ENGINEERING
TOMORROW

Quick Selection Catalogue

Products and technologies for all your application needs, today and **tomorrow**

REFRIGERATION & AIR CONDITIONING
Automatic Controls | Electronic Controllers | Compressors and Condensing Units

Easy

selection of future-proof solutions and components.

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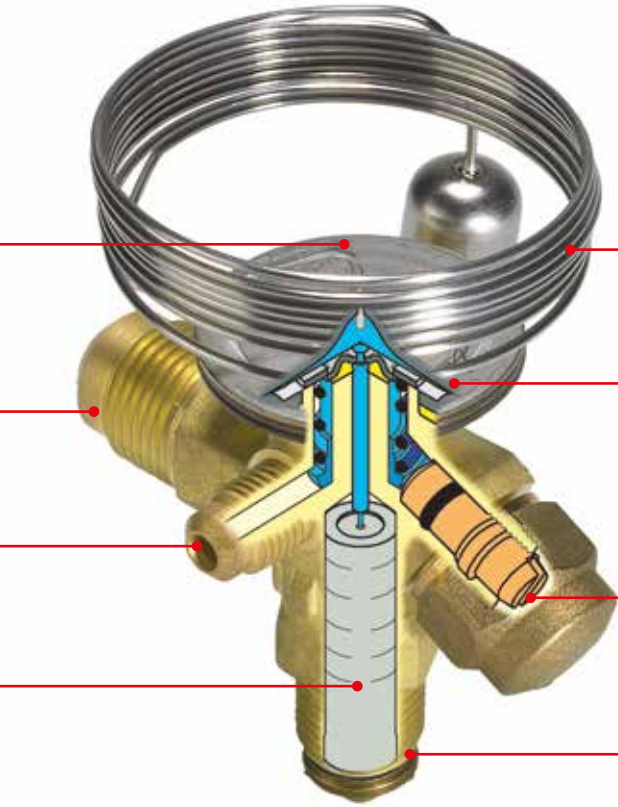
Table of contents

T 2 / TE 2 – Thermostatic expansion valves

T 2 / TE 2 thermostatic expansion valves are used for liquid injection into evaporators on both refrigeration and air conditioning systems using flourinated refrigerants e.g. R407C / R22, R134a, R404A/R507, R407C, R407F, R407A.

T 2 / TE 2 valves are supplied as parts programme, with separate thermostatic element/valve body, and orifice assembly. Available as angleway valves with flare x flare or flare x solder connections, with internal and external equalization.

Features
T 2 / TE 2



Laser-welded power element in stainless steel
- long diaphragm life
- high pressure tolerance and working pressure
- high corrosion resistance

Stainless steel capillary tube and bulb:
- high corrosion resistance
- high strength and vibration resistance

Laser-engraved label

Flare or solder outlet

Flare or solder pressure equalization

Easy adjustment of superheat setting

Interchangeable orifice assembly with dirt protection strainer

Flare inlet
Solder adaptor available as an option

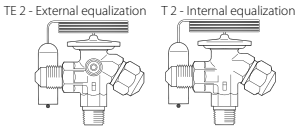
Facts

Applications:
- Traditional refrigeration
- Heat pump systems
- Air conditioning units
- Liquid coolers
- Transport refrigeration

- Large temperature range. Equally applicable to freezing, refrigeration and air conditioning applications
- Interchangeable orifice assembly
  - easy stocking
  - easy capacity matching
  - better service

- Can be supplied with MOP (Max. Operating Pressure) Protects the compressor motor against excessive evaporating pressure during normal operation
- Valves for special temperature ranges and refrigerants can be supplied
- Flare/solder adaptor can be supplied

Technical data and ordering



T 2 / TE 2

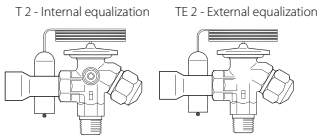
Thermostatic element with bulb strap (flare x flare)

Refrigerant	Type	Range °C	Range °F	MOP °C	MOP °F	Pressure Equalization Flare	Connection flare inlet × outlet		Code no.
							[in.]	[mm]	
R22/R407C	TX 2	-40 – 10	-40 – 50	–	–	–	3/8 × 1/2	10 × 12	068Z3206
	TX 2	-40 – 10	-40 – 50	15	60	–	3/8 × 1/2	10 × 12	068Z3208
	TX 2	-40 – -5	-40 – 25	0	32	–	3/8 × 1/2	10 × 12	068Z3224
	TX 2	-40 – -15	-40 – 5	-10	14	–	3/8 × 1/2	10 × 12	068Z3226
	TX 2	-60 – -25	-75 – -15	–	–	–	3/8 × 1/2	10 × 12	068Z3207
	TX 2	-60 – -25	-75 – -15	-20	-5	–	3/8 × 1/2	10 × 12	068Z3228
	TEX 2	-40 – 10	-40 – 50	–	–	¼ in.	3/8 × 1/2	10 × 12	068Z3209
	TEX 2	-40 – 10	-40 – 50	15	60	¼ in.	3/8 × 1/2	10 × 12	068Z3211
	TEX 2	-40 – -5	-40 – 25	0	32	¼ in.	3/8 × 1/2	10 × 12	068Z3225
	TEX 2	-40 – -15	-40 – 5	-10	14	¼ in.	3/8 × 1/2	10 × 12	068Z3227
	TEX 2	-60 – -25	-75 – -15	–	–	¼ in.	3/8 × 1/2	10 × 12	068Z3210
	TEX 2	-60 – -25	-75 – -15	-20	-5	¼ in.	3/8 × 1/2	10 × 12	068Z3229
R407C	TZ 2	-40 – 10	-40 – 50	–	–	–	3/8 × 1/2	10 × 12	068Z3496
	TZ 2	-40 – 10	-40 – 50	15	60	–	3/8 × 1/2	10 × 12	068Z3516
	TEZ 2	-40 – 10	-40 – 50	–	–	¼ in.	3/8 × 1/2	10 × 12	068Z3501
	TEZ 2	-40 – 10	-40 – 50	15	60	¼ in.	3/8 × 1/2	10 × 12	068Z3517
R134a	TN 2	-40 – 10	-40 – 50	–	–	–	3/8 × 1/2	10 × 12	068Z3346
	TN 2	-40 – 10	-40 – 50	15	60	–	3/8 × 1/2	10 × 12	068Z3347
	TN 2	-40 – -5	-40 – 25	0	32	–	3/8 × 1/2	10 × 12	068Z3393
	TN 2	-40 – -15	-40 – 5	-10	14	–	3/8 × 1/2	10 × 12	068Z3369
	TEN 2	-40 – 10	-40 – 50	–	–	¼ in.	3/8 × 1/2	10 × 12	068Z3348
	TEN 2	-40 – 10	-40 – 50	15	60	¼ in.	3/8 × 1/2	10 × 12	068Z3349
	TEN 2	-40 – -5	-40 – 25	0	32	¼ in.	3/8 × 1/2	10 × 12	068Z3392
	TEN 2	-40 – -15	-40 – 5	-10	14	¼ in.	3/8 × 1/2	10 × 12	068Z3370
R404A/R507	TS 2	-40 – 10	-40 – 50	–	–	–	3/8 × 1/2	10 × 12	068Z3400
	TS 2	-40 – 10	-40 – 50	15	60	–	3/8 × 1/2	10 × 12	068Z3402
	TS 2	-40 – -5	-40 – 25	0	32	–	3/8 × 1/2	10 × 12	068Z3406
	TS 2	-40 – -15	-40 – 5	-10	14	–	3/8 × 1/2	10 × 12	068Z3408
	TS 2	-60 – -25	-75 – -15	–	–	–	3/8 × 1/2	10 × 12	068Z3401
	TS 2	-60 – -25	-75 – -15	-20	-5	–	3/8 × 1/2	10 × 12	068Z3410
	TES 2	-40 – 10	-40 – 50	–	–	¼ in.	3/8 × 1/2	10 × 12	068Z3403
	TES 2	-40 – 10	-40 – 50	15	60	¼ in.	3/8 × 1/2	10 × 12	068Z3405
	TES 2	-40 – -5	-40 – 25	0	32	¼ in.	3/8 × 1/2	10 × 12	068Z3407
	TES 2	-40 – -15	-40 – 5	-10	14	¼ in.	3/8 × 1/2	10 × 12	068Z3409
	TES 2	-60 – -25	-75 – -15	–	–	¼ in.	3/8 × 1/2	10 × 12	068Z3404
	TES 2	-60 – -25	-75 – -15	-20	-5	¼ in.	3/8 × 1/2	10 × 12	068Z3411
R407F/R407A	T2	-40 – 10	-40 – 50	–	–	–	3/8 × 1/2	10 × 12	068Z3715
	TE2	-40 – 10	-40 – 50	–	–	¼ in.	3/8 × 1/2	10 × 12	068Z3714

Capillary tube: 1.5 m / 59 in.
Range N = -40 – 10 °C / -40 - 50 °F
Range B = -60 – -25 °C / -75 - -15 °F
Range NM = -40 – -5 °C MOP 0 °C / -40 - 25 °F MOP 32 °F
Range NL = -40 – -15 °C MOP -10 °C / -40 - 5 °F MOP 14 °F

Thermostatic element + Orifice

Technical data and ordering



T 2 / TE 2

Thermostatic element with bulb strap (flare x solder)

Refrigerant	Type	Range	MOP	Pressure equalization solder	Connection inlet (Flare) × outlet (Solder)		Code no.
					[in.]	[mm]	
R22/R407C	TX 2	-40 – 10 °C	–	–	3/8 × 1/2	–	068Z3281
	TX 2	-40 – 10 °C	–	–	–	10 × 12	068Z3302
	TX 2	-40 – 10 °C	15 °C	–	3/8 × 1/2	–	068Z3287
	TX 2	-40 – 10 °C	15 °C	–	–	10 × 12	068Z3308
	TX 2	-60 – -25 °C	–	–	3/8 × 1/2	–	068Z3357
	TX 2	-60 – -25 °C	–	–	–	10 × 12	068Z3361
	TEX 2	-40 – 10 °C	–	¼ in.	3/8 × 1/2	–	068Z3284
	TEX 2	-40 – 10 °C	–	6 mm	–	10 × 12	068Z3305
	TEX 2	-40 – 10 °C	15 °C	¼ in.	3/8 × 1/2	–	068Z3290
	TEX 2	-40 – 10 °C	15 °C	6 mm	–	10 × 12	068Z3311
	TEX 2	-40 – -15 °C	-10 °C	6 mm	–	10 × 12	068Z3367
	TEX 2	-60 – -25 °C	–	¼ in.	3/8 × 1/2	–	068Z3359
	TEX 2	-60 – -25 °C	–	6 mm	–	10 × 12	068Z3363
R407C	TZ 2	-40 – 10 °C	–	–	–	10 × 12	068Z3502
	TZ 2	-40 – 10 °C	15 °C	–	3/8 × 1/2	–	068Z3329
	TZ 2	-40 – 10 °C	15 °C	–	–	10 × 12	068Z3514
	TEZ 2	-40 – 10 °C	–	¼ in.	3/8 × 1/2	–	068Z3446
	TEZ 2	-40 – 10 °C	–	6 mm	–	10 × 12	068Z3503
	TEZ 2	-40 – 10 °C	15 °C	¼ in.	3/8 × 1/2	–	068Z3447
	TEZ 2	-40 – 10 °C	15 °C	6 mm	–	10 × 12	068Z3515
R134a	TN 2	-40 – 10 °C	–	–	3/8 × 1/2	–	068Z3383
	TN 2	-40 – 10 °C	–	–	–	10 × 12	068Z3384
	TN 2	-40 – 10 °C	15 °C	–	3/8 × 1/2	–	068Z3387
	TN 2	-40 – 10 °C	15 °C	–	–	10 × 12	068Z3388
	TEN 2	-40 – 10 °C	–	¼ in.	3/8 × 1/2	–	068Z3385
	TEN 2	-40 – 10 °C	–	6 mm	–	10 × 12	068Z3386
	TEN 2	-40 – 10 °C	15 °C	¼ in.	3/8 × 1/2	–	068Z3389
	TEN 2	-40 – 10 °C	15 °C	6 mm	–	10 × 12	068Z3390
R404A/R507	TS 2	-40 – 10 °C	–	–	3/8 × 1/2	–	068Z3414
	TS 2	-40 – 10 °C	–	–	–	10 × 12	068Z3435
	TS 2	-40 – 10 °C	15 °C	–	3/8 × 1/2	–	068Z3416
	TS 2	-40 – 10 °C	15 °C	–	–	10x12	068Z3423
	TS 2	-40 – -15 °C	-10 °C	–	3/8 × 1/2	–	068Z3429
	TS 2	-40 – -15 °C	-10 °C	–	–	10x12	068Z3436
	TS 2	-60 – -25 °C	–	–	3/8 × 1/2	–	068Z3418
	TS 2	-60 – -25 °C	–	–	–	10 × 12	068Z3425
	TS 2	-60 – -25 °C	-20 °C	–	3/8 × 1/2	–	068Z3420
	TS 2	-60 – -25 °C	-20 °C	–	–	10 × 12	068Z3427
	TES 2	-40 – 10 °C	–	¼ in.	3/8 × 1/2	–	068Z3415
	TES 2	-40 – 10 °C	–	6 mm	–	10 × 12	068Z3422
	TES 2	-40 – 10 °C	15 °C	¼ in.	3/8 × 1/2	–	068Z3417
	TES 2	-40 – 10 °C	15 °C	6 mm	–	10x12	068Z3424
	TES 2	-40 – -15 °C	-10 °C	¼ in.	3/8 × 1/2	–	068Z3430
	TES 2	-40 – -15 °C	-10 °C	6 mm	–	10x12	068Z3437
	TES 2	-60 – -25 °C	–	¼ in.	3/8 × 1/2	–	068Z3419
	TES 2	-60 – -25 °C	–	6 mm	–	10 × 12	068Z3426
	TES 2	-60 – -25 °C	-20 °C	¼ in.	3/8 × 1/2	–	068Z3421
	TES 2	-60 – -25 °C	-20 °C	6 mm	–	10 × 12	068Z3428
R407F/R407A	T2	-40 – 10 °C	–	–	3/8 × 1/2	–	068Z3716
	TE2	-40 – 10 °C	–	¼ in.	3/8 × 1/2	–	068Z3713

1) For R407C plants, please select valves from the dedicated R407C program.

Capillary tube: 1.5 m.
Range N = -40 – 10 °C.
Range B = -60 – -25 °C.

Technical data and ordering

T 2 / TE 2

Orifice assembly for flare version

Type	Orifice	R134a		R404A/R507		R407C		R407F		R407A		R22		Code no.
		[kW]	[TR]	[kW]	[TR]	[kW]	[TR]	[kW]	[TR]	[kW]	[TR]	[kW]	[TR]	
T 2 / TE 2	0X	0.68	0.19	0.64	0.18	0.92	0.26	1.0	0.3	0.9	0.2	0.90	0.25	068-2002
	00	1.2	0.34	1.3	0.37	1.8	0.51	2.0	0.6	1.7	0.5	1.8	0.51	068-2003
	01	2.1	0.59	2.6	0.75	3.5	1.0	3.9	1.1	3.4	1.0	3.5	0.99	068-2010
	02	2.5	0.73	3.7	1.1	4.8	1.4	5.4	1.5	4.7	1.3	4.7	1.3	068-2015
	03	4.3	1.2	6.3	1.8	8.1	2.3	9.2	2.6	8.0	2.3	8.0	2.3	068-2006
	04	6.4	1.8	9.9	2.8	12.4	3.5	14.3	4.1	12.4	3.5	12.1	3.5	068-2007
	05	8.4	2.3	13.0	3.7	16.5	4.7	19.0	5.4	16.3	4.6	16.7	4.8	068-2008
	06	10.1	2.9	15.5	4.4	19.7	5.6	22.9	6.5	19.6	5.6	19.7	5.6	068-2009

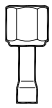
The rated capacity is based on:
Evaporating temperature t_e = 4.4 °C / 40 °F for range N.
Condensing temperature t_c = 38 °C / 100 °F.
Refrigerant temperature ahead of valve t_l = 37 °C / 98 °F.

T 2 / TE 2

Orifice assembly for solder adapter version

Type	Orifice	R134a		R404A/R507		R407C		R407F		R407A		R22		Code no.
		[kW]	[TR]	[kW]	[TR]	[kW]	[TR]	[kW]	[TR]	[kW]	[TR]	[kW]	[TR]	
T 2 / TE 2	0X	0.68	0.19	0.64	0.18	0.92	0.26	1.0	0.3	0.9	0.2	0.90	0.25	068-2089
	00	1.2	0.34	1.3	0.37	1.8	0.51	2.0	0.6	1.7	0.5	1.8	0.51	068-2090
	01	2.1	0.59	2.6	0.75	3.5	1.0	3.9	1.1	3.4	1.0	3.5	0.99	068-2091
	02	2.5	0.73	3.7	1.1	4.8	1.4	5.4	1.5	4.7	1.3	4.7	1.3	068-2092
	03	4.3	1.2	6.3	1.8	8.1	2.3	9.2	2.6	8.0	2.3	8.0	2.3	068-2093
	04	6.4	1.8	9.9	2.8	12.4	3.5	14.3	4.1	12.4	3.5	12.1	3.5	068-2094
	05	8.4	2.3	13.0	3.7	16.5	4.7	19.0	5.4	16.3	4.6	16.7	4.8	068-2095
	06	10.1	2.9	15.5	4.4	19.7	5.6	22.9	6.5	19.6	5.6	19.7	5.6	068-2096

The rated capacity is based on:
Evaporating temperature t_e = 4.4 °C / 40 °F for range N.
Condensing temperature t_c = 38 °C / 100 °F.
Refrigerant temperature ahead of valve t_l = 37 °C / 98 °F.



Solder adaptor without orifice assembly

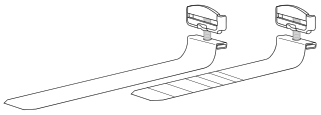
Connection – ODF solder	Code no.
1/4 in.	068-2062
6 mm	068-2063
6 mm	068-4101 [1])
3/8 in.	068-2060
10 mm	068-2061
10 mm	068-4100 [1])

1) *Including filter.*

Filter as accessories

Filter type	Code no.
For flare connection	068-0003
For solder adaptor	068-0015

The solder adaptor is for use with thermostatic expansion valves T2 and TE2.
When the solder adaptor is fitted correctly it meets the sealing requirements of DIN 8964. The flare orifice in T2 and TE2 can be used with a solder adaptor when the orifice filter is replaced with a specific filter intended for solder adaptors. Only in this way the sealing requirements of DIN 8964 can be fulfilled.
Solder adaptors for filter driers (FSA) must not be used on the T2 inlet.



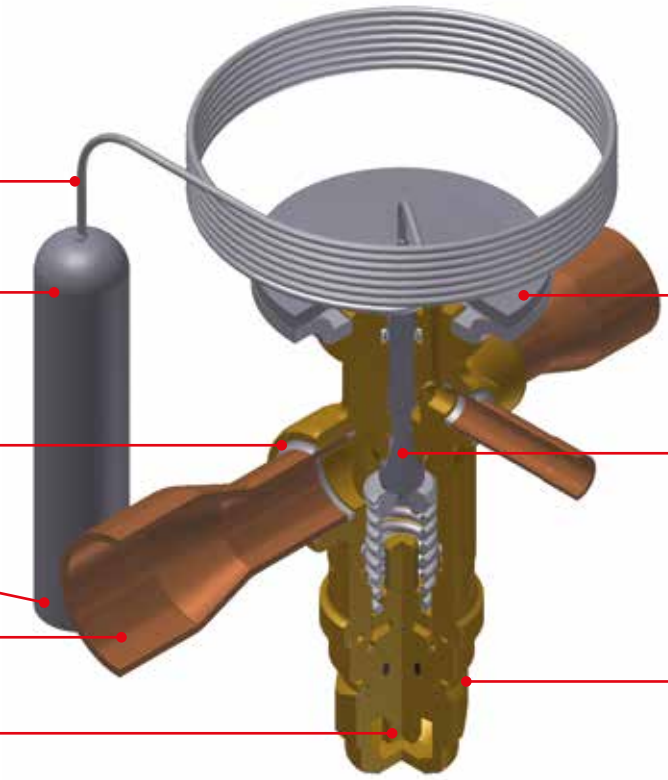
Bulb strap as accessories

Type	Length	Max. diameter of suction line		Code no.
	[mm]	[in.]	[mm]	
T 2 / TE 2 Accessories	110 mm	1 1/8	28	068U3507
	190 mm	2	50	068U3508

TGE – Thermostatic expansion valves

TGE is an innovatively designed series of thermostatic expansion valves for fluorinated refrigerants.
TGE has copper connections upgraded to high-pressure applications for hermetically tight soldering, and is available with a wide variety of connection types such as solder, flare, MIO, and ORFS, and a wide variety of connection sizes.
TGE is available in versions for R134a, R404A, R507, R407C, R22, R410A, R32 and R290.

Features
TGE



Facts

Applications:
- Air conditioning systems
- Heat pumps, water chillers
- Refrigerated containers
- Traditional refrigeration systems and others

- Hermetic TXV for R134a, R404A, R507, R407C, R22, R410A, R32 and R290
- Head pressure independent
- Version with MOP (Max. Operating Pressure)
- Straightway flow
- Balanced port (BP)
- Low hysteresis
- Max. working pressure 46 bar / 667 psig
- Long lifetime for heat pump application

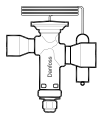
- Cylindrical bulb design with upgraded bulb strap
- Biflow with expansion in both directions
- Adjustable superheat setting
- Laser welded, stainless steel power element/capillary tube
- Available with many different connection types (solder, flare, MIO, ORFS)
- Capacity range: 12 – 182 kW
- / 3.5 – 52 TR R410A
- Versions with or without bleed function
- Compliance with ATEX hazard zone 2

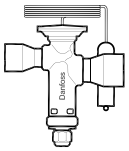
Technical data and ordering

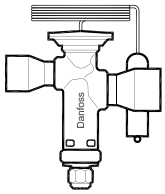
TGE - R22 / R407C

Thermostatic expansion valve with bulb strap - Range N = -40 – 10 °C / -40 – 50 °F

Type	Orifice no.	Nominal capacity $Q_{nom.}$		Solder connection ODF × ODF		Ext. Pressure Equalization		Code no.
		[kW]	[TR]	[in.]	[mm]	[in.]	[mm]	
TGEX 10	3	10	3	3/8 × 5/8	–	1/4	6	067N2150
	3	10	3	1/2 × 5/8	–	1/4	6	067N2151
	3	10	3	–	12 × 16	1/4	6	067N2191
	4	14	4	1/2 × 7/8	–	1/4	6	067N2152
	4	14	4	–	12 × 22	1/4	6	067N2192
	6	20	6	1/2 × 5/8	–	1/4	6	067N2153
	6	20	6	1/2 × 7/8	–	1/4	6	067N2154
	6	20	6	5/8 × 7/8	–	1/4	6	067N2155
	6	20	6	–	12 × 16	1/4	6	067N2193
	6	20	6	–	12 × 22	1/4	6	067N2194
	6	20	6	–	16 × 22	1/4	6	067N2195
	8	27	7.5	5/8 × 7/8	–	1/4	6	067N2156
	8	27	7.5	–	16 × 22	1/4	6	067N2196
	11	38	11	5/8 × 7/8	–	1/4	6	067N2157
	11	38	11	5/8 × 1 1/8	–	1/4	6	067N2158
	11	38	11	–	16 × 22	1/4	6	067N2197
	11	38	11	–	16 × 28	1/4	6	067N2198
TGEX 20	12.5	43	12	5/8 × 7/8	–	1/4	6	067N2159
	12.5	43	12	5/8 × 1 1/8	–	1/4	6	067N2160
	16	54	15	5/8 × 1 1/8	–	1/4	6	067N2161
	16	54	15	7/8 × 1 1/8	–	1/4	6	067N2162
	20	63	18	7/8 × 1 1/8	–	1/4	6	067N2163
	20	63	18	7/8 × 1 3/8	–	1/4	6	067N2164
	12.5	43	12	–	16 × 22	1/4	6	067N2199
	12.5	43	12	–	16 × 28	1/4	6	067N2200
	16	54	15	–	16 × 28	1/4	6	067N2201
	20	63	18	–	22 × 28	1/4	6	067N2203
TGEX 40	26	92	26	7/8 × 1 3/8	–	1/4	6	067N2165
	26	92	26	1 1/8 × 1 3/8	–	1/4	6	067N2166
	26	92	26	–	22 × 35	1/4	6	067N2205
	26	92	26	–	28 × 35	1/4	6	067N2206
	30	104	30	7/8 × 1 3/8	–	1/4	6	067N2167
	30	104	30	1 1/8 × 1 3/8	–	1/4	6	067N2168
	30	104	30	–	22 × 35	1/4	6	067N2207
	40	134	38	1 1/8 × 1 3/8	–	1/4	6	067N2169







[1] Pressure equalization = 1/4 in. (6 mm) ODF.
[2] The nominal capacity is based on: ARI standard.
Evaporating temperature: t_e = 4.4 °C.
Liquid temperature: t_l = 37 °C.
Condensing temperature: t_c = 38 °C.
Opening superheat: OS = 4 K.

For R407C plants, please select valves from the dedicated R407C program.

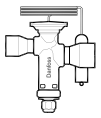
Technical data and ordering

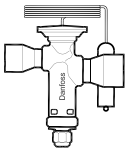
TGE - R407C / R22

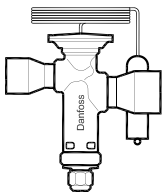
Thermostatic expansion valve with bulb strap

Range K = - 25 – +10 °C / -15 – +50 °F with MOP 100 psig / 6.9 bar abs, OS = 4 K/7.2 °F

Type	Orifice no.	Nominal capacity $Q_{nom.}$		External pressure equalization, Solder ODF		Solder connection ODF × ODF		Code no.
		[kW]	[TR]	[in.]	[mm]	[in.]	[mm]	
TGEX 10	3	10	3	¼	6	⅜ × ⅝	–	067N2000
	3	10	3	¼	6	½ × ⅝	–	067N2001
	3	10	3	¼	6	–	10 × 16	067N2040
	3	10	3	¼	6	–	12 × 16	067N2041
	4	14	4	¼	6	½ × ⅞	–	067N2002
	6	20	6	¼	6	½ × ⅝	–	067N2003
	6	20	6	¼	6	½ × ⅞	–	067N2004
	6	20	6	¼	6	⅝ × ⅞	–	067N2005
	6	20	6	¼	6	–	12 × 22	067N2044
	6	20	6	¼	6	–	16 × 22	067N2045
	8	27	7.5	¼	6	⅝ × ⅞	–	067N2006
	8	27	7.5	¼	6	–	16 × 22	067N2046
	11	38	11	¼	6	⅝ × ⅞	–	067N2007
	11	38	11	¼	6	⅝ × 1⅛	–	067N2008
	11	38	11	¼	6	–	16 × 28	067N2048
TGEX 20	12.5	43	12	¼	6	⅝ × ⅞	–	067N2009
	12.5	43	12	¼	6	⅝ × 1⅛	–	067N2010
	12.5	43	12	¼	6	–	16 × 22	067N2049
	12.5	43	12	¼	6	–	16 × 28	067N2050
	16	54	15	¼	6	⅝ × ⅛	–	067N2011
	16	54	15	¼	6	⅞ × 1⅛	–	067N2012
	16	54	15	¼	6	–	16 × 28	067N2051
	16	54	15	¼	6	–	22 × 28	067N2052
	20	63	18	¼	6	⅞ × 1⅛	–	067N2013
	20	63	18	¼	6	⅞ × 1⅜	–	067N2014
TGEX 40	26	92	26	¼	6	⅞ × 1⅜	–	067N2015
	26	92	26	¼	6	1⅛ × 1⅜	–	067N2016
	30	104	30	¼	6	⅞ × 1⅜	–	067N2017
	30	104	30	¼	6	1⅛ × 1⅜	–	067N2018
	40	134	38	¼	6	1⅛ × 1⅜	–	067N2019
	–	–	–	¼	6	–	22 × 35	067N2057







The rated capacity is based on:
Evaporating temperature te = 4.4 °C / 40 °F.
Condensing temperature tc = 38 °C / 100 °F.
Liquid temperature tl = 37 °C / 98 °F.
Opening superheat OS = 4 K / 39 °F.

For R407C plants, please select valves from the dedicated R407C program.

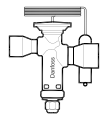
Technical data and ordering

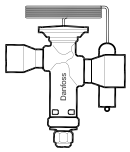
TGE - R22 / R407C

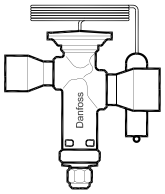
Thermostatic expansion valve with bulb strap

Range MAH = -30 – +15 °C /-22 – +60 °F, OS = 4 K / 7.2 °F

Type	Orifice no.	Nominal capacity $Q_{nom.}$					
		[kW]	[TR]	Connection Solder ODF × ODF [1] [in.]	Ext. Prssure Equalization [in.]	Ext. Prssure Equalization [mm]	Code no.
TGEX 10	3	10	3	3/8 × 5/8	1/4	6	067N9400
	4	14	4	1/2 × 7/8	1/4	6	067N9402
	6	20	6	1/2 × 5/8	1/4	6	067N9403
	6	20	6	1/2 × 7/8	1/4	6	067N9404
	6	20	6	5/8 × 1 1/8	1/4	6	067N9482
	8	27	7.50	5/8 × 7/8	1/4	6	067N9406
	8	27	7.50	5/8 × 7/8	1/4	6	067N9483
	11	38	11	5/8 × 1 1/8	1/4	6	067N9407
TGEX 20	12.5	43	12	5/8 × 7/8	1/4	6	067N9409
	16	54	15	5/8 × 1 1/8	1/4	6	067N9411
	16	54	15	7/8 × 1 1/8	1/4	6	067N9412
	20	63	18	7/8 × 1 3/8	1/4	6	067N9413
TGEX 40	26	92	26	7/8 × 1 3/8	1/4	6	067N9415
	30	104	30	1 1/8 × 1 3/8	1/4	6	067N9418
	40	134	38	1 1/8 × 1 3/8	1/4	6	067N9419







[1] Pressure equalization = 1/4 in. (6 mm) ODF.
[2] The nominal capacity is based on: ARI standard.
Evaporating temperature: t_e = 4.4 °C.
Liquid temperature: t_l = 37 °C.
Condensing temperature: t_c = 38 °C.
Opening superheat: OS = 4 K.

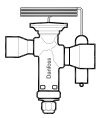
For R407C plants, please select valves from the dedicated R407C program.

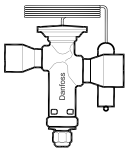
Technical data and ordering

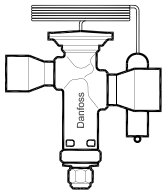
TGE - R134a

Thermostatic expansion valve with bulb strap - Range N = -40 – 10°C / -40 – 50 °F, OS = 4 K / 7.2 °F

Type	Orifice no.	Nominal capacity $Q_{nom.}$		External pressure equalization, Solder ODF		Solder connection ODF × ODF		Code no.
		[kW]	[TR]	[in.]	[mm]	[in.]	[mm]	
TGEN 10	3	6	1.5	¼	6	⅜ × ⅝	–	067N5150
	3	6	1.5	¼	6	–	10 × 16	067N5190
	3	6	1.5	¼	6	–	12 × 16	067N5191
	4	8	2.5	¼	6	½ × ⅞	–	067N5152
	4	8	2.5	¼	6	–	12 × 22	067N5192
	6	12	3.5	¼	6	½ × ⅝	–	067N5153
	6	12	3.5	¼	6	½ × ⅞	–	067N5154
	6	12	3.5	¼	6	–	12 × 16	067N5193
	6	12	3.5	¼	6	–	16 × 22	067N5195
	8	17	4.5	¼	6	⅝ × ⅞	–	067N5156
	8	17	4.5	¼	6	–	16 × 22	067N5196
	11	24	7	¼	6	⅝ × ⅞	–	067N5157
	11	24	7	¼	6	⅝ × 1⅛	–	067N5158
	11	24	7	¼	6	–	16 × 22	067N5197
TGEN 20	12.5	29	8	¼	6	⅝ × ⅞	–	067N5159
	12.5	29	8	¼	6	⅝ × 1⅛	–	067N5160
	16	37	10	¼	6	⅝ × 1⅛	–	067N5161
	16	37	10	¼	6	⅞ × 1⅛	–	067N5162
	20	44	12	¼	6	⅞ × 1⅛	–	067N5163
TGEN 40	26	61	17	¼	6	⅞ × 1⅜	–	067N5165
	26	61	17	¼	6	1⅛ × 1⅜	–	067N5166
	26	61	17	¼	6	1⅛ × 1⅛	–	067N5254
	30	70	20	¼	6	1⅛ × 1⅛	–	067N5255
	30	70	20	¼	6	⅞ × 1⅜	–	067N5167
	30	70	20	¼	6	1⅛ × 1⅜	–	067N5168
	30	70	20	¼	6	–	28 × 35	067N5208
	40	87	25	¼	6	1⅛ × 1⅜	–	067N5169







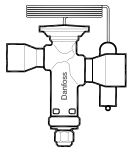
[1] *The nominal capacity is based on: ARI standard.*
Evaporating temperature: t_e = 4.4 °C.
Liquid temperature: t_l = 37 °C.
Condensing temperature: t_c = 38 °C.
Opening superheat: OS = 4 K.

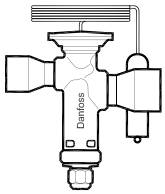
Technical data and ordering

TGE - R134a

Thermostatic expansion valve with bulb strap
Range K = -25 – +10 °C / -15 – +50 °F
with MOP 55 psig / 5 bar abs, OS = 4 K / 7.2 °F

Type	Orifice no.	Nominal capacity $Q_{nom.}$		External pressure equalization, Solder ODF		Connection Solder ODF × ODF		Code no.
		[kW]	[TR]	[in.]	[mm]	[in.]	[mm]	
TGEN 10	3	6	1.5	¼	6	⅜ × ⅝	–	067N5000
	4	8	2.5	¼	6	½ × ⅞	–	067N5002
	6	12	3.5	¼	6	½ × ⅝	–	067N5003
	6	12	3.5	¼	6	½ × ⅞	–	067N5004
	6	12	3.5	¼	6	⅝ × ⅞	–	067N5005
	6	12	3.5	¼	6	–	12 × 16	067N5043
	8	17	4.5	¼	6	⅝ × ⅞	–	067N5006
	8	17	4.5	¼	6	–	16 × 22	067N5046
	11	24	7	¼	6	⅝ × ⅞	–	067N5007
	11	24	7	¼	6	⅝ × 1⅛	–	067N5008
	11	24	7	¼	6	–	16 × 22	067N5047
	11	24	7	¼	6	–	16 × 28	067N5048
TGEN 20	12.5	29	8	¼	6	⅝ × ⅞	–	067N5009
	12.5	29	8	¼	6	⅝ × 1⅛	–	067N5010
	16	37	10	¼	6	⅝ × 1⅛	–	067N5011
	20	44	12	¼	6	⅞ × 1⅛	–	067N5013
	20	44	12	¼	6	–	22 × 28	067N5053
TGEN 40	26	61	17	¼	6	⅞ × 1⅜	–	067N5015
	26	61	17	¼	6	–	22 × 35	067N5055
	30	70	20	¼	6	⅞ × 1⅜	–	067N5017
	30	70	20	¼	6	1⅛ × 1⅜	–	067N5018
	30	70	20	¼	6	–	22 × 35	067N5057
	40	87	25	¼	6	1⅛ × 1⅜	–	067N5019
	40	87	25	¼	6	–	28 × 35	067N5059





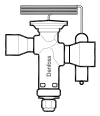
[1] *Pressure equalization = 1/4 in. (6 mm) ODF.*
[2] *The nominal capacity is based on: ARI standard.*
Evaporating temperature: t_e = 4.4 °C.
Liquid temperature: t_l = 37 °C.
Condensing temperature: t_c = 38 °C.
Opening superheat: OS = 4 K.

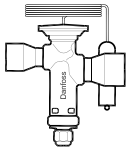
Technical data and ordering

TGE - R134a

Thermostatic expansion valve with bulb strap - Range N = -40 – 10 °C / -40 – 50 °F, OS = 4 K / 7.2 °F

Type	Orifice no.	Nominal capacity $Q_{nom.}$		Ext. Pressure Equalization	in. version	
		[kW]	[TR]	[in.]	Connection Thread [in.]	Code no.
TGEN 10	3	6	1.5	1/4 MIO	1/2 × 5/8 × 1/4 MIO	067N7150
	4	8	2.5	1/4 MIO	1/2 × 5/8 × 1/4 MIO	067N7152
	4	8	2.5	1/4 Flare	3/8 × 1/2 MIO × 1/4 F	067N7153
	4	8	2.5	1/4 Flare	3/8 × 1/2 × 1/4 F	067N7154
	6	12	3.5	1/4 Flare	1/2 × 5/8 × 1/4 F	067N7157
	6	12	3.5	1/4 Flare	3/8 × 1/2 MIO × 1/4 F	067N7158
	6	12	3.5	1/4 Flare	3/8 × 1/2 × 1/4 F	067N7160
	8	17	4.5	1/4 MIO	1/2 × 5/8 × 1/4 MIO	067N7161
	8	17	4.5	1/4 Flare	1/2 × 5/8 × 1/4 F	067N7163
	8	17	4.5	1/4 Flare	3/8 × 1/2 MIO × 1/4 F	067N7164
	8	17	4.5	1/4 MIO	5/8 × 3/4 × 1/4 MIO	067N7165
	11	24	7	1/4 MIO	5/8 × 3/4 × 1/4 MIO	067N7166
TGEN 20	12.5	29	8	1/4 MIO	5/8 × 3/4 × 1/4 MIO	067N7167
	16	37	10	1/4 Flare	5/8 × 3/4 × 1/4 Flare	067N7168



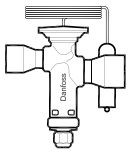


1) The nominal capacity is based on: ARI standard.
F: Flare.
MIO: Male inserts O-ring.
Evaporating temperature: t_e = 4.4 °C.
Liquid temperature: t_l = 37 °C.
Condensing temperature: t_c = 38 °C.
Opening surperheat: OS = 4 K.

