Maßzeichnungen

Serie  
Series  
Reihe **D**



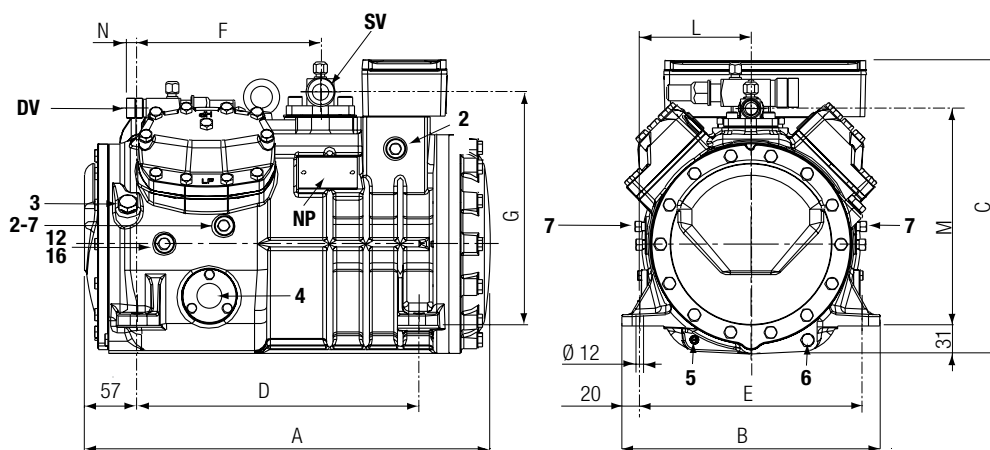
Solo per i modelli con \*  
Only for models with \*  
Nur für Modelle mit \*

Supporto antivibrante  
Vibration absorber  
Vibrationsabsorber

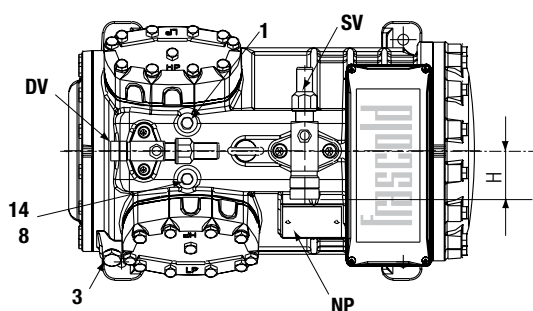


| Compressore<br>Compressor<br>Verdichter | Rubinetto aspirazione<br>Suction valve<br>Saugventil |         | Rubinetto compressione<br>Discharge valve<br>Druckventil |         | Lunghezza<br>Length<br>Länge | Larghezza<br>Width<br>Breite | Altezza<br>Height<br>Höhe | Interassi di fissaggio<br>Base mounting<br>Abstand Befestigungslöcher |                       | Rubinetto aspirazione<br>Suction valve<br>Saugventil |         |         | Rubinetto compressione<br>Discharge valve<br>Druckventil |         |         |         |
|---|--|---------|--|---------|------------------------------|------------------------------|---------------------------|---|-----------------------|--|---------|---------|--|---------|---------|---------|
|   | Ø<br>"   | Ø<br>mm | Ø<br>"   | Ø<br>mm |                              |                              |                           | A<br>mm   | B<br>mm               | C<br>mm  | D<br>mm | E<br>mm | F<br>mm  | G<br>mm | H<br>mm | L<br>mm |
| <b>D2-11.1Y *</b>                       | 7/8  | 22,2    | 5/8  | 15,8    | 369                          | 242                          | 294                       | 234   | 194                   | 165  | 221     | 42      | 94   | 192     | 13      |         |
| <b>D2-13.1Y *</b>                       | 7/8  | 22,2    | 5/8  | 15,8    | 369                          | 242                          | 294                       | 234   | 194                   | 165  | 221     | 42      | 94   | 192     | 13      |         |
| <b>D3-13.1Y</b>                         | 1 1/8  | 28,6    | 5/8  | 15,8    | 374                          | 242                          | 317                       | 234   | 194                   | 165  | 225     | 53      | 94   | 192     | 13      |         |
| <b>D2-15.1Y *</b>                       | 7/8  | 22,2    | 5/8  | 15,8    | 369                          | 242                          | 294                       | 234   | 194                   | 165  | 221     | 42      | 94   | 192     | 13      |         |
| <b>D3-15.1Y</b>                         | 1 1/8  | 28,6    | 5/8  | 15,8    | 374                          | 242                          | 317                       | 234   | 194                   | 165  | 225     | 53      | 94   | 192     | 13      |         |
| <b>D3-16.1Y</b>                         | 1 1/8  | 28,6    | 5/8  | 15,8    | 374                          | 242                          | 317                       | 234   | 194                   | 165  | 225     | 53      | 94   | 192     | 13      |         |
| <b>D4-16.1Y</b>                         | 1 1/8  | 28,6    | 3/4  | 19,0    | 401                          | 242                          | 317                       | 234   | 194                   | 165  | 225     | 53      | 94   | 192     | 5       |         |
| <b>D3-18.1Y</b>                         | 1 1/8  | 28,6    | 5/8  | 15,8    | 374                          | 242                          | 317                       | 234   | 194                   | 165  | 225     | 53      | 94   | 192     | 13      |         |
| <b>D4-18.1Y</b>                         | 1 1/8  | 28,6    | 3/4  | 19,0    | 401                          | 242                          | 317                       | 234   | 194                   | 165  | 225     | 53      | 94   | 192     | 5       |         |
| <b>D3-19.1Y</b>                         | 1 1/8  | 28,6    | 5/8  | 15,8    | 374                          | 242                          | 317                       | 234   | 194                   | 165  | 225     | 53      | 94   | 192     | 13      |         |
| <b>D4-19.1Y</b>                         | 1 1/8  | 28,6    | 3/4  | 19,0    | 401                          | 242                          | 317                       | 234   | 194                   | 165  | 225     | 53      | 94   | 192     | 5       |         |
| <b>1</b>                                | tappo di alta pressione                              |         |  |         | high pressure plug           |                              |                           |   | Stopfen Druckseite    |  |         |         | 1/8" NPT   |         |         |         |
| <b>2</b>                                | tappo di bassa pressione                             |         |  |         | low pressure plug            |                              |                           |   | Stopfen Saugseite     |  |         |         | 1/8" NPT   |         |         |         |
| <b>3</b>                                | tappo di carico olio                                 |         |  |         | oil charge plug              |                              |                           |   | Öleinfüll-Stopfen     |  |         |         | 1/4" GAS   |         |         |         |
| <b>4</b>                                | spia di livello olio                                 |         |  |         | oil level sight glass        |                              |                           |   | Schauglas Ölstand     |  |         |         |  |         |         |         |
| <b>5</b>                                | sede resistenza carter                               |         |  |         | crankcase heater seat        |                              |                           |   | Ölumpfheizung         |  |         |         |  |         |         |         |
| <b>6</b>                                | tappo scarico olio                                   |         |  |         | oil drain plug               |                              |                           |   | Stopfen Ölablass      |  |         |         | M8 x 22 ISO4017  |         |         |         |
| <b>12</b>                               | tappo ritorno olio                                   |         |  |         | oil return plug              |                              |                           |   | Stopfen Ölrückführung |  |         |         | 1/8" NPT   |         |         |         |
| <b>DV</b>                               | rubinetto di compressione                            |         |  |         | discharge valve              |                              |                           |   | Druckventil           |  |         |         |  |         |         |         |
| <b>SV</b>                               | rubinetto di aspirazione                             |         |  |         | suction valve                |                              |                           |   | Saugventil            |  |         |         |  |         |         |         |
| <b>NP</b>                               | targhetta  |         |  |         | name plate                   |                              |                           |   | Verdichtertypschild   |  |         |         |  |         |         |         |

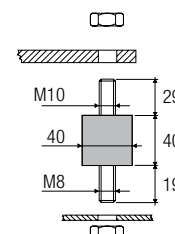
**Dimensioni di ingombro**  
**Dimensionale drawing**  
**Maßzeichnungen**



**Serie**  
**Series**  
**Reihe** **Q**



Supporto antivibrante  
 Vibrations absorber  
 Vibrationsabsorber

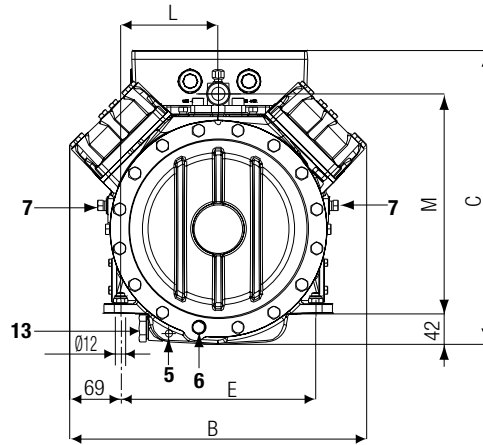
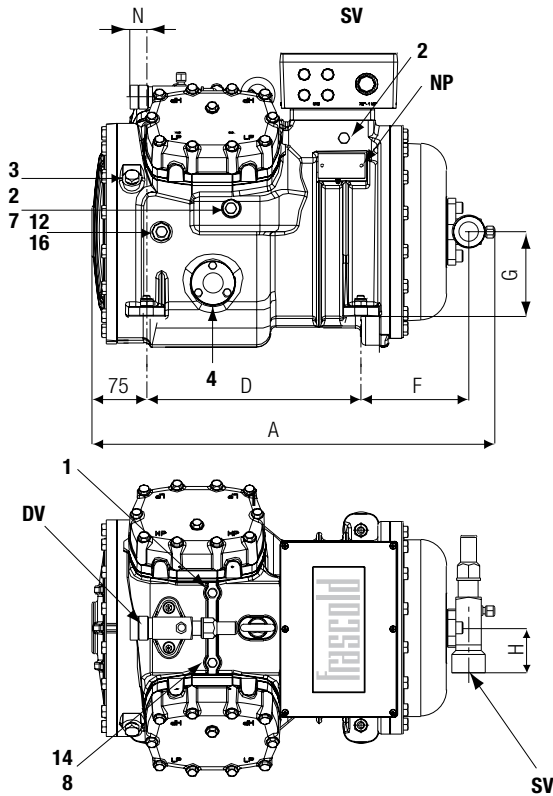