TGE - R134a

Thermostatic expansion valve with bulb strap - Range K = -25 – 10 °C / -15 – 50 °F
with MOP 55 psig / 5 bar abs, OS = 4 K / 7.2 °F

Type	Orifice no.	Nominal capacity $Q_{nom.}$		Ext. Pressure Equalization	in. version	
		[kW]	[TR]	[in.]	Connection Thread [in.]	Code no.
TGEN 10	4	8	2.5	1/4 Flare	3/8 × 1/2 × 1/4 F	067N7000
	6	12	3.5	1/4 Flare	3/8 × 1/2 × 1/4 F	067N7003
	6	12	3.5	1/4 Flare	1/2 × 5/8 × 1/4 F	067N7004
	8	17	4.5	1/4 Flare	1/2 × 5/8 × 1/4 F	067N7008
	8	17	4.5	1/4 Flare	5/8 × 3/4 × 1/4 F	067N7013
	11	24	7	1/4 Flare	5/8 × 3/4 × 1/4 F	067N7016
	12.5	29	8	1/4 Flare	5/8 × 3/4 × 1/4 F	067N7018
	16	37	10	1/4 Flare	5/8 × 3/4 × 1/4 F	067N7020
	20	44	12	1/4 Flare	5/8 × 3/4 × 1/4 F	067N7021
	4	8	2.5	1/4 MIO	1/2 × 5/8 × 1/4 MIO	067N7002
	8	17	4.5	1/4 MIO	1/2 × 5/8 × 1/4 MIO	067N7010
	8	17	4.5	1/4 MIO	5/8 × 3/4 × 1/4 MIO	067N7012
	11	24	7	1/4 MIO	5/8 × 3/4 × 1/4 MIO	067N7015
TGEN 20	12.5	29	8	1/4 MIO	5/8 × 3/4 × 1/4 MIO	067N7017
	16	37	10	1/4 MIO	5/8 × 3/4 × 1/4 MIO	067N7019



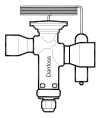
1) The nominal capacity is based on: ARI standard.
F: Flare.
MIO: Male inserts O-ring.
Evaporating temperature: t_e = 4.4 °C.
Liquid temperature: t_l = 37 °C.
Condensing temperature: t_c = 38 °C.
Opening surperheat: OS = 4 K.

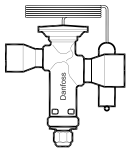
Technical data and ordering

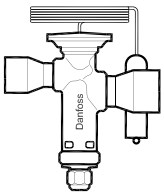
TGE - R407C

Thermostatic expansion valve with bulb strap - Range N = -40 – 10 °C / -40 – 50 °F, OS = 4 K / 7.2 °F

Type	Orifice no.	Nominal capacity $Q_{nom.}$		External pressure equalization		Connection Solder ODF × ODF		Code no.
		[kW]	[TR]	[in.]	[mm]	[in.]	[mm]	
TGEZ 10	3	9	2.5	¼	6	½ × ⅝	–	067N4151
	3	9	2.5	¼	6	–	10 × 16	067N4190
	3	9	2.5	¼	6	–	12 × 16	067N4191
	4	13	3.5	¼	6	½ × ⅞	–	067N4152
	4	13	3.5	¼	6	–	12 × 22	067N4192
	6	19	5	¼	6	½ × ⅝	–	067N4153
	6	19	5	¼	6	½ × ⅞	–	067N4154
	6	19	5	¼	6	⅝ × ⅞	–	067N4155
	6	19	5	¼	6	–	12 × 16	067N4193
	6	19	5	¼	6	–	12 × 22	067N4194
	6	19	5	¼	6	–	16 × 22	067N4195
	8	25	7	¼	6	⅝ × ⅞	–	067N4156
	8	25	7	¼	6	–	16 × 22	067N4196
	11	36	10	¼	6	⅝ × ⅞	–	067N4157
	11	36	10	¼	6	⅝ × 1⅛	–	067N4158
	11	36	10	¼	6	–	16 × 22	067N4197
TGEZ 20	12.5	42	12	¼	6	⅝ × ⅞	–	067N4159
	12.5	42	12	¼	6	⅝ × 1⅛	–	067N4160
	12.5	42	12	¼	6	–	16 × 22	067N4199
	12.5	42	12	¼	6	–	16 × 28	067N4200
	16	53	15	¼	6	⅝ × 1⅛	–	067N4161
	16	53	15	¼	6	⅞ × 1⅛	–	067N4162
	16	53	15	¼	6	–	22 × 28	067N4202
	20	62	18	¼	6	⅞ × 1⅛	–	067N4163
	20	62	18	¼	6	–	22 × 28	067N4203
	20	62	18	¼	6	–	22 × 35	067N4204
TGEZ 40	26	84	24	¼	6	⅞ × ⅜	–	067N4165
	26	84	24	¼	6	1 ⅛ × 1⅜	–	067N4166
	26	84	24	¼	6	–	28 × 35	067N4206
	30	95	27	¼	6	⅞ × 1⅜	–	067N4167
	30	95	27	¼	6	1⅛ × 1⅜	–	067N4168
	30	95	27	¼	6	–	28 × 35	067N4208
	40	121	34	¼	6	1⅛ × 1⅜	–	067N4169
	40	121	34	¼	6	–	28 × 35	067N4209







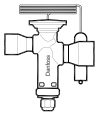
¹) Pressure equalization = 1/4 in. (6 mm) ODF.
²) The nominal capacity is based on: ARI standard.
Evaporating temperature: t_e = 4.4 °C.
Liquid temperature: t_l = 37 °C.
Condensing temperature: t_c = 38 °C.
Opening superheat: OS = 4 K.

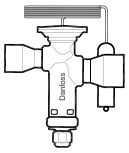
Technical data and ordering

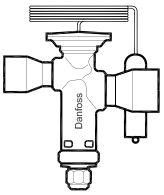
TGE - R407C

Thermostatic expansion valve with bulb strap - Range K = -25 – 10 °C / -15 – 50 °F
with MOP 95 psig / 6.6 bar abs, OS = 4 K / 7.2 °F

Type	Orifice no.	Nominal capacity $Q_{nom.}$ [2]		Ext. Pressure Equalization		Connection Solder ODF × ODF [1]		Code no.
		[kW]	[TR]	[in.]	[mm]	[in.]	[mm]	
TGEZ 10	3	9	2.5	¼	6	⅜ × ⅝	–	067N4000
	3	9	2.5	¼	6	–	12 × 16	067N4041
	4	13	3.5	¼	6	½ × ⅞	–	067N4002
	6	19	5	¼	6	½ × ⅝	–	067N4003
	6	19	5	¼	6	½ × ⅞	–	067N4004
	6	19	5	¼	6	⅝ × ⅞	–	067N4005
	6	19	5	¼	6	–	12 × 16	067N4043
	8	25	7	¼	6	⅝ × ⅞	–	067N4006
	8	25	7	¼	6	–	16 × 22	067N4046
	11	36	10	¼	6	⅝ × ⅞	–	067N4007
	11	36	10	¼	6	⅝ × 1 ⅛	–	067N4008
	11	36	10	¼	6	–	16 × 22	067N4047
TGEZ 20	12.5	42	12	¼	6	⅝ × ⅞	–	067N4009
	12.5	42	12	¼	6	⅝ × 1⅛	–	067N4010
	12.5	42	12	¼	6	–	16 × 22	067N4049
	16	53	15	¼	6	⅝ × 1⅛	–	067N4011
	16	53	15	¼	6	⅞ × 1⅛	–	067N4012
	20	62	18	¼	6	⅞ × 1⅛	–	067N4013
	20	62	18	¼	6	⅞ × 1⅜	–	067N4014
	20	62	18	¼	6	–	22 × 28	067N4053
TGEZ 40	26	84	24	¼	6	⅞ × 1⅜	–	067N4015
	30	95	27	¼	6	⅞ × 1⅜	–	067N4017
	30	95	27	¼	6	1⅛ × 1⅜	–	067N4018
	40	121	34	¼	6	1⅛ × 1⅜	–	067N4019







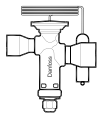
[1] Pressure equalization = ¼ in. (6 mm) ODF.
[2] The nominal capacity is based on: ARI standard.
Evaporating temperature: t_e = 4.4 °C.
Liquid temperature: t_l = 37 °C.
Condensing temperature: t_c = 38 °C.
Opening surperheat: OS = 4 K.

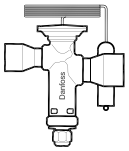
Technical data and ordering

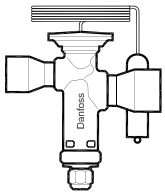
TGE - R407C

Thermostatic expansion valve with bulb strap - Range MAH = -30 – 15 °C / -22 – 60 °F , OS = 4K / 7.2 °F

Type	Orifice no.	Nominal capacity $Q_{nom.}$		Ext. Pressure Equalization		Connection Solder ODF × ODF		Code no.
		[kW]	[TR]	[in.]	[mm]	[in.]	[mm]	
TGEZ 10	3	9	2.5	¼	6	3/8 × 5/8	–	067N9600
	3	9	2.5	¼	6	1/2 × 5/8	–	067N9601
	3	9	2.5	¼	6	–	10 x 16	067N9640
	3	9	2.5	¼	6	–	12 x 16	067N9641
	4	13	3.5	¼	6	1/2 × 7/8	–	067N9602
	4	13	3.5	¼	6	–	12 x 22	067N9642
	6	19	5	¼	6	1/2 × 5/8	–	067N9603
	6	19	5	¼	6	1/2 × 7/8	–	067N9604
	6	19	5	¼	6	5/8 × 7/8	–	067N9605
	6	19	5	¼	6	–	12 x 16	067N9643
	6	19	5	¼	6	–	12 x 22	067N9644
	6	19	5	¼	6	–	16 x 22	067N9645
	8	25	7	¼	6	5/8 × 7/8	–	067N9606
	8	25	7	¼	6	–	16 x 22	067N9646
	11	36	10	¼	6	5/8 × 7/8	–	067N9607
	11	36	10	¼	6	5/8 × 1 1/8	–	067N9608
	11	36	10	¼	6	–	16 x 22	067N9647
	11	36	10	¼	6	–	16 x 28	067N9648
TGEZ 20	12.5	42	12	¼	6	5/8 × 7/8	–	067N9609
	12.5	42	12	¼	6	5/8 × 1 1/8	–	067N9610
	12.5	42	12	¼	6	16 x 22	–	067N9649
	12.5	42	12	¼	6	–	16 x 28	067N9650
	16	53	15	¼	6	5/8 × 1 1/8	–	067N9611
	16	53	15	¼	6	7/8 × 1 1/8	–	067N9612
	16	53	15	¼	6	–	16 x 28	067N9651
	16	53	15	¼	6	–	22 x 28	067N9652
	20	62	18	¼	6	7/8 × 1 1/8	–	067N9613
	20	62	18	¼	6	7/8 × 1 3/8	–	067N9614
	20	62	18	¼	6	–	22 x 28	067N9653
	20	62	18	¼	6	–	22 x 35	067N9654
TGEZ 40	26	84	24	¼	6	7/8 × 1 3/8	–	067N9615
	26	84	24	¼	6	1 1/8 × 1 3/8	–	067N9616
	26	84	24	¼	6	–	22 x 35	067N9655
	26	84	24	¼	6	–	28 x 35	067N9656
	30	95	27	¼	6	7/8 × 1 3/8	–	067N9617
	30	95	27	¼	6	1 1/8 × 1 3/8	–	067N9618
	30	95	27	¼	6	–	22 x 35	067N9657
	30	95	27	¼	6	–	28 x 35	067N9658
	40	121	34	¼	6	1 1/8 × 1 3/8	–	067N9619
	40	121	34	¼	6	–	28 x 35	067N9659







[1] Pressure equalization = ¼ in. (6 mm) ODF.
[2] The nominal capacity is based on: ARI standard.
Evaporating temperature: t_e = 4.4 °C.
Liquid temperature: t_l = 37 °C.
Condensing temperature: t_c = 38 °C.
Opening surperheat: OS = 4 K.

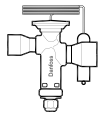
Technical data and ordering

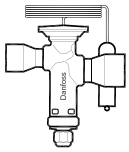
Only solder versions, connection size smaller than 25 mm/⅞ in. are approved for flammable refrigerants.

TGE - R410A/R32

Thermostatic expansion valve with bulb strap - Range N = -40 – 10 °C / -40 – 50 °F, OS = 4 K / 7.2 °F

Type	Orifice no.	Nominal capacity $Q_{nom.}$ [2]				Ext. Pressure Equalization		Connection Solder ODF × ODF		Code no.
		R410A		R32						
		[kW]	[TR]	[kW]	[TR]	[in.]	[mm]	[in.]	[mm]	
TGEL 10	3	12	3.5	18	5	¼	6	⅜ × ⅝	–	067N3150
	3	12	3.5	18	5	¼	6	½ × ⅝	–	067N3151
	4	16	4.5	24	7	¼	6	½ × ⅞	–	067N3152
	4	16	4.5	24	7	¼	6	–	12 × 22	067N3192
	6	24	6.5	35	10	¼	6	½ × ⅝	–	067N3153
	6	24	6.5	35	10	¼	6	½ × ⅞	–	067N3154
	6	24	6.5	35	10	¼	6	⅝ × ⅞	–	067N3155
	6	24	6.5	35	10	¼	6	–	12 × 22	067N3194
	6	24	6.5	35	10	¼	6	–	16 × 22	067N3195
	8	32	9	47	13	¼	6	⅝ × ⅞	–	067N3156
	8	32	9	47	13	¼	6	–	16 × 22	067N3196
	11	45	13	68	19	¼	6	⅝ × ⅞	–	067N3157
	11	45	13	68	19	¼	6	–	16 × 22	067N3197
TGEL 20	12.5	54	15	81	23	¼	6	⅝ × ⅞	–	067N3159



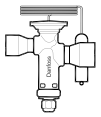


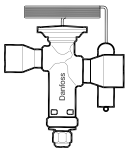
[1] Pressure equalization = ¼ in. (6 mm) ODF.
[2] The nominal capacity is based on: ARI standard.
Evaporating temperature: t_e = 4.4 °C.
Liquid temperature: t_l = 37 °C.
Condensing temperature: t_c = 38 °C.
Opening superheat: OS = 4 K.

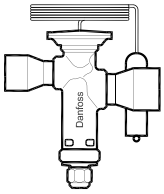
TGE - R410A

Thermostatic expansion valve with bulb strap - Range N = -40 – 10 °C / -40 – 50 °F, OS = 4 K / 7.2 °F

Type	Orifice no.	Nominal capacity $Q_{nom.}$ [2]		Ext. Pressure Equalization		Connection Solder ODF × ODF [1]		Code no.
		[kW]	[TR]	[in.]	[mm]	[in.]	[mm]	
TGEL 10	11	45	13	¼	6	⅝ × 1⅛	–	067N3158
TGEL 20	12.5	54	15	¼	6	⅝ × 1⅛	–	067N3160
	16	68	19	¼	6	⅝ × 1⅛	–	067N3161
	16	68	19	¼	6	⅞ × 1⅛	–	067N3162
	16	68	19	¼	6	–	22 × 28	067N3202
	20	79	23	¼	6	⅞ × 1⅛	–	067N3163
	20	79	23	¼	6	⅞ × 1⅜	–	067N3164
	20	79	23	¼	6	–	22 × 28	067N3203
TGEL 40	26	110	31	¼	6	⅞ × 1⅜	–	067N3165
	26	110	31	¼	6	1 ⅛ × 1⅜	–	067N3166
	26	110	31	¼	6	–	22 × 35	067N3205
	30	125	35	¼	6	1⅛ × 1⅜	–	067N3168
	40	161	46	¼	6	1⅛ × 1⅜	–	067N3169







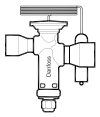
[1] Pressure equalization = ¼ in. (6 mm) ODF.
[2] The nominal capacity is based on: ARI standard.
Evaporating temperature: t_e = 4.4 °C.
Liquid temperature: t_l = 37 °C.
Condensing temperature: t_c = 38 °C.
Opening superheat: OS = 4 K.

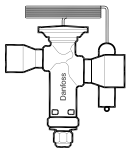
Technical data and ordering

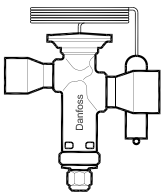
TGE - R410A

Thermostatic expansion valve with bulb strap - Range K = -25 – 10 °C / -15 – 50 °F
with MOP 165 psig / 11.5 bar abs, OS = 4 K / 7.2 °F

Type	Orifice no.	Nominal capacity $Q_{nom.}$ [2]		Ext. Pressure Equalization		Connection Solder ODF × ODF [1]		Code no.
		[kW]	[TR]	[in.]	[mm]	[in.]	[mm]	
TGEL 10	3	12	3.5	¼	6	⅜ × ⅝	–	067N3000
	3	12	3.5	¼	6	½ × ⅝	–	067N3001
	4	16	4.5	¼	6	½ × ⅞	–	067N3002
	6	24	6.5	¼	6	½ × ⅝	–	067N3003
	6	24	6.5	¼	6	⅝ × ⅞	–	067N3005
	8	32	9	¼	6	⅝ × ⅞	–	067N3006
	11	45	13	¼	6	⅝ × ⅞	–	067N3007
	11	45	13	¼	6	⅝ × 1⅛	–	067N3008
TGEL 20	12.5	54	15	¼	6	⅝ × ⅞	–	067N3009
	12.5	54	15	¼	6	⅝ × 1⅛	–	067N3010
	12.5	54	15	¼	6	–	16 × 22	067N3049
	16	68	19	¼	6	⅝ × 1⅛	–	067N3011
	16	68	19	¼	6	⅞ × 1⅛	–	067N3012
	20	79	23	¼	6	⅞ × 1⅛	–	067N3013
	20	79	23	¼	6	⅞ × 1⅜	–	067N3014
TGEL 40	26	110	31	¼	6	⅞ × 1⅜	–	067N3015
	26	110	31	¼	6	1⅛ × 1⅜	–	067N3016
	30	125	35	¼	6	1⅛ × 1⅜	–	067N3018
	40	161	46	¼	6	1⅛ × 1⅜	–	067N3019







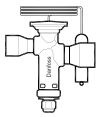
[1] Pressure equalization = ¼ in. (6 mm) ODF.
[2] The nominal capacity is based on: ARI standard.
Evaporating temperature: t_e = 4.4 °C.
Liquid temperature: t_l = 37 °C.
Condensing temperature: t_c = 38 °C.
Opening superheat: OS = 4 K.

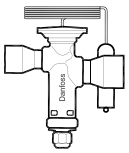
Technical data and ordering

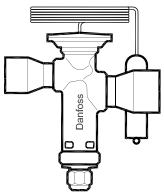
TGE - R410A

Thermostatic expansion valve with bulb strap - Range MAH = -30 – 15 °C / -22 – 60 °F, OS = 4K / 7.2 °F

Type	Orifice no.	Nominal capacity $Q_{nom.}$ [1]		Ext. Pressure Equalization		Connection Solder ODF × ODF		Code no.
		[kW]	[TR]	[in.]	[mm]	[in.]	[mm]	
TGEL 10	3	12	3.5	¼	6	⅜ × ⅝	–	067N9205
	3	12	3.5	¼	6	½ × ⅝	–	067N9201
	3	12	3.5	¼	6	–	10 × 16	067N9245
	3	12	3.5	¼	6	–	12 × 16	067N9241
	4	16	4.5	¼	6	½ × ⅞	–	067N9202
	4	16	4.5	¼	6	–	12 × 22	067N9242
	6	24	6.5	¼	6	½ × ⅝	–	067N9203
	6	24	6.5	¼	6	⅝ × ⅞	–	067N9200
	6	24	6.5	¼	6	–	12 × 16	067N9243
	6	24	6.5	¼	6	–	12 × 22	067N9244
	6	24	6.5	¼	6	–	16 × 22	067N9240
	8	32	9	¼	6	⅝ × ⅞	–	067N9206
	8	32	9	¼	6	–	16 × 22	067N9246
	9	37	11	¼	6	⅝ × ⅞	–	067N9287
	11	45	13	¼	6	⅝ × ⅞	–	067N9207
	11	45	13	¼	6	⅝ × 1⅛	–	067N9208
	11	45	13	¼	6	–	16 × 22	067N9247
	11	45	13	¼	6	–	16 × 28	067N9248
TGEL 20	12.5	54	15	¼	6	⅝ × ⅞	–	067N9209
	12.5	54	15	¼	6	⅞ × 1⅛	–	067N9283
	12.5	54	15	¼	6	⅝ × 1⅛	–	067N9210
	12.5	54	15	¼	6	–	16 × 22	067N9249
	12.5	54	15	¼	6	–	16 × 28	067N9250
	16	68	19	¼	6	⅝ × 1⅛	–	067N9211
	16	68	19	¼	6	⅞ × 1⅛	–	067N9212
	16	68	19	¼	6	–	16 × 28	067N9251
	16	68	19	¼	6	–	22 × 28	067N9252
	20	79	23	¼	6	⅞ × 1⅛	–	067N9213
	20	79	23	¼	6	1⅛ × 1⅛	–	067N9284
	20	79	23	¼	6	⅞ × 1⅜	–	067N9214
	20	79	23	¼	6	–	22 × 28	067N9253
	20	79	23	¼	6	–	22 × 35	067N9254
	21	91	26	¼	6	⅞ × 1⅛	–	067N9288 [2]
TGEL 40	26	110	31	¼	6	⅞ × 1⅜	–	067N9215
	26	110	31	¼	6	⅞ × 1⅛	–	067N9285
	26	110	31	¼	6	1⅛ × 1⅜	–	067N9216
	26	110	31	¼	6	–	22 × 35	067N9255
	26	110	31	¼	6	–	28 × 35	067N9256
	30	125	35	¼	6	⅞ × 1⅜	–	067N9217
	30	125	35	¼	6	1⅛ × 1⅜	–	067N9218
	30	125	35	¼	6	–	22 × 35	067N9257
	30	125	35	¼	6	–	28 × 35	067N9258
	40	161	46	¼	6	1⅛ × 1⅜	–	067N9219
	40	161	46	¼	6	–	28 × 35	067N9259







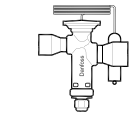
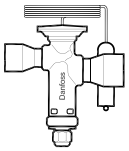
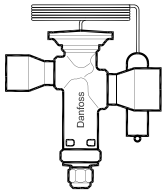
1) *The rated capacity is based on:*
Evaporating temperature: t_e = 4.4 °C / 40 °F
Liquid temperature: t_l = 37 °C / 98°F
Condensing temperature: t_c = 38 °C / 100 °C
Opening superheat: OS = 4 K / 39 °F
2) *Contact Danfoss for more information.*

Technical data and ordering

TGE - R404A/R507

Thermostatic expansion valve with bulb strap - Range N = -40 – 10 °C / -40 –50 °F, OS = 4K / 7.2 °F

Type	Orifice no.	Nominal capacity $Q_{nom.}$ [2]		Ext. Pressure Equalization		Connection Solder ODF × ODF [1] [in.]	Code no.
		[kW]	[TR]	[in.]	[mm]		
TGES 10	6	14	4	¼	6	½ × ⅞	067N6151
	8	18	5	¼	6	½ × ⅞	067N6166
	8	18	5	¼	6	⅝ × ⅞	067N6150
	11	26	7.50	¼	6	⅝ × ⅞	067N6154
TGES 20	12.5	31	9	¼	6	⅝ × ⅞	067N6158
	16	39	11	¼	6	1⅛ × 1⅜	067N6188
	16	39	11	¼	6	⅝ × 1⅛	067N6155
	16	39	11	¼	6	⅞ × 1⅛	067N6181
	20	45	13	¼	6	⅞ × 1⅛	067N6162
TGES 40	30	72	21	¼	6	1⅛ × 1⅜	067N6186

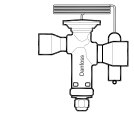
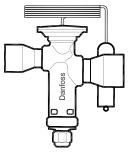
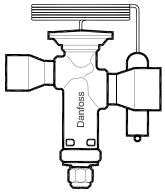
[1] Pressure equalization = ¼ in. (6 mm) ODF.
[2] The nominal capacity is based on: ARI standard.
Evaporating temperature: t_e = 4.4 °C.
Liquid temperature: t_l = 37 °C.
Condensing temperature: t_c = 38 °C.
Opening superheat: OS = 4 K.

Only solder versions, connection size smaller than 25 mm/⅞ in. are approved for flammable refrigerants.

TGE - R290

Thermostatic expansion valve with bulb strap - Range N = -40 – 10 °C / -40 – 50 °F, OS = 4K /7.2 °F

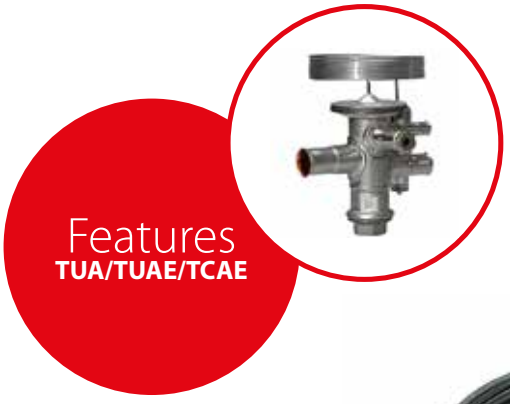
Valve type	Orifice no.	Nominal capacity $Q_{nom.}$ [2]		Ext. Pressure Equalization		Connection Solder ODF × ODF [1] [in.]	Code no.
		[kW]	[TR]	[in.]	[mm]		
TGE 10	6	19	5	¼	6	⅝ × ⅞	067N9100
	8	25	7	¼	6	⅝ × ⅞	067N9101
	11	36	10	¼	6	⅝ × ⅞	067N9103
TGE 20	12.5	44	12	¼	6	⅝ × ⅞	067N9104
	20	63	18	¼	6	⅞ × ⅞	067N9106
TGE 40	30	106	30	¼	6	⅞ × ⅞	067N9108

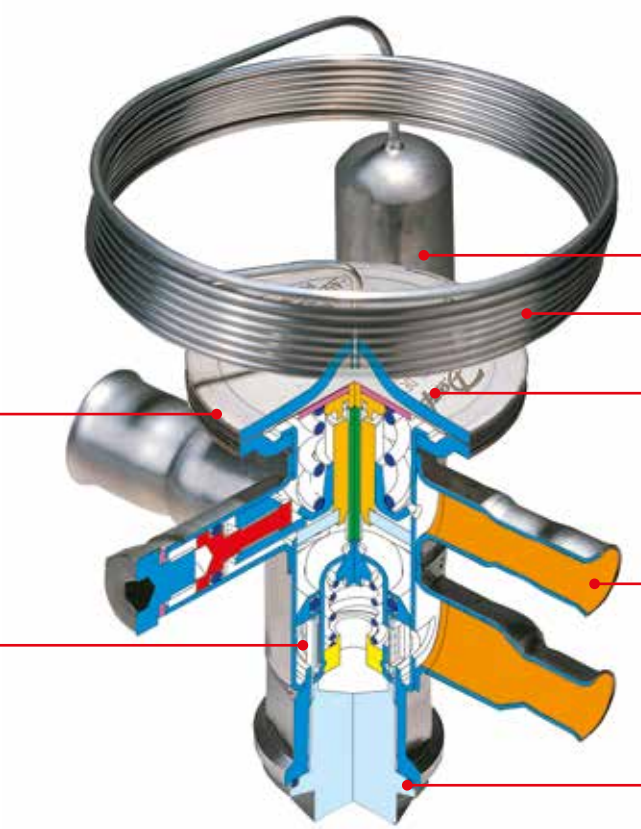




[1] Pressure equalization = ¼ in. (6 mm) ODF.
[2] The nominal capacity is based on: ARI standard.
Evaporating temperature: t_e = 4.4 °C.
Liquid temperature: t_l = 37 °C.
Condensing temperature: t_c = 38 °C.
Opening superheat: OS = 4 K.

TUA/TUAE/TCAE – Thermostatic expansion valves

TUA / TUAE / TCAE stainless steel thermostatic expansion valves are used for liquid injection into evaporators on both refrigeration and air conditioning systems using flourinated refrigerants e.g. R134a, R404A, R407C, R22, R507, or R410A. TUA / TUAE / TCAE valves are compact in design, light weight and have steel/copper bi-metal connections for fast soldering. TUA / TUAE / TCAE valves are supplied as parts programme, with separate thermostatic element/valve body, and orifice assembly. TUA has internal equalization, TUAE / TCAE external equalization. TUA / TUAE / TCAE are straightway valves, and have adjustable superheat setting.





Stainless steel capillary tube and bulb:
- high corrosion resistance
- high strength and vibration resistance

Laser-engraved label

Laser welded stainless steel thermostatic element for unsurpassed joint strength and operational lifetime

Bi-metal connections Stainless steel with rolled on copper cladding for safe, fast and convenient copper-to-copper soldering

Separate strainer, mounted on the orifice assembly for easy maintenance and cleaning

Orifice assembly with an unmatched hermetic seal

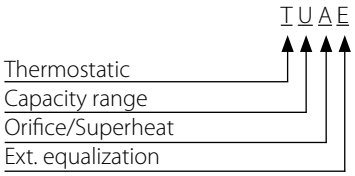
Facts

Applications:
- Traditional refrigeration
- Heat pump systems
- Air conditioning units
- Liquid coolers
- Ice cube machines
- Transport refrigeration

- The use of stainless steel makes the valves light and strong
- Bi-metal connections for safe, fast and convenient soldering
- Stainless steel capillary tube for superior strength and ductility
- Allen key superheat setting screw is convenient and space-saving compared to the standard screwdriver adjustment used in most conventional valves (Max. working pressure)

- Can be supplied with MOP (Max. Operating Pressure) Protects the compressor motor against excessive evaporating pressure during normal operation
- Valves for special temperature ranges can be supplied
- 4 K opening superheat
- Bi-flow function (TUAE: only orifice 1 – 8, TCAE: Only orifice 1 and 2)

Technical data

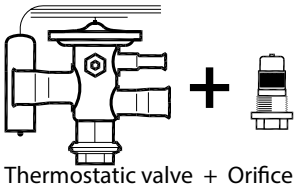


Orifice/Superheat

	Interchangeable	Adjustable
A	YES	YES
B	NO	YES
C	NO	NO

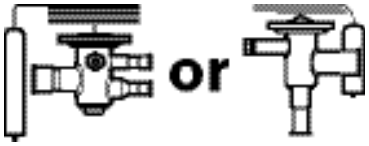
N = -40 °C – 10 °C / -40 – 50 °F
NM = -40 °C – -5 °C MOP 0 °C / -40 – 25 °F MOP 32 °F
NL = -40 °C – -15 °C with MOP - 10 °C / -40 – 5 °F MOP 14 °F
B = -60 °C – -25 °C / -75 – -15 °F

TUA
TUAE
TCAE



Thermostatic valve + Orifice

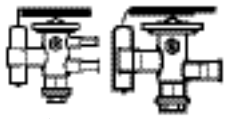
TUB
TUBE
TUC
TUCE
TCBE
TCCE



Thermostatic valve including Orifice

Valve types **TUB / TUBE / TUC / TUCE** and **TCBE / TCCE** can be replaced by **TUA / TUAE** and **TCAE** types

Technical data and ordering



TUA/TUAE - Solder

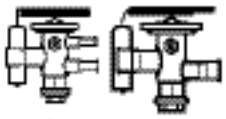
Thermostatic element with bulb strap

Refrigerant	Type	Range	Range	MOP	MOP	Pressure equalization solder	Connections solder inlet × outlet		Code no.
							[in.]	[mm]	
R407C / R22	TUA	-40 – 10 °C	-40 – 50 °F	–	–	int.	1/4 × 1/2	–	068U2234
	TUA	-40 – 10 °C	-40 – 50 °F	–	–	int.	–	6 × 12	068U2230
	TUA	-40 – 10 °C	-40 – 50 °F	–	–	int.	3/8 × 1/2	–	068U2235
	TUA	-40 – 10 °C	-40 – 50 °F	–	–	int.	–	10 × 12	068U2231
	TUA	-40 – 10 °C	-40 – 50 °F	15 °C	59 °F	int.	1/4 × 1/2	–	068U2212
	TUA	-40 – 10 °C	-40 – 50 °F	15 °C	59 °F	int.	–	6 × 12	068U2208
	TUA	-40 – 10 °C	-40 – 50 °F	15 °C	59 °F	int.	3/8 × 1/2	–	068U2213
	TUAE	-40 – 10 °C	-40 – 50 °F	–	–	ext.	1/4 × 1/2	–	068U2236
	TUAE	-40 – 10 °C	-40 – 50 °F	–	–	ext.	3/8 × 1/2	–	068U2237
	TUAE	-40 – 10 °C	-40 – 50 °F	–	–	ext.	–	10 × 12	068U2233
	TUAE	-40 – 10 °C	-40 – 50 °F	15 °C	59 °F	ext.	3/8 × 1/2	–	068U2245
	TUAE	-40 – 10 °C	-40 – 50 °F	15 °C	59 °F	ext.	–	10 × 12	068U2241
R134a	TUA	-40 – 10 °C	-40 – 50 °F	–	–	int.	1/4 × 1/2	–	068U2204
	TUA	-40 – 10 °C	-40 – 50 °F	–	–	int.	–	6 × 12	068U2200
	TUA	-40 – 10 °C	-40 – 50 °F	–	–	int.	3/8 × 1/2	–	068U2205
	TUA	-40 – 10 °C	-40 – 50 °F	–	–	int.	–	10 × 12	068U2201
	TUA	-40 – 10 °C	-40 – 50 °F	15 °C	59 °F	int.	1/4 × 1/2	–	068U2292
	TUA	-40 – 10 °C	-40 – 50 °F	15 °C	59 °F	int.	3/8 × 1/2	–	068U2293
	TUAE	-40 – 10 °C	-40 – 50 °F	–	–	ext.	1/4 × 1/2	–	068U2206
	TUAE	-40 – 10 °C	-40 – 50 °F	–	–	ext.	–	6 × 12	068U2202
	TUAE	-40 – 10 °C	-40 – 50 °F	–	–	ext.	3/8 × 1/2	–	068U2207
	TUAE	-40 – 10 °C	-40 – 50 °F	–	–	ext.	–	10 × 12	068U2203
	TUAE	-40 – 10 °C	-40 – 50 °F	15 °C	59 °F	ext.	1/4 × 1/2	–	068U2214
	TUAE	-40 – 10 °C	-40 – 50 °F	15 °C	59 °F	ext.	3/8 × 1/2	–	068U2215
	TUAE	-40 – 10 °C	-40 – 50 °F	15 °C	59 °F	ext.	–	10 × 12	068U2211
R404A/R507	TUA	-40 – 10 °C	-40 – 50 °F	–	–	int.	1/4 × 1/2	–	068U2284
	TUA	-40 – 10 °C	-40 – 50 °F	–	–	int.	–	6 × 12	068U2280
	TUA	-40 – 10 °C	-40 – 50 °F	–	–	int.	3/8 × 1/2	–	068U2285
	TUA	-40 – 10 °C	-40 – 50 °F	–	–	int.	–	10 × 12	068U2281
	TUA	-60 – -25 °C	-75 – -15 °F	–	–	int.	1/4 × 1/2	–	068U2308
	TUA	-60 – -25 °C	-75 – -15 °F	–	–	int.	3/8 × 1/2	–	068U2309
	TUA	-40 – -5 °C	-40 – 25 °F	0 °C	32 °F	int.	1/4 × 1/2	–	068U2300
	TUA	-40 – -5 °C	-40 – 25 °F	0 °C	32 °F	int.	–	6 × 12	068U2296
	TUA	-40 – 10 °C	-40 – 50 °F	15 °C	59 °F	int.	1/4 × 1/2	–	068U2332
	TUA	-40 – 10 °C	-40 – 50 °F	15 °C	59 °F	int.	3/8 × 1/2	–	068U2333
	TUA	-60 – -25 °C	-75 – -15 °F	-20 °C	-4 °F	int.	1/4 × 1/2	–	068U2316
	TUA	-60 – -25 °C	-75 – -15 °F	-20 °C	-4 °F	int.	–	6 × 12	068U2312
	TUA	-60 – -25 °C	-75 – -15 °F	-20 °C	-4 °F	int.	3/8 × 1/2	–	068U2317
	TUAE	-40 – 10 °C	-40 – 50 °F	–	–	ext.	1/4 × 1/2	–	068U2286
	TUAE	-40 – 10 °C	-40 – 50 °F	–	–	ext.	–	6 × 12	068U2282
	TUAE	-40 – 10 °C	-40 – 50 °F	–	–	ext.	3/8 × 1/2	–	068U2287
	TUAE	-40 – 10 °C	-40 – 50 °F	–	–	ext.	–	10 × 12	068U2283
	TUAE	-40 – 10 °C	-40 – 50 °F	15 °C	59 °F	ext.	3/8 × 1/2	–	068U2295
	TUAE	-40 – -5 °C	-40 – 25 °F	0 °C	32 °F	ext.	3/8 × 1/2	–	068U2303
	TUAE	-40 – -5 °C	-40 – 25 °F	0 °C	32 °F	ext.	–	10 × 12	068U2299
	TUAE	-60 – -25 °C	-75 – -15 °F	-20 °C	-4 °F	ext.	1/4 × 1/2	–	068U2318
	TUAE	-60 – -25 °C	-75 – -15 °F	-20 °C	-4 °F	ext.	3/8 × 1/2	–	068U2319
	TUAE	-60 – -25 °C	-75 – -15 °F	-20 °C	-4 °F	ext.	–	10 × 12	068U2315

Valves with in. connections have 1/4 in. pressure equalization - Valves with mm connections have 6 mm pressure equalization.