| Compressore<br>Compressor<br>Verdichter | Rubinetto aspirazione<br>Suction valve<br>Saugventil |      | Rubinetto compressione<br>Discharge valve<br>Druckventil |      | Lunghezza<br>Lenght<br>Länge | Larghezza<br>Width<br>Breite | Altezza<br>Height<br>Höhe | Interassi di fissaggio<br>Base mounting<br>Abstand Befestigungslöcher |      |      | Rubinetto aspirazione<br>Suction valve<br>Saugventil |      |      | Rubinetto compressione<br>Discharge valve<br>Druckventil |      |  |
|---|--|------|--|------|------------------------------|------------------------------|---------------------------|---|------|------|--|------|------|--|------|--|
|   | Ø"   | Ø mm | Ø"   | Ø mm |                              |                              |                           | D mm  | E mm | F mm | G mm   | H mm | L mm | M mm   | N mm |  |
|   |  |      |  |      |                              |                              |                           |   |      |      |  |      |      |  |      |  |
| <b>Q4-20.1E</b>                         | 1 1/8  | 28,6 | 3/4  | 19,0 | 449                          | 286                          | 325                       | 312   | 246  | 203  | 258  | 53   | 123  | 239  | 12   |  |
| <b>Q4-20.1Y</b>                         | 1 1/8  | 28,6 | 3/4  | 19,0 | 449                          | 286                          | 325                       | 312   | 246  | 203  | 258  | 53   | 123  | 239  | 12   |  |
| <b>Q4-21.1Y</b>                         | 1 1/8  | 28,6 | 3/4  | 19,0 | 449                          | 286                          | 325                       | 312   | 246  | 203  | 258  | 53   | 123  | 239  | 12   |  |
| <b>Q5-21.1Y</b>                         | 1 1/8  | 28,6 | 3/4  | 19,0 | 449                          | 286                          | 325                       | 312   | 246  | 203  | 258  | 53   | 123  | 239  | 12   |  |
| <b>Q4-24.1E</b>                         | 1 1/8  | 28,6 | 3/4  | 19,0 | 449                          | 286                          | 325                       | 312   | 246  | 203  | 258  | 53   | 123  | 239  | 12   |  |
| <b>Q4-24.1Y</b>                         | 1 1/8  | 28,6 | 3/4  | 19,0 | 449                          | 286                          | 325                       | 312   | 246  | 203  | 258  | 53   | 123  | 239  | 12   |  |
| <b>Q5-24.1Y</b>                         | 1 1/8  | 28,6 | 7/8  | 22,2 | 449                          | 286                          | 325                       | 312   | 246  | 203  | 258  | 53   | 123  | 239  | 17   |  |
| <b>Q4-25.1Y</b>                         | 1 1/8  | 28,6 | 3/4  | 19,0 | 449                          | 286                          | 325                       | 312   | 246  | 203  | 258  | 53   | 123  | 239  | 17   |  |
| <b>Q5-25.1Y</b>                         | 1 1/8  | 28,6 | 7/8  | 22,2 | 449                          | 286                          | 325                       | 312   | 246  | 203  | 258  | 53   | 123  | 239  | 17   |  |
| <b>Q7-25.1Y</b>                         | 1 1/8  | 28,6 | 7/8  | 22,2 | 449                          | 286                          | 325                       | 312   | 246  | 203  | 258  | 53   | 123  | 239  | 17   |  |
| <b>Q5-28.1E</b>                         | 1 3/8  | 35,0 | 1/2  | 22,2 | 449                          | 286                          | 328                       | 312   | 246  | 203  | 261  | 58   | 123  | 239  | 17   |  |
| <b>Q5-28.1Y</b>                         | 1 3/8  | 35,0 | 7/8  | 22,2 | 449                          | 286                          | 325                       | 312   | 246  | 203  | 261  | 58   | 123  | 239  | 17   |  |
| <b>Q7-28.1Y</b>                         | 1 3/8  | 35,0 | 1 1/8  | 28,6 | 449                          | 286                          | 328                       | 312   | 246  | 203  | 261  | 58   | 123  | 239  | 28   |  |
| <b>Q5-33.1E</b>                         | 1 3/8  | 35,0 | 1 1/8  | 28,6 | 449                          | 286                          | 328                       | 312   | 246  | 203  | 261  | 58   | 123  | 239  | 28   |  |
| <b>Q5-33.1Y</b>                         | 1 3/8  | 35,0 | 1 1/8  | 28,6 | 449                          | 286                          | 328                       | 312   | 246  | 203  | 261  | 58   | 123  | 239  | 28   |  |
| <b>Q7-33.1Y</b>                         | 1 3/8  | 35,0 | 1 1/8  | 28,6 | 449                          | 286                          | 328                       | 312   | 246  | 203  | 261  | 58   | 123  | 239  | 28   |  |
| <b>Q5-36.1Y</b>                         | 1 3/8  | 35,0 | 1 1/8  | 28,6 | 449                          | 286                          | 328                       | 312   | 246  | 203  | 261  | 58   | 123  | 239  | 28   |  |
| <b>Q7-36.1Y</b>                         | 1 3/8  | 35,0 | 1 1/8  | 28,6 | 449                          | 286                          | 328                       | 312   | 246  | 203  | 261  | 58   | 123  | 239  | 28   |  |

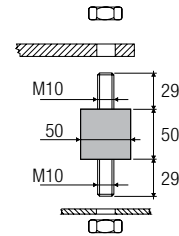
|           |  |                                  |                                  |                 |
|-----------|--|----------------------------------|----------------------------------|-----------------|
| <b>1</b>  | tappo di alta pressione                  | high pressure plug               | Stopfen Druckseite               | 1/8" NPT        |
| <b>2</b>  | tappo di bassa pressione                 | low pressure plug                | Stopfen Saugseite                | 1/8" NPT        |
| <b>3</b>  | tappo di carico olio                     | oil charge plug                  | Öleinfüll-Stopfen                | 1/4" GAS        |
| <b>4</b>  | spia di livello olio                     | oil level sight glass            | Schauglas Ölstand                |                 |
| <b>5</b>  | sede resistenza carter                   | crankcase heater seat            | Ölsumpfheizung                   |                 |
| <b>6</b>  | tappo scarico olio                       | oil drain plug                   | Stopfen Ölabblass                | M8 x 22 ISO4017 |
| <b>7</b>  | attacco per valvola iniezione liquido    | liquid injection valve plug      | Stopfen Flüssigkeitseinspritzung | 1/8" NPT        |
| <b>8</b>  | attacco per sensore iniezione liquido    | liquid injection sensor plug     | Stopfen Sensor                   | 1/8" NPT        |
| <b>12</b> | tappo ritorno olio                       | oil return plug                  | Stopfen Ölrückführung            | 1/8" NPT        |
| <b>14</b> | sensore massima temperatura compressione | max.discharge temperature sensor | Druckgasfühle                    | 1/8" NPT        |
| <b>16</b> | tappo pressione carter                   | crankcase pressure plug          | Stopfen für Drucksumpf           | 1/8" NPT        |
| <b>DV</b> | rubinetto di compressione                | discharge valve                  | Druckventil                      |                 |
| <b>SV</b> | rubinetto di aspirazione                 | suction valve                    | Saugventil                       |                 |
| <b>NP</b> | targhetta                                | name plate                       | Verdichtertypschild              |                 |

**Dimensioni di ingombro**  
**Dimensionale drawing**  
**Maßzeichnungen**

**Serie**  
**Series**  
**Reihe** **S**



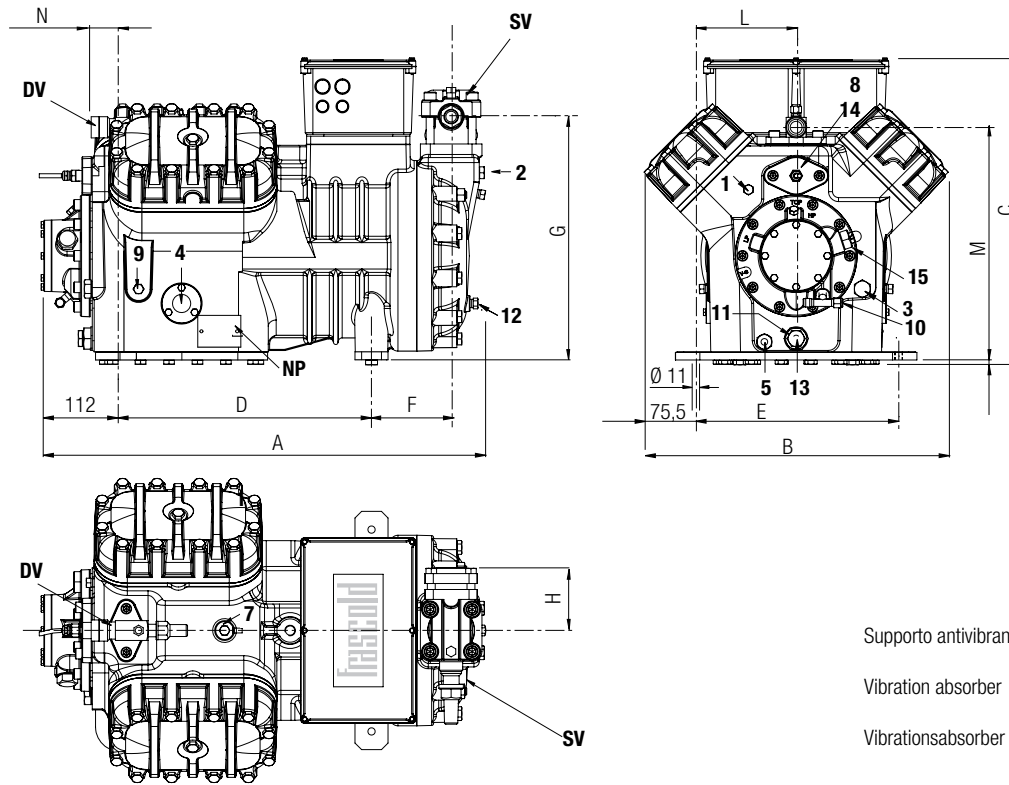
Supporto antivibrante  
 Vibration absorber  
 Vibrationsabsorber