Capillary tube: 1.5 m.
Range N = -40 – 10 °C. = -40 – 50 °F
Range NM = -40 – -5 °C. = -40 – 25 °F
Range B = -60 – -25 °C. = -75 – -15 °F

Technical data and ordering

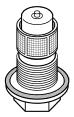


TUA/TUAE - Solder

Thermostatic element with bulb strap

Refrigerant	Type	Range	Range	MOP	MOP	Pressure equalization [1]	Connections inlet × outlet		Code no.
							[in.]	[mm]	
R407C	TUA	-40 – 10 °C	-40 – 50 °F	–	–	int.	1/4 × 1/2	–	068U2324
	TUA	-40 – 10 °C	-40 – 50 °F	–	–	int.	–	6 × 12	068U2320
	TUA	-40 – 10 °C	-40 – 50 °F	–	–	int.	3/8 × 1/2	–	068U2325
	TUA	-40 – 10 °C	-40 – 50 °F	–	–	int.	–	10 × 12	068U2321
	TUAE	-40 – 10 °C	-40 – 50 °F	–	–	ext.	1/4 × 1/2	–	068U2326
	TUAE	-40 – 10 °C	-40 – 50 °F	–	–	ext.	–	6 × 12	068U2322
	TUAE	-40 – 10 °C	-40 – 50 °F	–	–	ext.	3/8 × 1/2	–	068U2327
	TUAE	-40 – 10 °C	-40 – 50 °F	–	–	ext.	–	10 × 12	068U2323
	TUAE	-40 – 10 °C	-40 – 50 °F	15 °C	59 °F	ext.	–	6 × 12	068U2330
	TUAE	-40 – 10 °C	-40 – 50 °F	15 °C	59 °F	ext.	3/8 × 1/2	–	068U2335
	TUAE	-40 – 10 °C	-40 – 50 °F	15 °C	59 °F	ext.	–	10 × 12	068U2331
R410A	TUA	-40 – 10 °C	-40 – 50 °F	–	–	int.	3/8 × 1/2	–	068U2414
	TUAE	-40 – 10 °C	-40 – 50 °F	–	–	ext.	3/8 × 1/2	–	068U1714
	TUAE	-40 – 10 °C	-40 – 50 °F	–	–	ext.	–	10 × 12	068U2780
R404A/R507	TUA	-40 – 10 °C	-40 – 50 °F	–	–	int.	1/4 × 1/2	–	068U2308
	TUA	-40 – 10 °C	-40 – 50 °F	–	–	int.	3/8 × 1/2	–	068U2309
	TUA	-60 – -25 °C	-75 – -15 °F	-20 °C	-4 °F	int.	1/4 × 1/2	–	068U2316
	TUA	-60 – -25 °C	-75 – -15 °F	-20 °C	-4 °F	int.	–	6 × 12	068U2312
	TUA	-60 – -25 °C	-75 – -15 °F	-20 °C	-4 °F	int.	3/8 × 1/2	–	068U2317
	TUAE	-60 – -25 °C	-75 – -15 °F	-20 °C	-4 °F	ext.	1/4 × 1/2	–	068U2318
	TUAE	-60 – -25 °C	-75 – -15 °F	-20 °C	-4 °F	ext.	3/8 × 1/2	–	068U2319
	TUAE	-60 – -25 °C	-75 – -15 °F	-20 °C	-4 °F	ext.	–	10 × 12	068U2315

Capillary tube: 1.5 m.
Range N = -40 – 10 °C. = -40 – 50 °F
Range B = -60 – -25 °C. = -75 – -15 °F



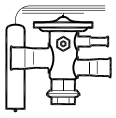
TUA/TUAE

Orifice assembly with filter and gasket

Valve	Orifice no.	Bleed	R134a		R404A/R507		R407C		R22		R410A		Code no.
			[kW]	[TR]	[kW]	[TR]	[kW]	[TR]	[kW]	[TR]	[kW]	[TR]	
TUA/TUAE	0	–	0.42	0.12	0.48	0.14	0.66	0.19	0.63	0.18	0.99	0.28	068U1030
	1	–	0.61	0.18	0.71	0.20	0.94	0.27	0.92	0.26	1.3	0.38	068U1031
	1	15 %	0.61	0.18	0.71	0.20	0.94	0.27	0.92	0.26	1.3	0.38	068U1131
	2	–	0.72	0.21	0.87	0.25	1.1	0.32	1.1	0.32	1.7	0.48	068U1032
	2	15 %	0.72	0.21	0.87	0.25	1.1	0.32	1.1	0.32	1.7	0.48	068U1132
	3	–	0.94	0.27	1.1	0.32	1.5	0.42	1.4	0.41	2.1	0.60	068U1033
	3	15 %	0.94	0.27	1.1	0.32	1.5	0.42	1.4	0.41	2.1	0.60	068U1133
	4	–	1.6	0.46	2.0	0.57	2.5	0.72	2.5	0.72	4.1	1.2	068U1034
	4	15 %	1.6	0.46	2.0	0.57	2.5	0.72	2.5	0.72	4.1	1.2	068U1134
	5	–	2.1	0.61	2.7	0.76	3.4	0.96	3.4	0.96	5.3	1.5	068U1035
	5	15 %	2.1	0.61	2.7	0.76	3.4	0.96	3.4	0.96	5.3	1.5	068U1135
	6	–	3.4	0.95	4.2	1.1	5.3	1.5	5.3	1.5	8.5	2.4	068U1036
	6	15 %	3.4	0.95	4.2	1.1	5.3	1.5	5.3	1.5	8.5	2.4	068U1136
	7	–	4.4	1.3	5.6	1.6	7.0	2.0	7.0	2.0	11.2	3.2	068U1037
	7	15 %	4.4	1.3	5.6	1.6	7.0	2.0	7.0	2.0	11.2	3.2	068U1137
	8	–	6.5	1.9	8.0	2.3	10.2	2.9	10.1	2.9	15.8	4.5	068U1038
	8	15 %	6.5	1.9	8.0	2.3	10.2	2.9	10.1	2.9	15.8	4.5	068U1138
	9 [1]	–	9.0	2.6	11.3	3.2	14.0	4.0	14.1	4.0	23.1	6.6	068U1039
	9 [1]	15 %	9.0	2.6	11.3	3.2	14.0	4.0	14.1	4.0	23.1	6.6	068U1139

The rated capacity is based on:
Evaporating temperature t_e = 4.4 °C for range N. = 39.92 °F
Condensing temperature t_c = 38 °C. = 100.4 °F
Refrigerant temperature ahead of valve t_l = 37 °C. = 98.6 °F
[1] *TUAE with orifice no. 9 cannot be used for Biflow operation.*

Technical data and ordering



TCAE

Thermostatic element, with bulb strap

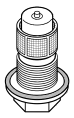
Refrigerant	Type	Range	Range	MOP	MOP	Pressure equalization	Connection inlet × outlet		Code no.
							[in.]	[mm]	
R407C / R22	TCAE	-40 – 10 °C	-40 – 50 °F	–	–	1/4 in.	3/8 × 5/8	–	068U4280
	TCAE	-40 – 10 °C	-40 – 50 °F	–	–	1/4 in.	1/2 × 5/8	–	068U4281
	TCAE	-40 – 10 °C	-40 – 50 °F	15 °C	59 °F	1/4 in.	1/2 × 5/8	–	068U4283
	TCAE	-40 – 10 °C	-40 – 50 °F	0 °C	32 °F	6 mm	–	12 × 16	068U4291
R134a	TCAE	-40 – 10 °C	-40 – 50 °F	–	–	1/4 in.	3/8 × 5/8	–	068U4292
	TCAE	-40 – 10 °C	-40 – 50 °F	–	–	1/4 in.	1/2 × 5/8	–	068U4293
	TCAE	-40 – 10 °C	-40 – 50 °F	–	–	6 mm	–	10 × 16	068U4296
	TCAE	-40 – 10 °C	-40 – 50 °F	–	–	6 mm	–	12 × 16	068U4297
	TCAE	-40 – 10 °C	-40 – 50 °F	15 °C	59 °F	1/4 in.	1/2 × 5/8	–	068U4295
	TCAE	-40 – 10 °C	-40 – 50 °F	15 °C	59 °F	6 mm	–	12 × 16	068U4299
R404A/R507	TCAE	-40 – 10 °C	-40 – 50 °F	–	–	1/4 in.	3/8 × 5/8	–	068U4304
	TCAE	-40 – 10 °C	-40 – 50 °F	–	–	1/4 in.	1/2 × 5/8	–	068U4305
	TCAE	-40 – 10 °C	-40 – 50 °F	–	–	6 mm	–	10 × 16	068U4308
	TCAE	-40 – 10 °C	-40 – 50 °F	–	–	6 mm	–	12 × 16	068U4309
R404A/R507	TCAE	-40 – 10 °C	-40 – 50 °F	15 °C	59 °F	1/4 in.	1/2 × 5/8	–	068U4307
	TCAE	-40 – 10 °C	-40 – 50 °F	15 °C	59 °F	6 mm	–	10 × 16	068U4310
	TCAE	-40 – -5 °C	-40 – 25 °F	0 °C	32 °F	1/4 in.	1/2 × 5/8	–	068U4313
	TCAE	-40 – -5 °C	-40 – 25 °F	0 °C	32 °F	6 mm	–	10 × 16	068U4314
	TCAE	-40 – -5 °C	-40 – 25 °F	0 °C	32 °F	6 mm	–	12 × 16	068U4315
	TCAE	-60 – -25 °C	-75 – -15 °F	–	–	1/4 in.	1/2 × 5/8	–	068U4317
	TCAE	-60 – -25 °C	-75 – -15 °F	–	–	6 mm	–	12 × 16	068U4321
	TCAE	-60 – -25 °C	-75 – -15 °F	-20 °C	68 °F	1/4 in.	1/2 × 5/8	–	068U4319
	TCAE	-60 – -25 °C	-75 – -15 °F	-20 °C	68 °F	6 mm	–	10 × 16	068U4322
R407C	TCAE	-40 – 10 °C	-40 – 50 °F	–	–	1/4 in.	3/8 × 5/8	–	068U4324
	TCAE	-40 – 10 °C	-40 – 50 °F	–	–	1/4 in.	1/2 × 5/8	–	068U4325
	TCAE	-40 – 10 °C	-40 – 50 °F	–	–	6 mm	–	10 × 16	068U4328
	TCAE	-40 – 10 °C	-40 – 50 °F	–	–	6 mm	–	12 × 16	068U4329
	TCAE	-40 – 10 °C	-40 – 50 °F	15 °C	59 °F	1/4 in.	3/8 × 5/8	–	068U4326
	TCAE	-40 – 10 °C	-40 – 50 °F	15 °C	59 °F	1/4 in.	1/2 × 5/8	–	068U4327
	TCAE	-40 – 10 °C	-40 – 50 °F	15 °C	59 °F	6 mm	–	12 × 16	068U4331
R410A	TCAE	-40 – 10 °C	-40 – 50 °F	–	–	1/4 in.	3/8 × 5/8	–	068U4336
	TCAE	-40 – 10 °C	-40 – 50 °F	–	–	1/4 in.	1/2 × 5/8	–	068U4337
	TCAE	-40 – 10 °C	-40 – 50 °F	–	–	6 mm	–	12 × 16	068U4341
	TCAE	-40 – 10 °C	-40 – 50 °F	15 °C	59 °F	1/4 in.	1/2 × 5/8	–	068U4339
	TCAE	-40 – 10 °C	-40 – 50 °F	15 °C	59 °F	6 mm	–	12 × 16	068U4343

Valves with in. connections have 1/4 in. pressure equalization - Valves with mm connections have 6 mm pressure equalization.

Capillary tube: 1.5 m.
Range N = -40 – 10 °C. = -40 – 50 °F.
Range NM = -40 – -5 °C. = -40 – 25 °F.
Range B = -60 – -25 °C. = -75 – -15 °F.

Technical data and ordering

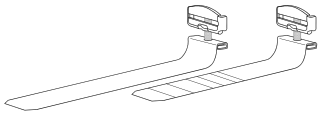
TCAE



Orifice assembly with filter and gasket

Type	Orifice no.	Bleed	R134a		R404A/R507		R407C		R22		R410A		Code no.
			[kW]	[TR]	[kW]	[TR]	[kW]	[TR]	[kW]	[TR]	[kW]	[TR]	
TCAE	1	–	13.0	3.7	13.0	3.7	17.8	5.1	18.3	5.2	21.2	6.0	068U4100
	1	15 %	13.0	3.7	13.0	3.7	17.8	5.1	18.3	5.2	21.2	6.0	068U4097
	2	–	14.9	4.3	15.1	4.3	20.4	5.8	21.2	6.0	24.5	7.0	068U4101
	2	15 %	14.9	4.3	15.1	4.3	20.4	5.8	21.2	6.0	24.5	7.0	068U4098
	3 [1])	–	18.6	5.3	18.9	5.4	25.2	7.2	26.7	7.6	30.6	8.7	068U4102
	3 [1])	15 %	18.6	5.3	18.9	5.4	25.2	7.2	26.7	7.6	30.6	8.7	068U4099

The rated capacity is based on:
Evaporating temperature t_e = 4.4 °C for range N. = 39.92 °F
Condensing temperature t_c = 38 °C. = 100.4 °F
Refrigerant temperature ahead of valve t_l = 37 °C. = 98.6 °F
1) *TCAE with orifice no. 3 cannot be used for Biflow operation.*



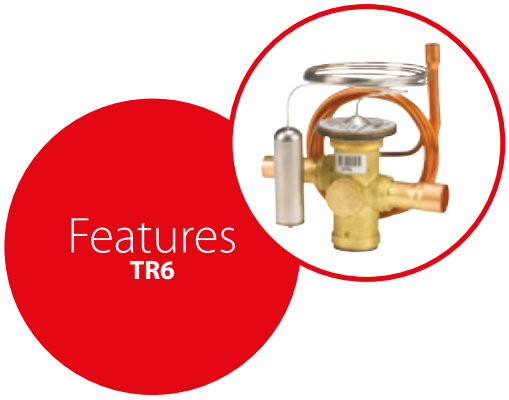
Bulb strap (delivered with the valve) and accessories

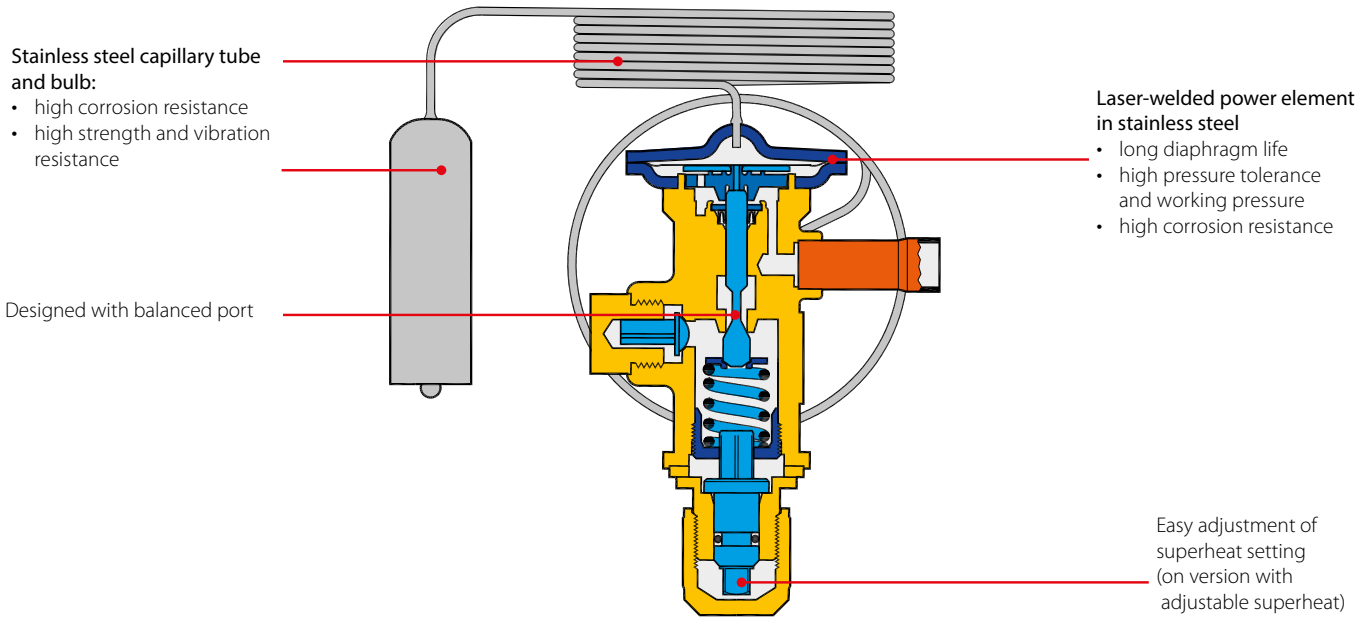
Type	Length [mm] / [in.]	Max. diameter of suction line	Code no.
TCAE Accessories	110 / 4.3	1⅛ in. (28 mm)	068U3507
	190 / 7.4	2 in. (50 mm)	068U3508

TR6 – Thermostatic expansion valves

T 2 / TE 2 thermostatic expansion valves are used for liquid injection into evaporators on refrigeration and air conditioning systems using flourinated refrigerants e.g. R410A and R22.

The TR design incorporates a hot-pressed brass body with the entire power element, including the capillary tube and bulb, fabricated from stainless steel. All valves are designed with balanced port which reduces the influence from varying condensing pressures.





Facts

Applications:
- Residential air conditioning systems
- Split systems
- Roof top units
- Heat pumps
- Light commercial air conditioning systems
- Chillers

- Compact size - hermetic design
- Refrigerants and rated capacities ranging up to: - R22: 6.7 TR / 23.6 kW
  - R410A: 7 TR / 24.5 kW
  - Others on request
- Balance port design
- A complete program with internal check valve with low pressure drop at full flow or without internal check valve.
- Adjustable or non-adjustable superheat, for customer specific factory setting.
- Bleed function available.
- Customer specific engravement.

- Solder and mechanical connections
- Straightway versions with fixed orifice and with external equalization.
- UL listed, file SA7200
- The valves can be delivered with special connections and fittings both at the inlet and outlet and at the equalizer connection.

Technical data and ordering

TR6

Range N = -10 – 15 °C / 14 – 59 °F

Refrigerant	Type	Orifice no.	Rated capacity Q_{nom} [1]		Connection [2]			Code no.
			[kW]	[TR]	Inlet [in.]	Outlet [in.]	Equalization with flare nut ODF [in.]	
R22	TR6	3	11.4	3.3	3/8	1/2	1/4	067L5855
	TR6	4	15.8	4.5	3/8	1/2	1/4	067L5856
	TR6	5	18.5	5.3	3/8	1/2	1/4	067L5857
	TR6	6	19.6	5.6	3/8	1/2	1/4	067L5858
	TR6	7	23.6	6.7	3/8	1/2	1/4	067L5859
R410A	TR6	3	10.5	3	3/8	1/2	1/4	067L5955
	TR6	4	14.0	4	3/8	1/2	1/4	067L5956
	TR6	5	17.5	5	3/8	1/2	1/4	067L5957
	TR6	6	21.0	6	3/8	1/2	1/4	067L5958
	TR6	7	24.5	7	3/8	1/2	1/4	067L5959

Pressure equalisation = ¼ in. ODF

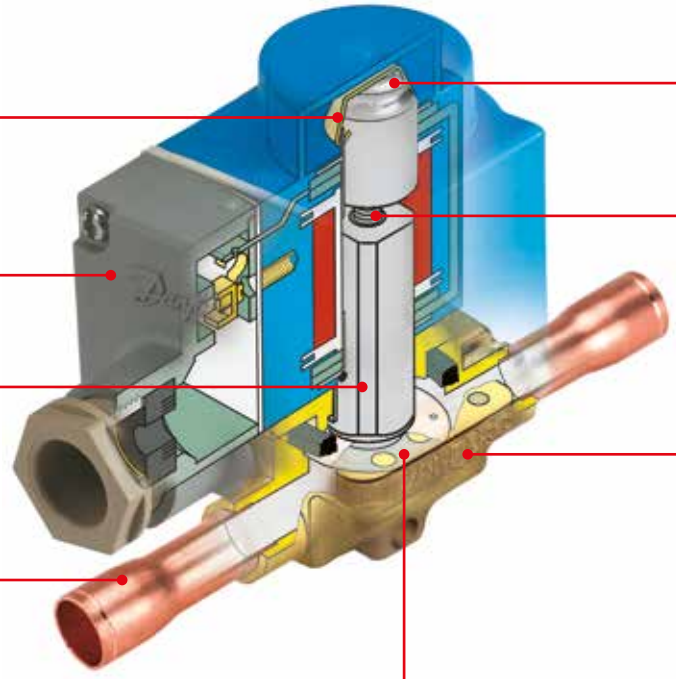
[1] The rated capacity is based on: Evaporating temperature, te = 5 °C / 41 °F, Liquid temperature, tl = 28 °C / 82 °F , Condensing temperature, tc = 32 °C / 90 °F, Opening superheat, OS = max. 7.2 °F / 4K

[2] Partnumbers consist of a valve, bulbstrap and the following connectors:
1 Chatleff 3/8" female connector
1 Aeroquip 5/8" female connector

EVR / EVRH / EVRC – Solenoid valve

EVR/EVRH solenoid valves are direct or servo-operated solenoid valves for liquid, suction and hot gas lines. They are suitable for condensing units and power packs in all refrigeration, freezing and air conditioning applications and are compatible with fluorinated refrigerants R22/R407C, R404A/R507, R410A, R134a and R407C. Versions are also available for high pressure refrigerants such as R410A and R744 (CO_2) with a max working pressure of 45 bar g. The valves can be delivered as normally open or normally closed valves and with or without manual operation.
EVR valves are available with flare, solder or flange connections. EVRC is a servo operated solenoid valve for use in liquid lines in refrigeration plant. EVRC allows flow in both directions and can therefore be used in liquid lines in refrigeration plant with hot gas or gas defrost. During the refrigeration period EVRC works as a normal solenoid valve, while during the defrost it allows the condensed liquid to return to the liquid manifold.

Features
EVR/EVRH/EVRC



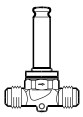
Facts

Application:
- Traditional refrigeration
- Heat pump systems
- Air conditioning units
- Liquid coolers
- Transport refrigeration

- Complete programme of valves and coils for every application
- Wide range of coils for a.c. and d.c.
- Wide range of connection types and sizes
- Normally open or normally closed
- With or without manual operation
- High reliability and durability due to maximum internal and external tightness

- Can be used for all fluorinated refrigerants (CFC, HCFC and HFC)
- Temperature range: -40 – 105 °C
- Max. working pressure (MWP) 32 bar (EVR 2/6, 45.2 bar - EVR 10, 35 bar - EVR 15/40, 32 bar - EVRH 10/40, 45.2 bar)
- MOPD up to 25 bar with 12 W a.c. coil
- 100 % test of functionality, internal/external leakage and electrical characteristics

Technical data and ordering



EVR flare connections, Normally Closed (NC) - separate valve bodies

Ordering

Type	Current type	Connection size		Manual operation	Max. working pressure		k_v value [m^3/h]	C_v value [gal/min]	Code no.
		[mm]	[in.]		[bar]	[psi]			
EVR 2	a.c.	6	1/4	No	45.2	655	0.16	0.19	032F8056
EVR 3	a.c./d.c.	6	1/4	No	45.2	655	0.27	0.32	032F8107
	a.c./d.c.	10	3/8	No	45.2	655	0.27	0.32	032F8116
EVR 6	a.c./d.c.	10	3/8	No	45.2	655	0.80	0.92	032F8072
	a.c./d.c.	12	1/2	No	45.2	655	0.80	0.92	032F8079
EVR 10	a.c./d.c.	12	1/2	No	35	500	1.9	2.2	032F8095
	a.c./d.c.	16	5/8	No	35	500	1.9	2.2	032F8098
EVR 15	a.c./d.c.	16	5/8	No	32	460	2.6	3.0	032F8101
	a.c./d.c.	16	5/8	Yes	32	460	2.6	3.0	032F8100

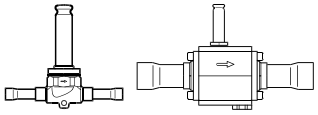
EVR flare connections, Normally Open (NO) - separate valve bodies

Ordering

Type	Current type	Connection size		Manual operation	Max. working pressure		k_v value [m^3/h]	C_v value [gal/min]	Code no.
		[in.]	[mm]		[bar]	[psi]			
EVR 6	a.c./d.c.	3/8	10	No	45.2	655	0.80	0.92	032F8085
EVR 10	a.c./d.c.	1/2	12	No	35	500	1.9	2.2	032F8090

Technical data and ordering

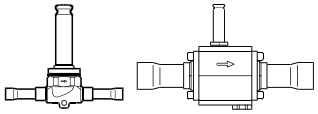
EVR solder connections, Normally Closed (NC) - separate valve bodies



Ordering

Type	Current type	Connection size		Manual operation	Max. working pressure		k_v value [m^3/h]	C_v value [gal/min]	Code no.
		[mm]	[in.]		[bar]	[psi]			
EVR 2	a.c.	–	1/4	No	45.2	655	0.16	0.19	032F1201
	a.c.	6	–	No	45.2	655	0.16	0.19	032F1202
EVR 3	a.c./d.c.	–	1/4	No	45.2	655	0.27	0.32	032F1206
	a.c./d.c.	–	3/8	No	45.2	655	0.27	0.32	032F1204
	a.c./d.c.	6	–	No	45.2	655	0.27	0.32	032F1207
	a.c./d.c.	10	–	No	45.2	655	0.27	0.32	032F1208
EVR 6	a.c./d.c.	–	1/2	No	45.2	655	0.80	0.92	032F1209
	a.c./d.c.	–	3/8	No	45.2	655	0.80	0.92	032F1212
	a.c./d.c.	10	–	No	45.2	655	0.80	0.92	032F1213
	a.c./d.c.	12	–	No	45.2	655	0.80	0.92	032F1236
EVR 10	a.c./d.c.	–	1/2	No	35	500	1.9	2.2	032F1217
	a.c./d.c.	12	–	No	35	500	1.9	2.2	032F1218
	a.c./d.c.	16	5/8	No	35	500	1.9	2.2	032F1214
EVR 15	a.c./d.c.	22	7/8	No	32	460	2.6	3.0	032F1225
	a.c./d.c.	16	–	Yes	32	460	2.6	3.0	032F1227
	a.c./d.c.	16	5/8	No	32	460	2.6	3.0	032F1228
EVR 20	a.c.	22	7/8	No	32	460	5.0	5.8	032F1240
	a.c.	–	7/8	Yes	32	460	5.0	5.8	032F1254
	a.c.	–	1 1/8	No	32	460	5.0	5.8	032F1244
	a.c.	28	–	No	32	460	5.0	5.8	032F1245
	d.c.	22	7/8	No	32	460	5.0	5.8	032F1264
	d.c.	–	7/8	Yes	32	460	5.0	5.8	032F1274
EVR 22	a.c.	35	1 3/8	No	32	460	6.0	6.9	032F3267
EVR 25	a.c./d.c.	–	1 1/8	Yes	32	460	10.0	11.6	032F2200
	a.c./d.c.	–	1 1/8	No	32	460	10.0	11.6	032F2201
	a.c./d.c.	28	–	Yes	32	460	10.0	11.6	032F2205
	a.c./d.c.	28	–	No	32	460	10.0	11.6	032F2206
	a.c./d.c.	–	1 3/8	Yes	32	460	10.0	11.6	032F2207
	a.c./d.c.	–	1 3/8	No	32	460	10.0	11.6	032F2208
EVR 32	a.c./d.c.	–	1 5/8	Yes	32	460	16.0	18.5	042H1103
	a.c./d.c.	–	1 5/8	No	32	460	16.0	18.5	042H1104
	a.c./d.c.	35	–	Yes	32	460	16.0	18.5	042H1105
	a.c./d.c.	35	–	No	32	460	16.0	18.5	042H1106
	a.c./d.c.	42	–	Yes	32	460	16.0	18.5	042H1107
	a.c./d.c.	42	–	No	32	460	16.0	18.5	042H1108
EVR 40	a.c./d.c.	–	1 5/8	Yes	32	460	25.0	28.9	042H1109
	a.c./d.c.	–	1 5/8	No	32	460	25.0	28.9	042H1110
	a.c./d.c.	–	2 1/8	Yes	32	460	25.0	28.9	042H1111
	a.c./d.c.	–	2 1/8	No	32	460	25.0	28.9	042H1112
	a.c./d.c.	42	–	Yes	32	460	25.0	28.9	042H1113
	a.c./d.c.	42	–	No	32	460	25.0	28.9	042H1114

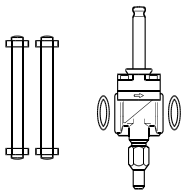
EVR solder connections, Normally Open (NO) - separate valve bodies



Ordering

Type	Current type	Connection size		Manual operation	Max. working pressure		k_v value [m^3/h]	C_v value [gal/min]	Code no.
		[mm]	[in.]		[bar]	[psi]			
EVR 6	a.c./d.c.	–	3/8	No	45.2	655	0.80	0.92	032F1290
	a.c./d.c.	10	–	No	45.2	655	0.80	0.92	032F1295
EVR 10	a.c./d.c.	–	1/2	No	35	500	1.9	2.2	032F1291
	a.c./d.c.	12	–	No	35	500	1.9	2.2	032F1296
EVR 15	a.c./d.c.	16	–	No	32	460	2.6	3.0	032F1299
	a.c./d.c.	–	7/8	No	32	460	2.6	3.0	032F3270
EVR 20	a.c./d.c.	–	7/8	No	32	460	5.0	5.8	032F1260
	a.c./d.c.	–	1 1/8	No	32	460	5.0	5.8	032F1269
	a.c./d.c.	28	–	No	32	460	5.0	5.8	032F1279
EVR 22	a.c.	–	1 3/8	No	32	460	6.0	6.9	032F3268

Technical data and ordering



EVR flange connection, Normally Closed (NC)

Ordering

Type	Current type	Connection	Manual operation	Code no. Valve body + gaskets + bolts; without coil and flanges
EVR 15	a.c. / d.c.	Flanges	yes	032F1234
	a.c. / d.c.	Flanges	no	032F1224
EVR 20	a.c.	Flanges	yes	032F1253
	a.c.	Flanges	no	032F1243
	d.c.	Flanges	yes	032F1273

EVR- Flange sets

Ordering

Type	Connection size		Connection type			Code no.
	[mm]	[in.]	Solder [mm]	Solder [in.]	Weld [in.]	
EVR 15	–	1/2	–	–	yes	027N1115
	–	5/8	–	yes	–	027L1117
	16	–	yes	–	–	027L1116
	–	3/4	–	–	yes	027N1120
	–	7/8	–	yes	–	027L1123
	22	–	yes	–	–	027L1122
EVR 20	–	3/4	–	–	yes	027N1220
	–	7/8	–	yes	–	027L1223
	22	–	yes	–	–	027L1222
	–	1	–	–	yes	027N1225
	–	1 1/8	–	yes	–	027L1229
	28	–	yes	–	–	027L1228

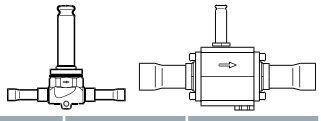
Example:
EVR 15 without manual operation - code no. ***032F1224****. - ½ in. weld flange set. - code no.* ***027N1115****. - + coil with terminal box, 220 V, 50 Hz, - code no.* ***018F6701****.*
See separate data sheet for coils.

EVR

Accessories - Ordering

Description	Code no.
Mounting bracket for EVR 2, EVR 3, EVR 6 and EVR 10	032F0197
Strainer FA for direct mounting	See "FA"

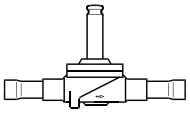
EVRH Solenoid valve – Normally closed (NC)
Soldering ODF without manual stem – separate valve bodies



Ordering

Type	Current type	Connection size [mm]	Connection size [in.]	Manual operation	Max. working pressure [bar]	Max. working pressure [psi]	K_v value [m^3/h]	C_v value [gal/min]	Code no.
EVRH 10	a.c./d.c.	–	1/2	No	45.2	655	1.9	2.2	032G1054
	a.c./d.c.	12	–	No	45.2	655	1.9	2.2	032G1055
EVRH 15	a.c./d.c.	16	5/8	No	45.2	655	2.6	3.0	032G1056
EVRH 20	a.c.	22	7/8	No	45.2	655	5.0	5.8	032G1057
	d.c.	22	7/8	No	45.2	655	5.0	5.8	032G1058
EVRH 25	a.c./d.c.	–	1 1/8	No	45.2	655	10.0	11.6	032G1059
EVRH 32	a.c./d.c.	35	–	No	45.2	655	16.0	18.5	032G1081
EVRH 40	a.c./d.c.	–	1 5/8	No	45	650	25.0	28.9	032G1062

EVRC Solenoid valve – Normally closed (NC)
Soldering ODF without manual stem – separate valve bodies



Ordering

Type	Required current type	Connection Solder [mm]	Connection Solder [in.]	Max. working pressure [bar]	Max. working pressure [psi]	k_v -value [2] [m^3/h] Flow in arrow direction	k_v -value [2] [m^3/h] Flow against arrow direction	C_v -value [gal/min] Flow in arrow direction	C_v -value [gal/min] Flow against arrow direction	Code no. Valve housing without coil
EVRC 10	a.c. d.c.	–	1/2	35	500	1.9	1.1	2.2	1.3	032F1216
EVRC 15		16	5/8	32	460	2.6	1.2	3.0	1.4	032F1255
EVRC 20		22	7/8	32	460	5.0	4.7	5.8	5.4	032F1258

Technical data and capacities

EVR

Rated capacity [kW] - Liquid

Type	Liquid		
	R22/R407C	R134a	R404A/R507
EVR 2	3.20	2.90	2.20
EVR 3	5.40	5.00	3.80
EVR 6	16.10	14.80	11.20
EVR 10	38.20	35.30	26.70
EVR 15	52.30	48.30	36.50
EVR 20	101.00	92.80	70.30
EVR 22	121.00	111.00	84.30
EVR 25	201.00	186.00	141.00
EVR 32	322.00	297.00	225.00
EVR 40	503.00	464.00	351.00

Rated capacity [kW] - Suction vapour

Type	Suction vapour		
	R22/R407C	R134a	R404A/R507
EVR 2	–	–	–
EVR 3	–	–	–
EVR 6	1.80	1.30	1.60
EVR 10	4.30	3.10	3.90
EVR 15	5.90	4.20	5.30
EVR 20	11.40	8.10	10.20
EVR 22	13.70	9.70	12.20
EVR 25	22.80	16.30	20.40
EVR 32	36.50	26.10	32.60
EVR 40	57.00	40.80	51.00

Rated capacity [kW] - Hot gas

Type	Hot gas		
	R22/R407C	R134a	R404A/R507
EVR 2	1.50	1.20	1.20
EVR 3	2.50	2.00	2.00
EVR 6	7.40	5.90	6.00
EVR 10	17.50	13.90	14.30
EVR 15	24.00	19.00	19.60
EVR 20	46.20	36.60	37.70
EVR 22	55.40	43.90	45.20
EVR 25	92.30	73.20	75.30
EVR 32	148.00	117.00	120.00
EVR 40	231.00	183.00	188.00

***Rated liquid and suction vapour capacity is based on**:*
evaporating temperature t_e = -10 °C / 50 °F
liquid temperature ahead of valve t_l = 25 °C / 77 °F
pressure drop in valve Δp = 0.15 bar / 2.18 psi

***Rated hot gas capacity is based on**:*
condensing temperature t_c = 40 °C / 104 °F
pressure drop across valve Δp = 0.8 bar / 11.0 psi
hot gas temperature t_h = 65 °C / 149 °F
subcooling of refrigerant Δtsub = 4 K.

Technical data and capacities

EVRH

Rated capacity [kW]

Type	Liquid	Suction vapour	Hot gas
	R410A [1)]	R410A	R410A
EVRH 10	36.92	5.31	20.97
EVRH 15	50.52	7.27	28.69
EVRH 20	97.15	13.98	55.51
EVRH 25	194.31	27.96	110.35
EVRH 32	310.89	44.74	176.55
EVRH 40	485.77	69.90	275.86

1) Calculated values.
Rated liquid and suction vapour is based on evaporating temperature tc = -10 °C / 50 °F, liquid temperature ahead of valve tl = 25 °C / 77 °F, pressure drop in valve Δp = 0.15 bar / 2.18 psi. Rated hot gas capacity is based on condensing temperature tc = 40 °C / 104 °F, pressure drop across valve Δp = 0.8 bar / 11.6 psi, hot gas temperature th = 25 °C / 77 °F, and subcooling of refrigerant Δtsub = 4 K.

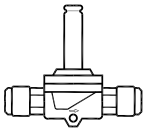
EVRC

Rated capacity [kW]

Type	Rated capacity with normal flow direction [1)] [kW]				Opening differential pressure with standard coil Δp [bar]			
						Max. (= MOPD) liquid		
	R22/R407C	R134A	R507	R407C	Min.	10 W a.c.	12 W a.c.	20 W d.c.
EVRC 10	38.2	35.3	26.7	35.9	0.05	21	25	18
EVRC 15	52.3	48.3	36.5	49.2	0.05	21	25	18
EVRC 20	94.6	87.2	66.1	88.9	0.05	21	25	13

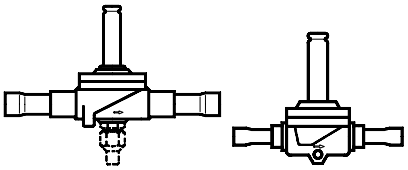
1) Rated liquid capacity is based on evaporating temperature t_i = -10 °C / 50 °F, liquid temperature ahead of valve t_1 = 25 °C / 77 °F, and pressure drop across valve Δp = 0.15 bar / 2.18 psi.