| Compressore<br>Compressor<br>Verdichter | Rubinetto aspirazione<br>Suction valve<br>Saugventil |         | Rubinetto compressione<br>Discharge valve<br>Druckventil |         | Lunghezza<br>Length<br>Länge | Larghezza<br>Width<br>Breite | Altezza<br>Height<br>Höhe | Interassi di fissaggio<br>Base mounting<br>Abstand Befestigungslöcher |         | Rubinetto aspirazione<br>Suction valve<br>Saugventil |         |         | Rubinetto compressione<br>Discharge valve<br>Druckventil |         |         |
|---|--|---------|--|---------|------------------------------|------------------------------|---------------------------|---|---------|--|---------|---------|--|---------|---------|
|   | Ø<br>"   | Ø<br>mm | Ø<br>"   | Ø<br>mm |                              |                              |                           | D<br>mm   | E<br>mm | F<br>mm  | G<br>mm | H<br>mm | L<br>mm  | M<br>mm | N<br>mm |
| <b>S5-33Y</b>                           | 1 3/8  | 35,0    | 1 1/8  | 28,6    | 550                          | 405                          | 405                       | 292   | 266     | 147  | 115     | 58      | 133  | 298     | 23      |
| <b>S7-33Y</b>                           | 1 3/8  | 35,0    | 1 1/8  | 28,6    | 550                          | 405                          | 405                       | 292   | 266     | 147  | 115     | 58      | 133  | 298     | 23      |
| <b>S8-42E</b>                           | 1 3/8  | 35,0    | 1 1/8  | 28,6    | 550                          | 405                          | 405                       | 292   | 266     | 147  | 115     | 58      | 133  | 298     | 23      |
| <b>S8-42Y</b>                           | 1 3/8  | 35,0    | 1 1/8  | 28,6    | 550                          | 405                          | 405                       | 292   | 266     | 147  | 115     | 58      | 133  | 298     | 23      |
| <b>S12-42Y</b>                          | 1 3/8  | 35,0    | 1 1/8  | 28,6    | 550                          | 405                          | 405                       | 292   | 266     | 147  | 115     | 58      | 133  | 298     | 23      |
| <b>S10-52E</b>                          | 1 3/8  | 35,0    | 1 1/8  | 28,6    | 550                          | 405                          | 405                       | 292   | 266     | 147  | 115     | 58      | 133  | 298     | 23      |
| <b>S10-52Y</b>                          | 1 3/8  | 35,0    | 1 1/8  | 28,6    | 550                          | 405                          | 405                       | 292   | 266     | 147  | 115     | 58      | 133  | 298     | 23      |
| <b>S15-52Y</b>                          | 1 3/8  | 42,0    | 1 1/8  | 28,6    | 550                          | 405                          | 405                       | 292   | 266     | 147  | 115     | 61      | 133  | 298     | 23      |
| <b>S12-56E</b>                          | 1 3/8  | 35,0    | 1 1/8  | 28,6    | 550                          | 405                          | 405                       | 292   | 266     | 147  | 115     | 58      | 133  | 298     | 23      |
| <b>S15-56Y</b>                          | 1 3/8  | 42,0    | 1 1/8  | 28,6    | 550                          | 405                          | 405                       | 292   | 266     | 147  | 115     | 61      | 133  | 298     | 23      |
| <b>S20-56Y</b>                          | 1 3/8  | 42,0    | 1 1/8  | 28,6    | 550                          | 405                          | 405                       | 292   | 266     | 147  | 115     | 61      | 133  | 298     | 23      |

|           |  |                                   |                                  |                  |
|-----------|--|-----------------------------------|----------------------------------|------------------|
| <b>1</b>  | tappo di alta pressione                  | high pressure plug                | Stopfen Druckseite               | 1/8" NPT         |
| <b>2</b>  | tappo di bassa pressione                 | low pressure plug                 | Stopfen Saugseite                | 1/8" NPT         |
| <b>3</b>  | tappo di carico olio                     | oil charge plug                   | Öleinfüll-Stopfen                | 1/4" GAS         |
| <b>4</b>  | spia di livello olio                     | oil level sight glass             | Schauglas Ölstand                |                  |
| <b>5</b>  | sede resistenza carter                   | crankcase heater seat             | Ölsumpfheizung                   |                  |
| <b>6</b>  | tappo scarico olio                       | oil drain plug                    | Stopfen Ölablass                 | M10 x 30 ISO4017 |
| <b>7</b>  | attacco per valvola iniezione liquido    | liquid injection valve plug       | Stopfen Flüssigkeitseinspritzung | 1/4" NPT         |
| <b>8</b>  | attacco per sensore iniezione liquido    | liquid injection sensor plug      | Stopfen Sensor                   | 1/8" NPT         |
| <b>12</b> | tappo ritorno olio                       | oil return plug                   | Stopfen Ölrückführung            | 1/4" NPT         |
| <b>13</b> | tappo magnetico                          | magnetic plug                     | Magnetstopfen                    | 1/2" GAS         |
| <b>14</b> | sensore massima temperatura compressione | max. discharge temperature sensor | Druckgasfühle                    | 1/8" NPT         |
| <b>16</b> | tappo pressione carter                   | crankcase pressure plug           | Stopfen für Drucksumpf           | 1/4" NPT         |
| <b>DV</b> | rubinetto di compressione                | discharge valve                   | Druckventil                      |                  |
| <b>SV</b> | rubinetto di aspirazione                 | suction valve                     | Saugventil                       |                  |
| <b>NP</b> | targhetta                                | name plate                        | Verdichtertypschild              |                  |

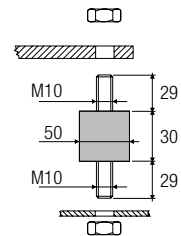
**Dimensioni di ingombro**  
**Dimensionale drawing**  
**Maßzeichnungen**



**Serie**  
**Series**  
**Reihe**



Supporto antivibrante  
 Vibration absorber  
 Vibrationsabsorber

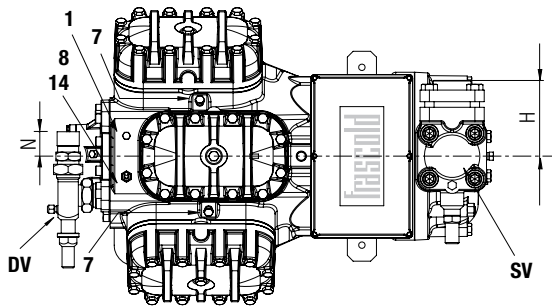
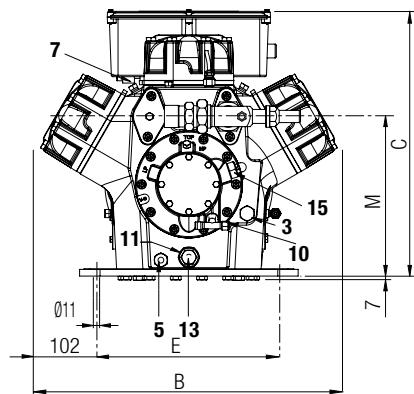
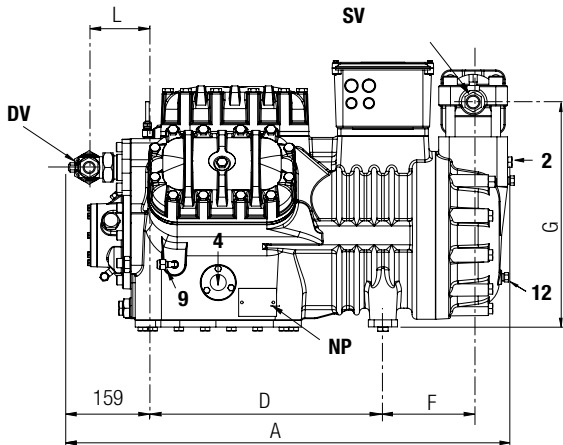