Ordering



EVR flare connections, Normally Closed (NC) - separate valve bodies, US

Type	Connection [in]	Port size [in]	Manual stem	C_v value [gal/min]	Code nos. valve body excl. coil
EVR 3	1/4	1/8	No	0.32	032F8106
EVR 3	3/8	1/8	No	0.32	032F8115
EVR 6	3/8	15/64	No	0.93	032F8071

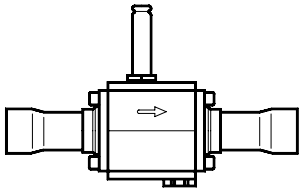


EVR solder ODF connections, Normally Closed (NC) - separate valve bodies, US

Type	Connection [in]	Port size [in]	Manual stem	C_v value [gal/min]	Code nos. valve body excl. coil
EVR 2	1/4	3/32	No	0.19	032F7100
EVR 3	1/4	1/8	No	0.32	032F7105
	3/8	1/8	No	0.32	032F1157
EVR 4	3/8	5/32	No	0.66	032F7110
EVR 6	3/8	15/64	No	0.93	032F7115
	3/8	15/64	Yes	0.93	032F7116
	1/2	15/64	No	0.93	032F1162
	1/2	15/64	No	0.93	032F7144
	5/8	15/64	No	0.93	032F7117
EVR 8	1/2	5/16	No	1.3	032F7121
	1/2	5/16	Yes	1.3	032F7148
	5/8	5/16	No	1.3	032F7122
EVR 10	3/8	3/8	No	2.2	032F7125
	1/2	3/8	No	2.2	032F1166
	1/2	3/8	Yes	2.2	032F1188
	5/8	3/8	No	2.2	032F1168
	5/8	3/8	Yes	2.2	032F7149
EVR 15	5/8	9/16	No	3.0	032F1171
	5/8	9/16	Yes	3.0	032F1172
	7/8	9/16	No	3.0	032F7130
EVR 18	7/8	19/32	Yes	3.9	032F1004
EVR 20	7/8	7/8	No	5.8	032F1176
	7/8	7/8	Yes	5.8	032F1177
EVR 22	1 1/8	15/16	No	6.9	032F7145
	1 1/8	15/16	Yes	6.9	032F7137
	1 3/8	15/16	No	6.9	032F7146

Metric conversions
1 psi = 0.07 bar
5/9 (t_1 °F - 32) = t_2 °C
1 TR = 3.5 kW
1 in = 25.4 mm
US gal/min = 0.86 m^3/h

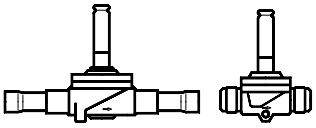
Ordering



EVR solder ODF connections, Normally Closed (NC) - separate valve bodies, US

Type	Connection [in]	Port size [in]	Manual stem	C_v value [gal/min]	Code nos. valve body excl. coil
EVR 25	$1\frac{1}{8}$	1	No	12.0	032F1189
	$1\frac{1}{8}$	1	Yes	12.0	032F1190
	$1\frac{3}{8}$	1	No	12.0	032F1193
	$1\frac{3}{8}$	1	Yes	12.0	032F1194
EVR 32	$1\frac{3}{8}$	$\frac{7}{8}$	No	18.0	042H1176
	$1\frac{3}{8}$	$\frac{7}{8}$	Yes	18.0	042H1177
	$1\frac{5}{8}$	$\frac{7}{8}$	No	18.0	042H1178
	$1\frac{5}{8}$	$\frac{7}{8}$	Yes	18.0	042H1179
	$2\frac{1}{8}$	$\frac{7}{8}$	No	18.0	042H1180
	$2\frac{1}{8}$	$\frac{7}{8}$	Yes	18.0	042H1181
EVR 40	$2\frac{1}{8}$	1	Yes	29.0	042H1188

Metric conversions
1 psi = 0.07 bar
$\frac{5}{9}$ (t_1 °F - 32) = t_2 °C
1 TR = 3.5 kW
1 in = 25.4 mm
US gal/min = 0.86 m³/h



EVR solder ODF connections, Normally Open (NO) - separate valve bodies, US

Type	Connection [in]	Port size [in]	C_v value [gal/min]	Code nos. valve body excl. coil
EVR 6	$\frac{3}{8}$	$\frac{1}{4}$	0.93	032F1164
EVR 10	$\frac{1}{2}$	$\frac{3}{8}$	2.2	032F1169
EVR 15	$\frac{5}{8}$	$\frac{9}{16}$	3.0	032F1174

Metric conversions
1 psi = 0.07 bar
$\frac{5}{9}$ (t_1 °F - 32) = t_2 °C
1 TR = 3.5 kW
1 in = 25.4 mm
US gal/min = 0.86 m³/h

Technical data and capacities

EVR, US

Rated capacity [kW] - Liquid

Type	R22/R407C	R134a	R404A/R507	R32	R290	R600	R600a
EVR 2	1.17	0.89	0.80	1.34	1.09	1.29	1.13
EVR 3	2.03	1.55	1.40	2.26	1.85	2.17	1.91
EVR 4	4.15	3.16	2.86	4.68	3.83	4.50	3.96
EVR 6	5.83	4.43	4.01	6.69	5.47	6.43	5.66
EVR 8	8.01	6.09	5.52	9.37	7.66	9.01	7.93
EVR 10	13.8	10.5	9.53	15.89	12.99	15.28	13.45
EVR 15	18.9	14.4	13.0	21.7	17.8	20.9	18.4
EVR 18	24.6	18.7	17.0	28.4	23.2	27.3	24.1
EVR 20	36.4	27.7	25.1	41.8	34.2	40.2	35.4
EVR 22	43.7	33.3	30.1	50.2	41.0	48.3	42.5
EVR 25	72.8	55.4	50.2	-	-	-	-
EVR 32	116.5	88.7	80.3	-	-	-	-
EVR 40	182.0	138.5	125.4	-	-	-	-

Rated capacity [kW] - Suction vapour

Type	R22/R407C	R134a	R404A/R507	R32	R290	R600	R600a
EVR 2	0.10	0.07	0.09	0.13	0.10	0.05	0.06
EVR 3	0.17	0.13	0.15	0.22	0.17	0.09	0.10
EVR 4	0.34	0.26	0.30	0.45	0.35	0.19	0.21
EVR 6	0.48	0.37	0.43	0.65	0.50	0.27	0.31
EVR 8	0.66	0.51	0.58	0.90	0.70	0.38	0.43
EVR 10	1.15	0.88	1.01	1.53	1.18	0.65	0.73
EVR 15	1.57	1.20	1.38	2.10	1.62	0.88	0.99
EVR 18	2.04	1.56	1.80	2.74	2.11	1.16	1.30
EVR 20	3.02	2.31	2.66	4.04	3.11	1.70	1.91
EVR 22	3.62	2.78	3.19	4.84	3.73	2.04	2.29
EVR 25	6.04	4.63	5.32	-	-	-	-
EVR 32	9.66	7.40	8.51	-	-	-	-
EVR 40	16.1	11.6	13.3	-	-	-	-

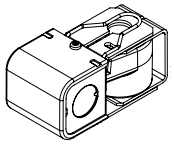
Rated capacity [kW] - Hot gas

Type	R22/R407C	R134a	R404A/R507	R32	R290	R600	R600a
EVR 2	0.22	0.18	0.17	0.32	0.26	0.15	0.17
EVR 3	0.38	0.31	0.30	0.54	0.43	0.26	0.28
EVR 4	0.77	0.63	0.62	1.11	0.90	0.54	0.59
EVR 6	1.08	0.88	0.87	1.59	1.29	0.76	0.84
EVR 8	1.49	1.21	1.19	2.23	1.80	1.07	1.17
EVR 10	2.57	2.10	2.06	3.78	3.05	1.82	1.99
EVR 15	3.52	2.87	2.82	5.17	4.18	2.48	2.72
EVR 18	4.57	3.73	3.67	6.76	5.47	3.25	3.55
EVR 20	6.76	5.51	5.43	9.94	8.04	4.78	5.23
EVR 22	8.11	6.62	6.52	11.93	9.64	5.73	6.27
EVR 25	13.5	11.0	10.9	-	-	-	-
EVR 32	21.6	17.7	17.4	-	-	-	-
EVR 40	33.8	27.6	27.2	-	-	-	-

¹) Rated liquid and suction vapor capacity are based on:
Evaporating temperature te= 40 °F
Liquid temperature ahead of valve tl= 100 °F
Pressure drop Δp across valve
– with liquid Δp = 3 psi
– with suction vapor Δp = 1 psi (EVR 25, 32, 40 = 2 psi)

Rated hot gas capacity is based on:
– Condensing temperature tc= 100 °F
– Hot gas temperature th= 140 °F
– Pressure drop across valve Δp = 3 psi

Ordering

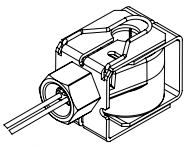


BJ coils - Junction box NEMA 2 IP12-32

Coil type	Valve type	Power consumption [Hz]	Frequency [Hz]	Voltage [V] AC	Wire length		Code no.
					[in]	[cm]	
BJ024CS	AKV / EVR EVRH / EVRA EVRAT / EVRS EVRST / EVM EV220B 6-50 EV210B EV215B EV225B EV250B	14	50 / 60	24	7	18	018F4100
BJ120CS		16 15	50 / 60 60	110 120	7	18	018F4110
BJ240CS		14 17	60 50	208 – 240 230	7	18	018F4120
BJ120BS	AKVH / EVRH	16	60	120	7	18	018F4130
BJ208BS		16	60	208	7	18	018F4132
BJ240BS		16	60	240	7	18	018F4134

Permissible voltage variation
Alternating current (AC):
50 Hz and 60 Hz: -10% – 15%
50/60 Hz: +/- 10%

Insulation of coil wire
Class H according to IEC 85
Enclosure. IEC 60529
Ambient temperature:
-40 – 50 °C / -40 – 122 °F



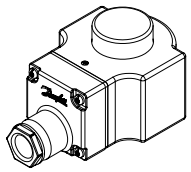
BX coils - Conduit boss NEMA 4 IP54

Coil type	Valve type	Power consumption [Hz]	Frequency [Hz]	Voltage [V] AC	Wire length		Code no.
					[in]	[cm]	
BX024CS	AKV / EVR EVRH / EVRA EVRAT / EVRS EVRST / EVM EV220B 6-50 EV210B EV215B EV225B EV250B	14	50 / 60	24	18	46	018F4102
BX024CS		14	50 / 60	24	71	180	018F4103
BX024CS		14	50 / 60	24	98	250	018F4104
BX120CS		16 15	50 / 60 60	110 120	18	46	018F4112
BX120CS					36	91	018F4113
BX120CS					71	180	018F4114
BX120CS					98	250	018F4115
BX240CS		14 17	60 50	208 – 240 230	18	46	018F4122
BX240CS					98	250	018F4123
BX120BS	AKVH / EVRH	16	60	120	98	250	018F4131
BX208BS		16	60	208	98	250	018F4133
BX240BS		16	60	240	98	250	018F4135

Permissible voltage variation
Alternating current (AC):
50 Hz and 60 Hz: -10% – 15%
50/60 Hz: +/- 10%

Insulation of coil wire
Class H according to IEC 85
Enclosure. IEC 60529
Ambient temperature:
-40 – 50 °C / -40 – 122 °F

Ordering



Solenoid coils for EVR valves NEMA IP67

Coil type	Valve type	Power consumption [W]	Voltage [V] DC	Code no.
BG012DS	EVR 2 to 15 (NC) EVR 25 to 40 (NC/NO) EVR 6 to 15 (NO) EVRC 10 to 15 EVRA 3 to 15 (NC) EVRA 25 to 40 (NC) EVRAT 10 to 15 (NC) EVRS/EVRST 3 to 15 EVM (NC/NO)	20	12	018F6856
BG024DS		20	24	018F6857
BG048DS		20	48	018F6859
BG110DS		20	110	018F6860
BG115DS		20	115	018F6861
BG220DS		20	220	018F6851
BG012DS	EVR 20 to 22 (NC/NO) EVRC 20 EVRA 20 EVRAT 20 EVRST 20	20	12	018F6886
BG024DS		20	24	018F6887
BG048DS		20	48	018F6889
BG110DS		20	110	018F6890
BG220DS		20	220	018F6881

Permissible voltage variation:
-10 – 15%
Insulation of coil wire
Class H according to IEC 85

Enclosure. IEC 529
Ambient temperature:
-40 – 50 °C / -40 – 122 °F

Solenoid coil with ATEX approval

Coil type	Coil for valve type	Power consumption	Frequency [Hz]	Voltage [V] AC	Code no.
					With 1 m cable
BV024A	EVR 2 - EVR 40 (NC) EVR 6 - EVR 22 (NO) EVRC EVRA / EVRAT EVRS / EVRST EVM (NC / NO)	Holding 11 W 21 VA Inrush 44 VA	50	24	018Z6120
BV110A			50	110	018Z6121
BV230A			50	230	018Z6122
BV240A			50	240	018Z6123
BV024B			60	24	018Z6125
BV230B			60	230	018Z6127

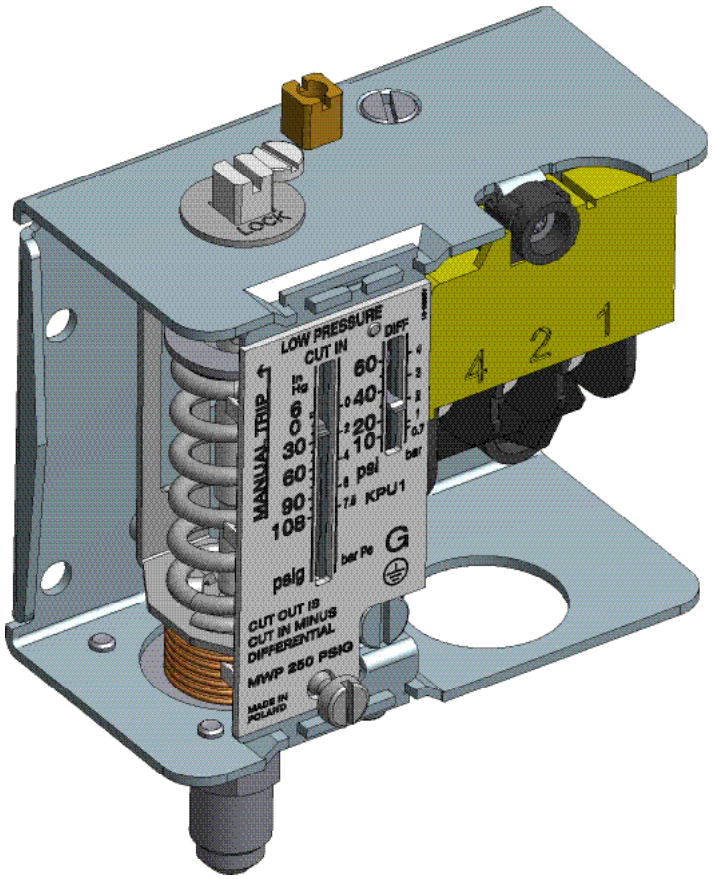
Quick Selection Notes:

KPU – Pressure switch

The KPU pressure switches are designed for use in refrigeration and air-conditioning systems to protect the systems from excessively low suction pressure or too high discharge pressure. They can also be applied to start and stop compressors and the fans of air-cooled condensers.

The KPU pressure switches , in single and dual versions cover a comprehensive range of applications, and are designed for use with HCFC and non-flammable HFC refrigerants.

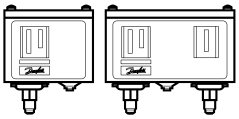
Features
KPU



Facts

- Snap action electrical contacts minimize chatter, bounce, and wear, and ensure longterm electrical and mechanical reliability
- The fail-safe dual bellows used in KPU 6 and KPU 16 prevent refrigerant loss and enable premature cut-out when a fault occurs
- SPDT or SPST switch a in single control models. SPST or SPDT with high-low pressure signal in dual control models
- Manual trip function (electrical contact function can be tested without the use of tools)
- Easily replaces Johnson Controls and Ranco products
- Wide pressure range: from low pressure KPU 2 with narrow differential to KPU 6 and KPU 16 for high pressure refrigerants (R410A, R744)
- Automatic, manual or convertible reset versions available
- Vibration and shock resistant

Technical data and ordering



KPU pressure switches for HCFC and non-flammable HFC refrigerants

Ordering

Type	Pressure	Low pressure (LP)		High pressure (HP)		Reset		Contact type	Connection	Code no.
		Range [inHg] [psig]	Differential [psi]	Range [psig]	Differential [psi]	Low pressure (LP)	High pressure (HP)			
KPU 1	Low	6 in. – 108	10 – 60	—	—	Auto	—	A	¼ in. male flare	060-5231
	Low	6 in. – 108	10 – 60	—	—	Auto	—	A	36 in. cap. tube w. ¼ in. flare nut	060-5233
	Low	6 in. – 108	10 – 60	—	—	Auto	—	B	¼ in. male flare	060-5236
KPU 1B	Low	28 in. – 100	10	—	—	Man. (Min.)	—	A	¼ in. male flare	060-5232
	Low	28 in. – 100	10	—	—	Man. (Min.)	—	A	36 in. cap. tube w. ¼ in. flare nut	060-5234
KPU 2	Low	6 in. – 73	6 – 30	—	—	Auto	—	B	¼ in. male flare	060-5237
	Low	6 in. – 73	6 – 30	—	—	Auto	—	B	36 in. cap. tube w. ¼ in. flare nut	060-5235
	Low	6 in. – 73	6 – 30	—	—	Auto	—	A	¼ in. male flare	060-5239
	Low	6 in. – 73	6 – 30	—	—	Auto	—	A	36 in. cap. tube w. ¼ in. flare nut	060-5240
KPU 5	Fan cycling	—	—	100 – 465	25 – 85	—	Auto	B	¼ in. male flare	060-5241
	Fan cycling	—	—	100 – 465	25 – 85	—	Auto	B	36 in. cap. tube w. ¼ in. flare nut	060-5242
KPU 15	Dual	6 in. – 108	10 – 60	100 – 465	60	Auto	Auto	C	¼ in. male flare	060-5247
	Dual	6 in. – 108	10 – 60	100 – 465	60	Auto	Auto	C	36 in. cap. tube w. ¼ in. flare nut	060-5248
KPU 15B	Dual	6 in. – 108	10 – 60	100 – 465	60	Auto	Man. (Max.)	C	¼ in. male flare	060-5249
	Dual	6 in. – 108	10 – 60	100 – 465	60	Auto	Man. (Max.)	C	36 in. cap. tube w. ¼ in. flare nut	060-5250

Fail-safe switches for high pressure refrigerants (R410A, R744) PED 97/23/EC approved according to EN 12263

Ordering

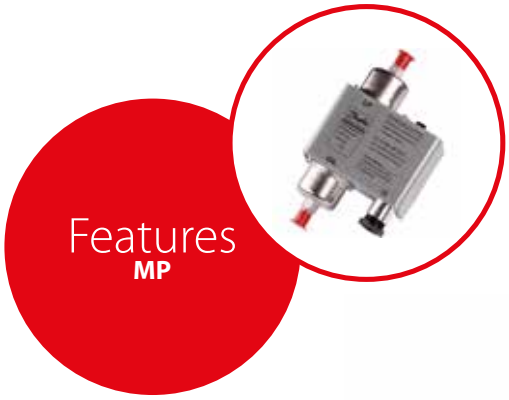
Type	Pressure	Low pressure (LP)		High pressure (HP)		Reset		Contact System	Connection type	Code no.
		Regulating range [bar]	Differential Δp [bar]	Regulating range [bar]	Differential Δp [bar]	Low pressure LP	High pressure HP			
KPU 6W	High	–	–			Auto	–	A	1/4 in. male flare	060-5243
	High	–	–			Auto	–	A	36 in. cap. tube w. 1/4 in. flare nut	060-5245
KPU 6B	High	–	–			Man. (Min.)	–	A	1/4 in. male flare	060-5244
	High	–	–			Man. (Min.)	–	A	36 in. cap. tube w. 1/4 in. flare nut	060-5246
KPU 16W	Dual					Auto	Auto	D	1/4 in. male flare	060-5251
	Dual					Auto	Auto	D	36 in. cap. tube w. 1/4 in. flare nut	060-5252
KPU 16B	Dual					Conv.	Conv.	D	1/4 in. male flare	060-5253
	Dual					Conv.	Conv.	D	36 in. cap. tube w. 1/4 in. flare nut	060-5254

Quick Selection Notes:

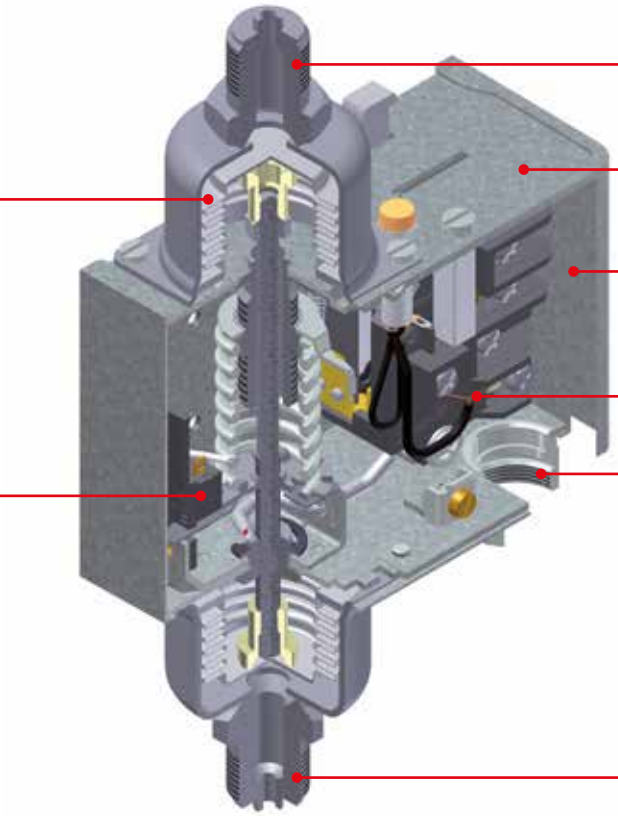
MP – Differential pressure switch

MP 54 and MP 55 oil differential pressure switches are used as safety switches to protect refrigeration compressors against low lubricating oil pressure. If the oil pressure fails, the oil differential pressure switch stops the compressor after a certain time period.
MP 54 and MP 55 are used in refrigerating systems using HCFC and non-flammable HFC refrigerants.

MP 55A is designed for use in refrigerating systems with R717 (ammonia), and can also be used in systems with HCFC and non-flammable HFC refrigerants.
MP 54 has a fixed differential pressure setting. It also incorporates a thermal time relay with a fixed release time setting.
MP 55 and MP 55A have adjustable differential pressure and are available both with and without thermal time relay.



Features
MP



Facts

Application:
- Food Retail
- Heavy Commercial Refrigeration
- Light Commercial Refrigeration
- Commercial Air Conditioning
- Food Processing and Storage

- Suitable for both alternating and direct current (AC and DC)
- Small contact differential
- Can be used for wide range of refrigerants:
  - HCFC and non-flammable HFC refrigerants (MP 54, MP 55)
  - R717, HCFC and non-flammable HFC refrigerants (MP 55A)
  - HCFC, HFC and HC refrigerants (MP 55E)

- Bellows without any welding points, which makes them stress free and completely tight
- Wide regulating range
- Screwed cable entry for cables from 6 – 14 mm diameter
- Electrical connection at the front of the unit
- Wide range of approvals - Danfoss offers a wide range of approvals suited for specific applications and geographical markets

Technical data and ordering

MP differential pressure switches for HCFC and non-flammable HFC refrigerants

Ordering

Type	Differential Δp [bar]	Operation range, LP side [bar]	Relay release time [s]	Connection type	Code no.
MP 54	0.65	-1 – 12	0 ²)	¼ in. Flare	060B029766
	0.65	-1 – 12	45	¼ in. Flare	060B016666
	0.9	-1 – 12	60	¼ in. Flare	060B016766
	0.65	-1 – 12	90	¼ in. Flare	060B016866
	0.65	-1 – 12	120	¼ in. Flare	060B016966
MP 55	0.3 – 4.5	-1 – 12	45	¼ in. Flare	060B017066
	0.3 – 4.5	-1 – 12	45	1 m cap.tube ¼ in. ODF solder	060B013366
	0.3 – 4.5	-1 – 12	60	¼ in. Flare	060B017166
	0.3 – 4.5	-1 – 12	60	¼ in. Flare	060B017866 ¹)
	0.3 – 4.5	-1 – 12	90	¼ in. Flare	060B017266
	0.3 – 4.5	-1 – 12	120	¼ in. Flare	060B017366
	0.3 – 4.5	-1 – 12	0 ²)	¼ in. Flare	060B029966

¹) With glow lamp that remains on during normal operation.
Note: If the operational light goes out, the compressor should not run longer than the release time.
²) MP without time relay.
Versions without time relay are for applications where an external time relay is required - perhaps with a different release time than the one specified.

MP differential pressure switches for HCFC and non-flammable HFC refrigerants

Ordering

Type	Control differential Δp [bar]	Regulation range LP side [inHg] to [psig]	Time relay delay time [s]	Connection type	Code no.
MP 54	6.0	29 inHg – 175 psi	45	¼ in. flare	060B200866
	6.0	29 inHg – 175 psi	45	¼ in. flare nut with 36 in. capillary tube	060B205066
	9.0	29 inHg – 175 psi	90	¼ in. flare	060B200266
	9.0	29 inHg – 175 psi	120	¼ in. flare	060B200366 ²)
	9.0	29 inHg – 175 psi	120	¼ in. flare nut with 36 in. capillary tube	060B205366 ²)
MP 55	4.3-65	29 inHg – 175 psi	45	¼ in. flare nut with 36 in. capillary tube	060B205466
	4.3-65	29 inHg – 175 psi	60	¼ in. flare	060B201266 ¹)
	4.3-65	29 inHg – 175 psi	90	¼ in. flare	060B200666
	4.3-65	29 inHg – 175 psi	120	¼ in. flare	060B200766
	4.3-65	29 inHg – 175 psi	120	¼ in. flare nut with 36 in. capillary tube	060B205766

¹) With glow lamp that remains on during normal operation of compressor.
Note: When time delay is energized which also means that min. permisible oil pressure (differential Δp) is reached, light goes out.
²) Three-wire hook-up

MP differential pressure switches for R717, HCFC and non-flammable HFC refrigerants

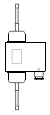
Ordering

Type	Differential Δp [bar]	Operation range, LP side [bar]	Relay release time [s]	Connection type	Code no.
MP 55A	0.3 – 4.5	-1 – 12	45	G ⅜ A supplied with ø 6.5/10 mm weld nipple	060B017466
	0.3 – 4.5	-1 – 12	45	M12×1.5 with 6 mm cutting ring	060B018266
	0.3 – 4.5	-1 – 12	60	G ⅜ A supplied with ø 6.5/10 mm weld nipple	060B017566
	0.3 – 4.5	-1 – 12	60	M12×1.5 with 6 mm cutting ring	060B018366
	0.3 – 4.5	-1 – 12	60	G ⅜ A supplied with ø 6.5/10 mm weld nipple	060B017966 ¹)
	0.3 – 4.5	-1 – 12	90	G ⅜ A supplied with ø 6.5/10 mm weld nipple	060B017666
	0.3 – 4.5	-1 – 12	90	M12×1.5 with 6 mm cutting ring	060B018466
	0.3 – 4.5	-1 – 12	120	G ⅜ A supplied with ø 6.5/10 mm weld nipple	060B017766
	0.3 – 4.5	-1 – 12	120	M12×1.5 with 6 mm cutting ring	060B018566
	0.3 – 4.5	-1 – 12	0 ²)	G ⅜ A supplied with ø 6.5/10 mm weld nipple	060B029866 ²)
	0.3 – 4.5	-1 – 12	0 ²)	M12×1.5 with 6 mm cutting ring	060B029666

¹) With glow lamp that remains on during normal operation.
Note: If the operational light goes out, the compressor should not run longer than the release time.
²) MP without time relay.
Versions without time relay are for applications where an external time relay is required - perhaps with a different release time than the one specified.

Technical data and ordering

MP differential pressure switches for HCFC, HFC and HC refrigerants



Ordering

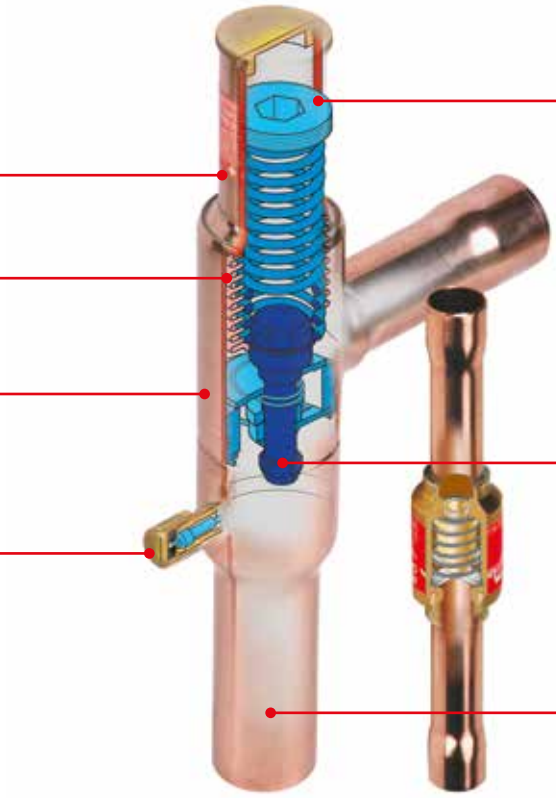
Type	Differential range Δp [bar]	Switch differential max. Δp [bar]	Operation range, LP side [bar]	Connection type	Code no.
MP 55E	0.3 – 4.5	0.2	-1 – 12	¼ in. ODF solder	060B530066

Quick Selection Notes:

KVR / NRD - Condensing pressure regulator / Differential pressure valve

KVR condensing pressure regulators can be mounted in either the gas or liquid side of the condenser in refrigeration and air conditioning systems.

They are used to maintain a constant and sufficiently high condensing pressure with systems using air-cooled condensers. KVR condensing presure regulators can also be used with valve types NRD or KVD to assure that adequate pressure is maintained on the receiver.



"*Hermetic*" brazed construction

Stainless steel bellows

Compact angle design for easy installation in any position

¼ in. Schrader valve for setting the pressure

Accurate, adjustable pressure regulation with allen key

Pulsation damping design

Available with flare and ODF solder connections

Facts

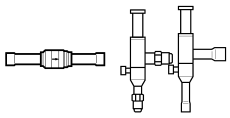
Application:
- Traditional refrigeration
- Air conditioning units
- Transport refrigeration

- The regulators are the most compact on the market
- Excellent performance because of balanced port design (equalization of force on port)
- The refrigeration system can operate with very large load variations
- Very easy to adjust the KVR
- The NRD is non-adjustable
  - it is activated when pressure differential between discharge line and receiver exceeds 1.4 bar
- Reliable design
- KVR can be installed either in discharge line or liquid line

- Wide capacity and operating range
- Regulation range: 5 – 17.5 bar (73 – 254 psig)
- KVR 12 – 22: for use with HCFC, HFC and HC
- KVR 12 – 22: compliant with ATEX hazard zone 2
- KVR 28 – 35: for use with HCFC and non flammable HFC
- Maximum working pressure

KVR: PS (MWP) = 28 bar (406 psig)
NRD: PS (MWP) = 46 bar (667 psig)

Technical data and ordering



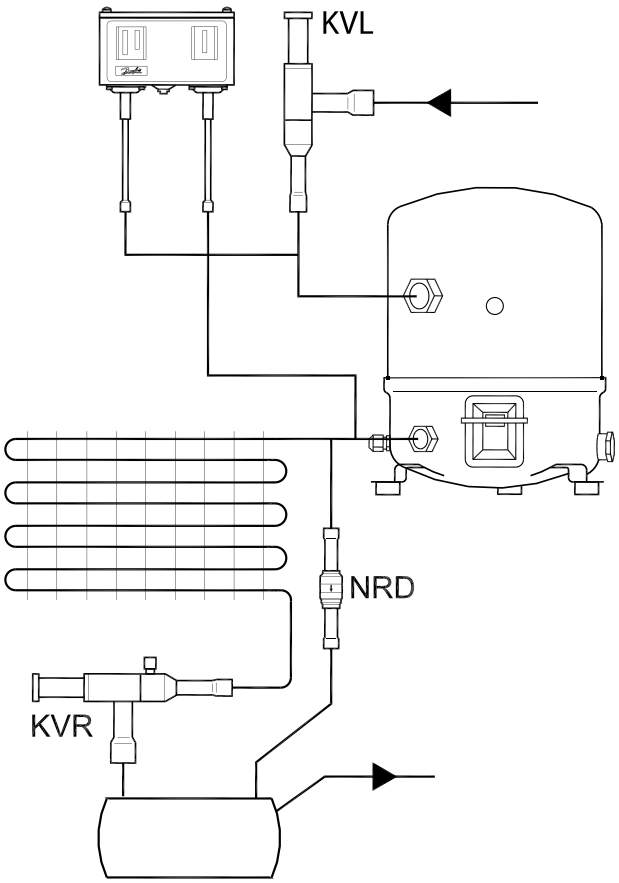
KVR / NRD Condensing pressure regulator / Differen

Ordering

Type	Rated liquid capacity in [kW]/[TR] [1]								Rated hot gas capacity in [kW]/[TR] [1]								Connection type	Connection size		Code no.
	R22		R134a		R404A/R507		R407C		R22		R134a		R404A/R507		R407C			[in.]	[mm]	
	[kW]	[TR]	[kW]	[TR]	[kW]	[TR]	[kW]	[TR]	[kW]	[TR]	[kW]	[TR]	[kW]	[TR]	[kW]	[TR]				
KVL 12	50.4	12.7	47.3	11.8	36.6	8.2	54.4	13.8	13.2	4.13	11.6	3.03	12.0	3.27	14.3	4.50	Flare [2] [3]	1/2	12	034L0091
	50.4	12.7	47.3	11.8	36.6	8.2	54.4	13.8	13.2	4.13	11.6	3.03	12.0	3.27	14.3	4.50	Solder, ODF [3]	1/2	–	034L0093
	50.4	12.7	47.3	11.8	36.6	8.2	54.4	13.8	13.2	4.13	11.6	3.03	12.0	3.27	14.3	4.50	Solder, ODF [3]	–	12	034L0096
KVL 15	50.4	12.7	47.3	11.8	36.6	8.2	54.4	13.8	13.2	4.13	11.6	3.03	12.0	3.27	14.3	4.50	Flare [2] [3]	5/8	16	034L0092
	50.4	12.7	47.3	11.8	36.6	8.2	54.4	13.8	13.2	4.13	11.6	3.03	12.0	3.27	14.3	4.50	Solder, ODF [3]	5/8	16	034L0097
KVL 22	50.4	12.7	47.3	11.8	36.6	8.2	54.4	35.5	13.2	4.13	11.6	3.03	12.0	3.27	14.3	4.50	Solder, ODF [3]	7/8	22	034L0094
KVL 28	129	32.6	121	30.2	93.7	20.9	139.3	35.5	34.9	10.93	11.6	3.03	34.9	8.66	37.7	11.91	Solder, ODF [3]	1 1/8	–	034L0095
	129	32.6	121	30.2	93.7	20.9	139.3	35.5	34.9	10.93	11.6	3.03	34.9	8.66	37.7	11.91	Solder, ODF [3]	–	28	034L0099
KVL 35	129	32.6	121	30.2	93.7	20.9	139.3	35.5	34.9	10.93	11.6	3.03	34.9	8.66	37.7	11.91	Solder, ODF [3]	1 3/8	35	034L0100
NRD	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	Solder, ODF [3]	1/2	–	020-1132
	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	Solder, ODF [3]	–	12	020-1136

[1] Rated capacity is based on:
– evaporating temperature t_e = -10 °C (40 °F)
– condensing temperature t_c = 30 °C (110 °F)
– pressure drop across the valve Δp = 0.2 bar (3 psi) for liquid capacity , Δp = 0.4 bar (6 psi) for hot gas capacity, offset=3 bar (45 psi)
[2] KVR are delivered without flare nuts. Separate flare nuts can be supplied: ½ in./12 mm - code no. 011L1103, 5/8 in./16 mm - code no. 011L1167.
[3] The connection dimensions chosen must not be too small, as gas velocities in excess of 130 ft/s at the inlet of the regulator can give flow noise.

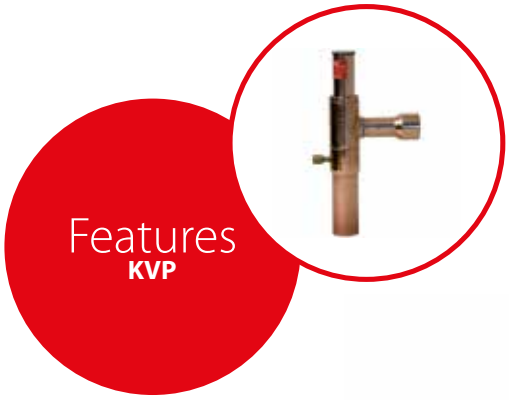
Application example

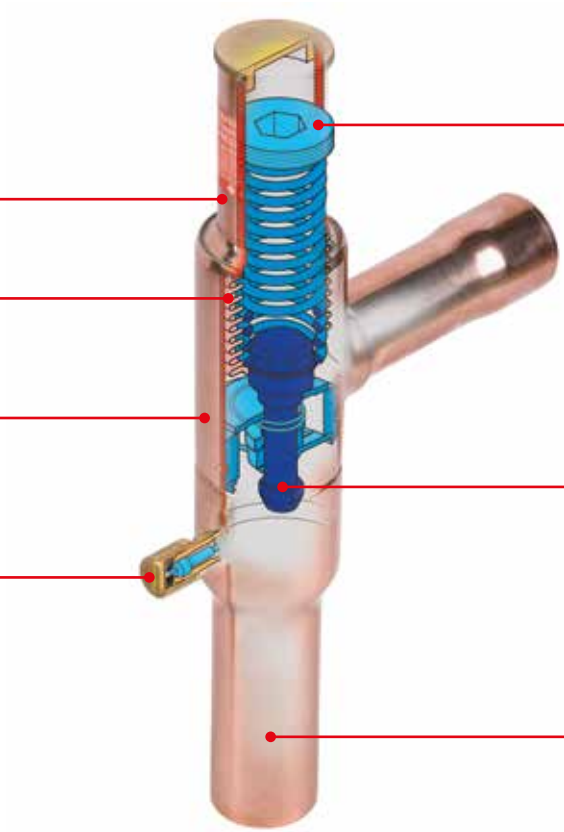


KVP - Evaporator pressure regulator

KVP evaporating pressure regulators are mounted in the suction line of refrigeration and air conditioning systems.
They are used to maintain a constant pressure corresponding to a constant temperature on the evaporator.

They also protect against too low an evaporating pressure by throttling down when the pressure falls below the set value.