| Compressore<br>Compressor<br>Verdichter | Rubinetto aspirazione<br>Suction valve<br>Saugventil |         | Rubinetto compressione<br>Discharge valve<br>Druckventil |         | Lunghezza<br>Length<br>Länge              | Larghezza<br>Width<br>Breite | Altezza<br>Height<br>Höhe | Interassi di fissaggio<br>Base mounting<br>Abstand Befestigungslöcher |  | Rubinetto aspirazione<br>Suction valve<br>Saugventil |         | Rubinetto compressione<br>Discharge valve<br>Druckventil |          |         |         |
|---|--|---------|--|---------|---|------------------------------|---------------------------|---|--|--|---------|--|----------|---------|---------|
|   | Ø<br>"   | Ø<br>mm | Ø<br>"   | Ø<br>mm |   |                              |                           | D<br>mm   | E<br>mm                                | F<br>mm  | G<br>mm | H<br>mm  | L<br>mm  | M<br>mm | N<br>mm |
| V15-59E                                 | 1 5/8  | 42,0    | 1 1/8  | 28,6    | 672                                       | 460                          | 463                       | 381   | 305                                    | 120  | 367     | 95   | 152      | 352     | 43      |
| V15-59Y                                 | 1 5/8  | 42,0    | 1 1/8  | 28,6    | 672                                       | 460                          | 463                       | 381   | 305                                    | 120  | 367     | 95   | 152      | 352     | 43      |
| V20-59Y                                 | 1 5/8  | 42,0    | 1 1/8  | 28,6    | 672                                       | 460                          | 463                       | 381   | 305                                    | 120  | 367     | 95   | 152      | 352     | 43      |
| V15-71E                                 | 1 5/8  | 42,0    | 1 1/8  | 28,6    | 672                                       | 460                          | 463                       | 381   | 305                                    | 120  | 367     | 95   | 152      | 352     | 43      |
| V15-71Y                                 | 1 5/8  | 42,0    | 1 1/8  | 28,6    | 672                                       | 460                          | 463                       | 381   | 305                                    | 120  | 367     | 95   | 152      | 352     | 43      |
| V25-71Y                                 | 2 1/8  | 54,0    | 1 3/8  | 35,0    | 703                                       | 460                          | 463                       | 381   | 305                                    | 133  | 389     | 130  | 152      | 352     | 48      |
| V20-84E                                 | 2 1/8  | 54,0    | 1 1/8  | 28,6    | 703                                       | 460                          | 463                       | 381   | 305                                    | 133  | 389     | 130  | 152      | 352     | 48      |
| V20-84Y                                 | 1 5/8  | 42,0    | 1 1/8  | 28,6    | 672                                       | 460                          | 463                       | 381   | 305                                    | 120  | 367     | 95   | 152      | 352     | 43      |
| V30-84Y                                 | 2 1/8  | 54,0    | 1 3/8  | 35,0    | 703                                       | 460                          | 463                       | 381   | 305                                    | 133  | 389     | 130  | 152      | 352     | 48      |
| V25-93Y                                 | 2 1/8  | 54,0    | 1 3/8  | 35,0    | 703                                       | 460                          | 463                       | 381   | 305                                    | 133  | 389     | 130  | 152      | 352     | 48      |
| V32-93Y                                 | 2 1/8  | 54,0    | 1 3/8  | 35,0    | 743                                       | 460                          | 463                       | 381   | 305                                    | 158  | 389     | 130  | 152      | 352     | 48      |
| V25-103Y                                | 2 1/8  | 54,0    | 1 3/8  | 35,0    | 703                                       | 460                          | 463                       | 381   | 305                                    | 133  | 389     | 130  | 152      | 352     | 48      |
| V35-103Y                                | 2 1/8  | 54,0    | 1 3/8  | 35,0    | 743                                       | 460                          | 463                       | 381   | 305                                    | 158  | 389     | 130  | 152      | 352     | 48      |
| V25-103E                                | 2 1/8  | 54,0    | 1 3/8  | 35,0    | 703                                       | 460                          | 463                       | 381   | 305                                    | 133  | 389     | 130  | 152      | 352     | 48      |
| 1                                       | tappo di alta pressione                              |         |  |         | high pressure plug                        |                              |                           |   | Stopfen Druckseite                     |  |         |  | 1/8" NPT |         |         |
| 2                                       | tappo di bassa pressione                             |         |  |         | low pressure plug                         |                              |                           |   | Stopfen Saugseite                      |  |         |  | 1/4" NPT |         |         |
| 3                                       | tappo di carico olio                                 |         |  |         | oil charge plug                           |                              |                           |   | Öleinfüll-Stopfen                      |  |         |  | 3/8" GAS |         |         |
| 4                                       | spia di livello olio                                 |         |  |         | oil level sight glass                     |                              |                           |   | Schauglas Ölstand                      |  |         |  |          |         |         |
| 5                                       | sede resistenza carter                               |         |  |         | crankcase heater seat                     |                              |                           |   | Ölsumpfheizung                         |  |         |  |          |         |         |
| 7                                       | attacco per valvola iniezione liquido                |         |  |         | liquid injection valve plug               |                              |                           |   | Stopfen Flüssigkeitseinspritzung       |  |         |  | 1/8" NPT |         |         |
| 8                                       | attacco per sensore iniezione liquido                |         |  |         | liquid injection sensor plug              |                              |                           |   | Stopfen Sensor                         |  |         |  | 1/8" NPT |         |         |
| 9                                       | attacco pressostato diff. olio (b.p.)                |         |  |         | oil pressure switch connection (l.p.)     |                              |                           |   | Öldruckschalter Niederdruckanschluss   |  |         |  | 1/4" NPT |         |         |
| 10                                      | attacco pressostato diff. olio (a.p.)                |         |  |         | oil pressure switch connection (h.p.)     |                              |                           |   | Öldruckschalter Hochdruckanschluss     |  |         |  | 1/4" SAE |         |         |
| 11                                      | filtro olio  |         |  |         | oil filter                                |                              |                           |   | Ölfilter                               |  |         |  |          |         |         |
| 12                                      | tappo ritorno olio                                   |         |  |         | oil return plug                           |                              |                           |   | Stopfen Ölrückführung                  |  |         |  | 1/8" NPT |         |         |
| 13                                      | tappo scarico olio                                   |         |  |         | oil drain plug                            |                              |                           |   | Stopfen Ölablass                       |  |         |  | 3/8" GAS |         |         |
| 14                                      | sensore massima temperatura compressione             |         |  |         | max. discharge temperature sensor         |                              |                           |   | Druckgasfühle                          |  |         |  |          |         |         |
| 15                                      | attacco pressostato olio elettronico                 |         |  |         | electronic oil pressure switch connection |                              |                           |   | Elektronische Öldruckschalteranschluss |  |         |  | 3/4" UNF |         |         |
| DV                                      | rubinetto di compressione                            |         |  |         | discharge valve                           |                              |                           |   | Druckventil                            |  |         |  |          |         |         |
| SV                                      | rubinetto di aspirazione                             |         |  |         | suction valve                             |                              |                           |   | Saugventil                             |  |         |  |          |         |         |
| NP                                      | targhetta  |         |  |         | name plate                                |                              |                           |   | Verdichtertypschild                    |  |         |  |          |         |         |

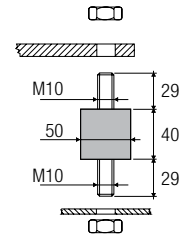


**Dimensioni di ingombro**  
**Dimensionale drawing**  
**Maßzeichnungen**

**Serie**  
**Series**  
**Reihe** **Z**

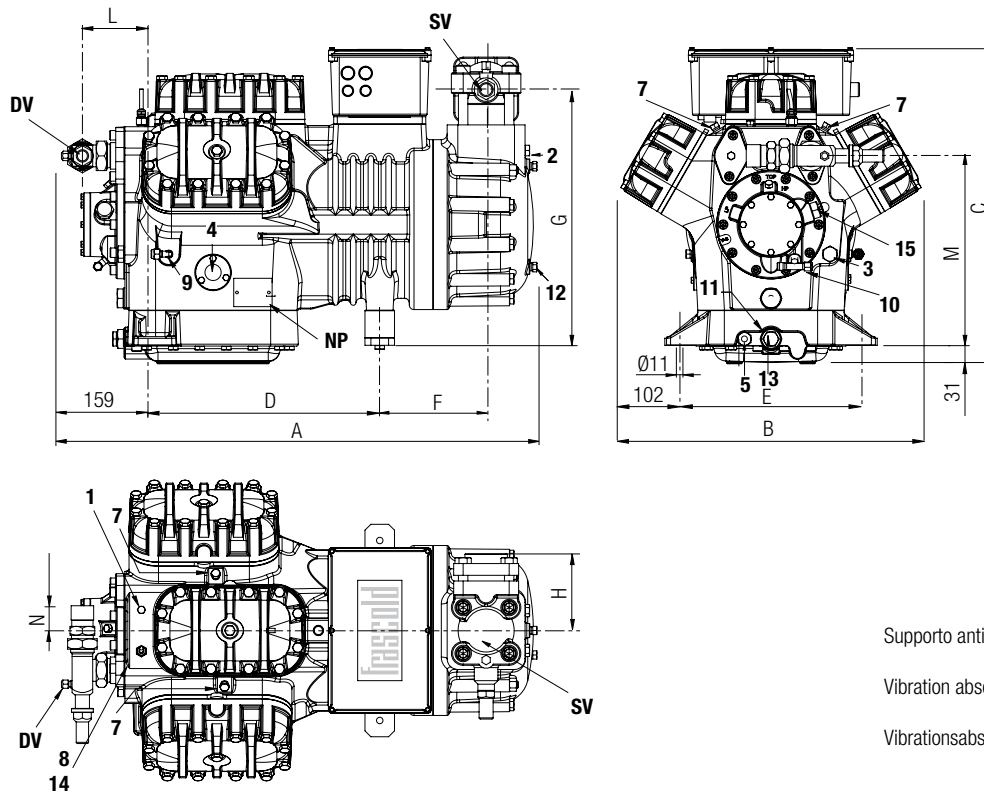


Supporto antivibrante  
 Vibration absorber  
 Vibrationsabsorber



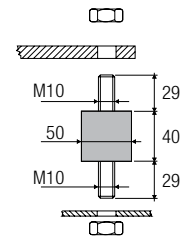
| Compressore<br>Compressor<br>Verdichter | Rubinetto aspirazione<br>Suction valve<br>Saugventil  |         | Rubinetto compressione<br>Discharge valve<br>Druckventil |         | Lunghezza<br>Length<br>Länge | Larghezza<br>Width<br>Breite | Altezza<br>Height<br>Höhe | Interassi di fissaggio<br>Base mounting<br>Abstand Befestigungslöcher |         | Rubinetto aspirazione<br>Suction valve<br>Saugventil |          |         | Rubinetto compressione<br>Discharge valve<br>Druckventil |         |         |
|---|---|---------|--|---------|------------------------------|------------------------------|---------------------------|---|---------|--|----------|---------|--|---------|---------|
|   | Ø<br>"  | Ø<br>mm | Ø<br>"   | Ø<br>mm |                              |                              |                           | D<br>mm   | E<br>mm | F<br>mm  | G<br>mm  | H<br>mm | L<br>mm  | M<br>mm | N<br>mm |
| <b>Z25-106E</b>                         | 2 1/8   | 54,0    | 1 3/8  | 35,0    | 765                          | 509                          | 457                       | 381   | 305     | 155  | 386      | 130     | 123  | 274     | 42      |
| <b>Z25-106Y</b>                         | 2 1/8   | 54,0    | 1 3/8  | 35,0    | 765                          | 509                          | 457                       | 381   | 305     | 155  | 386      | 130     | 123  | 274     | 42      |
| <b>Z35-106Y</b>                         | 2 1/8   | 54,0    | 1 3/8  | 35,0    | 806                          | 509                          | 457                       | 381   | 305     | 180  | 386      | 130     | 123  | 274     | 42      |
| <b>1</b>                                | tappo di alta pressione<br>high pressure plug<br>Stopfen Druckseite   |         |  |         |                              |                              |                           |   |         |  | 1/8" NPT |         |  |         |         |
| <b>2</b>                                | tappo di bassa pressione<br>low pressure plug<br>Stopfen Saugseite  |         |  |         |                              |                              |                           |   |         |  | 1/4" NPT |         |  |         |         |
| <b>3</b>                                | tappo di carico olio<br>oil charge plug<br>Öleinfüll-Stopfen  |         |  |         |                              |                              |                           |   |         |  | 3/8" GAS |         |  |         |         |
| <b>4</b>                                | spia di livello olio<br>oil level sight glass<br>Schauglas Ölstand  |         |  |         |                              |                              |                           |   |         |  |          |         |  |         |         |
| <b>5</b>                                | sede resistenza carter<br>crankcase heater seat<br>Ölsumpfeizung  |         |  |         |                              |                              |                           |   |         |  |          |         |  |         |         |
| <b>7</b>                                | attacco per valvola iniezione liquido<br>liquid injection valve plug<br>Stopfen Flüssigkeitseinspritzung                    |         |  |         |                              |                              |                           |   |         |  | 1/8" NPT |         |  |         |         |
| <b>8</b>                                | attacco per sensore iniezione liquido<br>liquid injection sensor plug<br>Stopfen Sensor                                     |         |  |         |                              |                              |                           |   |         |  |          |         |  |         |         |
| <b>9</b>                                | attacco pressostato diff. olio (b.p.)<br>oil pressure switch connection (l.p.)<br>Öldruckschalter Niederdruckanschluss      |         |  |         |                              |                              |                           |   |         |  | 1/4" SAE |         |  |         |         |
| <b>10</b>                               | attacco pressostato diff. olio (a.p.)<br>oil pressure switch connection (h.p.)<br>Öldruckschalter Hochdruckanschluss        |         |  |         |                              |                              |                           |   |         |  | 1/4" SAE |         |  |         |         |
| <b>11</b>                               | filtro olio<br>oil filter<br>Ölfilter   |         |  |         |                              |                              |                           |   |         |  | 3/8" GAS |         |  |         |         |
| <b>12</b>                               | tappo ritorno olio<br>oil return plug<br>Stopfen Ölrückführung  |         |  |         |                              |                              |                           |   |         |  | 1/4" NPT |         |  |         |         |
| <b>13</b>                               | tappo scarico olio<br>oil drain plug<br>Stopfen Ölabblass   |         |  |         |                              |                              |                           |   |         |  | 3/8" GAS |         |  |         |         |
| <b>14</b>                               | sensore massima temperatura compressione<br>max. discharge temperature sensor<br>Druckgasfühle                              |         |  |         |                              |                              |                           |   |         |  |          |         |  |         |         |
| <b>15</b>                               | attacco pressostato olio elettronico<br>electronic oil pressure switch connection<br>Elektronische Öldruckschalteranschluss |         |  |         |                              |                              |                           |   |         |  |          |         |  |         |         |
| <b>DV</b>                               | rubinetto di compressione<br>discharge valve<br>Druckventil   |         |  |         |                              |                              |                           |   |         |  |          |         |  |         |         |
| <b>SV</b>                               | rubinetto di aspirazione<br>suction valve<br>Saugventil   |         |  |         |                              |                              |                           |   |         |  |          |         |  |         |         |
| <b>NP</b>                               | targhetta<br>name plate<br>Verdichtertypschild  |         |  |         |                              |                              |                           |   |         |  |          |         |  |         |         |

**Dimensioni di ingombro**  
**Dimensionale drawing**  
**Maßzeichnungen**



**Serie**  
**Series**  
**Reihe** **Z**

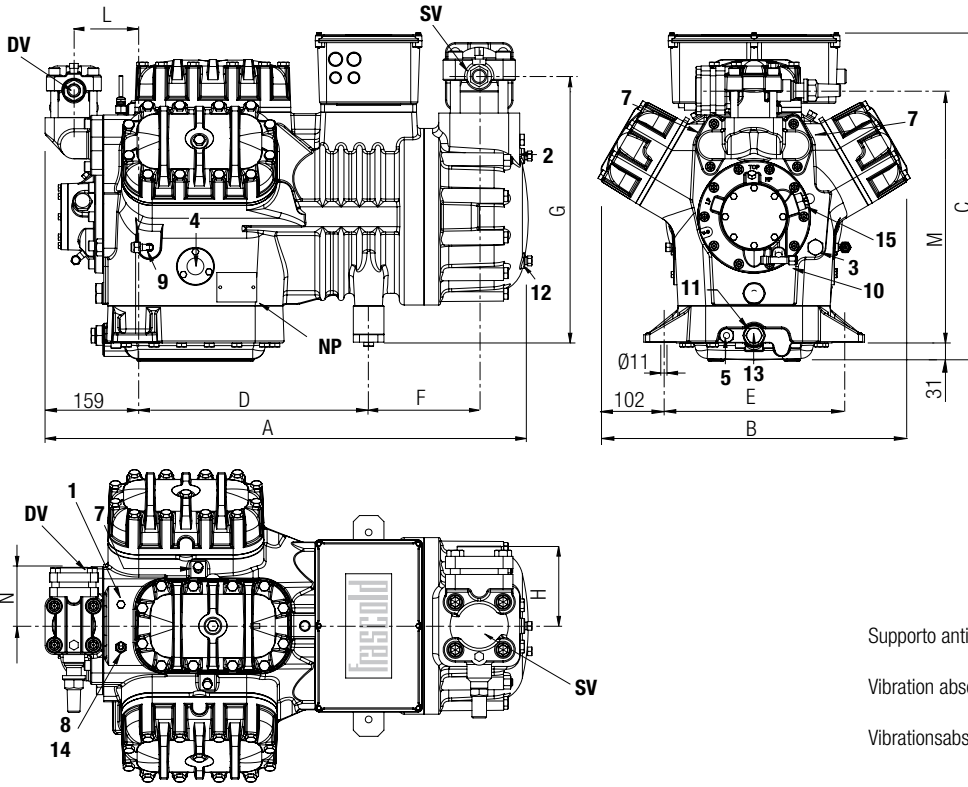
Supporto antivibrante  
 Vibration absorber  
 Vibrationsabsorber



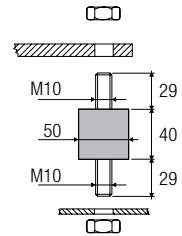
| Compressore<br>Compressor<br>Verdichter | Rubinetto aspirazione<br>Suction valve<br>Saugventil |         | Rubinetto compressione<br>Discharge valve<br>Druckventil |         | Lunghezza<br>Length<br>Länge              | Larghezza<br>Width<br>Breite | Altezza<br>Height<br>Höhe | Interassi di fissaggio<br>Base mounting<br>Abstand Befestigungslöcher |         | Rubinetto aspirazione<br>Suction valve<br>Saugventil |         |          | Rubinetto compressione<br>Discharge valve<br>Druckventil |         |         |
|---|--|---------|--|---------|---|------------------------------|---------------------------|---|---------|--|---------|----------|--|---------|---------|
|   | Ø<br>"   | Ø<br>mm | Ø<br>"   | Ø<br>mm | A<br>mm                                   | B<br>mm                      | C<br>mm                   | D<br>mm   | E<br>mm | F<br>mm  | G<br>mm | H<br>mm  | L<br>mm  | M<br>mm | N<br>mm |
| <b>Z30-126E</b>                         | 2 1/8  | 54,0    | 1 3/8  | 35,0    | 765                                       | 509                          | 536                       | 381   | 305     | 155  | 433     | 130      | 123  | 321     | 42      |
| <b>Z30-126Y</b>                         | 2 1/8  | 54,0    | 1 3/8  | 35,0    | 765                                       | 509                          | 536                       | 381   | 305     | 155  | 433     | 130      | 123  | 321     | 42      |
| <b>Z40-126Y</b>                         | 2 5/8  | 67,0    | 1 5/8  | 42,0    | 806                                       | 509                          | 536                       | 381   | 305     | 180  | 433     | 130      | 123  | 321     | 42      |
| <b>1</b>                                | tappo di alta pressione                              |         |  |         | high pressure plug                        |                              |                           | Stopfen Druckseite  |         |  |         | 1/8" NPT |  |         |         |
| <b>2</b>                                | tappo di bassa pressione                             |         |  |         | low pressure plug                         |                              |                           | Stopfen Saugseite   |         |  |         | 1/4" NPT |  |         |         |
| <b>3</b>                                | tappo di carico olio                                 |         |  |         | oil charge plug                           |                              |                           | Öleinfüll-Stopfen   |         |  |         | 3/8" GAS |  |         |         |
| <b>4</b>                                | spia di livello olio                                 |         |  |         | oil level sight glass                     |                              |                           | Schauglas Ölstand   |         |  |         |          |  |         |         |
| <b>5</b>                                | sede resistenza carter                               |         |  |         | crankcase heater seat                     |                              |                           | Ölsumpfheizung  |         |  |         |          |  |         |         |
| <b>7</b>                                | attacco per valvola iniezione liquido                |         |  |         | liquid injection valve plug               |                              |                           | Stopfen Flüssigkeitseinspritzung                                      |         |  |         | 1/8" NPT |  |         |         |
| <b>8</b>                                | attacco per sensore iniezione liquido                |         |  |         | liquid injection sensor plug              |                              |                           | Stopfen Sensor  |         |  |         |          |  |         |         |
| <b>9</b>                                | attacco pressostato diff. olio (b.p.)                |         |  |         | oil pressure switch connection (l.p.)     |                              |                           | Öldruckschalter Niederdruckanschluss                                  |         |  |         | 1/4" SAE |  |         |         |
| <b>10</b>                               | attacco pressostato diff. olio (a.p.)                |         |  |         | oil pressure switch connection (h.p.)     |                              |                           | Öldruckschalter Hochdruckanschluss                                    |         |  |         | 1/4" SAE |  |         |         |
| <b>11</b>                               | filtro olio  |         |  |         | oil filter                                |                              |                           | Ölfilter  |         |  |         | 3/8" GAS |  |         |         |
| <b>12</b>                               | tappo ritorno olio                                   |         |  |         | oil return plug                           |                              |                           | Stopfen Ölrückführung   |         |  |         | 1/4" NPT |  |         |         |
| <b>13</b>                               | tappo scarico olio                                   |         |  |         | oil drain plug                            |                              |                           | Stopfen Ölablass  |         |  |         | 3/8" GAS |  |         |         |
| <b>14</b>                               | sensore massima temperatura compressione             |         |  |         | max. discharge temperature sensor         |                              |                           | Druckgasfühle   |         |  |         |          |  |         |         |
| <b>15</b>                               | attacco pressostato olio elettronico                 |         |  |         | electronic oil pressure switch connection |                              |                           | Elektronische Öldruckschalteranschluss                                |         |  |         |          |  |         |         |
| <b>DV</b>                               | rubinetto di compressione                            |         |  |         | discharge valve                           |                              |                           | Druckventil   |         |  |         |          |  |         |         |
| <b>SV</b>                               | rubinetto di aspirazione                             |         |  |         | suction valve                             |                              |                           | Saugventil  |         |  |         |          |  |         |         |
| <b>NP</b>                               | targhetta  |         |  |         | name plate                                |                              |                           | Verdichtertypschild   |         |  |         |          |  |         |         |