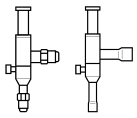
Facts

Application:
- Traditional refrigeration
- Air conditioning units
- Cold rooms
- Display cabinets

- The KVP can be used to differentiate the evaporating pressures in two or more evaporators in systems with one compressor
- Protection against a too low evaporating pressure: the regulator closes when the pressure in the evaporator falls below the set value
- Wide capacity and operating range

- Regulation range: 0 – 5.5 bar (0 – 80 psig)
- KVP 12 – 22: for use with HCFC, HFC and HC
- KVP 12 – 22: compliant with ATEX hazard zone 2
- KVP 28 – 35: for use with HCFC and non flammable HFC
- Maximum working pressure PS (MWP) = 18 bar (260 psig)

Technical data and ordering



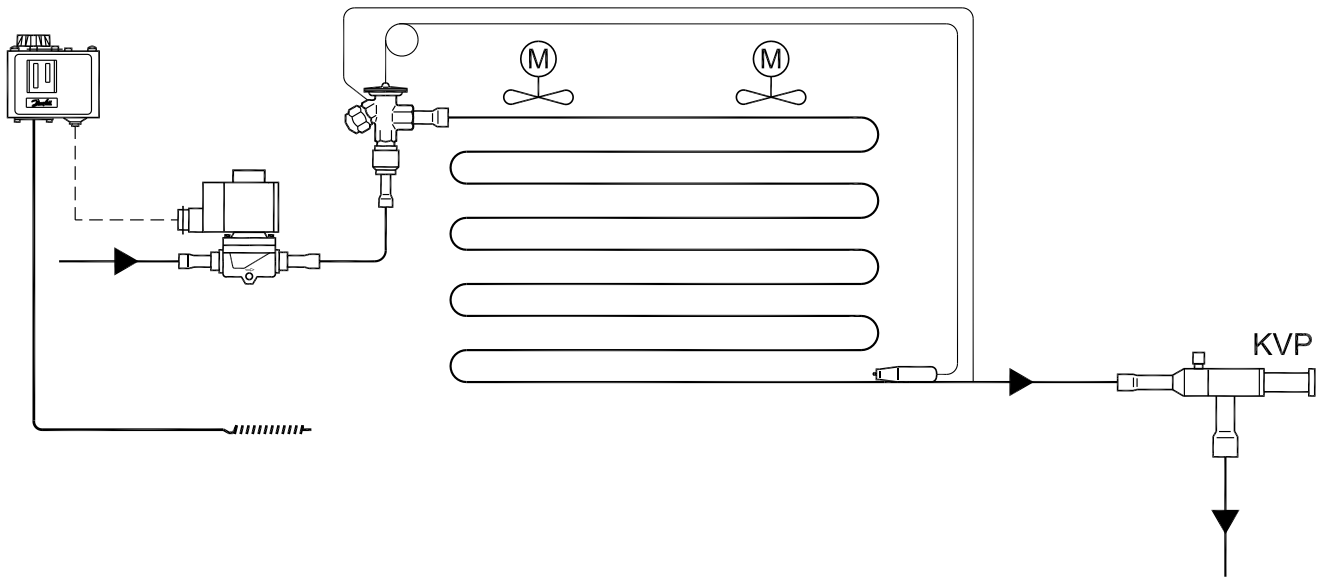
KVP, Evaporator pressure regulator

Ordering

Type	Rated capacity in [kW]/[TR] [1]								Connection type	Connection size		Code no.
	R22		R134a		R404A/R507		R407C			[in.]	[mm]	
	[kW]	[TR]	[kW]	[TR]	[kW]	[TR]	[kW]	[TR]				
KVL 12	4.0	1.3	2.8	0.9	3.6	1.2	3.7	1.2	Flare [2] [3]	½	12	034L0021
	4.0	1.3	2.8	0.9	3.6	1.2	3.7	1.2	Solder, ODF [3]	½	–	034L0023
	4.0	1.3	2.8	0.9	3.6	1.2	3.7	1.2	Solder, ODF [3]	–	12	034L0028
KVL 15	4.0	1.3	2.8	0.9	3.6	1.2	3.7	1.2	Flare [2] [3]	⅝	16	034L0022
	4.0	1.3	2.8	0.9	3.6	1.2	3.7	1.2	Solder, ODF [3]	⅝	16	034L0029
KVL 22	4.0	1.3	2.8	0.9	3.6	1.2	3.7	1.2	Solder, ODF [3]	⅞	22	034L0025
KVL 28	8.6	2.8	6.1	1.9	7.7	2.6	7.9	2.6	Solder, ODF [3]	1⅛	–	034L0026
	8.6	2.8	6.1	1.9	7.7	2.6	7.9	2.6	Solder, ODF [3]	–	28	034L0031
KVL 35	8.6	2.8	6.1	1.9	7.7	2.6	7.9	2.6	Solder, ODF [3]	⅜	35	034L0032

[1] Rated capacity is the capacity of the regulator at
– Evaporating temperature t_e = -10 °C (40 °F)
– Condensing temperature t_c = 25 °C (100 °F)
– Pressure drop in regulator Δp = 0.2 bar (2 psi), offset = 0.6 bar (9 psi)
[2] Supplied without flare nuts. Separate flare nuts can be supplied: ½ in./12 mm - code no. 011L1103, ⅝ in./16 mm - code no. 011L1167.
[3] The connection dimensions chosen must not be too small, since gas velocities in excess of 40 m/s at the inlet of the regulator can give flow noise.

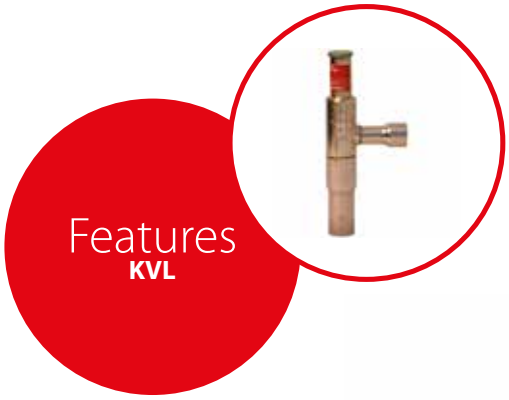
Application example

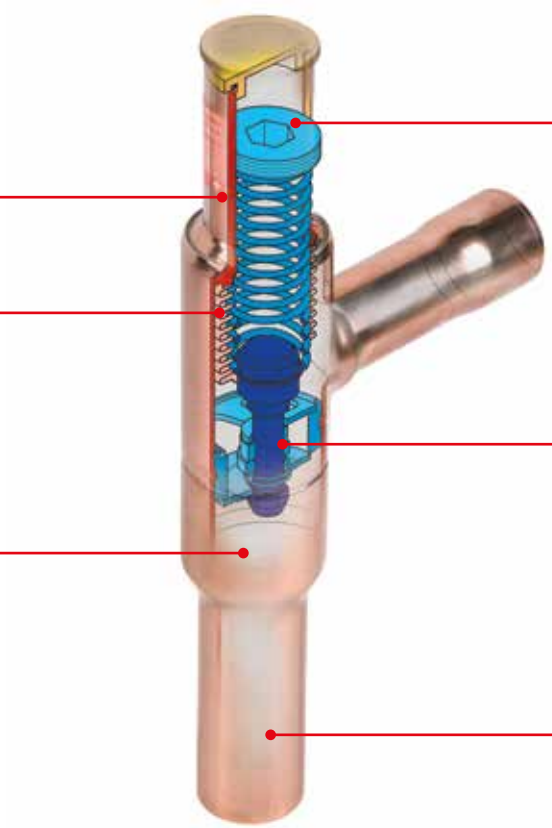


KVL – Crankcase pressure regulator

KVL crankcase pressure regulators valves are installed in the suction line ahead of the compressor.

KVL protects the compressor motor against overload during start-up after long standstill periods or after defrost periods (high pressure in evaporator).





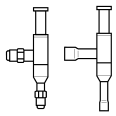
Facts

Application:
- Traditional refrigeration
- Air conditioning units
- Transport refrigeration

- Unaffected by ambient pressure variations
- Bellows welded to the body for long lifetime
- Accurate, adjustable pressure regulation
- Easy adjustment before start up
- Protects the compressor against electrical motor overloading
- Wide capacity and operating range
- Regulation range: 0.2 – 6 bar (3 – 87 psig)

- KVL 12 – 22: for use with HCFC, HFC and HC
- KVL 12 – 22: compliant with ATEX hazard zone 2
- KVL 28 – 35: for use with HCFC and non flammable HFC
- Maximum working pressure PS (MWP) = 18 bar (261 psig)

Technical data and ordering



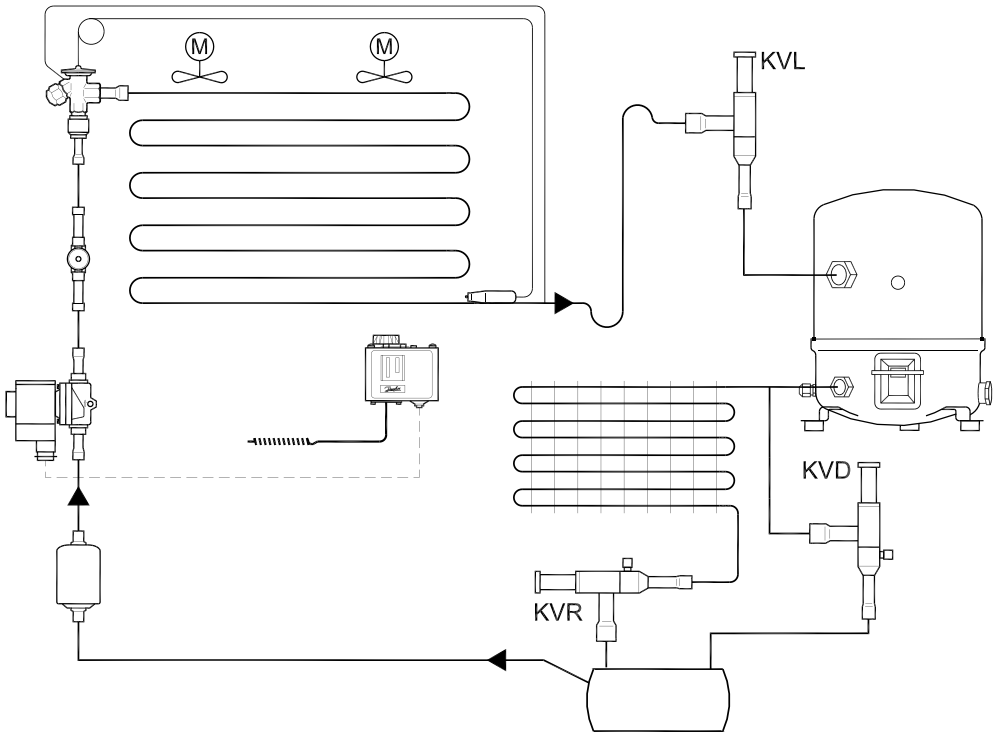
KVL, Crankcase pressure regulator

Ordering

Type	Rated capacity in [kW]/[TR] [1]								Connection type	Connection size		Code no.
	R22		R134a		R404A/R507		R407C			[in.]	[mm]	
	[kW]	[TR]	[kW]	[TR]	[kW]	[TR]	[kW]	[TR]				
KVL 12	7.1	1.2	5.3	0.8	6.3	1.0	6.4	1.1	Flare [2][3]	½	12	034L0041
	7.1	1.2	5.3	0.8	6.3	1.0	6.4	1.1	Solder, ODF [3]	½	–	034L0043
	7.1	1.2	5.3	0.8	6.3	1.0	6.4	1.1	Solder, ODF [3]	–	12	034L0048
KVL 15	7.1	1.2	5.3	0.8	6.3	1.0	6.5	1.1	Flare [2][3]	⅝	16	034L0042
	7.1	1.2	5.3	0.8	6.3	1.0	6.5	1.1	Solder, ODF [3]	⅝	16	034L0049
KVL 22	7.1	1.2	5.3	0.8	6.3	1.0	6.5	1.1	Solder, ODF [3]	⅞	22	034L0045
KVL 28	17.8	4.1	13.2	2.6	15.9	3.4	16.4	3.8	Solder, ODF [3]	1⅛	–	034L0046
	17.8	4.1	13.2	2.6	15.9	3.4	16.4	3.8	Solder, ODF [3]	–	28	034L0051
KVL 35	17.8	4.1	13.2	2.6	15.9	3.4	16.4	3.8	Solder, ODF [3]	1⅜	35	034L0052

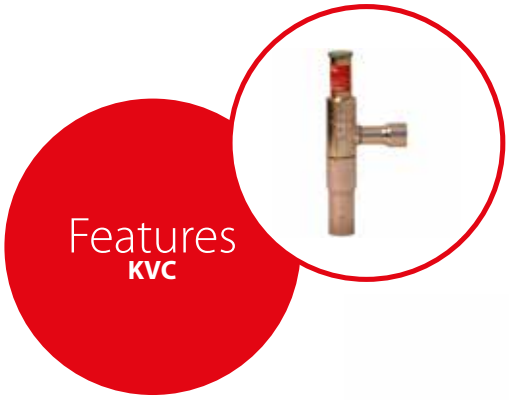
[1] Rated capacity is the capacity of the regulator at
– Evaporating temperature t_e = -10 °C (40 °F).
– Condensing temperature t_c = 25 °C (100 °F) .
– Pressure drop in regulator Δp = 0.2 bar (2 psi).
[2] Supplied without flare nuts. Separate flare nuts can be supplied: ½ in./12 mm - code no. 011L1103, ⅝ in./16 mm - code no. 011L1167.
[3] The connection dimensions chosen must not be too small, since gas velocities in excess of 40 m/s at the inlet of the regulator can give flow noise.

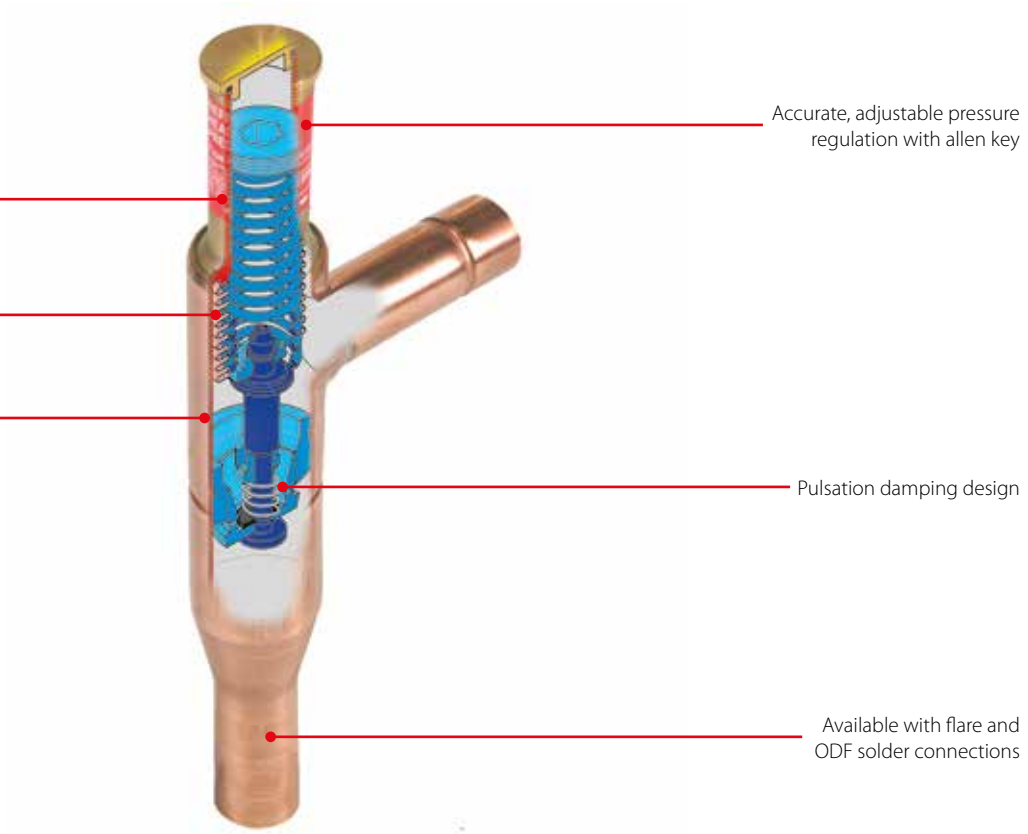
Application example



KVC – Hot gas bypass regulator

KVC are hot gas bypass regulators used for the adaption of the compressor capacity to the actual evaporator load.
Placed in a bypass between high and low pressure sides of the refrigeration system, KVC imposes a lower limit on the compressor suction pressure by supplying the low pressure side with replacement capacity in the form of hot gas/cool gas from the high pressure side.
KVC is for HCFC, HFC and HC refrigerants.





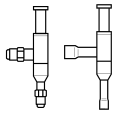
Facts

Application:
- Traditional refrigeration
- Air conditioning units
- Transport refrigeration
- Commercial refrigeration
- Compressed air driers

- KVC regulations is only dependent upon the outlet pressure. Pressure variations on the inlet side of the regulator do not affect the degree of opening since KVC is equipped with an equalization bellows
- The regulator is also equipped with an effective damping device against pulsations which can normally arise in a refrigeration plant

- Compact angle design for easy installation
- Wide capacity and operating range
- Regulation range: 0.2 – 6 bar (3 – 87 psig)
- Maximum working pressure PS (MWP) = 28 bar (406 psig)
- For use with HCFC, HFC and HC
- Compliant with ATEX hazard zone 2
- Medium temperature: -45 – 130 °C (-49 – 266 °F)

Technical data and ordering



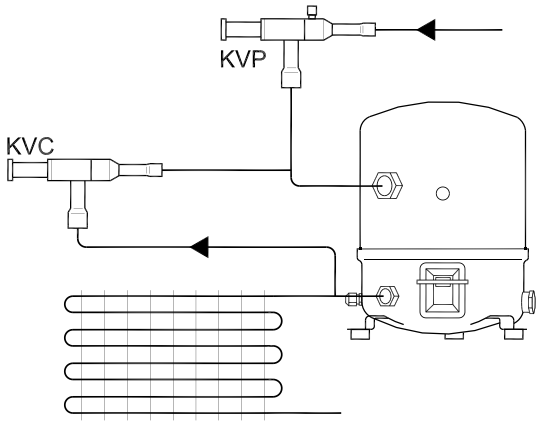
KVC, Hot gas bypass regulator

Ordering

Type	Rated capacity in [kW]/[TR] [4]								Connection type	Connection size		Code no.
	R22		R134a		R404A/R507		R407C			[in.]	[mm]	
	[kW]	[TR]	[kW]	[TR]	[kW]	[TR]	[kW]	[TR]				
KVC 12 [3]	7.6	2.14	4.8	1.36	6.9	2.02	8.4	2.31	Flare [2] [3]	½	12	034L0141
	7.6	2.14	4.8	1.36	6.9	2.02	8.4	2.31	Solder, ODF [3]	½	–	034L0143
	7.6	2.14	4.8	1.36	6.9	2.02	8.4	2.31	Solder, ODF [3]	–	12	034L0146
KVC 15 [3]	14.9	4.17	9.4	2.65	13.6	3.93	16.4	4.50	Flare [2] [3]	5/8	16	034L0142
	14.9	4.17	9.4	2.65	13.6	3.93	16.4	4.50	Solder, ODF [3]	5/8	16	034L0147
KVC 22 [3]	19.1	5.35	12.0	3.41	17.4	5.04	21.0	5.78	Solder, ODF [3]	7/8	22	034L0144

[1] Supplied without flare nuts. Separate flare nuts can be supplied: ½ in./12 mm - code no. 011L1103, 5/8 in./16 mm - code no. 011L1167.
[2] The connection dimensions chosen must not be too small, since gas velocities in excess of 40 m/s at the inlet of the regulator can give flow noise.
[3] If the discharge temperature becomes too high in relation to the compressor specification, the installation of an injection valve in a bypass between liquid line and compressor suction line is recommended.
[4] Rated capacity is the capacity of the regulator at:
– Evaporating temperature t_e = -10 °C (40 °F)
– Condensing temperature t_c = 25 °C (77 °F)

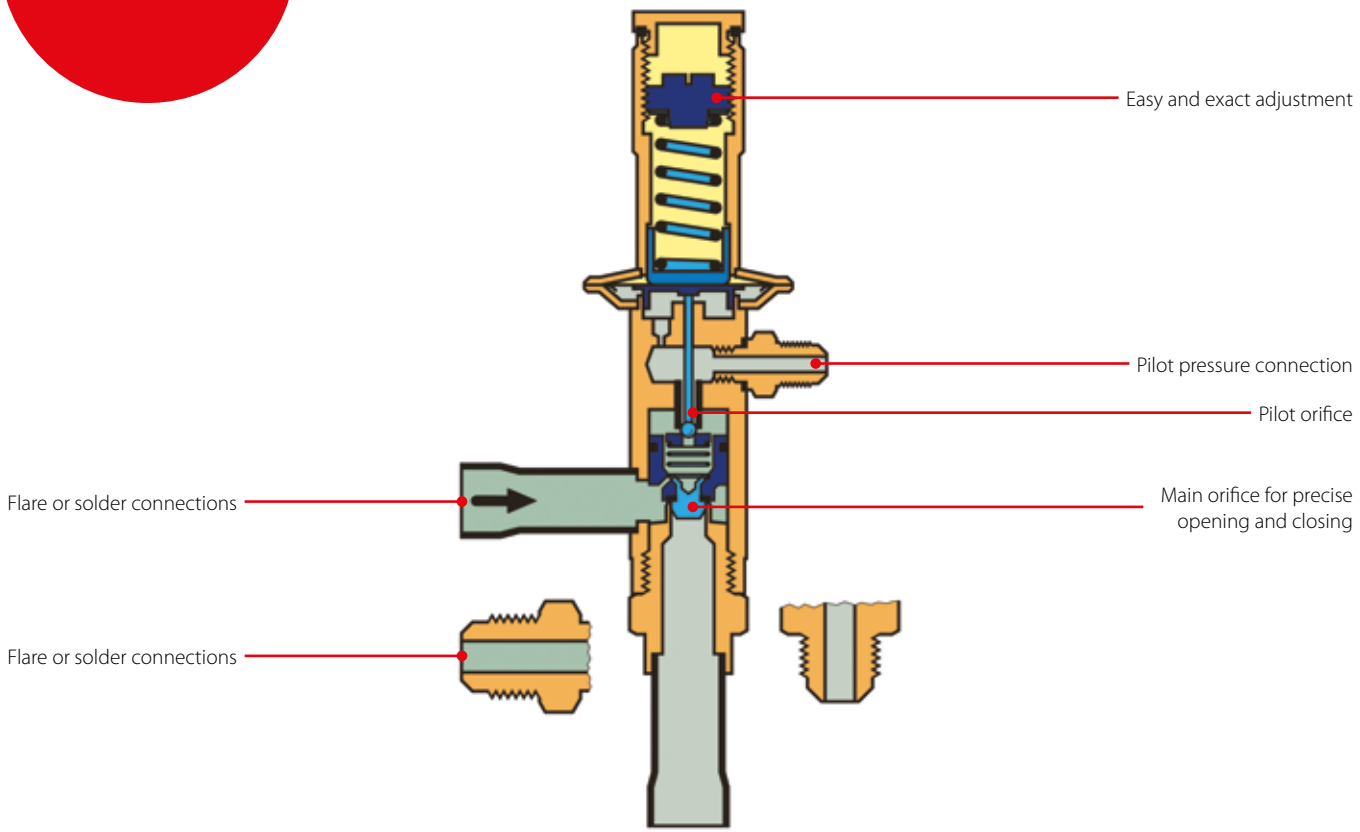
Application example



CPCE – Hot gas bypass regulator

CPCE hot gas bypass regulators adapt compressor capacity to actual evaporator load, and are designed for installation in a bypass line between the low and high pressure sides of the refrigeration system, for hot gas injection between evaporator and thermo-static expansion valve.

CPCE is for HCFC, HFC and HC refrigerants. Injection is through an LG liquid-gas mixer.



Facts

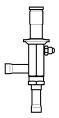
Application:
- Traditional refrigeration
- Air conditioning units
- Commercial refrigeration
- Compressed air dryers
- Transport refrigeration

- Prevents high suction superheats by combining hot gas injection with expansion valve characteristics
- Can also protect against too low an evaporating temperature, i.e. to prevent evaporator icing
- LG Liquid-gax mixer can be used for hot gas defrosting or reverse cycle systems
- Superior control accuracy
- The regulator increases evaporator gas velocity thus ensuring better oil return to compressor

- Direct connection to system suction line regulates hot gas injection independent of evaporator pressure drop
- LG Liquid-gax mixer provides homogenous mixing of the liquid and hot gas refrigerant injected into the evaporator
- For use with HCFC, HFC and HC
- Complaint with ATEX hazard zone 2
- Max. working pressure
  PS (MWP) = 28 bar (406 psig)

Technical data and ordering

CPCE, Hot gas bypass regulator



Ordering

Type	Rated capacity in [kW]/[TR] [1]								Connection t ype	Connection size		Code no.
	R22		R134a		R404A/R507		R407C			[in.]	[mm]	
	[kW]	[TR]	[kW]	[TR]	[kW]	[TR]	[kW]	[TR]				
CPCE 12	17.4	6.2	7.9	4.3	16.4	6.3	19.0	6.7	Flare [2] [3]	½	12	034N0081
	17.4	6.2	7.9	4.3	16.4	6.3	19.0	6.7	Solder, ODF [3]	½	12	034N0082
CPCE 15	25.6	9.2	11.6	6.3	24.2	9.1	27.9	9.9	Solder, ODF [3]	⅝	16	034N0083
CPCE 22	34.0	12.2	15.2	8.4	32.0	12.1	37.1	13.2	Solder, ODF [3]	⅞	22	034N0084

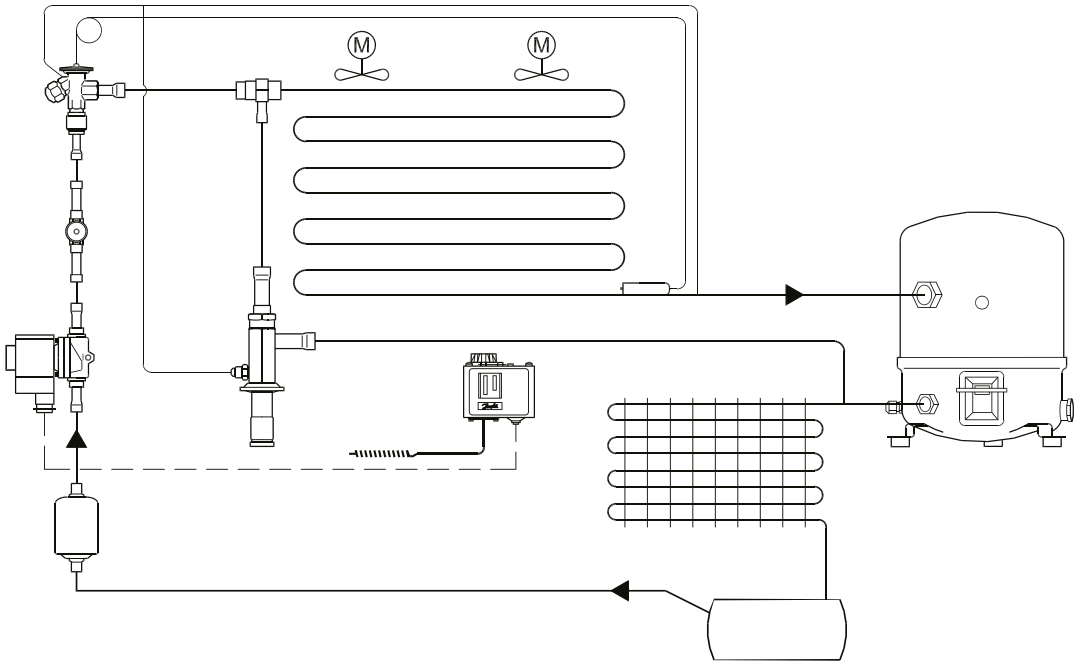
[1] Rated capacity is the capacity of the regulator at:
– Evaporating temperature t_e = -10 °C (40 °F)
– Condensing temperature t_c = 30 °C (100 °F)
– Reduction of suction temperature/pressure Δt_s = CPCE: 4 K.

LG, Liquid-gas mixer (accessory)

Ordering

Type	Connection						Code no.
	Expansion valve Solder, ODM		Hot gas Solder, ODF		Liquid distributor Solder, ODF		
	[in.]	[mm]	[in.]	[mm]	[in.]	[mm]	
LG 12–16	⅝	16	½	12	⅝	16	069G4001
LG 12–22	⅞	22	½	12	⅞	22	069G4002
LG 16–28	1⅛	28	⅝	16	1⅛	28	069G4003
LG 22–35	1⅜	35	⅞	22	1⅜	35	069G4004

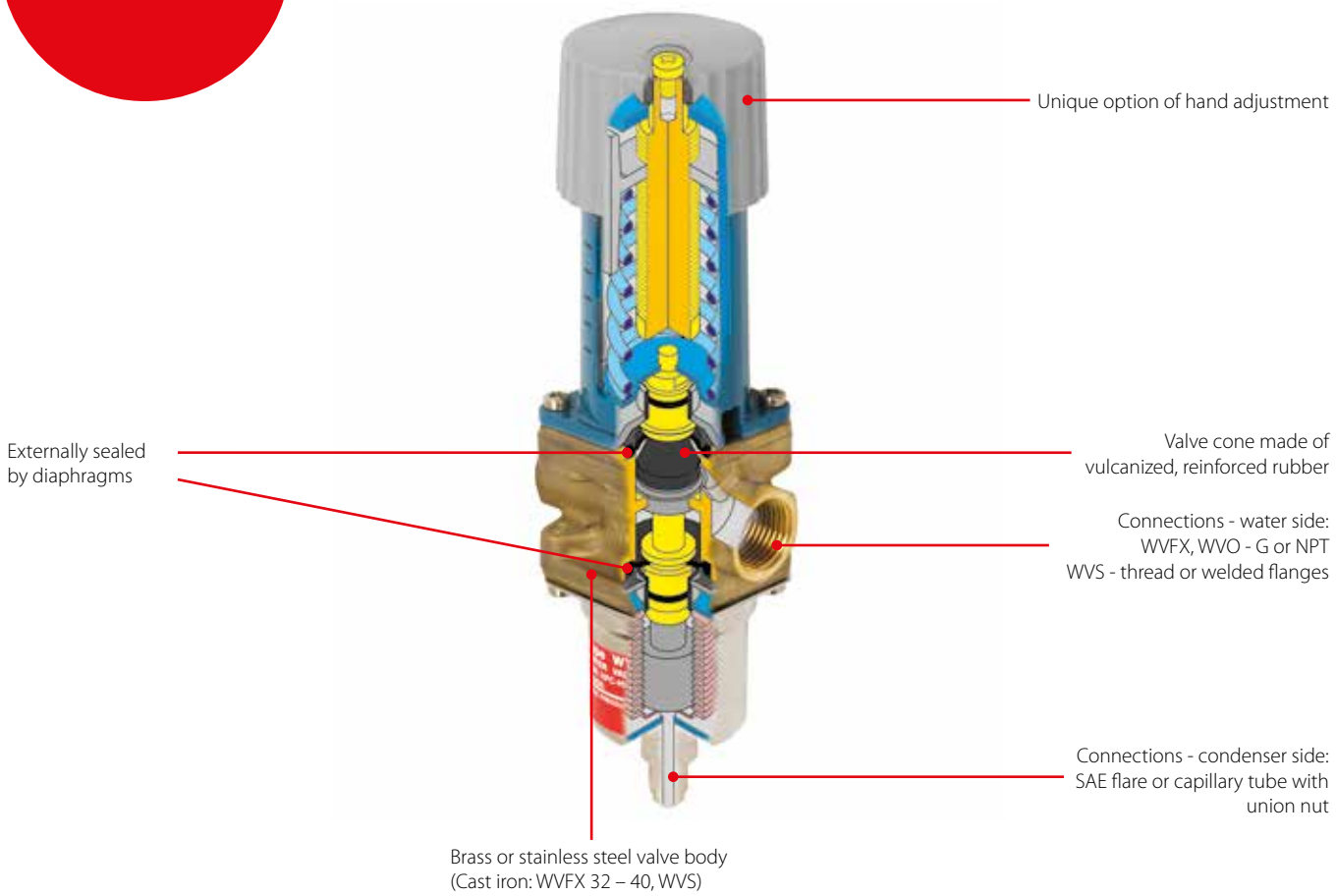
Application example



WVFX / WVO / WVS – Pressure operated water valve

WVFX, WVO and WVS pressure operated water valves are used to regulate the flow of water in HCFC, HFC and HC refrigeration plant with water-cooled condensers in order to ensure constant proportional regulation of condensing pressure. The water valve modulates the water flow to maintain the condensing pressure at a constant level during operation.

When the refrigeration plant is stopped, the cooling water flow is shut off automatically. Media: fresh water and neutral brine.
For use with aggressive media such as sea water, WVFX 15, WVFX 20 and WVFX 25 are available in stainless steel versions.



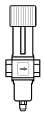
Facts

Applications:
- Traditional refrigeration
- Air conditioning units
- Other applications with water-cooled condenser
- Ice making machines
- Ice cream machines
- IT cooling
- Water chillers

- WVFX 10 – 25 can be supplied in stainless steel housing for sea water applications
- Exact pressure control – high accuracy of WVO valves up to 0.2 bar
- Reliable design – factory setting is maintained during whole life cycle
- Insensitive to dirt – fit and forget solution
- High permissible water pressure (PS) = 16 bar – can be used with water towers
- Low flow version – 0,63 m³/h (available on request)

- WVFX 10 – 40 are direct actuated valves
- WVS 32 – 100 are servo-operated valves
- Version for R410A available
- Very wide media temperature range: -25 – 130 °C
- Versions with capillary tube available on request
- For use with HCFC, HFC and HC
- Compliant with ATEX hazard zone 2

Technical data and ordering



WVFX, pressure operated water valves, commercial applications

Ordering

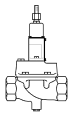
Type	Connection			Range (refrigerant) [bar]	Code no.
	Water side ISO 228-1	Condenser side			
		[in.]	[mm]		
WVFX 10	G 3/8	¼	6 flare	3.5 – 16	003N1100
	G 3/8	¼	6 flare	4.0 – 23	003N1105
	G 3/8	¼	6 flare	15.0 – 29.0	003N1410
WVFX 15	G ½	¼	6 flare	3.5 – 16	003N2100
	G ½	¼	6 flare nut	4.0 – 23	003N2205
	G ½	¼	6 flare	4.0 – 23	003N2105
	G ½	¼	6 flare	15.0 – 29.0	003N2410
WVFX 20	G 3/4	¼	6 flare	3.5 – 16	003N3100
	G 3/4	¼	6 flare	4.0 – 23	003N3105
	G 3/4	¼	6 flare nut	4.0 – 23	003N3205
	G 3/4	¼	6 flare	15.0 – 29.0	003N3410
WVFX 25	G 1	¼	6 flare	3.5 – 16	003N4100
	G 1	¼	6 flare	4.0 – 23	003N4105
	G 1	¼	6 flare	15.0 – 29.0	003N4410
WVFX 32	G 1¼	¼	6 flare	4.0 – 17	003F1232
WVFX 40	G 1½	¼	6 flare	4.0 – 17	003F1240

WVFX pressure operated water valves, with stainless steel housing

WVFX 15	G ½	¼	6 flare	3.5 – 16	003N2101
	G ½	¼	6 flare	4.0 – 23	003N2104
WVFX 20	G 3/4	¼	6 flare	4.0 – 23	003N3104
WVFX 25	G 1	¼	6 flare	3.5 – 16	003N4101
	G 1	¼	6 flare	4.0 – 23	003N4104

WVO, pressure operated water valves, commercial applications

WVO 10	G 3/8	¼	6 flare	8 – 12	003N5203
	G 3/8	¼	6 flare	14 – 18	003N5206
	G 3/8	¼	6 flare	16 – 20	003N5207
WVO 15	G ½	¼	6 flare	14 – 18	003N5216



WVS, Pressure operated water valve parts program

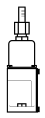
Type	Connection ISO 228-1	Code no.				
		Valve body	Pilot unit [2]	Pilot unit for R410A and R744 (CO_2) [2]	Flange set [3]	Servo spring for differential pressure range: 1 – 10 bar
WVS 32	G 1¼	016D5032	016D1017	016D1018	–	016D1327
WVS 40	G 1½	016D5040	016D1017	016D1018	–	016D0575
WVS 50	2 weld flange	016D5050 [1]	016D1017	016D1018	027N3050	016D0576
WVS 65	2½ weld flange	016D5050 [1]	016D1017	016D1018	027N3065	016D0577
WVS 80	3 weld flange	016D5080 [1]	016D1017	016D1018	027N3080	016D0578
WVS 100	4 weld flange	016D5100 [1]	016D1017	016D1018	027N3100	016D0579

[1] Code numbers cover valve body, flange gaskets, flange bolts and screws for pilot valve.
[2] Code numbers cover control element and spring housing.
[3] Code numbers cover an inlet and an outlet flange.

Accessories

Description	Code no.
1 m capillary tube ¼ in. (6 mm) flare coupling nuts at each end	060-017166
Bracket for WVFX 10 – 25	003N0388

Technical data



HCFC/HFC/HC

Technical data

Refrigerant	Type				Liquid side			k_v value [1] [m³/h]
		Control press. adjustable closing press. [bar]	Max. working pressure PS [bar]	Max. test pressure PB [bar]	Media	Max. working pressure PS [bar]	Max. test pressure PS [bar]	
HCFC/HFC/HC	WVO 10	4.0 – 22 [2]	26.4	60	Fresh water, neutral brine, sea water	16	24	1.4
	WVFX 10	3.5 – 16	26.4	60		16	24	1.4
		4.0 – 23	26.4	60		16	24	1.4
		15.0 – 29.0	45.2	60		16	24	1.4
	WVO 15	4.0 – 22 [2]	26.4	60		16	24	1.4
	WVFX 15	3.5 – 16.0	26.4	29		16	24	1.9
		4.0 – 23.0	26.4	29		16	24	1.9
		15.0 – 29.0	45.2	60		16	24	1.9
	WVFX 20	3.5 – 16.0	26.4	29		16	24	3.4
		4.0 – 23.0	26.4	29		16	24	3.4
		15.0 – 29.0	45.2	60		16	24	3.4
	WVFX 25	3.5 – 16.0	26.4	29		16	24	5.5
		4.0 – 23.0	26.4	29		16	24	5.5
		15.0 – 29.0	45.2	60		16	24	5.5
	WVFX 32	4.0 – 17.0	24.1	26.5		10	10	11.0
	WVFX 40	4.0 – 17.0	24.1	26.5		10	10	11.0
HCFC/HFC/HC/ R717	WVS 32	2.2 – 19.0	26.4	29	Fresh water, neutral brine	10	16	12.5
	WVS 40	2.2 – 19.0	26.4	29		10	16	21.0
	WVS 50	2.2 – 19.0	26.4	29		10	16	32.0
	WVS 65	2.2 – 19.0	26.4	29		10	16	45.0
	WVS 80	2.2 – 19.0	26.4	29		10	16	80.0
	WVS 100	2.2 – 19.0	26.4	29		10	16	125.0

[1] The k_v value is the flow of water in [m³/h] at a pressure drop across valve of 1 bar, ρ = 1000 kg/m³.
[2] Pressure control range width max. 6 bar.