**Dimensioni di ingombro**  
**Dimensionale drawing**  
**Maßzeichnungen**

**Serie**  
**Series**  
**Reihe** **Z**

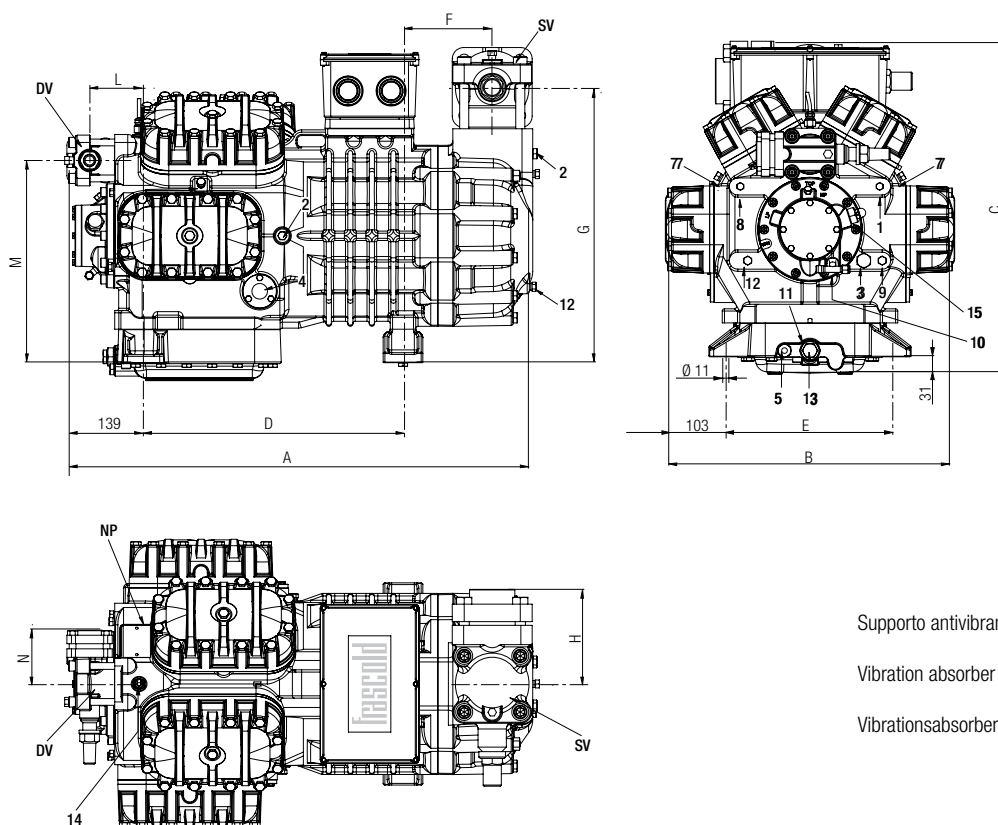


Supporto antivibrante  
Vibration absorber  
Vibrationsabsorber



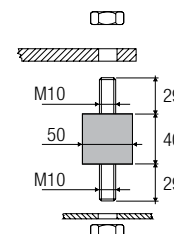
| Compressore<br>Compressor<br>Verdichter | Rubinetto aspirazione<br>Suction valve<br>Saugventil |         | Rubinetto compressione<br>Discharge valve<br>Druckventil |         | Lunghezza<br>Length<br>Länge | Larghezza<br>Width<br>Breite | Altezza<br>Height<br>Höhe | Interassi di fissaggio<br>Base mounting<br>Abstand Befestigungslöcher |         | Rubinetto aspirazione<br>Suction valve<br>Saugventil |          |         | Rubinetto compressione<br>Discharge valve<br>Druckventil |         |         |
|---|--|---------|--|---------|------------------------------|------------------------------|---------------------------|---|---------|--|----------|---------|--|---------|---------|
|   | Ø<br>"   | Ø<br>mm | Ø<br>"   | Ø<br>mm |                              |                              |                           | D<br>mm   | E<br>mm | F<br>mm  | G<br>mm  | H<br>mm | L<br>mm  | M<br>mm | N<br>mm |
| <b>Z40-154E</b>                         | 2 5/8  | 67,0    | 1 5/8  | 42,0    | 794                          | 509                          | 536                       | 381   | 305     | 180  | 433      | 130     | 100  | 411     | 95      |
| <b>Z40-154Y</b>                         | 2 5/8  | 67,0    | 1 5/8  | 42,0    | 794                          | 509                          | 536                       | 381   | 305     | 180  | 433      | 130     | 100  | 411     | 95      |
| <b>Z50-154Y</b>                         | 2 5/8  | 67,0    | 1 5/8  | 42,0    | 794                          | 509                          | 536                       | 381   | 305     | 180  | 433      | 130     | 100  | 411     | 95      |
| <b>1</b>                                | tappo di alta pressione                              |         | high pressure plug                                       |         |                              |                              |                           | Stopfen Druckseite  |         |  | 1/8" NPT |         |  |         |         |
| <b>2</b>                                | tappo di bassa pressione                             |         | low pressure plug  |         |                              |                              |                           | Stopfen Saugseite   |         |  | 1/4" NPT |         |  |         |         |
| <b>3</b>                                | tappo di carico olio                                 |         | oil charge plug  |         |                              |                              |                           | Öleinfüll-Stopfen   |         |  | 3/8" GAS |         |  |         |         |
| <b>4</b>                                | spia di livello olio                                 |         | oil level sight glass                                    |         |                              |                              |                           | Schauglas Ölstand   |         |  |          |         |  |         |         |
| <b>5</b>                                | sede resistenza carter                               |         | crankcase heater seat                                    |         |                              |                              |                           | Ölsumpfeizung   |         |  |          |         |  |         |         |
| <b>7</b>                                | attacco per valvola iniezione liquido                |         | liquid injection valve plug                              |         |                              |                              |                           | Stopfen Flüssigkeitseinspritzung                                      |         |  | 1/8" NPT |         |  |         |         |
| <b>8</b>                                | attacco per sensore iniezione liquido                |         | liquid injection sensor plug                             |         |                              |                              |                           | Stopfen Sensor  |         |  |          |         |  |         |         |
| <b>9</b>                                | attacco pressostato diff. olio (b.p.)                |         | oil pressure switch connection (l.p.)                    |         |                              |                              |                           | Öldruckschalter Niederdruckanschluss                                  |         |  | 1/4" SAE |         |  |         |         |
| <b>10</b>                               | attacco pressostato diff. olio (a.p.)                |         | oil pressure switch connection (h.p.)                    |         |                              |                              |                           | Öldruckschalter Hochdruckanschluss                                    |         |  | 1/4" SAE |         |  |         |         |
| <b>11</b>                               | filtro olio  |         | oil filter   |         |                              |                              |                           | Ölfilter  |         |  | 3/8" GAS |         |  |         |         |
| <b>12</b>                               | tappo ritorno olio                                   |         | oil return plug  |         |                              |                              |                           | Stopfen Ölrückführung   |         |  | 1/4" NPT |         |  |         |         |
| <b>13</b>                               | tappo scarico olio                                   |         | oil drain plug   |         |                              |                              |                           | Stopfen Ölabblass   |         |  | 3/8" GAS |         |  |         |         |
| <b>14</b>                               | sensore massima temperatura compressione             |         | max. discharge temperature sensor                        |         |                              |                              |                           | Druckgasfühle   |         |  |          |         |  |         |         |
| <b>15</b>                               | attacco pressostato olio elettronico                 |         | electronic oil pressure switch connection                |         |                              |                              |                           | Elektronische Öldruckschalteranschluss                                |         |  |          |         |  |         |         |
| <b>DV</b>                               | rubinetto di compressione                            |         | discharge valve  |         |                              |                              |                           | Druckventil   |         |  |          |         |  |         |         |
| <b>SV</b>                               | rubinetto di aspirazione                             |         | suction valve  |         |                              |                              |                           | Saugventil  |         |  |          |         |  |         |         |
| <b>NP</b>                               | targhetta  |         | name plate   |         |                              |                              |                           | Verdichtertypschild   |         |  |          |         |  |         |         |

Dimensioni di ingombro  
Dimensional drawing  
Maßzeichnungen



Serie  
Series  
Reihe **W**

Supporto antivibrante  
Vibration absorber  
Vibrationsabsorber



| Compressore<br>Compressor<br>Verdichter | Rubinetto aspirazione<br>Suction valve<br>Saugventil |         | Rubinetto compressione<br>Discharge valve<br>Druckventil |         | Lunghezza<br>Length<br>Länge | Larghezza<br>Width<br>Breite | Altezza<br>Height<br>Höhe | Interassi di fissaggio<br>Base mounting<br>Abstand Befestigungslöcher |         | Rubinetto aspirazione<br>Suction valve<br>Saugventil |         |         | Rubinetto compressione<br>Discharge valve<br>Druckventil |         |         |
|---|--|---------|--|---------|------------------------------|------------------------------|---------------------------|---|---------|--|---------|---------|--|---------|---------|
|   | Ø<br>"   | Ø<br>mm | Ø<br>"   | Ø<br>mm |                              |                              |                           | D<br>mm   | E<br>mm | F<br>mm  | G<br>mm | H<br>mm | L<br>mm  | M<br>mm | N<br>mm |
| <b>W40-142Y</b>                         | 2 5/8  | 67,0    | 1 5/8  | 42,0    | 838                          | 511                          | 588                       | 458   | 305     | 158  | 486     | 160     | 95   | 358     | 95      |
| <b>W40-168Y</b>                         | 2 5/8  | 67,0    | 1 5/8  | 42,0    | 838                          | 511                          | 588                       | 458   | 305     | 158  | 486     | 160     | 95   | 358     | 95      |
| <b>W50-168Y</b>                         | 3 1/8  | 79,4    | 1 5/8  | 42,0    | 838                          | 511                          | 588                       | 458   | 305     | 158  | 486     | 160     | 95   | 358     | 95      |
| <b>W50-187Y</b>                         | 3 1/8  | 79,4    | 1 5/8  | 42,0    | 838                          | 511                          | 588                       | 458   | 305     | 158  | 486     | 160     | 95   | 358     | 95      |
| <b>W60-187Y</b>                         | 3 1/8  | 79,4    | 1 5/8  | 42,0    | 838                          | 511                          | 588                       | 458   | 305     | 158  | 486     | 160     | 95   | 358     | 95      |
| <b>W60-206Y</b>                         | 3 1/8  | 79,4    | 2 1/8  | 54,0    | 838                          | 511                          | 588                       | 458   | 305     | 158  | 486     | 160     | 95   | 358     | 95      |
| <b>W70-206Y</b>                         | 3 1/8  | 79,4    | 2 1/8  | 54,0    | 864                          | 511                          | 588                       | 458   | 305     | 190  | 486     | 160     | 95   | 358     | 162     |
| <b>W70-228Y</b>                         | 3 1/8  | 79,4    | 2 1/8  | 54,0    | 864                          | 519                          | 588                       | 458   | 305     | 190  | 486     | 160     | 95   | 358     | 162     |
| <b>W75-228Y</b>                         | 3 1/8  | 79,4    | 2 1/8  | 54,0    | 864                          | 519                          | 588                       | 458   | 305     | 190  | 486     | 160     | 95   | 358     | 162     |
| <b>W75-240Y</b>                         | 3 1/8  | 79,4    | 2 1/8  | 54,0    | 864                          | 519                          | 588                       | 458   | 305     | 190  | 486     | 160     | 95   | 358     | 162     |
| <b>W80-240Y</b>                         | 3 1/8  | 79,4    | 2 1/8  | 54,0    | 864                          | 519                          | 588                       | 458   | 305     | 190  | 486     | 160     | 95   | 358     | 162     |

|           |  |   |  |          |
|-----------|--|---|--|----------|
| <b>1</b>  | tappo di alta pressione                  | high pressure plug                        | Stopfen Druckseite                     | 1/8" NPT |
| <b>2</b>  | tappo di bassa pressione                 | low pressure plug                         | Stopfen Saugseite                      | 1/4" NPT |
| <b>3</b>  | tappo di carico olio                     | oil charge plug                           | Öleinfüll-Stopfen                      | 3/8" GAS |
| <b>4</b>  | spia di livello olio                     | oil level sight glass                     | Schauglas Ölstand                      |          |
| <b>5</b>  | sede resistenza carter                   | crankcase heater seat                     | Ölsumpheizung                          |          |
| <b>7</b>  | attacco per valvola iniezione liquido    | liquid injection valve plug               | Stopfen Flüssigkeitseinspritzung       | 1/8" NPT |
| <b>8</b>  | attacco per sensore iniezione liquido    | liquid injection sensor plug              | Stopfen Sensor                         |          |
| <b>9</b>  | attacco pressostato diff.olio (b.p.)     | oil pressure switch connection (l.p.)     | Öldruckschalter Niederdruckanschluss   | 1/4" SAE |
| <b>10</b> | attacco pressostato diff.olio (a.p.)     | oil pressure switch connection (h.p.)     | Öldruckschalter Hochdruckanschluss     | 1/4" SAE |
| <b>11</b> | filtro olio                              | oil filter                                | Ölfiter                                | 3/8" GAS |
| <b>12</b> | tappo ritorno olio                       | oil return plug                           | Stopfen Ölrückführung                  | 1/4" NPT |
| <b>13</b> | tappo scarico olio                       | oil drain plug                            | Stopfen Ölabblass                      | 3/8" GAS |
| <b>14</b> | sensore massima temperatura compressione | max. discharge temperature sensor         | Druckgasfühle                          |          |
| <b>15</b> | attacco pressostato olio elettronico     | electronic oil pressure switch connection | Elektronische Öldruckschalteranschluss |          |
| <b>DV</b> | rubinetto di compressione                | discharge valve                           | Druckventil                            |          |
| <b>SV</b> | rubinetto di aspirazione                 | suction valve                             | Saugventil                             |          |
| <b>NP</b> | targhetta                                | name plate                                | Verdichtertypschild                    |          |

**Compressori semiermetici alternativi, nuove applicazioni**  
**Semi-hermetic reciprocating compressors, new applications**  
**Halbhermetische Hubkolbenverdichter, neue Anwendungen**

**Applicazione in sistemi misti R134a o R1234ze e CO<sub>2</sub> in cascata**

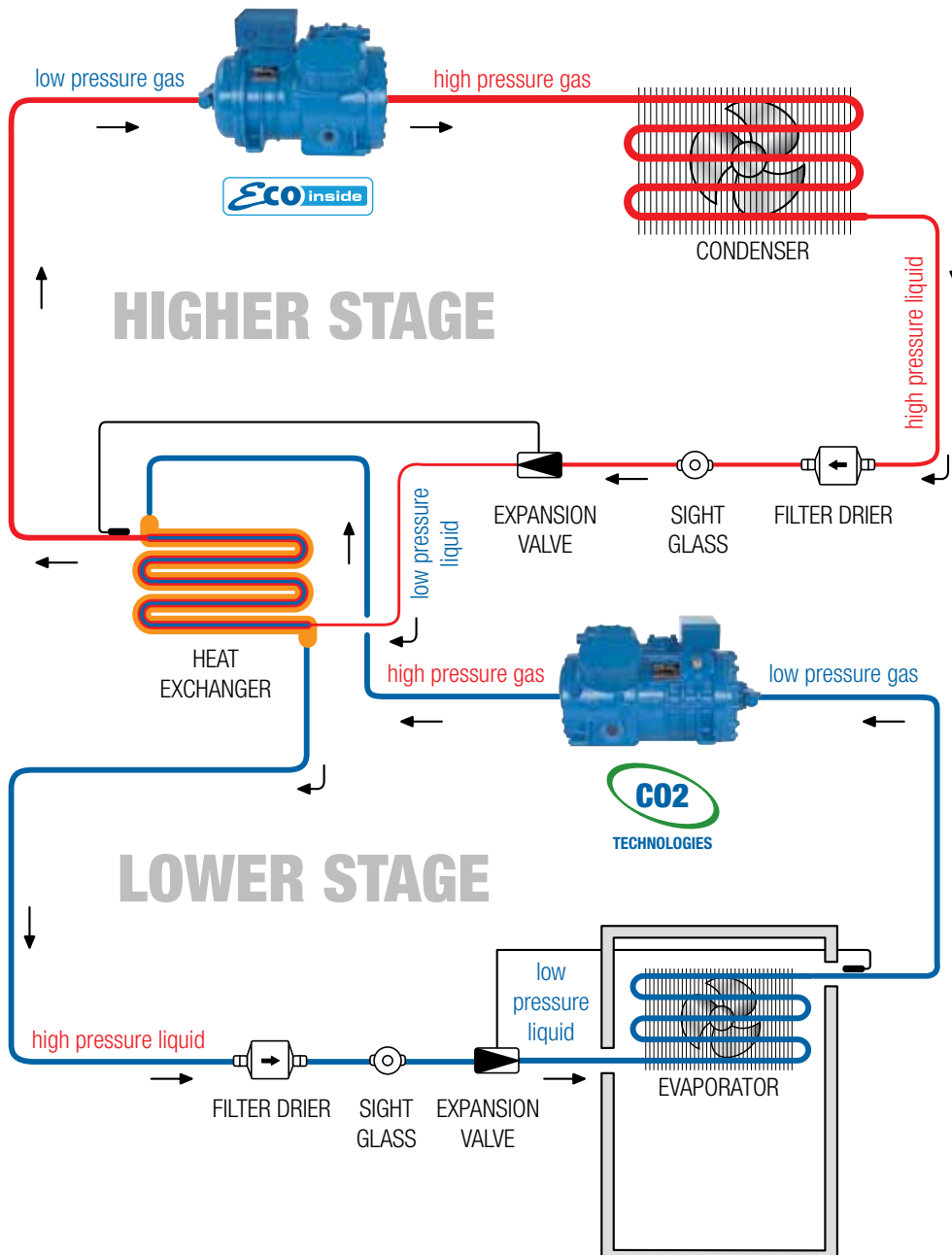
La soluzione con sistemi misti R134a o R1234ze e CO<sub>2</sub> resta una tra le più interessanti come alternativa alle applicazioni con refrigeranti HFC con elevato GWP; la ricerca fatta da Frascold in questo campo ne conferma la sua validità. Si tratta di sistemi in cascata con impiego di R134a o R1234ze nel ciclo di media temperatura e di CO<sub>2</sub> nel ciclo di bassa temperatura. Il punto di forza di questo sistema risiede nella elevata efficienza termodinamica dei refrigeranti R134a o R1234ze nelle medie temperature con costi energetici più bassi e livelli di pressione inferiori che riducono, tra l'altro, il rischio di perdite; la CO<sub>2</sub> invece consente il raggiungimento di COP molto vantaggiosi nel ciclo di bassa temperatura e valori di GWP trascurabili.

**Application in cascade system with R134a or R1234ze and CO<sub>2</sub>**

The solution with R134a or R1234ze and CO<sub>2</sub> systems is one of the most interesting alternative to applications with HFC refrigerants with a high GWP; research carried out by Frascold in this field confirms its validity. These cascade systems use R134a or R1234ze in the medium temperature cycle and CO<sub>2</sub> in the low temperature cycle. The strong point of this system lies in the high thermal-dynamic efficiency of the R134a or R1234ze in medium temperatures, with lower energy costs and lower pressure levels that moreover reduce the risk of leakages, while the CO<sub>2</sub> allows to reach a very advantageous COP in the low temperature cycle with an extremely low GWP value.

**Anwendung in R134a oder R1234ze und CO<sub>2</sub> Kaskadenanlagen**

Die Lösung mit R134a oder R1234ze und CO<sub>2</sub> Systemen hat sich als eine der interessantesten Alternativen zu Anlagen mit HFC Kältemitteln mit hohem GWP erwiesen. Die von Frascold in diesem Bereich betriebene Forschung hat ihre Eignung bestätigt. Es handelt sich dabei um Mischsysteme in Kaskadenschaltung, die bei mittleren Temperaturen mit R134a oder R1234ze und bei niedrigen Temperaturen mit CO<sub>2</sub> arbeiten. Die Stärke dieses Systems liegt in der besonderen thermodynamischen Leistung von R134a oder R1234ze bei mittleren Temperaturen, wodurch niedrigere Energiekosten und Druckwerte und somit auch weniger Leckagen erzielt werden. Durch das CO<sub>2</sub> hingegen kann man bei niedrigeren Temperaturen hohe Leistungszahlen bei sehr geringem GWP erzielen.





**Compressori semiermetici alternativi, nuove applicazioni**  
**Semi-hermetic reciprocating compressors, new applications**  
**Halbhermetische Hubkolbenverdichter, neue Anwendungen**

**HFO - I nuovi refrigeranti della 4° generazione a bassissimo effetto serra**

I refrigeranti Idrofluoroolefine (HFO) sono stati scelti come sostituti ideali per tutti gli altri refrigeranti nella climatizzazione degli autoveicoli.

Anche nella refrigerazione commerciale e industriale gli HFO si stanno diffondendo per il loro valore di GWP estremamente basso che consente di ridurre di oltre il 99% le emissioni dirette sull'ambiente rispetto ai tradizionali HFC. Sono conformi alla Regolamentazione Europea F-Gas.