Media temperature range
WVFX: *10 – 25: -25 – 130 °C*
WVFX: *32 – 40: -25 – 90 °C*
WVS: *-25 – 90 °C*

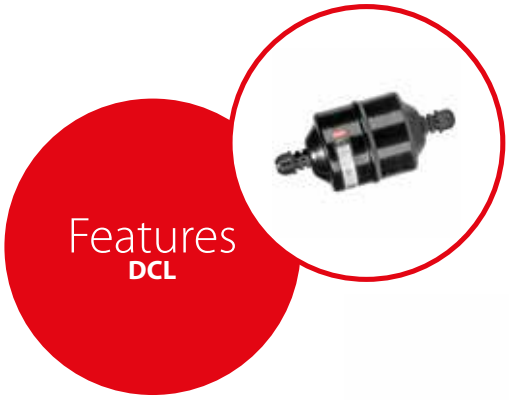
Opening differential pressure
WVO: *10 – 25: 0 – 10 bar*
WVFX: *10 – 40: 0 – 10 bar*
WVS: *32 – 40: 0.5 – 4 bar*
WVS: *50 – 100: 0.3 – 4 bar*

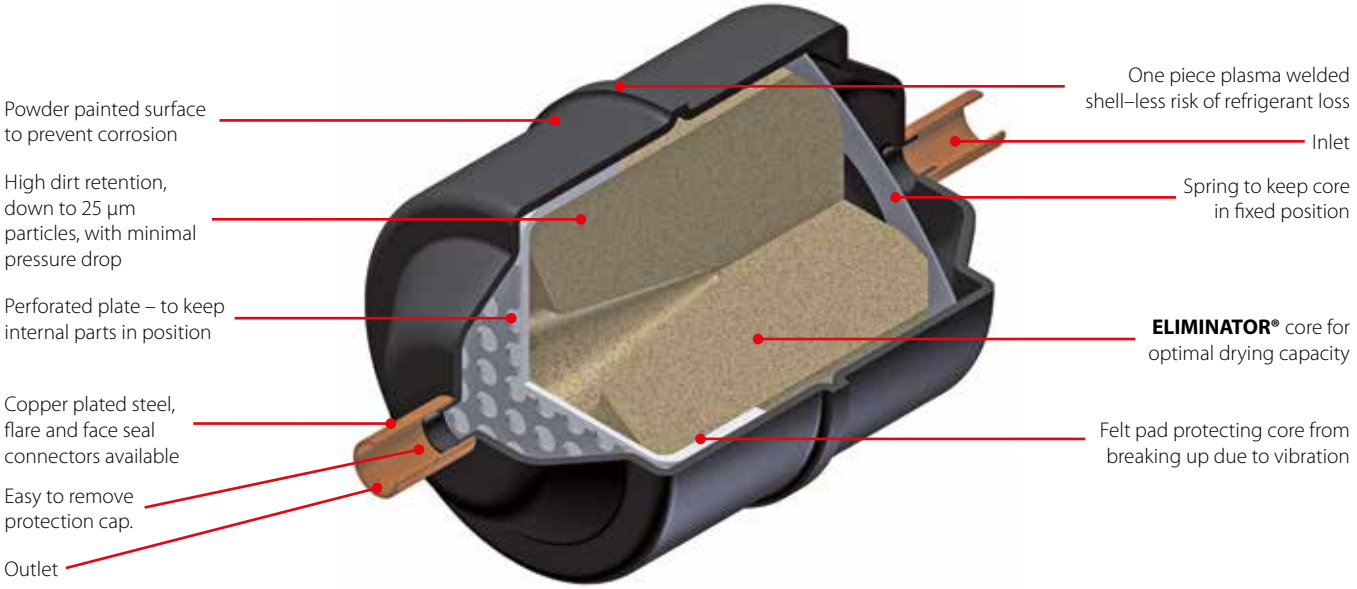
Quick Selection Notes:

DCL – Hermetic filter drier

DCL **ELIMINATOR®** hermetic filter driers protect refrigeration and air conditioning systems from moisture, acids and solid particles, eliminating harmful chemical reaction and abrasive impurities.

DCL hermetic filter driers, with a solid core of 80% Molecular Sieve and 20% activated alumina, are optimised for HFC and HCFC refrigerants and mineral or benzene oils, they are hermetic and available in many sizes and connection types.





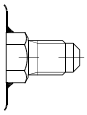
Facts

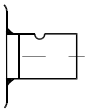
Application:
- Traditional refrigeration
- Air conditioning units
- Transport refrigeration

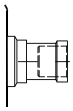
- 4 times better moisture adsorption capacity than traditional filter driers with activated alumina, at both high and low humidity levels
- High drying capacity avoiding the risk of acid formation in the refrigeration system
- Solder connections are in copper plated and steel material (flare and face seal)
- Wide range with sizes from 3 to 75 cubic inches
- Corrosion resistant powder-painted finish. Special coating for marine applications available upon request

- 80% 3Å molecular sieve with 20% activated alumina core
- Recommended for use with HFC and HCFC refrigerants
- Thermally stable up to 120 °C (250 °F)
- Minimal amount of binder, resistant to systems chemicals, assuring a stable core and long life PS (MWP): 46 bar (667 psig)
- Available with flare, solder (pure cooper, cu-plated) connections

Technical data and ordering


Flare version


Solder version (pure cooper)


Solder version (cu- plated)

Hermetic filter drier, type DCL

Drying and liquid capacity

Type	Drying Capacity [kg] of refrigerant [1]														Liquid capacity [kW] [2]							Max. Working Pressure PS [bar]
	R134a		R404A		R507		R22		R407C		R410A		R32		R134a	R404A	R507	R22	R407C	R410A	R32	
	[°C]																					
	24	52	24	52	24	52	24	52	24	52	24	52	24	52								
DCL 032/032s	3.9	3.6	4.2	3.9	4.2	3.9	3.9	3.6	3.9	3.6	3.5	3.2	3.6	3.3	6.70	5.01	4.86	7.45	7.09	7.43	10.86	46
DCL 032.5s	3.9	3.6	4.2	3.9	4.2	3.9	3.9	3.6	3.9	3.6	3.5	3.2	3.6	3.3	9.59	6.97	6.75	10.52	9.97	10.31	15.10	46
DCL 033/033s	3.9	3.6	4.2	3.9	4.2	3.9	3.9	3.6	3.9	3.6	3.5	3.2	3.6	3.3	12.85	9.86	9.75	14.46	13.84	14.67	21.40	46
DCL 052/052s	6.2	5.8	6.6	6.3	6.7	6.2	6.2	5.8	6.2	5.7	5.6	5.2	5.7	5.3	7.67	5.62	5.45	8.45	8.02	8.32	12.18	46
DCL 052.5s	6.2	5.8	6.6	6.3	6.7	6.2	6.2	5.8	6.2	5.7	5.6	5.2	5.7	5.3	9.58	7.01	6.80	10.54	10.01	10.38	15.19	46
DCL 053/053s	6.2	5.8	6.6	6.3	6.7	6.2	6.2	5.8	6.2	5.7	5.6	5.2	5.7	5.3	7.67	9.81	9.52	14.44	13.80	14.58	21.28	46
DCL 082/082s	9.8	9.3	10.6	10.0	10.8	10.0	10.0	9.2	9.9	9.1	9.0	8.3	9.1	8.4	7.68	5.44	5.27	8.32	7.85	8.02	11.77	46
DCL 082.5s	9.8	9.3	10.6	10.0	10.8	10.0	10.0	9.2	9.9	9.1	9.0	8.3	9.1	8.4	10.53	7.84	7.61	11.69	11.13	11.63	17.01	46
DCL 083/083s	9.8	9.3	10.6	10.0	10.8	10.0	10.0	9.2	9.9	9.1	9.0	8.3	9.1	8.4	14.19	10.98	10.66	16.03	15.37	16.35	23.85	46
DCL 084/084s	9.8	9.3	10.6	10.0	10.8	10.0	10.0	9.2	9.9	9.1	9.0	8.3	9.1	8.4	28.61	21.33	2058	31.76	30.24	31.63	46.24	46
DCL 162/162s	21.6	20.5	23.3	22.1	23.7	21.9	21.9	20.3	21.7	20.0	19.7	18.2.	20.0	18.4	7.68	5.43	5.26	8.31	7.85	8.01	11.75	46
DCL 162.5s	21.6	20.5	23.3	22.1	23.7	21.9	21.9	20.3	21.7	20.0	19.7	18.2.	20.0	18.4	10.57	7.36	7.12	11.36	10.59	10.83	15.91	46
DCL 163/163s	21.6	20.5	23.3	22.1	23.7	21.9	21.9	20.3	21.7	20.0	19.7	18.2.	20.0	18.4	16.33	11.18	10.82	17.41	16.33	16.43	24.16	46
DCL 164/164s	21.6	20.5	23.3	22.1	23.7	21.9	21.9	20.3	21.7	20.0	19.7	18.2.	20.0	18.4	32.19	23.54	22.81	35.40	33.50	34.83	50.99	46
DCL 165/165s	21.6	20.5	23.3	22.1	23.7	21.9	21.9	20.3	21.7	20.0	19.7	18.2.	20.0	18.4	44.64	36.59	35.59	51.82	50.16	54.83	79.63	46
DCL 166/166s	21.6	20.5	23.3	22.1	23.7	21.9	21.9	20.3	21.7	20.0	19.7	18.2.	20.0	18.4	45.53	37.37	36.35	32.89	51.20	56.01	81.33	46
DCL 167s	21.6	20.5	23.3	22.1	23.7	21.9	21.9	20.3	21.7	20.0	19.7	18.2.	20.0	18.4	45.92	40.14	39.19	53.50	52.78	60.97	87.77	46
DCL 303/303s	45.6	43.1	49	46.5	49.9	46.1	46.2	42.7	45.7	42.2	41.6	38.3	42.1.	38.8	15.70	10.56	10.20	16.59	15.52	15.48	22.79	46
DCL 304/304s	45.6	43.1	49	46.5	49.9	46.1	46.2	42.7	45.7	42.2	41.6	38.3	42.1.	38.8	32.1	25.00	24.26	36.63	35.06	37.19	54.26	46
DCL 305/305s	45.6	43.1	49	46.5	49.9	46.1	46.2	42.7	45.7	42.2	41.6	38.3	42.1.	38.8	45.71	36.96	35.93	52.72	50.91	55.29	80.38	46
DCL 306/306s	45.6	43.1	49	46.5	49.9	46.1	46.2	42.7	45.7	42.2	41.6	38.3	42.1.	38.8	43.72	39.89	38.95	53.22	52.49	60.57	87.22	46
DCL 307s	45.6	43.1	49	46.5	49.9	46.1	46.2	42.7	45.7	42.2	41.6	38.3	42.1.	38.8	64.25	53.95	52.51	75.40	73.29	81.06	117.51	46
DCL 309s	45.6	43.1	49	46.5	49.9	46.1	46.2	42.7	45.7	42.2	41.6	38.3	42.1.	38.8	83.76	69.78	67.90	97.86	95.02	104.77	114.45	46
DCL 413	63.3	59.8	68.1	64.5	69.3	64.0	64.1	59.3	63.4	58.6	57.7	53.2	58.4	53.9	18.40	12.44	12.02	19.49	18.25	18.25	26.86	46
DCL 414/414s	63.3	59.8	68.1	64.5	69.3	64.0	64.1	59.3	63.4	58.6	57.7	53.2	58.4	53.9	33.39	26.45	25.70	38.15	36.70	39.48	57.48	46
DCL 415/415s	63.3	59.8	68.1	64.5	69.3	64.0	64.1	59.3	63.4	58.6	57.7	53.2	58.4	53.9	55.48	41.84	40.58	61.29	59.08	62.11	90.74	46
DCL 417s	63.3	59.8	68.1	64.5	69.3	64.0	64.1	59.3	63.4	58.6	57.7	53.2	58.4	53.9	66.74	56.32	54.82	78.50	76.37	84.67	122.70	46
DCL 419s	63.3	59.8	68.1	64.5	69.3	64.0	64.1	59.3	63.4	58.6	57.7	53.2	58.4	53.9	95.30	76.29	74.14	109.42	105.47	11.01	165.86	46
DCL 604s	91.2	86.2	98.0	92.9	99.8	92.2	92.3	85.4	91.4	84.4	83.2	76.6	84.1	77.6	27.88	26.22	25.63	34.36	34.07	39.98	57.41	46
DCL 607s	91.2	86.2	98.0	92.9	99.8	92.2	92.3	85.4	91.4	84.4	83.2	76.6	84.1	77.6	70.08	70.13	68.74	88.48	88.70	107.99	154.09	46
DCL 609s	91.2	86.2	98.0	92.9	99.8	92.2	92.3	85.4	91.4	84.4	83.2	76.6	84.1	77.6	61.35	73.05	72.40	81.77	84.39	117.36	162.79	46
DCL 757s	126.6	119.7	136.1	129.0	138.5	128.0	128.3	118.6	126.9	117.2	115.5	106.4	116.9	107.8	84.97	71.70	69.80	99.95	97.23	107.31	156.22	46
DCL 759s	126.6	119.7	136.1	129.0	138.5	128.0	128.3	118.6	126.9	117.2	115.5	106.4	116.9	107.8	64.22	87.19	85.60	107.64	108.54	135.06	191.97	46

[1] Drying capacity is based on following moisture content test standards before and after drying:
– R134a: 1050 – 50 ppm W.
– R404A, R507: 1020 – 50 ppm W.
– R407C: 1020 – 50 ppm W.
– R410A: 1050 – 50 ppm W.
– R22: 1050 – 60 ppm W.
In accordance with ARI 710-2004.

[2] Given in accordance with ARI 710-2004 for:
t_e = -15 °C.
t_c = 30 °C.
Δp = 0.07 bar.

Approvals
UL US, file no. SA 6398.
PED 97/23/EC - a3p3.
Compliant with ATEX hazard zone 2.

Note
Only solder versions (cu-plated/pure copper) and connection sizes below 25 mm are approved for flammable refrigerants now.

Technical data and ordering

Hermetic filter drier, type DCL

Drying and liquid capacity

Type	Drying capacity [lb] refrigerant [1]												Liquid capacity [TR] [2]						Max. Working Pressure MWP [psig]
	R134a		R404A		R507		R22		R407C		R410A		R134a	R404A	R507	R22	R407C	R410A	
	[°F]																		
	75	125	75	125	75	125	75	125	75	125	75	125							
DCL 032/032s	8.5	8.0	9.1	8.7	9.3	8.6	8.6	8.0	8.5	7.9	7.8	7.2	1.90	1.42	1.38	2.12	2.02	2.11	667
DCL 032.5s	8.5	8.0	9.1	8.7	9.3	8.6	8.6	8.0	8.5	7.9	7.8	7.2	2.73	1.98	1.92	2.99	2.84	2.93	667
DCL 033/033s	8.5	8.0	9.1	8.7	9.3	8.6	8.6	8.0	8.5	7.9	7.8	7.2	3.65	2.80	2.72	4.11	3.94	4.17	667
DCL 052/052s	13.6	12.8	14.6	13.8	14.9	13.7	13.8	12.7	13.6	12.6	12.4	11.4	2.18	1.60	1.55	2.40	2.28	2.37	667
DCL 052.5s	13.6	12.8	14.6	13.8	14.9	13.7	13.8	12.7	13.6	12.6	12.4	11.4	2.72	1.99	1.93	3.00	2.85	2.95	667
DCL 053/053s	13.6	12.8	14.6	13.8	14.9	13.7	13.8	12.7	13.6	12.6	12.4	11.4	3.66	2.79	2.71	4.10	3.92	4.15	667
DCL 082/082s	21.7	20.5	23.3	22.1	23.8	21.9	22.0	20.3	21.8	20.1	19.8	18.2	2.18	1.55	1.50	2.37	2.23	2.28	667
DCL 082.5s	21.7	20.5	23.3	22.1	23.8	21.9	22.0	20.3	21.8	20.1	19.8	18.2	3.00	2.23	2.16	3.32	3.16	3.31	667
DCL 083/083s	21.7	20.5	23.3	22.1	23.8	21.9	22.0	20.3	21.8	20.1	19.8	18.2	4.03	3.12	3.03	4.56	4.37	4.65	667
DCL 084/084s	21.7	20.5	23.3	22.1	23.8	21.9	22.0	20.3	21.8	20.1	19.8	18.2	8.14	6.07	5.88	9.03	8.60	8.99	667
DCL 162/162s	47.7	45.1	51.3	48.6	52.2	48.2	48.3	44.7	47.8	44.2	43.5	40.1	2.18	1.54	1.50	2.36	2.23	2.28	667
DCL 162.5s	47.7	45.1	51.3	48.6	52.2	48.2	48.3	44.7	47.8	44.2	43.5	40.1	3.01	2.09	2.02	3.23	3.04	3.08	667
DCL 163/163s	47.7	45.1	51.3	48.6	52.2	48.2	48.3	44.7	47.8	44.2	43.5	40.1	4.64	3.18	3.08	4.95	4.64	4.67	667
DCL 164/164s	47.7	45.1	51.3	48.6	52.2	48.2	48.3	44.7	47.8	44.2	43.5	40.1	9.15	6.69	6.49	10.07	9.55	9.90	667
DCL 165/165s	47.7	45.1	51.3	48.6	52.2	48.2	48.3	44.7	47.8	44.2	43.5	40.1	12.69	10.41	10.12	14.74	14.26	15.59	667
DCL 166/166s	47.7	45.1	51.3	48.6	52.2	48.2	48.3	44.7	47.8	44.2	43.5	40.1	12.95	10.63	10.34	15.04	14.56	15.93	500
DCL 167s	47.7	45.1	51.3	48.6	52.2	48.2	48.3	44.7	47.8	44.2	43.5	40.1	12.49	11.41	11.14	15.21	15.01	17.34	500
DCL 303/303s	100.5	95.0	108.0	102.4	109.9	101.6	101.8	94.1	100.7	93.0	91.6	84.4	4.46	3.00	2.90	4.72	4.41	4.40	667
DCL 304/304s	100.5	95.0	108.0	102.4	109.9	101.6	101.8	94.1	100.7	93.0	91.6	84.4	9.24	7.11	6.90	10.41	9.97	10.58	667
DCL 305/305s	100.5	95.0	108.0	102.4	109.9	101.6	101.8	94.1	100.7	93.0	91.6	84.4	13.00	10.51	10.22	14.99	14.48	15.72	667
DCL 306/306s	100.5	95.0	108.0	102.4	109.9	101.6	101.8	94.1	100.7	93.0	91.6	84.4	12.43	11.34	11.07	15.13	14.92	17.22	667
DCL 307s	100.5	95.0	108.0	102.4	109.9	101.6	101.8	94.1	100.7	93.0	91.6	84.4	18.27	15.34	14.93	21.44	20.84	23.05	667
DCL 309s	100.5	95.0	108.0	102.4	109.9	101.6	101.8	94.1	100.7	93.0	91.6	84.4	23.78	19.84	19.31	27.83	27.02	29.79	667
DCL 413	139.5	131.9	150.0	142.2	152.7	141.0	141.3	130.7	139.8	129.2	127.3	117.3	5.23	3.54	3.42	5.54	5.19	5.19	667
DCL 414/414s	139.5	131.9	150.0	142.2	152.7	141.0	141.3	130.7	139.8	129.2	127.3	117.3	9.49	7.52	7.31	10.85	10.44	11.23	667
DCL 415/415s	139.5	131.9	150.0	142.2	152.7	141.0	141.3	130.7	139.8	129.2	127.3	117.3	15.78	11.90	11.54	17.61	16.80	17.66	667
DCL 417s	139.5	131.9	150.0	142.2	152.7	141.0	141.3	130.7	139.8	129.2	127.3	117.3	18.98	16.01	15.59	22.32	21.71	24.08	500
DCL 419s	139.5	131.9	150.0	142.2	152.7	141.0	141.3	130.7	139.8	129.2	127.3	117.3	27.10	21.69	21.08	31.11	29.99	32.42	435
DCL 604s	200.9	189.9	216.0	204.8	219.9	203.1	203.5	188.2	201.4	186.1	183.3	168.9	7.93	7.45	7.29	9.77	9.69	11.37	667
DCL 607s	200.9	189.9	216.0	204.8	219.9	203.1	203.5	188.2	201.4	186.1	183.3	168.9	19.93	19.94	19.54	25.16	25.22	30.71	667
DCL 609s	200.9	189.9	216.0	204.8	219.9	203.1	203.5	188.2	201.4	186.1	183.3	168.9	17.45	20.77	20.59	23.25	23.99	33.37	667
DCL 757s	279.1	263.8	300.0	284.4	305.4	282.1	282.7	261.3	279.7	258.4	254.5	234.5	24.16	20.39	19.85	28.42	27.65	30.66	500
DCL 759s	279.1	263.8	300.0	284.4	305.4	282.1	282.7	261.3	279.7	258.4	254.5	234.5	23.95	24.79	24.34	30.61	30.86	38.41	435

[1] *Drying capacity is based on following moisture content test standards before and after drying:*
- *R134a: 1050 ppm W – 50 ppm W.*
- *R404A, R507: 1020 ppm W – 50 ppm W.*
- *R407C: 1020 ppm W – 50 ppm W.*
- *R410A: 1050 ppm W – 50 ppm W.*
- *R22: 1050 ppm W – 60 ppm W*

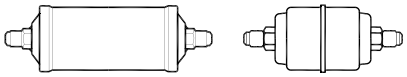
in accordance with ARI 710-2004.

[2] *Given in accordance with ARI 710-2004 for*

t_e = 5 °F
t_c = 85 °F
Δp = 1 psig

Technical data and ordering

Type DCL (flare)

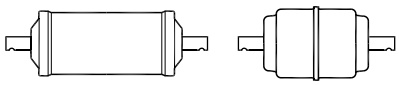


Ordering

Type	Connection		Code no.
	[in.]	[mm]	
DCL 032	¼	6	023Z5000 [1])
	¼	6	023Z5075
DCL 033	3/8	10	023Z5001 [1])
	3/8	10	023Z5089
DCL 052	¼	6	023Z5002
DCL 053	3/8	10	023Z5003
DCL 082	¼	6	023Z5004
DCL 083	3/8	10	023Z5005
DCL 084	½	12	023Z5006
DCL 162	¼	6	023Z5007
DCL 163	3/8	10	023Z5008
DCL 164	½	12	023Z5009
DCL 165	5/8	16	023Z5010
DCL 166	¾	19	023Z5011
DCL 303	3/8	10	023Z0012
DCL 304	½	12	023Z0013
DCL 305	5/8	16	023Z0014
DCL 306	¾	19	023Z0156
DCL 414	½	12	023Z0102
DCL 415	5/8	16	023Z0103

[1]) Wire mesh in filter drier outlet.

Type DCL solder (pure copper)



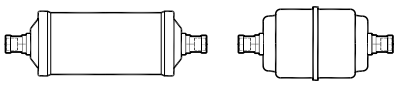
Ordering

Type	Connection	Code no.	Connection	Code no.
	[in.]		[mm.]	
DCL 032s	¼	023Z5013 [1])	3	–
DCL 032.5s	5/16	023Z5014	8	–
DCL 033s	3/8	023Z5015	10	023Z5016
DCL 052s	¼	023Z5018	6	–
DCL 053s	3/8	023Z5019	10	023Z5020
DCL 082s	¼	023Z5022	6	–
DCL 083s	3/8	023Z5023	10	023Z5024
DCL 084s	½	023Z5026	12	023Z5025
DCL 085s	5/8	023Z5145	–	–
DCL 162s	¼	023Z5028	6	023Z5027
DCL 163s	3/8	023Z5029	10	023Z5030
DCL 164s	½	023Z5032	12	023Z5031
DCL 165s	5/8	023Z5033	12	–
DCL 166s	¾	023Z5070	–	–
DCL 167s	7/8	023Z5034	–	–
DCL 303s	3/8	023Z0030	10	–
DCL 304s	½	023Z0031	12	–
DCL 305s	5/8	023Z0032	16	–
DCL 306s	¾	023Z0033	18	–
DCL 307s	7/8	023Z0034	22	–
DCL 309s	1 1/8	023Z0035	28	–
DCL 414s	½	023Z0104	12	–
DCL 415s	5/8	023Z0105	16	–
DCL 417s	7/8	023Z0106	22	–
DCL 419s	1 1/8	023Z0107	28	–
DCL 607s	7/8	023Z0036	22	–
DCL 609s	1 1/8	023Z0037	28	–
DCL 757s	7/8	023Z0115	22	–
DCL 759s	1 1/8	023Z0116	28	–

[1]) Wire mesh in filter drier outlet.

Technical data and ordering

Type DCL solder (cu-plated)



Ordering

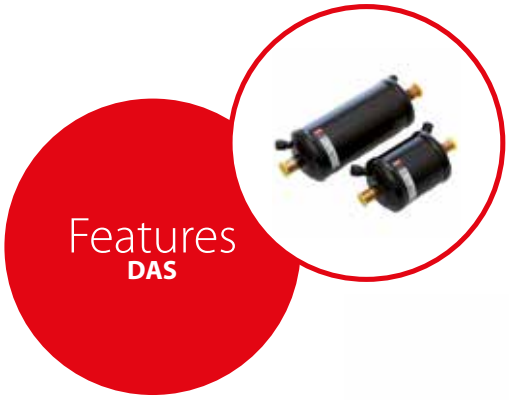
Type	Conn. size [in.]	Code no.	Conn. size [mm]	Code no.
DCL 032s	1/4	023Z4501	6	023Z4500
DCL 032.5s	5/16	023Z4502	8	–
DCL 033s	3/8	023Z4504	10	023Z4503
DCL 052s	1/4	023Z4506	6	023Z4505
	5/16	023Z4507	10	–
DCL 053s	3/8	023Z4509	10	023Z4508
DCL 082s	1/4	023Z4511	6	023Z4510
	5/16	023Z4512	6	–
DCL 083s	3/8	023Z4514	10	023Z4513
DCL 084s	1/2	023Z4516	12	023Z4515
DCL 162s	1/4	023Z4518	6	023Z4517
DCL 163s	3/8	023Z4521	10	023Z4519
DCL 164s	1/2	023Z4523	12	023Z4522
DCL 165s	5/8	023Z4524	12	–
DCL 166s	3/4	023Z4525	–	–
DCL 167s	7/8	023Z4526	–	–
DCL 303s	3/8	023Z4528	10	023Z4527
DCL 304s	1/2	023Z4530	12	023Z4529
DCL 305s	5/8	023Z4531	16	–
DCL 306s	3/4	023Z4533	18	023Z4532
DCL 307s	7/8	023Z4534	22	–
DCL 309s	1 1/8	023Z4536	28	023Z4535
DCL 414s	1/2	023Z4538	12	–
DCL 415s	5/8	023Z4539	16	–
DCL 417s	7/8	023Z4540	22	–
DCL 419s	1 1/8	023Z4542	28	023Z4541
DCL 604s	1/2	023Z4544	22	–
DCL 607s	7/8	023Z4545	22	–
DCL 609s	1 1/8	–	28	023Z4546
DCL 757s	7/8	023Z4548	22	–

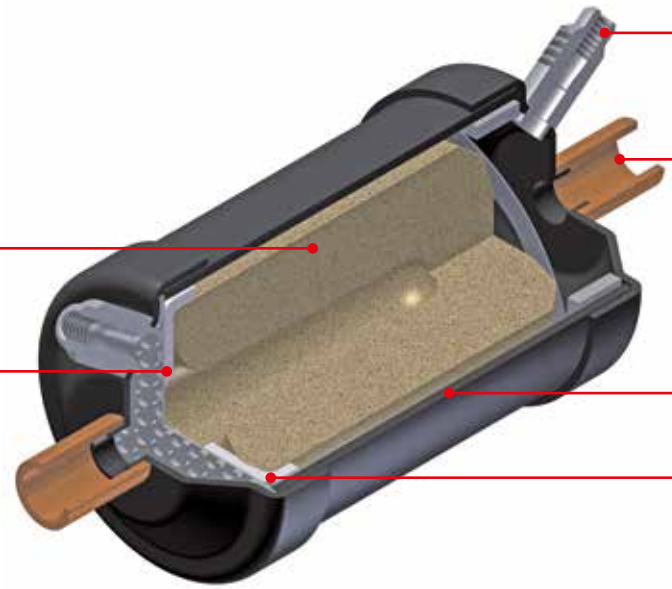
Quick Selection Notes:

DAS – Hermetic burn-out filter drier

DAS **ELIMINATOR®** hermetic burn-out filter driers are used in the suction line to clean up refrigeration and air conditioning systems with flourinated refrigerants after a compressor motor burn-out.

The solid core, which is composed of 70% activated alumina and 30% Molecular Sieve, adsorbs harmful acids as well as moisture, in order to protect the new compressor against failure.





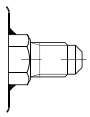
Facts

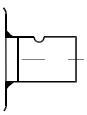
Application:
- Traditional refrigeration
- Air conditioning units
- Transport refrigeration

- The large diameter of the hermetic burn-out filter drier means that flow velocity is suitably low and the pressure drop minimal
- Bonded solid core grains eliminate powder formation
- Corrosion resistant powder-painted finish, tested for 500 hrs in salt spray

- Installation with any orientation provided the flow is in the arrow direction
- Available in sizes from 8 to 60 cubic inches
- For use with HCFC and HFC refrigerants

Technical data and ordering


Flare version


Solder version (pure cooper)

Hermetic burn-out filter drier, type DAS

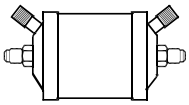
Rated and acid capacities

Type	Rated capacity, Q_n [1]						Acid capacity [2]	Max. Working Pressure PS/MWP [bar/psig]
	R22/R407C/R410A		R134a		R404A/R507			
	[TR]	[kW]	[TR]	[kW]	[TR]	[kW]	[g]	
DAS 083	1.7	6.0	1.0	3.5	1.3	4.5	3.8	35/500
DAS 084	2.9	10.0	1.6	5.5	2.3	8.0	3.8	35/500
DAS 085	4.1	14.5	2.6	9.0	3.6	12.5	3.8	35/500
DAS 086	5.4	19.0	3.3	11.5	4.7	16.5	3.8	35/500
DAS 164	3.0	10.5	1.7	6.0	2.4	8.5	8.6	35/500
DAS 165	4.3	15.0	2.7	9.5	3.7	13.0	8.6	35/500
DAS 166	5.7	20.0	3.4	12.0	4.9	17.0	8.6	35/500
DAS 167	6.3	22.0	3.9	13.5	5.4	19.0	8.6	35/500
DAS 305	5.1	18.0	3.1	11.0	4.3	15.0	18.2	35/500
DAS 306	6.3	22.0	4.0	14.0	5.4	19.0	18.2	35/500
DAS 307	7.4	26.0	4.6	16.0	6.3	22.0	18.2	35/500
DAS 309	8.9	31.0	5.7	20.0	7.7	27.0	18.2	35/500
DAS 417	8.6	30.0	5.1	18.0	7.1	25.0	24.3	35/500
DAS 419	10.0	35.0	6.3	22.0	8.6	30.0	24.3	35/500
DAS 607	5.7	20.0	3.4	12.0	4.9	17.0	36.5	35/500

[1] Rated capacity is stated at: evaporating temperature t_e = 4 °C (39.2 °F) , pressure drop Δp = 0.21 bar (3.04 psig).
[2] Adsorption capacity of oleic acid at 0.05 TAN (Total Acid Number).

Capacities for other temperatures than 4 °C (39.2 °F) are calculated by use of correction factors. Divide your actual evaporator capacity with the correction factor given for your actual evaporating temperature. Look up the capacity table for the necessary rated capacity.
$Q_e/F_e = Q_n$.
Q_e = Actual evaporator capacity.
Q_n = Nominal capacity.
F_e = Correction factor.

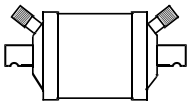
Type DAS (flare)



Ordering

Type	Connection in.	Code no.
DAS 083VV	3/8	023Z1001
DAS 084VV	1/2	023Z1002
DAS 164VV	1/2	023Z1007
DAS 165VV	5/8	023Z1008

Type DAS solder (pure copper)



Ordering

Type	Connection in.	Code no.
DAS 083sVV	3/8	023Z1003
DAS 084sVV	1/2	023Z1004
DAS 085sVV	5/8	023Z1005
DAS 086sVV	3/4	023Z1006
DAS 164sVV	1/2	023Z1009
DAS 165sVV	5/8	023Z1010
DAS 166sVV	3/4	023Z1011
DAS 167sVV	7/8	023Z1012
DAS 305sVV	5/8	023Z1013
DAS 306sVV	3/4	023Z1014
DAS 307sVV	7/8	023Z1015
DAS 309sVV	1 1/8	023Z1016
DAS 417sVV	7/8	023Z1017
DAS 419sVV	1 1/8	023Z1018
DAS 607sVV	7/8	023Z1019
DAS 609sVV	1 1/8	023Z1020

Correction factors. F_e evaporating temperatures [°C] / [°F]

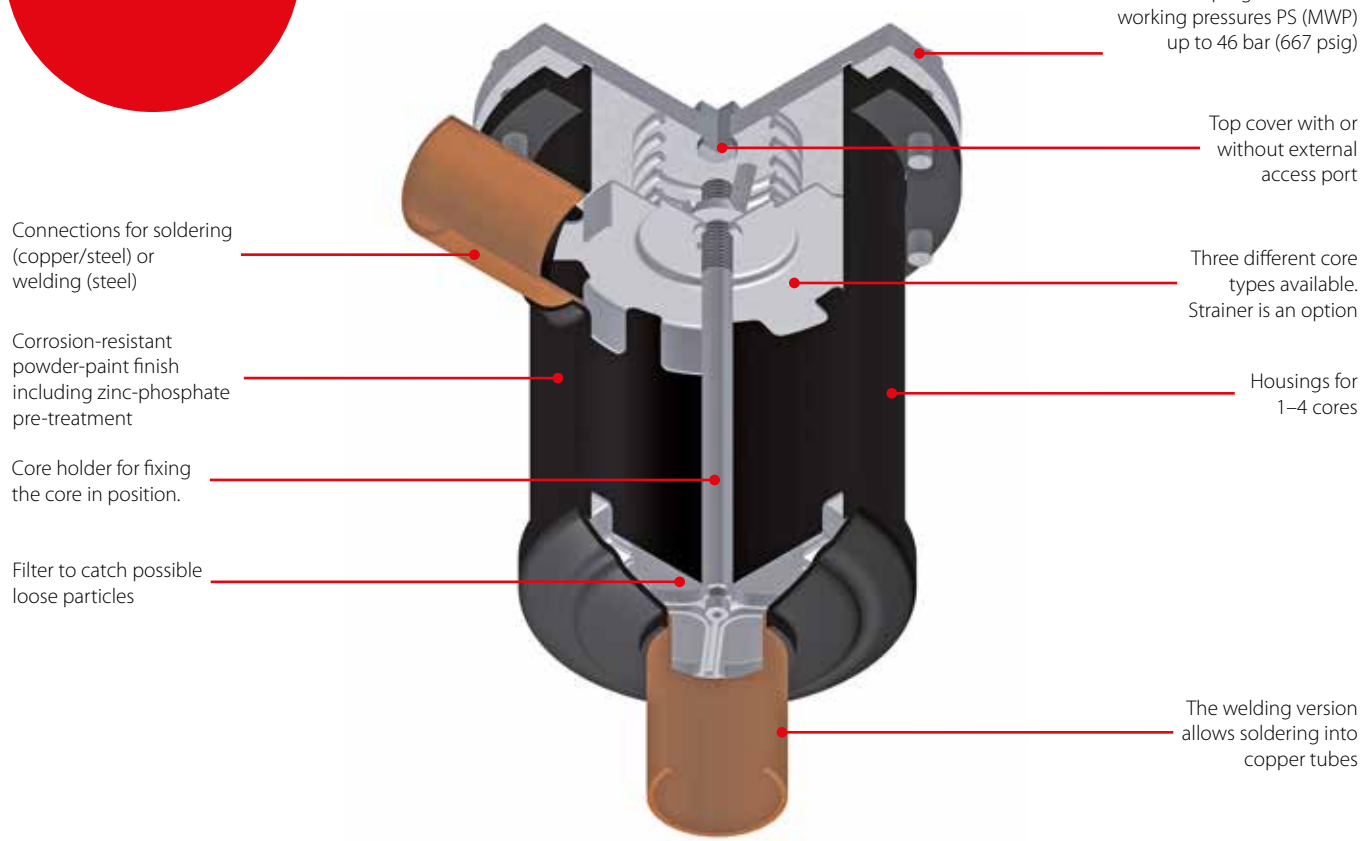
[°C] /[°F]	4/39.2	0/32	-5/23	-10/14	-15/5	-20/-4	-25/-13	-30/-22	-35/-31	-40/-40
F_e	1	0.9	0.75	0.6	0.5	0.4	0.35	0.25	0.2	0.15

Example
To select a hermetic burn-out filter drier for a R22 plant with an evaporator capacity at 8.5 kW (2.41 TR) at -20 (-4 °F) you may use a hermetic burn-out filter drier with a rated capacity of 8.5/0.4 = 21.25 kW (6.02 TR) or bigger.
For example DAS 306.

DCR – Filter drier, shell

DCR **ELIMINATOR®** filter driers – with replaceable solid core – protect refrigeration, freezing and air conditioning systems from moisture, acids and solid particles.
The DCR driers are for use in liquid and suction lines in refrigeration plants with fluorinated refrigerants, and are available in versions for high-pressure refrigerants such as R410A or CO_2.

Core types:
- 48-DC for HCFC, HCFC systems and mineral or AB oils
- 48-DM for HFC, HCFC systems and POE or PAG oils
- 48 DA for acid adsorption after burnout
- 48-F strainer for retaining dirt



Facts

Application:
- For refrigeration plants with fluorinated refrigerants or CO_2

- Highly efficient dirt retaining capabilities on both the suction and the liquid line
- Can be used in all environments. Shell is zinc-phosphated, and with corrosion resistant powder-painted finish, tested for 500 hrs in salt spray (acc. to ASTM B117, ISO 12944-6 (blistering))
- The core holder requires minimum free space to remove the core for replacement
- For convenient filter drier commissioning, cover is designed to remain in place while cores, cover and housing are assembled
- Can be installed in any position
- 48-DM core for liquid line application (100 % molecular sieve for HFC). Provides high moisture adsorption at low and high condensing temperatures. Effective protection against impurities
- 48-DC 80% molecular sieve and 20% activated alumina solid core suitable for HCFC refrigerants and compatible with HFC refrigerants: Adsorbs moisture and acid in the system throughout the entire temperature range
- 48-DA 30% molecular sieve and 70% activated alumina solid core suitable after compressor burn-out and compatible with HCFC and HFC refrigerants: High acid adsorption and standard water adsorption
- 48-F strainer – compatible with all refrigerants:
  - Retains dirt particles larger than 15 µm
  - For use direct in DCR housings
  - Utilized in the suction or liquid line

Technical data and ordering

Filter drier, type DCR

Drying and liquid capacity, type 48-DM

Type	Number of cores	Drying Capacity [kg] of refrigerant [1]										Liquid capacity [kW] [2]					Max. working pressure PS [bar]
		R134a		R404A		R507		R22/R407C		R410A							
		[°C]															
		24	52	24	52	24	52	24	52	24	52	R134a	R404A	R507	R22/ R407C	R410A	
DCR 0485	1	82.5	78.0	88.7	84.0	90.3	83.4	82.7	76.4	75.2	69.3	80.6	59.4	57.5	84.5	87.9	46
DCR 0487	1	82.5	78.0	88.7	84.0	90.3	83.4	82.7	76.4	75.2	69.3	128.0	92.5	89.6	132.6	136.8	46
DCR 0489	1	82.5	78.0	88.7	84.0	90.3	83.4	82.7	76.4	75.2	69.3	184.3	132.6	128.4	190.4	195.9	46
DCR 04811	1	82.5	78.0	88.7	84.0	90.3	83.4	82.7	76.4	75.2	69.3	249.3	180.5	174.8	258.5	266.8	46
DCR 04813	1	82.5	78.0	88.7	84.0	90.3	83.4	82.7	76.4	75.2	69.3	304.1	222.0	215.1	317.1	328.5	46
DCR 04817	1	82.5	78.0	88.7	84.0	90.3	83.4	82.7	76.4	75.2	69.3	434.3	324.1	314.3	459.4	480.7	46
DCR 04821	1	82.5	78.0	88.7	84.0	90.3	83.4	82.7	76.4	75.2	69.3	320.4	234.4	227.1	345.5	346.8	46
DCR 0967	2	165.0	155.0	177.3	168.1	180.5	166.8	165.3	152.8	150.5	138.7	119.6	85.7	83.0	123.2	126.6	46
DCR 0969	2	165.0	155.0	177.3	168.1	180.5	166.8	165.3	152.8	150.5	138.7	189.5	136.4	131.9	195.6	201.2	46
DCR 09611	2	165.0	155.0	177.3	168.1	180.5	166.8	165.3	152.8	150.5	138.7	259.7	187.2	181.4	268.6	276.7	46
DCR 09613	2	165.0	155.0	177.3	168.1	180.5	166.8	165.3	152.8	150.5	138.7	331.9	240.8	233.3	344.7	356.1	46
DCR 09617	2	165.0	155.0	177.3	168.1	180.5	166.8	165.3	152.8	150.5	138.7	477.2	349.1	338.3	498.2	516.6	46
DCR 1449	3	247.5	233.9	266.0	252.7	270.8	250.1	248.0	229.1	225.7	228.0	184.4	132.7	128.5	190.5	196.0	35 [3])/46 [4])
DCR 14411	3	247.5	233.9	266.0	252.7	270.8	250.1	248.0	229.1	225.7	228.0	272.5	196.9	190.7	282.2	290.9	35 [3])/46 [4])
DCR 14413	3	247.5	233.9	266.0	252.7	270.8	250.1	248.0	229.1	225.7	228.0	340.1	246.8	239.1	353.2	364.9	35 [3])/46 [4])
DCR 14417	3	247.5	233.9	266.0	252.7	270.8	250.1	248.0	229.1	225.7	228.0	442.3	323.0	313.0	461.3	478.0	35 [3])/46 [4])
DCR 19211	4	329.9	311.9	354.7	336.2	361.0	333.5	330.6	305.5	300.9	277.0	290.0	211.6	205.0	302.3	313.1	28 [3])/40 [4])
DCR 19213	4	329.9	311.9	354.7	336.2	361.0	333.5	330.6	305.5	300.9	277.0	359.8	261.7	253.6	374.2	387.0	28 [3])/40 [4])
DCR 19217	4	329.9	311.9	354.7	336.2	361.0	333.5	330.6	305.5	300.9	277.0	505.6	366.0	354.6	524.3	541.0	28 [3])/40 [4])
DCR 19221	4	329.9	311.9	354.7	336.2	361.0	333.5	330.6	305.5	300.9	277.0	442.5	321.7	311.7	460.2	475.8	28 [3])/40 [4])

[1]) Drying capacity is based on following moisture content test standards before and after drying:
– R134a: 1050 – 50 ppm W.
– R404A, R507: 1020 – 50 ppm W.
– R407C: 1020 – 50 ppm W.
– R410A: 1050 – 50 ppm W.
– R22: 1050 – 60 ppm W.
In accordance with ARI 710-2004.

[2]) Given in accordance with ARI 710-2004 for:
t_e = -15 °C.
t_c = 30 °C.
Δp = 0.07 bar.

[3]) For usage with strainer or as a receiver application.

[4]) For "drier" application using all the permissible cores.

Technical data and ordering

Filter drier, type DCR

Drying and liquid capacity, type 48-DM

Type	Number of cores	Drying Capacity [lbs] of refrigerant [1]						Liquid capacity [TR] [2]		
		R134a		R404A / R507		RR407C / R410A		R22	R134a	R404A / R507
		75 °F	125 °F	75 °F	125 °F	75 °F	125 °F			
DCR 0485	1	181.5	172.7	297	162.8	182.6	156.2	25.0	22.5	16.2
DCR 0487	1	181.5	172.7	297	162.8	182.6	156.2	43.5	39.5	28.2
DCR 0489	1	181.5	172.7	297	162.8	182.6	156.2	58.6	52.9	37.8
DCR 04811	1	181.5	172.7	297	162.8	182.6	156.2	73.7	64.6	46.1
DCR 04813	1	181.5	172.7	297	162.8	182.6	156.2	73.7	64.6	46.1
DCR 04817	1	181.5	172.7	297	162.8	182.6	156.2	73.7	64.6	46.1
DCR 04821	1	181.5	172.7	297	162.8	182.6	156.2	73.7	64.6	46.1
DCR 0965	2	363	345.4	594	325.6	365.2	312.4	25.3	22.8	16.5
DCR 0967	2	363	345.4	594	325.6	365.2	312.4	44.1	39.8	28.4
DCR 0969	2	363	345.4	594	325.6	365.2	312.4	68.3	61.7	44.1
DCR 09611	2	363	345.4	594	325.6	365.2	312.4	92.7	83.9	60.0
DCR 09613	2	363	345.4	594	325.6	365.2	312.4	112.7	101.8	72.8
DCR 09617	2	363	345.4	594	325.6	365.2	312.4	112.7	101.8	72.8
DCR 09621	2	363	345.4	594	325.6	365.2	312.4	112.7	101.8	72.8
DCR 1445	3	544.5	518.1	891	488.4	547.8	468.6	26.2	23.6	17.1
DCR 1447	3	544.5	518.1	891	488.4	547.8	468.6	45.5	41.3	29.6
DCR 1449	3	544.5	518.1	891	488.4	547.8	468.6	71.1	64.3	46.1
DCR 14411	3	544.5	518.1	891	488.4	547.8	468.6	112.1	101.3	72.5
DCR 14413	3	544.5	518.1	891	488.4	547.8	468.6	112.1	101.3	72.5
DCR 14417	3	544.5	518.1	891	488.4	547.8	468.6	112.1	101.3	72.5
DCR14421	3	544.5	518.1	891	488.4	547.8	468.6	112.1	101.3	72.5
DCR 1925	4	726	690.8	1188	651.2	730.4	624.8	31.9	28.7	20.5
DCR 1927	4	726	690.8	1188	651.2	730.4	624.8	55.5	50.4	35.8
DCR 1929	4	726	690.8	1188	651.2	730.4	624.8	86.2	78.0	55.8
DCR 19211	4	726	690.8	1188	651.2	730.4	624.8	116.9	105.8	75.7
DCR 19213	4	726	690.8	1188	651.2	730.4	624.8	144.8	130.9	93.6
DCR 19217	4	726	690.8	1188	651.2	730.4	624.8	144.8	130.9	93.6
DCR 19221	4	726	690.8	1188	651.2	730.4	624.8	144.8	130.9	93.6

[1] *Drying capacity is based on the following moisture contents before and after drying:*
R22: From 1050 ppm W to 60 ppm W in accordance with ARI 710-86.
R134a: From 1050 ppm W to 75 ppm W. If refrigerant is to be dried to 50 ppm W, reduce the stated capacities by 15%.
R404A, R407C & R507: From 1020 ppm W to 30 ppm W.
R410A: From 1050 ppm W to 60 ppm W

[2] *Liquid capacity given in accordance with ARI 710-2002 evaporating temperature t_e = 5 °F, condensing temperature t_c = 86 °F and pressure drop across filter drier Δp = 1 psi.*

Technical data and ordering

Filter drier, type DCR

Drying and liquid capacity, type 48-DC

Type	Number of cores	Drying Capacity [kg] of refrigerant [1]										Liquid capacity [kW] [2]					Max. working pressure PS [bar]
		R134a		R404A		R507		R22/ R407C		R410A		R134a	R404A	R507	R22/ R407C	R410A	
		[°C]															
		24	52	24	52	24	52	24	52	24	52						
DCR 0485	1	64.7	61.2	69.6	65.6	70.8	65.4	64.9	59.9	59.0	54.4	80.6	59.4	57.5	84.5	87.9	46
DCR 0487	1	64.7	61.2	69.6	65.6	70.8	65.4	64.9	59.9	59.0	54.4	128.0	92.5	89.6	132.6	136.8	46
DCR 0489	1	64.7	61.2	69.6	65.6	70.8	65.4	64.9	59.9	59.0	54.4	184.3	132.6	128.4	190.4	195.9	46
DCR 04811	1	64.7	61.2	69.6	65.6	70.8	65.4	64.9	59.9	59.0	54.4	249.3	180.5	174.8	258.5	266.8	46
DCR 04813	1	64.7	61.2	69.6	65.6	70.8	65.4	64.9	59.9	59.0	54.4	304.1	222.0	215.1	317.1	328.5	46
DCR 04817	1	64.7	61.2	69.6	65.6	70.8	65.4	64.9	59.9	59.0	54.4	434.3	324.1	314.3	459.4	480.7	46
DCR 04821	1	64.7	61.2	69.6	65.6	70.8	65.4	64.9	59.9	59.0	54.4	320.4	234.4	227.1	345.5	346.8	46
DCR 0967	2	129.4	122.3	139.1	131.9	141.6	130.8	129.7	119.9	118.1	108.8	119.6	85.7	83.0	123.2	126.6	46
DCR 0969	2	129.4	122.3	139.1	131.9	141.6	130.8	129.7	119.9	118.1	108.8	189.5	136.4	131.9	195.6	201.2	46
DCR 09611	2	129.4	122.3	139.1	131.9	141.6	130.8	129.7	119.9	118.1	108.8	259.7	187.2	181.4	268.6	276.7	46
DCR 09613	2	129.4	122.3	139.1	131.9	141.6	130.8	129.7	119.9	118.1	108.8	331.9	240.8	233.3	344.7	356.1	46
DCR 09617	2	129.4	122.3	139.1	131.9	141.6	130.8	129.7	119.9	118.1	108.8	477.2	349.1	338.3	498.2	516.6	46
DCR 1449	3	194.1	183.5	208.7	197.8	212.4	196.2	194.6	179.8	177.1	162.2	184.4	132.7	128.5	190.5	196.0	35 [3]/46 [4]
DCR 14411	3	194.1	183.5	208.7	197.8	212.4	196.2	194.6	179.8	177.1	162.2	272.5	196.9	190.7	282.2	290.9	35 [3]/46 [4]
DCR 14413	3	194.1	183.5	208.7	197.8	212.4	196.2	194.6	179.8	177.1	162.2	340.1	246.8	239.1	353.2	364.9	35 [3]/46 [4]
DCR 14417	3	194.1	183.5	208.7	197.8	212.4	196.2	194.6	179.8	177.1	162.2	442.3	323.0	313.0	461.3	478.0	35 [3]/46 [4]
DCR 19211	4	258.9	244.7	278.3	263.8	283.2	261.7	259.4	239.7	236.1	217.6	290.0	211.6	205.0	302.3	313.1	28 [3]/40 [4]
DCR 19213	4	258.9	244.7	278.3	263.8	283.2	261.7	259.4	239.7	236.1	217.6	359.8	261.7	253.6	374.2	387.0	28 [3]/40 [4]
DCR 19217	4	258.9	244.7	278.3	263.8	283.2	261.7	259.4	239.7	236.1	217.6	505.6	366.0	354.6	524.3	541.0	28 [3]/40 [4]
DCR 19221	4	258.9	244.7	278.3	263.8	283.2	261.7	259.4	239.7	236.1	217.6	442.5	321.7	311.7	460.2	475.8	28 [3]/40 [4]

[1] *Drying capacity is based on following moisture content test standards before and after drying:*
- *– R134a: 1050 – 50 ppm W.*
- *– R404A, R507: 1020 – 50 ppm W.*
- *– R407C: 1020 – 50 ppm W.*
- *– R410A: 1050 – 50 ppm W.*
- *– R22: 1050 – 60 ppm W.*

In accordance with ARI 710-2004.

[2] *Given in accordance with ARI 710-2004 for:*
- t_e *= -15 °C..*
- t_c *= 30 °C.*
- Δp *= 0.07 bar.*

[3] *For usage with strainer or as a receiver application.*

[4] *For "drier" application using all the permissible cores.*

Technical data and ordering

Filter drier, type DCR

Drying and liquid capacity, type 48-DC

Type	Number of cores	Drying capacity [lbs refrigerant]								Liquid Capacity [TR]		
		R22		R134a		R404A/ R507		R407C/ R410A		R134a	R404A/ R507	R407C/ R410A
		75 °F	125 °F	75 °F	125 °F	75 °F	125 °F	75 °F	125 °F			
DCR 0485	1	147.4	136.4	156.2	148.5	253	136.4	155.1	132	22.5	16.2	25.0
DCR 0487	1	147.4	136.4	156.2	148.5	253	136.4	155.1	132	39.5	28.2	43.5
DCR 0489	1	147.4	136.4	156.2	148.5	253	136.4	155.1	132	52.9	37.8	58.6
DCR 04811	1	147.4	136.4	156.2	148.5	253	136.4	155.1	132	64.6	46.1	73.7
DCR 04813	1	147.4	136.4	156.2	148.5	253	136.4	155.1	132	64.6	46.1	73.7
DCR 04817	1	147.4	136.4	156.2	148.5	253	136.4	155.1	132	64.6	46.1	73.7
DCR 04821	1	147.4	136.4	156.2	148.5	253	136.4	155.1	132	64.6	46.1	73.7
DCR 0965	2	294.8	272.8	312.4	297	506	272.8	310.2	264	22.8	16.5	25.3
DCR 0967	2	294.8	272.8	312.4	297	506	272.8	310.2	264	39.8	28.4	44.1
DCR 0969	2	294.8	272.8	312.4	297	506	272.8	310.2	264	61.7	44.1	68.3
DCR 09611	2	294.8	272.8	312.4	297	506	272.8	310.2	264	83.9	60.0	92.7
DCR 09613	2	294.8	272.8	312.4	297	506	272.8	310.2	264	101.8	72.8	112.7
DCR 09617	2	294.8	272.8	312.4	297	506	272.8	310.2	264	101.8	72.8	112.7
DCR 09621	2	294.8	272.8	312.4	297	506	272.8	310.2	264	101.8	72.8	112.7
DCR 1445	3	442.2	409.2	468.6	445.5	759	409.2	465.3	396	23.6	17.1	26.2
DCR 1447	3	442.2	409.2	468.6	445.5	759	409.2	465.3	396	41.3	29.6	45.5
DCR 1449	3	442.2	409.2	468.6	445.5	759	409.2	465.3	396	64.3	46.1	71.1
DCR 14411	3	442.2	409.2	468.6	445.5	759	409.2	465.3	396	101.3	72.5	112.1
DCR 14413	3	442.2	409.2	468.6	445.5	759	409.2	465.3	396	101.3	72.5	112.1
DCR 14417	3	442.2	409.2	468.6	445.5	759	409.2	465.3	396	101.3	72.5	112.1
DCR14421	3	442.2	409.2	468.6	445.5	759	409.2	465.3	396	101.3	72.5	112.1
DCR 1925	4	589.6	545.6	624.8	594	1012	545.6	620.4	528	28.7	20.5	31.9
DCR 1927	4	589.6	545.6	624.8	594	1012	545.6	620.4	528	50.4	35.8	55.5
DCR 1929	4	589.6	545.6	624.8	594	1012	545.6	620.4	528	78.0	55.8	86.2
DCR 19211	4	589.6	545.6	624.8	594	1012	545.6	620.4	528	105.8	75.7	116.9
DCR 19213	4	589.6	545.6	624.8	594	1012	545.6	620.4	528	130.9	93.6	144.8
DCR 19217	4	589.6	545.6	624.8	594	1012	545.6	620.4	528	130.9	93.6	144.8
DCR 19221	4	589.6	545.6	624.8	594	1012	545.6	620.4	528	130.9	93.6	144.8

[1] *Drying capacity is based on the following moisture contents before and after drying:*
R22: From 1050 ppm W to 60 ppm W in accordance with ARI 710-86.
R134a: From 1050 ppm W to 75 ppm W. If refrigerant is to be dried to 50 ppm W, reduce the stated capacities by 15%.
R404A, R407C & R507: From 1020 ppm W to 30 ppm W.
R410A: From 1050 ppm W to 60 ppm W

[2] *Liquid capacity given in accordance with ARI 710-2002 evaporating temperature t_e = 5 °F, condensing temperature t_c = 86 °F and pressure drop across filter drier Δp = 1 psi.*

Technical data and ordering

Type DCR

Drying capacity [g] of water [3]), type 48-DA

Type	Number of cores	Evaporating temperature t_e [°C]												Acid capacity [4]) [g]
		-40	-20	4.4	-30	-20	4.4	-40	-20	4.4	-40	-20	4.4	
		R22			R134a			R404A/R507			R407C/R410A			
DCR 048	1	28	19	12	45	38	27	47	30	19	42	35	25	26.6
DCR 096	2	56	37	24	90	77	54	94	60	37	84	70	50	53.3
DCR 144	3	84	56	36	135	115	81	142	90	56	126	105	75	79.9
DCR 192	4	112	74	48	180	153	108	189	120	75	168	140	100	106.5

[3]) Drying capacity is expressed during drying in:
R22: EPD = 10 ppm W, corresponding to a dew point temperature = -50 °C.
R134a: EPD = 50 ppm W, corresponding to a dew point temperature = -37 °C.
R404A: EPD = 10 ppm W, corresponding to a dew point temperature = -40 °C.
R407C: EPD = 10 ppm W, corresponding to a dew point temperature = -40 °C.
[4]) Adsorption capacity of oleic acid at 0.05 TAN (Total Acid Number).

Type DCR

Drying capacity [lbs refrigerant] [3]), type 48-DA

Type	Number of cores	Evaporating temperature t_e [°F]												Acid capacity [4]) [g]
		-40	-4	40	-22	-4	40	-40	-4	40	-40	-4	40	
		R22			R134a			R404A/R507			R407C/R410A			
DCR 048	1	62.2	42.2	26.7	100.0	84.4	60.0	104.4	66.7	42.2	93.3	77.8	55.6	26.6
DCR 096	2	124.4	82.2	53.3	200.0	171.1	120.0	208.9	133.3	82.2	186.7	155.6	111.1	53.3
DCR 144	3	186.7	124.4	80.0	300.0	255.6	180.0	315.6	200.0	124.4	280.0c	233.3	166.7	79.9
DCR 192	4	248.9	164.4	106.7	400.0	340.0	240.0	420.0	266.7	166.7	373.3	311.1	222.2	106.5

[3]) Drying capacity is expressed during drying in:
R22: EPD = 10 ppm W, corresponding to a dew point temperature = –58°F
R134a: EPD = 50 ppm W, corresponding to a dew point temperature = –34.6°F
R404A: EPD = 10 ppm W, corresponding to a dew point temperature = –40°F
R407C: EPD = 10 ppm W, corresponding to a dew point temperature = –40°F
[4]) Adsorption capacity of oleic acid at 0.05 TAN (Total Acid Number)

Type DCR

Recommended plant capacity [kW] [5]) in suction line - burn-out, type 48-DA

Type	Evaporating temperature t_e [°C]											
	-40	-20	4.4	-30	-20	4.4	-40	-20	4.4	-40	-20	4.4
	Pressure drop [Δp] bar											
	0.04	0.10	0.21	0.04	0.07	0.14	0.04	0.10	0.21	0.04	0.10	0.21
	R22			R134a			R404A/R507			R407C/R410A		
DCR 0485	3.0	8.9	21.0	3.0	5.4	13.0	2.4	7.1	17.5	3.1	8.9	21.0
DCR 0487	5.6	16.1	37.8	5.6	9.9	23.4	4.5	12.9	31.2	5.8	16.1	37.8
DCR 0489	7.5	21.6	50.7	7.5	13.3	31.5	6.0	17.2	41.8	7.8	21.6	50.7
DCR 04811	9.6	27.3	63.3	9.6	16.8	39.5	7.7	21.8	51.9	10.0	27.3	63.3
DCR 04813	9.6	27.3	63.3	9.6	16.8	39.5	7.7	21.8	51.9	10.0	27.3	63.3
DCR 04817	9.6	27.3	63.3	9.6	16.8	39.5	7.7	21.8	51.9	10.0	27.3	63.3
DCR 04821	9.6	27.3	63.3	9.6	16.8	39.5	7.7	21.8	51.9	10.0	27.3	63.3
DCR 0965	3.3	9.1	21.4	3.2	5.7	13.4	2.5	7.4	18.0	3.3	9.2	21.6
DCR 0967	5.8	16.2	38.1	5.6	9.9	23.6	4.5	12.9	31.4	5.8	16.2	38.1
DCR 0969	8.7	24.6	58.3	8.4	15.0	35.9	6.8	19.7	48.1	8.7	24.6	58.3
DCR 09611	11.9	33.4	79.3	11.4	20.4	48.9	9.3	26.8	65.4	11.9	33.4	79.3
DCR 09613	14.1	39.9	95.2	13.6	24.3	58.5	11.0	32.0	78.7	14.1	39.9	95.2
DCR 09617	14.1	39.9	95.2	13.6	24.3	58.5	11.0	32.0	78.7	14.1	39.9	95.2
DCR 09621	14.1	39.9	95.2	13.6	24.3	58.5	11.0	32.0	78.7	14.1	39.9	95.2
DCR 1445	3.5	10.0	22.8	3.4	6.0	14.0	2.7	7.7	18.9	3.5	10.0	22.8
DCR 1447	6.6	18.9	42.9	6.3	11.2	26.4	5.1	14.5	35.6	6.6	18.9	42.9
DCR 1449	8.8	25.1	57.2	8.4	15.0	35.2	6.8	19.4	47.5	8.8	25.1	57.2
DCR 14411	13.2	38.1	92.2	12.7	23.0	56.2	10.3	30.7	76.6	13.2	38.1	92.2
DCR 14413	13.2	38.1	92.2	12.7	23.0	56.2	10.3	30.7	76.6	13.2	38.1	92.2
DCR 14417	13.2	38.1	92.2	12.7	23.0	56.2	10.3	30.7	76.6	13.2	38.1	92.2
DCR 14421	13.2	38.1	92.2	12.7	23.0	56.2	10.3	30.7	76.6	13.2	38.1	92.2
DCR 1925	4.2	11.5	27.3	4.0	7.1	16.8	3.2	9.2	22.7	4.2	11.5	27.3
DCR 1927	7.9	21.6	51.4	7.6	13.4	31.6	6.1	17.4	42.7	7.9	21.6	51.4
DCR 1929	10.6	28.9	68.9	10.2	18.0	42.1	8.2	23.3	57.2	10.6	28.9	68.9
DCR 19211	14.8	41.8	99.4	14.3	25.5	61.2	11.6	33.6	82.2	14.8	41.8	99.4
DCR 19213	18.0	51.1	122.1	17.4	31.1	75.0	14.1	41.1	101.0	18.0	51.1	122.1
DCR 19217	18.0	51.1	122.1	17.4	31.1	75.0	14.1	41.1	101.0	18.0	51.1	122.1
DCR 19221	18.0	51.1	122.1	17.4	31.1	75.0	14.1	41.1	101.0	18.0	51.1	122.1

Data given in a accordance with ARI-Standard 710-2004 for t_e = 4.4 °C and t_e = 32.2 °C.

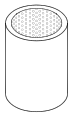
Technical data and ordering

Type DCR

Recommended plant capacity [TR], type 48-DA

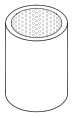
Type	Evaporating temperature t_e [°F]											
	-40	-4	40	-22	-4	40	-40	-4	40	-40	-4	40
	Pressure drop [psig]											
	0.04	0.10	0.21	0.04	0.07	0.14	0.04	0.10	0.21	0.04	0.10	0.21
	R22			R134a			R404A/R507			R407C/R410A		
DCR 0485	0.9	2.5	6.0	0.9	1.5	3.7	0.7	2.0	5.0	0.9	8.9	21.0
DCR 0487	1.7	4.6	10.8	1.6	2.8	6.7	1.3	3.7	8.9	1.7	16.1	37.8
DCR 0489	2.2	6.1	14.4	2.1	3.8	9.0	1.7	4.9	11.9	2.2	21.6	50.7
DCR 04811	2.8	7.8	18.0	2.7	4.8	11.2	2.2	6.2	14.8	2.8	27.3	63.3
DCR 04813	2.8	7.8	18.0	2.7	4.8	11.2	2.2	6.2	14.8	2.8	27.3	63.3
DCR 04817	2.8	7.8	18.0	2.7	4.8	11.2	2.2	6.2	14.8	2.8	27.3	63.3
DCR 04821	2.8	7.8	18.0	2.7	4.8	11.2	2.2	6.2	14.8	2.8	27.3	63.3
DCR 0965	0.9	2.6	6.1	0.9	1.6	3.8	0.7	2.1	5.1	0.9	9.2	21.6
DCR 0967	1.7	4.6	10.8	1.6	2.8	6.7	1.3	3.7	8.9	1.7	16.2	38.1
DCR 0969	2.5	7.0	16.6	2.4	4.3	10.2	1.9	5.6	13.7	2.5	24.6	58.3
DCR 09611	3.4	9.5	22.6	3.2	5.8	13.9	2.6	7.6	18.6	3.4	33.4	79.3
DCR 09613	4.0	11.4	27.1	3.9	6.9	16.6	3.1	9.1	22.4	4.0	39.9	95.2
DCR 09617	4.0	11.4	27.1	3.9	6.9	16.6	3.1	9.1	22.4	4.0	39.9	95.2
DCR 09621	4.0	11.4	27.1	3.9	6.9	16.6	3.1	9.1	22.4	4.0	39.9	95.2
DCR 1445	1.0	2.8	6.5	1.0	1.7	4.0	0.8	2.2	5.4	1.0	10.0	22.8
DCR 1447	1.9	5.4	12.2	1.8	3.2	7.5	1.5	4.1	10.1	1.9	18.9	42.9
DCR 1449	2.5	7.1	16.3	2.4	4.3	10.0	1.9	5.5	13.5	2.5	25.1	57.2
DCR 14411	3.8	10.8	26.2	3.6	6.5	16.0	2.9	8.7	21.8	3.8	38.1	92.2
DCR 14413	3.8	10.8	26.2	3.6	6.5	16.0	2.9	8.7	21.8	3.8	38.1	92.2
DCR 14417	3.8	10.8	26.2	3.6	6.5	16.0	2.9	8.7	21.8	3.8	38.1	92.2
DCR 14421	3.8	10.8	26.2	3.6	6.5	16.0	2.9	8.7	21.8	3.8	38.1	92.2
DCR 1925	1.2	3.3	7.8	1.1	2.0	4.8	0.9	2.6	6.5	1.2	11.5	27.3
DCR 1927	2.2	6.1	14.6	2.2	3.8	9.0	1.7	5.0	12.1	2.2	21.6	51.4
DCR 1929	3.0	8.2	19.6	2.9	5.1	12.0	2.3	6.6	16.3	3.0	28.9	68.9
DCR 19211	4.2	11.9	28.3	4.1	7.3	17.4	3.3	9.6	23.4	4.2	41.8	99.4
DCR 19213	5.1	14.5	34.7	5.0	8.8	21.3	4.0	11.7	28.7	5.1	51.1	122.1
DCR 19217	5.1	14.5	34.7	5.0	8.8	21.3	4.0	11.7	28.7	5.1	51.1	122.1
DCR 19221	5.1	14.5	34.7	5.0	8.8	21.3	4.0	11.7	28.7	5.1	51.1	122.1

Data given in accordance with ARI-Standard 710-2002 for te = 40°F and tc = 90°F.



Strainer mounted in suction line, type 48-F

Refrigerant	R22/R407C			R134a			R404A/R507			R410a		
Evaporating temperature [°C]	-40	-20	4.4	-30	-20	4.4	-40	-20	4.4	-40	-20	4.4
Pressure drop Δp [bar]	0.04	0.10	0.21	0.04	0.07	0.14	0.04	0.10	0.21	0.04	0.10	0.21
Recommended system capacity [kW]	15	47	113	15	28	69	12	38	93	15	47	113



Strainer mounted in suction line, type 48-F

Refrigerant	R22			R134a			R404A/R507			R407C/ R410A		
Evaporating temperature [°F]	-40	–4	40	-22	-4	40	-40	-4	40	-40	-4	40
Pressure drop Δp [psig]	0.59	1.47	3.09	0.59	1.03	2.06	0.59	1.47	3.09	0.59	1.47	3.09
Recommended system capacity [TR]	4	13	32	4	8	20	3	11	26	4	13	32

Strainer mounted in solution line

Refrigerant	R22/R407C	R134a	R404A/R507	R404A
Recommended s ystem capacity [kW]	390	350	260	390

The data given apply to DCR 04811 with 48-F-core.
Liquid capacity is given in accordance with 710-2004 at:
Evaporating temperature t_e = -15 °C.
Evaporating temperature t_c = 30 °C.
Pressure drop across filter drier Δp = 0.07 bar.

Strainer mounted in solution line

Refrigerant	R22	R134a	R404A/R507	R407C/ R410A
Recommended s ystem capacity [TR]	111	100	74	111

Liquid capacity is given in accordance with ARI 710-2002 at:
Evaporating temperature t_e = +5°F
Condensing temperature t_c = +86°F
Pressure drop across fi lter drier Δp = 1 psi
The data given apply to DCR 04811 with 48-F core.

Technical data and ordering

Type DCR

Normal pressure versions, housing + top cover

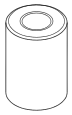
Type	Number of cores	Steel connectors			Max. working pressure PS/ MWP [bar]/[psig]	Code no.
		Solder		Butt weld		
		ODF [in.]	ODF [mm]	[in.]		
DCR 0485	1	5/8	16	½	46/515	023U7050
DCR 0487	1	7/8	22	¾	46/515	023U7051
DCR 0489	1	–	28	1	46/515	023U7052
DCR 0489	1	1 1/8	–	1	46/515	023U7053
DCR 04811	1	1 3/8	35	1¼	46/515	023U7054
DCR 04813	1	1 5/8	–	1½	46/515	023U7055
DCR 04813	1	–	42	1½	46/515	023U7056
DCR 04817	1	2 1/8	54	2	46/515	023U7057
DCR 04821	1	2 5/8	–	2½	46/515	023U7076
DCR 0967	2	7/8	22	¾	46/515	023U7058
DCR 0969	2	–	28	1	46/515	023U7059
DCR 0969	2	1 1/8	–	1	46/515	023U7060
DCR 09611	2	1 3/8	35	1¼	46/515	023U7061
DCR 09613	2	1 5/8	–	1½	46/515	023U7062
DCR 09613	2	–	42	1½	46/515	023U7063
DCR 09617	2	2 1/8	54	2	46/515	023U7064
DCR 1449	3	–	28	1	46/515	023U7065
DCR 1449	3	1 1/8	–	1	35 [1])/46 [2])/515	023U7066
DCR 14411	3	1 3/8	35	1¼	35 [1])/46 [2])/515	023U7067
DCR 14413	3	1 5/8	–	1½	35 [1])/46 [2])/515	023U7068
DCR 14413	3	–	42	1½	35 [1])/46 [2])/515	023U7069
DCR 19217	3	2 1/8	54	2	35 [1])/46 [2])/515	023U7070
DCR 19211	4	1 3/8	35	1¼	46/515	023U7071
DCR 19213	4	1 5/8	–	1½	28 [1])/40 [2])/410	023U7072
DCR 19213	4	–	42	1½	28 [1])/40 [2])/410	023U7073
DCR 19217	4	2 1/8	54	2	28 [1])/40 [2])/410	023U7074

Type	Number of cores	Copper connectors		Max. working pressure PS/ MWP [bar]/[psig]	Code no.
		Solder			
		ODF [in.]	ODF [mm]		
DCR 0485s	1	5/8	16	46/515	023U7250
DCR 0487s	1	7/8	22	46/515	023U7251
DCR 0489s	1	–	28	46/515	023U7252
DCR 0489s	1	1 1/8	–	46/515	023U7253
DCR 04811s	1	1 3/8	35	46/515	023U7254
DCR 04813s	1	1 5/8	–	46/515	023U7255
DCR 04813s	1	–	42	46/515	023U7256
DCR 04817s	1	2 1/8	54	46/515	023U7257
DCR 04821s	1	2 5/8	–	46/515	023U7276
DCR 0967s	2	7/8	22	46/515	023U7258
DCR 0969s	2	–	28	46/515	023U7259
DCR 0969s	2	1 1/8	–	46/515	023U7260
DCR 09611s	2	1 3/8	35	46/515	023U7261
DCR 09613s	2	1 5/8	–	46/515	023U7262
DCR 09623s	2	–	42	46/515	023U7263
DCR 09617s	2	2 1/8	54	46/515	023U7264
DCR 09621s		2 5/8	–	–	023U7281
DCR 1449s	3	–	28	46/515	023U7265
DCR 14411s	3	1 3/8	35	35 [1])/46 [2])/515	023U7267
DCR 14413s	3	1 5/8	–	35 [1])/46 [2])/515	023U7282
DCR 14413s	3	–	42	35 [1])/46 [2])/515	023U7269
DCR 14217s	3	2 1/8	54	35 [1])/46 [2])/515	023U7270
DCR 19213s	4	1 5/8	–	46/515	023U7272
DCR 19213s	4	–	42	28 [1])/40 [2])/410	023U7273
DCR 19217s	4	2 1/8	54	28 [1])/40 [2])/410	023U7274

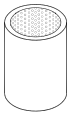
[1]) For usage with strainer or as a receiver application.
[2]) For "drier" application all the permissible cores.

DCR inserts with gasket

Ordering



Solid core



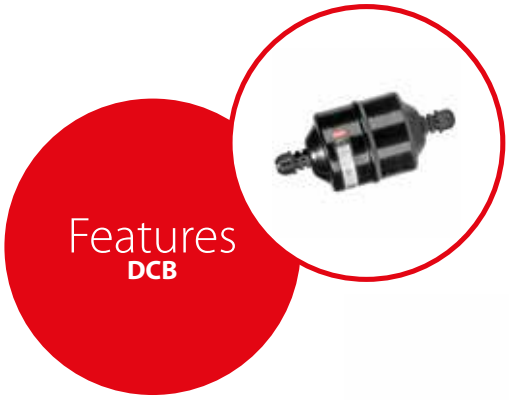
Strainer

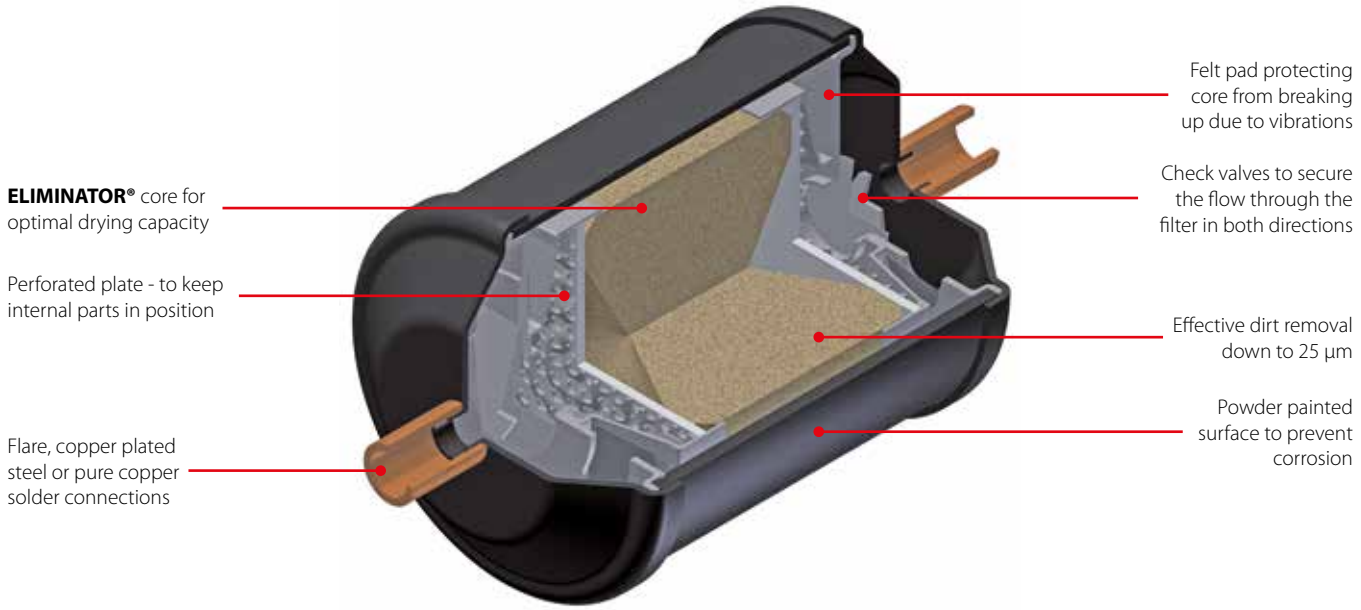
Type	Material	Code no. 8 [pcs.]	Code no. 455 [pcs.]
48-DM solid core	100% molecular sieve	023U1392	023U1394
48-DC solid core	80% molecular sieve and 20% Al_3O_2	023U4381	023U4383
48-DA solid core	30% molecular sieve and 70% Al_3O_2	023U5381	–
48-F strainer	Strainer Insert	023U1921	–

DCB – Hermetic bi-flow filter drier

DCB **ELIMINATOR®** hermetic bi-flow filter driers protect refrigeration and air conditioning systems from moisture, acids and solid particles, eliminating harmful chemical reaction and abrasive impurities.