**HFO - The new 4th generation refrigerants with very low GWP**

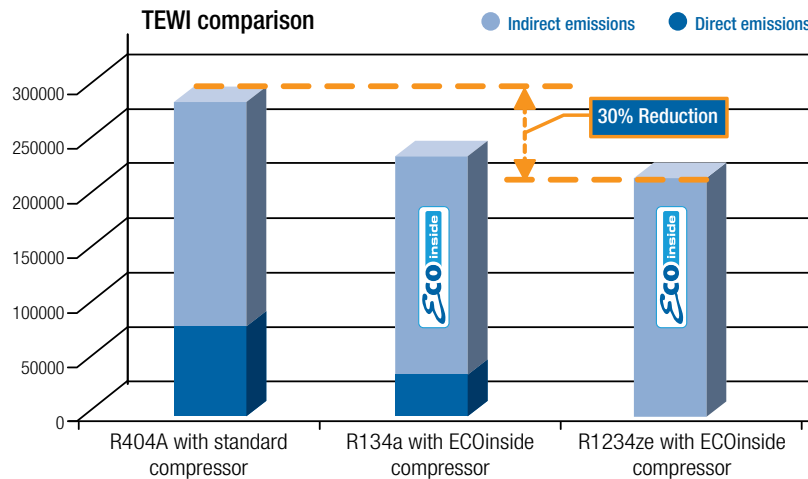
The hydrofluoroolefin (HFO) refrigerants were chosen as ideal substitutes for all the other refrigerants for air conditioning in motor vehicles.

Even in the commercial and industrial refrigeration HFO refrigerants are becoming increasingly more widespread due to their low GWP level which allows reducing emissions in the environment by more than 99% when compared to conventional HFC refrigerants. They comply with the European F-Gas Regulation.

**HFO – Die neuen Kältemittel der 4. Generation mit niedrigem GWP-Wert**

Die hydrofluoroolefin Kältemittel (HFO) wurden zur Klimatisierung von Fahrzeugen als idealer Ersatz für andere Kältemittel ausgewählt.

Auch in der kommerziellen und industriellen Kühlung sind HFO Kältemittel aufgrund ihres geringen GWP-Werts immer weiter verbreitet und ermöglichen im Vergleich zu herkömmlichem HFC eine Reduzierung der direkten Umweltemissionen um mehr als 99%. Sie stimmen mit der Europäischen F-Gas-Verordnung überein.



Frascold, sempre attenta alle tecnologie più innovative, è all'avanguardia nella sperimentazione di nuove soluzioni con i refrigeranti della 4° generazione e ha partecipato nell'anno 2011, con i propri compressori alternativi semiermetici, alla realizzazione in UK del primo impianto al mondo funzionante con refrigerante HFO R1234ze (GWP=6).

Il progetto è stato premiato da ACR News Award come REFRIGERATION PRODUCT OF THE YEAR nel 2012.

Frascold is at the forefront when it comes to experimenting new solutions with 4th generation refrigerants and in 2011 it collaborated, with its semi-hermetic reciprocating compressors, on the construction of the first plant in the world operating with HFO R1234ze refrigerant (GWP = 6), located in the UK. The project was awarded at the ACR News Awards for being the REFRIGERATION PRODUCT OF THE YEAR 2012.

Frascold arbeitet an der fortschrittlichen Erforschung neuer Lösungen mit Kältemitteln der 4. Generation und war im Jahre 2011 mit den alternativen halbhermetischen Kompressoren aus eigener Herstellung in GB an der Verwirklichung der weltweit ersten Anlage beteiligt, die mit Kältemittel HFO R1234ze (GWP=6) funktioniert. Das Projekt wurde mit dem ACR News Award als REFRIGERATION PRODUCT OF THE YEAR 2012 ausgezeichnet.



Dopo i test in laboratorio e prove sul campo, Frascold propone oggi la propria gamma di compressori alternativi semiermetici ECOinside per applicazioni con refrigerante HFO. Le bassissime perdite di carico dei compressori ECOinside e l'ottimizzazione dei loro motori elettrici per i carichi specifici, consentono di garantire altissime efficienze in un ampio campo di applicazioni di media e alta temperatura.

Ulteriori considerazioni sono necessarie per quanto riguarda l'applicazioni degli HFO a causa dell'infiammabilità. Si tratta di un grado di infiammabilità estremamente ridotto e caratterizzato da una bassissima velocità di propagazione della fiamma e dall'altissima energia richiesta per l'innesco.

After having completed laboratory tests and field trials, Frascold now offers the ECOinside range of semi-hermetic reciprocating compressors for applications with HFO refrigerant. The very low pressure drops of ECOinside compressors and the optimisation of their electric motors for specific loads, allow guaranteeing very high efficiency in a wide range of medium and high temperature applications.

Further considerations are necessary with regard to HFO applications due to flammability. It is an extremely low degree of flammability, characterised by a very low flame propagation speed and by the very high energy required for triggering.

Nach Beendigung von Labortests und Feldversuchen bietet Frascold heute die Serie ECOinside, alternative halbhermetische Kompressoren für Anwendungen mit HFO Kältemittel. Der sehr geringe Ladungsverlust der ECOinside Kompressoren und die Optimierung ihrer Elektromotoren für spezifische Lasten ermöglichen Spitzenleistungen bei Anwendungen mit mittleren und hohen Temperaturen.

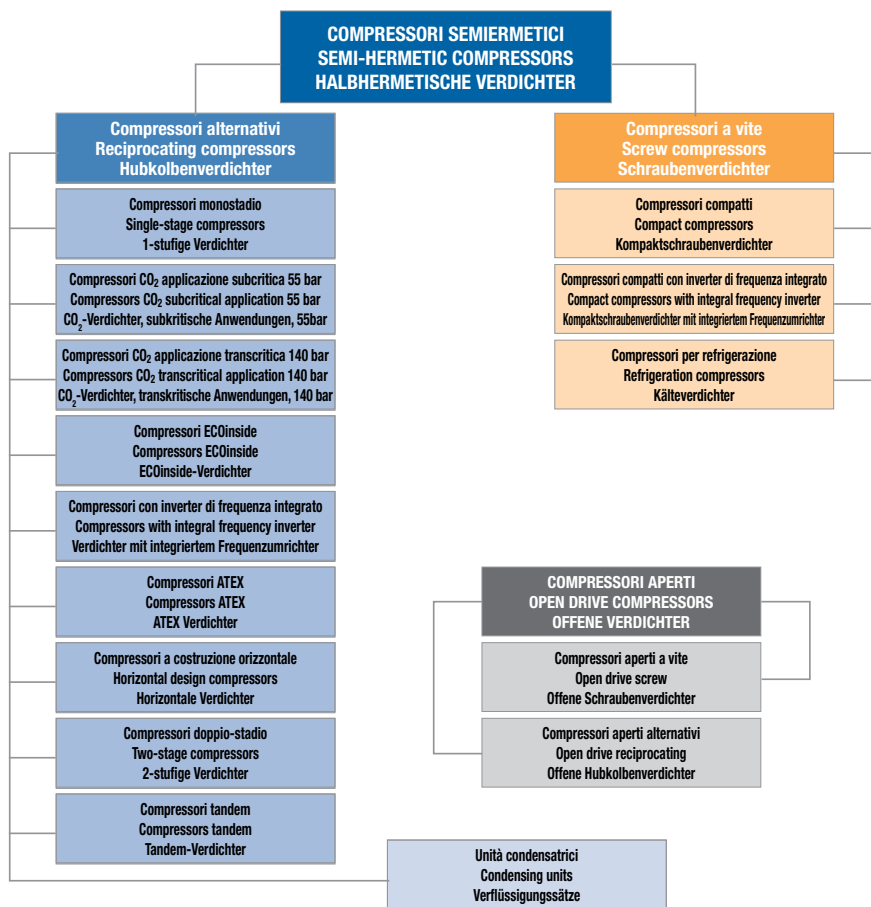
Weitere Überlegungen zum Thema HFO und ihre Anwendungsmöglichkeiten betreffen die Entflammbarkeit. Es handelt sich um eine sehr niedrige Entflammbarkeit mit sehr geringer Brandausbreitungsgeschwindigkeit, des Weiteren ist der zur Zündung erforderliche Energiebedarf sehr hoch.

**Prodotti**  
**Products**  
**Produkten**

Da oltre 75 anni Frascold progetta, costruisce e vende compressori per l'industria della refrigerazione, condizionamento dell'aria e pompe di calore. La attuale gamma di compressori copre capacità frigorifere fino a 1400 kW e comprende compressori per applicazioni sia con i refrigeranti artificiali più tradizionali che per applicazioni con i refrigeranti naturali, CO<sub>2</sub>, ammoniaca, idrocarburi. Ultimamente è stata lanciata una nuova linea di compressori specificatamente ottimizzata per i refrigeranti con basso valore GWP, compreso gli HFO. Tutti i compressori Frascold si distinguono sul mercato per la robustezza, affidabilità, prestazioni elevate, flessibilità di impiego.

For more than 75 years Frascold has been designing, manufacturing and selling compressors for the refrigeration, air conditioning and heat pump industries. The current range of compressors covers cooling capacities of up to 1400 kW, and includes compressors for applications with both more conventional artificial refrigerants as well as natural refrigerants such as CO<sub>2</sub>, ammonia and hydrocarbons. Recently the company launched a new line of compressors specifically optimized for low GWP refrigerants, including HFOs. All Frascold compressors are distinguished on the market for their durability, reliability, high performance and flexibility in use.

Seit mehr als 75 Jahren entwickelt, baut und vertreibt Frascold Verdichter für die Kälte-, Klima- und Wärmepumpenindustrie. Die aktuelle Produktpalette umfasst Verdichter mit einer Kälteleistung von bis zu 1400 kW und beinhaltet sowohl Verdichter für Anwendungen mit konventionellen, künstlich erzeugten Kältemitteln, als auch Verdichter für Anwendungen mit natürlichen Kältemitteln wie CO<sub>2</sub>, Ammoniak und Kohlenwasserstoffen. Vor kurzem wurde eine neue Verdichter-Linie auf den Markt gebracht, die speziell für Kältemittel mit geringem Treibhauspotenzial („Low GWP“-Kältemittel), darunter die HFOs, optimiert wurde. Alle Verdichter von Frascold zeichnen sich durch ihre Robustheit, Zuverlässigkeit, höchste Leistung und Flexibilität in der Nutzung aus.



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Blue is better

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