DCB hermetic bi-flow filter driers, with a solid core of 80% Molecular Sieve and 20% activated alumina, are optimised for HFC, HCFC and HC refrigerants and mineral or benzene oils, they are hermetic and available in many sizes and connection types.





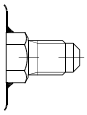
Facts

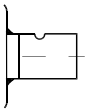
Application:
- Traditional refrigeration
- Air conditioning units
- Transport refrigeration

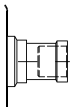
- 4 times better moisture adsorption capacity than traditional filter driers with activated alumina, at both high and low humidity levels
- High drying capacity avoiding the risk of acid formation in the refrigeration system
- Solder connections are in copper plated and steel material (flare and face seal)
- Wide range with sizes from 3 to 75 cubic inches
- Corrosion resistant powder-painted finish. Special coating for marine applications available upon request

- 80% 3Å molecular sieve with 20% activated alumina core
- Optimized for HFC and HCFC refrigerants.
- Thermally stable up to 120 °C (250 °F)
- Minimal amount of binder, resistant to systems chemicals, assuring a stable core and long life PS (MWP): 46 bar (667 psig)
- Available with flare, solder (pure cooper, cu-plated) connections

Technical data and ordering


Flare version


Solder version (pure cooper)


Solder version (cu-plated)

Hermetic bi-flow filter drier, type DCB

Drying and liquid capacity

Type	Drying Capacity [kg] of refrigerant [1]												Liquid Capacity [kW] [2]						Max Working Pressure PS [bar]
	R134a		R404A		R507		R22		R407C		R410A		R134a	R404A	R507	R22	R407C	R410A	
	[°C]																		
	24	52	24	52	24	52	24	52	24	52	24	52							
DCB 082/082s	7.1	6.7	7.6	7.2	7.7	7.1	7.1	6.6	7.1	6.5	6.4	5.9	3.9	2.8	2.8	4.3	4.3	4.3	46
DCB 083/083s	7.1	6.7	7.6	7.2	7.7	7.1	7.1	6.6	7.1	6.5	6.4	5.9	7.4	5.3	5.3	8.2	8.2	8.2	46
DCB 084/084s	7.1	6.7	7.6	7.2	7.7	7.1	7.1	6.6	7.1	6.5	6.4	5.9	8.3	6.0	6.0	9.2	9.2	9.2	46
DCB 162	13.3	12.6	14.3	13.6	14.6	13.5	14.6	12.5	13.4	11.6	12.2	11.2	7.6	5.3	5.3	8.8	8.8	8.8	46
DCB 163/163s	13.3	12.6	14.3	13.6	14.6	13.5	14.6	12.5	13.4	11.6	12.2	11.2	18.0	13.0	13.0	20.0	20.0	20.0	46
DCB 164/164s	13.3	12.6	14.3	13.6	14.6	13.5	14.6	12.5	13.4	11.6	12.2	11.2	28.0	20.0	20.0	32.0	32.0	32.0	46
DCB 165/165s	13.3	12.6	14.3	13.6	14.6	13.5	14.6	12.5	13.4	11.6	12.2	11.2	37.0	29.0	29.0	40.0	40.0	40.0	46
DCB 303	32.8	31.0	35.8	33.4	35.8	33.1	33.2	30.7	32.8	30.3	29.9	27.5	19.0	15.0	15.0	21.0	21.0	21.0	46
DCB 304/304s	32.8	31.0	35.8	33.4	35.8	33.1	33.2	30.7	32.8	30.3	29.9	27.5	28.0	20.0	20.0	31.0	31.0	31.0	46
DCB 305/305s	32.8	31.0	35.8	33.4	35.8	33.1	33.2	30.7	32.8	30.3	29.9	27.5	38.0	28.0	28.0	42.0	42.0	42.0	46
DCB 307s	32.8	31.0	35.8	33.4	35.8	33.1	33.2	30.7	32.8	30.3	29.9	27.5	43.0	32.0	32.0	47.0	47.0	47.0	46

[1] Drying capacity is based on following moisture content test standards before and after drying:
- *– R134a: 1050 – 50 ppm W.*
- *– R404A, R507: 1020 – 50 ppm W.*
- *– R407C: 1020 – 50 ppm W.*
- *– R410A: 1050 – 50 ppm W.*
- *– R22: 1050 – 60 ppm W.*

In accordance with ARI 710-2004.

[2] Given in accordance with ARI 710-2004 for:
- *t_e = -15 °C.*
- *t_c = 30 °C.*
- *Δp = 0.07 bar.*

Hermetic bi-flow filter drier, type DCB

Drying and liquid capacity

Type	Drying capacity [LB] refrigerant [1]												Liquid capacity [TR] [2]						Max. Working Pressure MWP [psig]
	R134a		R404A		R507		R22		R407C		R410A		R134a	R404A	R507	R22	R407C	R410A	
	[°F]																		
	75	125	75	125	75	125	75	125	75	125	75	125							
DCB 082 / 082s	15.6	14.7	16.7	15.8	16.9	15.6	15.6	14.5	15.6	14.3	14.1	13.0	1.1	0.8	0.8	1.2	1.2	1.2	667
DCB 083 / 083s	15.6	14.7	16.7	15.8	16.9	15.6	15.6	14.5	15.6	14.3	14.1	13.0	2.1	1.5	1.5	2.3	2.3	2.3	667
DCB 084 / 084s	15.6	14.7	16.7	15.8	16.9	15.6	15.6	14.5	15.6	14.3	14.1	13.0	2.4	1.7	1.7	2.6	2.6	2.6	667
DCB 162 / 162s	29.3	27.7	31.5	29.9	32.1	29.7	29.7	27.5	29.5	27.3	26.8	24.6	2.2	1.5	1.5	2.5	2.5	2.5	667
DCB 163 / 163s	29.3	27.7	31.5	29.9	32.1	29.7	29.7	27.5	29.5	27.3	26.8	24.6	5.1	3.7	3.7	5.7	5.7	5.7	667
DCB 164 / 164s	29.3	27.7	31.5	29.9	32.1	29.7	29.7	27.5	29.5	27.3	26.8	24.6	8.0	5.7	5.7	9.1	9.1	9.1	667
DCB 165 / 165s	29.3	27.7	31.5	29.9	32.1	29.7	29.7	27.5	29.5	27.3	26.8	24.6	10.6	8.3	8.3	11.4	11.4	11.4	667
DCB 303 / 303s	72.3	68.3	77.6	73.6	78.9	72.9	73.1	67.6	72.3	66.8	65.9	60.6	5.4	4.3	4.3	6.0	6.0	6.0	667
DCB 304 / 304s	72.3	68.3	77.6	73.6	78.9	72.9	73.1	67.6	72.3	66.8	65.9	60.6	8.0	5.7	5.7	8.9	8.9	8.9	667
DCB 305 / 305s	72.3	68.3	77.6	73.6	78.9	72.9	73.1	67.6	72.3	66.8	65.9	60.6	10.9	8.0	8.0	12.0	12.0	12.0	667
DCB 307 / 307s	72.3	68.3	77.6	73.6	78.9	72.9	73.1	67.6	72.3	66.8	65.9	60.6	12.3	9.1	9.1	13.4	13.4	13.4	667

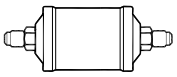
[1] Drying capacity is based on following moisture content test standards before and after drying:
- *– R134a: 1050 – 50 ppm W.*
- *– R404A, R507: 1020 – 50 ppm W.*
- *– R407C: 1020 – 50 ppm W.*
- *– R410A: 1050 – 50 ppm W.*
- *– R22: 1050 – 60 ppm W*

In accordance with ARI 710-2004.

[2] Given in accordance with ARI 710-2004 for
- *t_e = 5 °F,*
- *t_c = 85 °F,*
- *Δp = 1 psig.*

Technical data and ordering

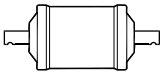
Type DCB (flare)



Ordering

Type	Conn.		Code no.
	[in.]	[mm]	
DCB 082	1/4	6	023Z1402
DCB 083	3/8	10	023Z1401
DCB 084	1/2	12	023Z1400
DCB 162	1/4	6	023Z1406
DCB 163	3/8	10	023Z1405
DCB 164	1/2	12	023Z1404
DCB 165	5/8	16	023Z1403
DCB 303	3/8	10	023Z1409
DCB 304	1/2	12	023Z1408
DCB 305	5/8	16	023Z1407

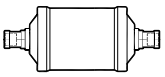
Type DCB solder (pure copper - ODF)



Ordering

Type	Conn. [in.]	Code no.	Conn. [mm]	Code no.
DCB 082s	1/4	023Z1434	–	–
DCB 083s	3/8	023Z1433	–	–
DCB 084s	1/2	023Z1432	–	–
DCB 163s	3/8	023Z1437	–	–
DCB 164s	1/2	023Z1436	–	–
DCB 165s	5/8	023Z1435	–	–
DCB 304s	1/2	023Z1440	–	–
DCB 305s	5/8	023Z1439	–	–
DCB 307s	7/8	023Z1438	–	–

Type DCB solder (cu-plated - ODF)



Ordering

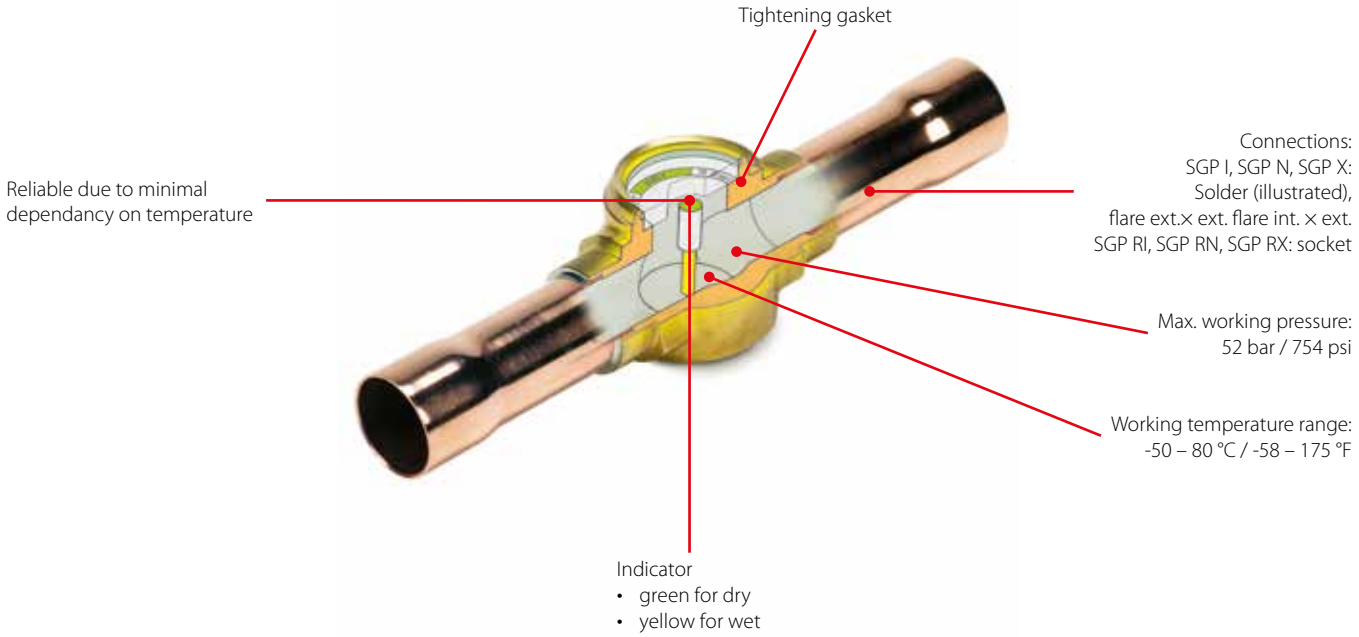
Type	Conn. [in.]	Code no.	Conn. [mm]	Code no.
DMB 082s	1/4	023Z1464	–	–
DMB 083s	3/8	023Z1463	10	023Z1458
DMB 084s	1/2	023Z1462	–	–
DMB 163s	3/8	023Z1467	10	–
DMB 164s	1/2	023Z1466	12	023Z1452
DMB 165s	5/8	023Z1465	–	–
DMB 304s	1/2	023Z1470	–	–
DMB 305s	5/8	023Z1469	–	–
DMB 307s	7/8	023Z1468	–	–

Quick Selection Notes:

SGP – Sight glass (high pressure)

SGP are sight glasses for high pressure applications (Max Working Pressure 52 bar / 754 psi).
SGP is available in versions SGP I optimized for HCFC and HC refrigerants and in SGP N optimized for HCFC, HFC, HC and R744 refrigerants.

SGP is available with flare, solder and socket connections, and with and without moisture indicators.



Facts

Application:
- Traditional refrigeration
- Heat pump systems
- Air conditioning units
- Liquid coolers
- Transport refrigeration

- Solder versions are compliant with ATEX hazard zone 2

Type SGP X (without indicator)
- Indicates lack of subcooling
- Indicates refrigerant deficiency
- Indicates liquid level in receiver
- Indicates oil level in compressor

Type SGP I (with I type indicator)
- For HCFC and HC refrigerants
- Indicates too high moisture content in the refrigeration system
- Indicates lack of subcooling
- Indicates refrigerant deficiency

Type SGP N (with N type indicator)
- For HCFC, HFC, HC and R744 refrigerants
- Indicates too high moisture content in the refrigeration system
- Indicates lack of subcooling
- Indicates refrigerant deficiency

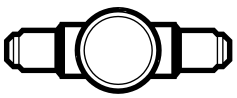
Technical data

Max. working pressure: PS/MWP = 52 bar / 754 psi
Media temperature: -50 – 80 °C / -58 – 175 °F

Available types

Solder version ODF x ODF

SGP X
without indicator



Flare External x External

SGP X
without indicator

Flare Internal x External

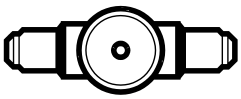
SGP I and SGP N
with indicator

Solder version ODF x ODM

SGP I and SGP N
with indicator

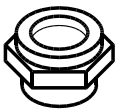
Solder version ODF x ODF

SGP I and SGP N
with indicator



Flare External x External

SGP I and SGP N
with indicator



Socket

SGP RX
without indicator

Socket

SGP RI and SGP RN
with indicator

Saddle

SGS

SGP I for HCFC and HC refrigerants

Technical data

Refrigerant	Moisture content ppm = parts per million					
	SGP I / SGP RI					
	Media temperature 25 °C / 77 °F			Media temperature 43 °C / 109 °F		
	Green/dry	Intermed. color	Yellow/wet	Green/dry	Intermed. color	Yellow/wet
R22	< 150	150 – 300	> 300	< 250	250 – 500	> 500
R290	< 25	25 – 50	> 50	< 50	50 – 100	> 100
R600	< 10	10 – 20	> 20	< 28	28 – 55	> 55
R600a	< 11	11 – 22	> 22	< 30	30 – 60	> 60

SGP N for HCFC, HFC, HC and R744 (CO_2) refrigerants

Technical data

Refrigerant	Moisture content ppm = parts per million					
	SGP N / SGP RN					
	Media temperature 25 °C / 77 °F			Media temperature 43 °C / 109 °F		
	Green/dry	Intermed. color	Yellow/wet	Green/dry	Intermed. color	Yellow/wet
R22	< 30	30 – 120	> 120	< 50	50 – 200	> 200
R32	< 70	70 – 300	> 300	< 120	120 – 500	> 500
R134a	< 30	30 – 100	> 100	< 45	45 – 170	> 170
R404A	< 20	20 – 70	> 70	< 25	25 – 100	> 100
R407C	< 30	30 – 140	> 140	< 60	60 – 225	> 225
R507	< 15	15 – 60	> 60	< 30	30 – 110	> 110
R410A	< 66	66 – 266	> 266	< 135	135 – 540	> 540
R1270	< 16	16 – 62	> 62	< 29	29 – 115	> 115

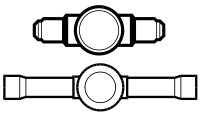
Note
For colours reflecting moisture values of other refrigerants, please contact Danfoss.

Technical data and ordering

SGP X without indicator

Ordering - Solder / Flare type

Type	Connection type	Connection [in.]	Connection [mm]	Code no.
SGP 10 X	Flare ext. × ext.	3/8 × 3/8	10 × 10	014L0080
SGP 12s X	Solder ODF x ODF	1/2 × 1/2	–	014L0086
SGP 16s X	Solder ODF x ODF	5/8 × 5/8	16 × 16	014L0087
SGP 22s X	Solder ODF x ODF	7/8 × 7/8	–	014L1207



Only solder versions, connection size from 6s to 22s, are allowed for flammable refrigerants.

SGP I for HCFC and HC refrigerants

Ordering

Type	Connection type	Connection [in.]	Connection [mm]	Code no.
SGP 6 I	Flare ext. × ext.	1/4 × 1/4	6 × 6	014L0007
SGP 10 I	Flare ext. × ext.	1/2 × 1/2	10 × 10	014L0008
SGP 12 I	Flare ext. × ext.	1/2 × 1/2	12 × 12	014L0009
SGP 16 I	Flare ext. × ext.	5/8 × 5/8	16 × 16	014L0024
SGP 19 I	Flare ext. × ext.	3/4 × 3/4	19 × 19	014L0028
SGP 6 I	Flare int. × ext. [1]	1/4 × 1/4	6 × 6	014L0021
SGP 10 I	Flare int. × ext. [1]	3/8 × 3/8	10 × 10	014L0022
SGP 12 I	Flare int. × ext. [1]	1/2 × 1/2	12 × 12	014L0025
SGP 16 I	Flare int. × ext. [1]	5/8 × 5/8	16 × 16	014L0026
SGP 19 I	Flare int. × ext. [1]	3/4 × 3/4	19 × 19	014L0043
SGP 6s I	ODF × ODF solder	1/4 × 1/4	–	014L0034
SGP 10s I	ODF × ODF solder	3/8 × 3/8	–	014L0035
SGP 12s I	ODF × ODF solder	1/2 × 1/2	–	014L0036
SGP 16s I	ODF × ODF solder	5/8 × 5/8	16 × 16	014L0044
SGP 19s I	ODF × ODF solder	3/4 × 3/4	19 × 19	014L0047
SGP 22s I	ODF × ODF solder	7/8 × 7/8	22 × 22	014L0039
SGP 6s I	ODF × ODF solder	–	6 × 6	014L0040
SGP 10s I	ODF × ODF solder	–	10 × 10	014L0041
SGP 12s I	ODF × ODF solder	–	12 × 12	014L0042
SGP 18s I	ODF × ODF solder	–	18 × 18	014L0045
SGP 6s I	ODF × ODM solder	1/4 × 1/4	–	014L0125
SGP 10s I	ODF × ODM solder	3/8 × 3/8	–	014L0126
SGP 12s I	ODF × ODM solder	1/2 × 1/2	–	014L0127
SGP 16s I	ODF × ODM solder	5/8 × 5/8	16 × 16	014L0128
SGP 22s I	ODF × ODM solder	7/8 × 7/8	22 × 22	014L0130

[1] *Can be screwed directly into the filter drier.*

Only solder versions, connection size from 6s to 22s, are allowed for flammable refrigerants.

Technical data and ordering

SGP N for HCFC, HFC, HC and R744 (CO_2) refrigerants

Ordering

Type	Version	Connection [in.]	Connection [mm]	Code no.
SGP 6 N	Flare ext. × ext.	1/4 × 1/4	6 × 6	014L0161
SGP 10 N	Flare ext. × ext.	3/8 × 3/8	10 × 10	014L0162
SGP 12 N	Flare ext. × ext.	1/2 × 1/2	12 × 12	014L0163
SGP 16 N	Flare ext. × ext.	5/8 × 5/8	16 × 16	014L0165
SGP 19 N	Flare ext. × ext.	3/4 × 3/4	19 × 19	014L0166
SGP 6 N	Flare int. × ext. [1]	1/4 × 1/4	6 × 6	014L0171
SGP 10 N	Flare int. × ext. [1]	3/8 × 3/8	10 × 10	014L0172
SGP 12 N	Flare int. × ext. [1]	1/2 × 1/2	12 × 12	014L0173
SGP 16 N	Flare int. × ext. [1]	5/8 × 5/8	16 × 16	014L0174
SGP 19 N	Flare int. × ext. [1]	3/4 × 3/4	19 × 19	014L0175
SGP 6s N	ODF × ODF solder	1/4 × 1/4	–	014L0181
SGP 10s N	ODF × ODF solder	3/8 × 3/8	–	014L0182
SGP 12s N	ODF × ODF solder	1/2 × 1/2	–	014L0183
SGP 16s N	ODF × ODF solder	5/8 × 5/8	16 × 16	014L0184
SGP 19s N	ODF × ODF solder	3/4 × 3/4	19 × 19	014L0185
SGP 22s N	ODF × ODF solder	7/8 × 7/8	22 × 22	014L0186
SGP 22s N [2]	ODF × ODF solder	1 1/8 × 1 1/8	–	014L0187
SGP 6s N	ODF × ODF solder	–	6 × 6	014L0191
SGP 10s N	ODF × ODF solder	–	10 × 10	014L0192
SGP 12s N	ODF × ODF solder	–	12 × 12	014L0193
SGP 18s N	ODF × ODF solder	–	18 × 18	014L0195
SGP 6s N	ODF × ODM solder	1/4 × 1/4	–	014L0201
SGP 10s N	ODF × ODM solder	3/8 × 3/8	–	014L0202
SGP 12s N	ODF × ODM solder	1/2 × 1/2	–	014L0203
SGP 16s N	ODF × ODM solder	5/8 × 5/8	16 × 16	014L0204
SGP 22s N	ODF × ODM solder	7/8 × 7/8	22 × 22	014L0206

[1] *Can be screwed directly into the filter drier.*
[2] *Oversize connections.*

Only solder versions, connection size from 6s to 22s, are allowed for flammable refrigerants.

SGP socket type and SGS saddle

Ordering

Type	Version	Connection 1	Connection 2	Floating ball [pc]	Code no.
SGP ¾ RX (no indicator)	Pipe thread	G 3/4 A [1]	–	1	014L0004
	NPT	3/4 – 14 NPT [2]	–	1	014L0005
SGP ½ RX (no indicator)	NPT	1/2 – 14 NPT [2]	–	3	014L0002
SGP ½ RI (I type indicator)	NPT	1/2 – 14 NPT [2]	–	3	014L0131
SGP 24 RI (I type indicator)	M thread	M24 × 1	–	–	014L1154
SGP ½ RN (N type indicator)	NPT	1/2 – 14 NPT [2]	–	3	014L0006
SGP 24 RN (N type indicator)	M thread	M24 × 1	–	–	014L1155
SGP 20 RN (N type indicator)	M thread	M20 × 1.5	–	–	014L1603
SGS (saddle)	Tube fitting	M20 × 1.5	7/8	–	014-1073
	Tube fitting	M20 × 1.5	1 1/8	–	014-1071
	Tube fitting	M20 × 1.5	1 3/8	–	014-1074
	Tube fitting	M20 × 1.5	1 5/8	–	014-1084
	Tube fitting	M20 × 1.5	3 1/8	–	014-1072
	Tube fitting	M24 × 1	7/8	–	014-1059
	Tube fitting	M24 × 1	1 1/8	–	014-1056
	Tube fitting	M24 × 1	1 3/8	–	014-1057
	Tube fitting	M24 × 1	1 5/8	–	014-1058
	Tube fitting	M24 × 1	2 1/8	–	014-1067
	Tube fitting	M24 × 1	3 1/8	–	014-1068
	Tube fitting	M24 × 1	4 1/8	–	014-1069

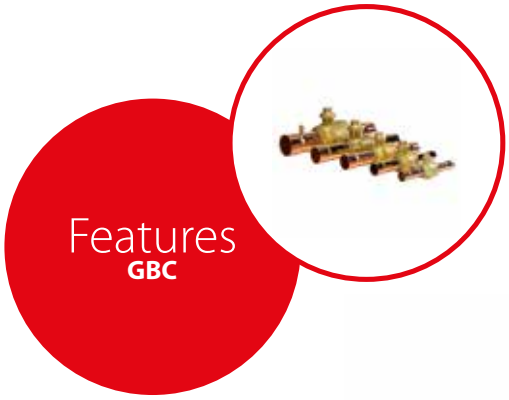
[1] *ISO 228-1.*
[2] *NSI/ASME B1.20.1*

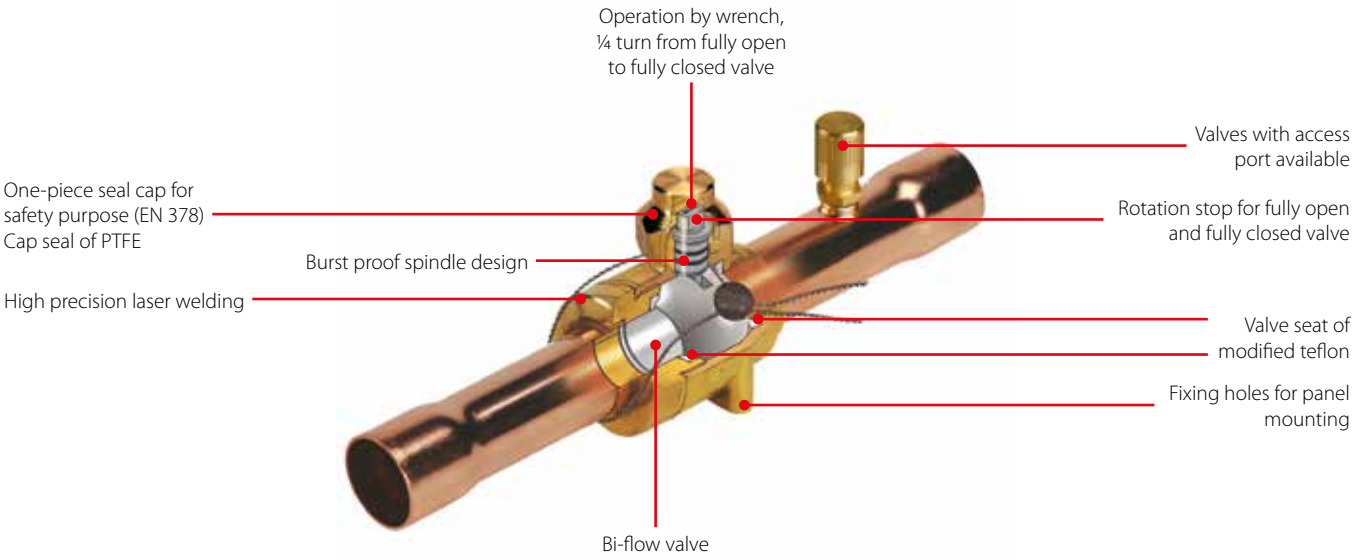
Only solder versions, connection size from 6s to 22s, are allowed for flammable refrigerants.

GBC – shut-off ball valve

GBC shut-off ball valves are manually operated valves suitable for bi-directional flow.
Shut-off Ball valves are used in liquid, suction and hot gas lines in refrigeration, freezing and air conditioning systems.

The GBC bi-directional shut-off ball valves can be delivered with or without external access port.
The valves have one-piece wire seal cap to prevent unintentional cap removal or tampering between services.





Facts

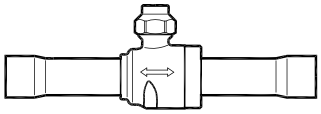
Application:
- GBC valves are used in liquid, suction and hot gas lines in all refrigeration and air-conditioning systems with fluorinated refrigerants

- Full flow with minimum pressure drop
- Bi-flow, i.e. valve orientation is unimportant
- Slimline design ensures easy operational handling
- Burst proof spindle design prevents liquid from being trapped internally
- Valve seat of modified teflon to secure maximum tightness and a long lifetime
- Versions with access port helps in reducing cost if service of the system is necessary
- Ball status indicator on spindle top indicating open or closed position
- Laser welded construction
- Holes for panel mounting
- Temperature range:
  - GBC 6s – 42s: -40 – 150 °C / -40 – 302 °F
  - GBC 54s – 79s: -40 – 121 °C / -40 – 250 °F
- Approvals: C UL US LISTED, EAC

Technical data and ordering

The product range cover valves with and or without access port.
Both versions can be supplied in inch or millimeter sizes from 1/4 in. – 3 1/8 in. and 6 mm – 54 mm. All valves have holes for panel mounting.

GBC without access port , ODF/ODF

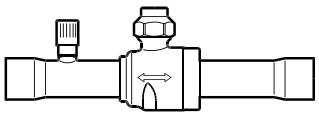


Ordering

Type	Solder ODF/ODF connection		Max. working pressure PS / MWP		K_v value [1] [m³/h]	C_v value [1] [gpm]	Code no.
	[in.]	[mm]	[Bar]	[psig]			
GBC 6s	–	6	45	650	1.74	2.01	009G7030
GBC 6s	1/4	–	45	650	1.74	2.01	009G7020
GBC 10s	–	10	45	650	7.52	8.69	009G7031
GBC 10s	3/8	–	45	650	7.52	8.69	009G7021
GBC 12s	–	12	45	650	12.9	14.9	009G7032
GBC 12s	1/2	–	45	650	12.9	14.9	009G7022
GBC 16s	5/8	16	45	650	15.6	18.1	009G7023
GBC 18s	–	18	45	650	21.9	25.3	009G7035
GBC 18s	3/4	–	45	650	21.9	25.3	009G7024
GBC 22s	7/8	22	45	650	33.3	38.5	009G7025
GBC 28s	–	28	45	650	62	71	009G7033
GBC 28s	1 1/8	–	45	650	62	71	009G7026
GBC 35s	1 3/8	35	45	650	92	107	009G7027
GBC 42s	–	42	45	650	134	155	009G7034
GBC 42s	1 5/8	–	45	650	134	155	009G7028
GBC 54s	2 1/8	54	45	650	240	277	009G7029
GBC 67s	2 5/8	–	45	650	367	424	009G7959
GBC 67s RP	2 5/8	–	45	650	203	234	009G7036
GBC 79s	3 1/8	–	45	650	528	611	009G7980
GBC 79s RP	3 1/8	–	45	650	171	198	009G7037

[1]) = calculated values

GBC with access port, ODF/ODF



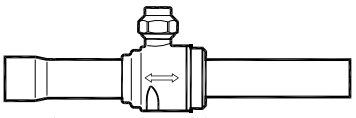
Ordering

Type	Solder ODF/ODF connection		Max. working pressure PS / MWP		K_v value [1] [m³/h]	C_v value [1] [gpm]	Code no.
	[in.]	[mm]	[Bar]	[psig]			
GBC 6s	–	6	45	650	1.74	2.01	009G7060
GBC 6s	1/4	–	45	650	1.74	2.01	009G7050
GBC 10s	–	10	45	650	7.52	8.69	009G7061
GBC 10s	3/8	–	45	650	7.52	8.69	009G7051
GBC 12s	–	12	45	650	12.9	14.9	009G7062
GBC 12s	1/2	–	45	650	12.9	14.9	009G7052
GBC 16s	5/8	16	45	650	15.6	18.1	009G7053
GBC 18s	–	18	45	650	21.9	25.3	009G7065
GBC 18s	3/4	–	45	650	21.9	25.3	009G7054
GBC 22s	7/8	22	45	650	33.3	38.5	009G7055
GBC 28s	–	28	45	650	62	71	009G7063
GBC 28s	1 1/8	–	45	650	62	71	009G7056
GBC 35s	1 3/8	35	45	650	92	107	009G7057
GBC 42s	–	42	45	650	134	155	009G7064
GBC 42s	1 5/8	–	45	650	134	155	009G7058
GBC 54s	2 1/8	54	45	650	240	277	009G7059
GBC 67s	2 5/8	–	45	650	367	424	009G7960
GBC 67s RP	2 5/8	–	45	650	203	234	009G7066
GBC 79s	3 1/8	–	45	650	528	611	009G7981
GBC 79s RP	3 1/8	–	45	650	171	198	009G7067

[1]) = calculated values

Technical data and ordering

GBC without access port, ODF/ODM

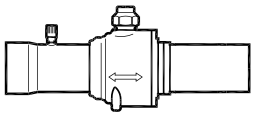


Ordering

Type	Solder ODF/ODM connection		Max. working pressure PS / MWP		K_v value [1] [m³/h]	C_v value [1] [gpm]	Code no.
	[in.]	[mm]	[Bar]	[psig]			
GBC 22s	7/8	22	45	650	33.3	38.5	009G7000
GBC 28s	1 1/8	–	45	650	62	71	009G7001
GBC 35s	1 3/8	35	45	650	92	107	009G7002
GBC 42s	1 5/8	–	45	650	134	155	009G7003
GBC 79s	3 1/8	–	45	650	528	611	009G7969

[1]) = calculated values

GBC with access port, ODF/ODM



Ordering

Type	Solder ODF/ODM connection		Max. working pressure PS / MWP		K_v value [1] [m³/h]	C_v value [1] [gpm]	Code no.
	[in.]	[mm]	[Bar]	[psig]			
GBC 28s	1 1/8	–	45	650	62	71	009G7097
GBC 35s	1 3/8	35	45	650	92	107	009G7098
GBC 42s	1 5/8	–	45	650	134	155	009G7099
GBC 54s	2 1/8	54	45	650	240	277	009G7069
GBC 67s	2 5/8	–	45	650	367	424	009G7958
GBC 79s	3 1/8	–	45	650	528	611	009G7970

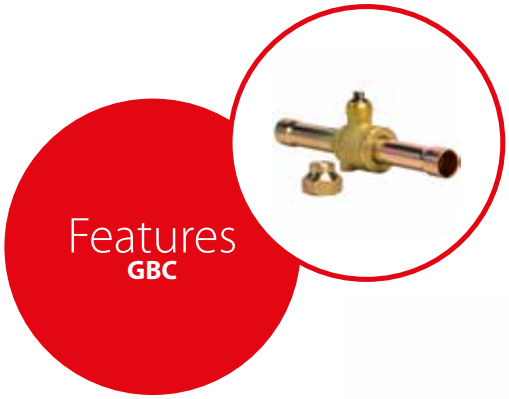
[1]) = calculated values

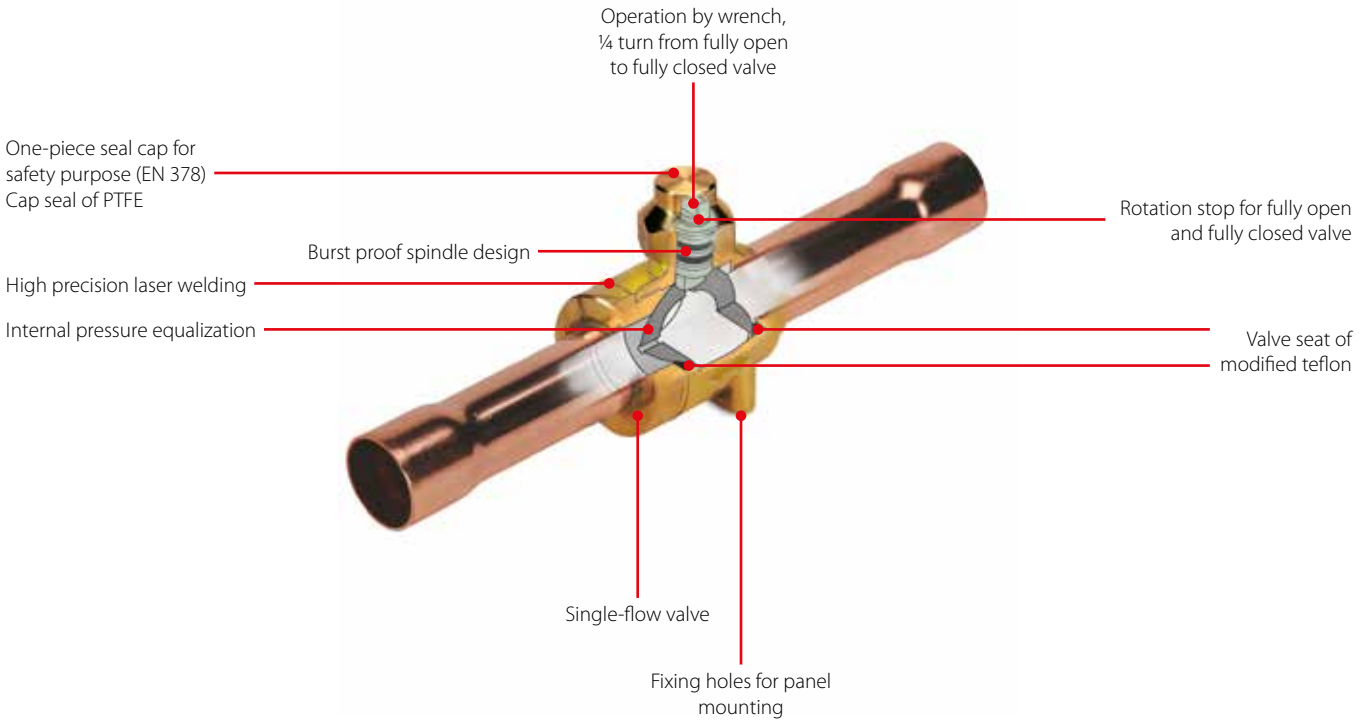
Quick Selection Notes:

GBC – shut-off ball valve for R744 (CO_2)

The valve structure and materials are designed and tested specifically for use with R744 (CO_2) refrigerant.

The valves are approved for use in all parts of the system with pressure ratings lower than the below stated Maximum Working Pressure, typically the liquid, suction, gas-bypass, and hot gas lines.





Facts

Application:

- The valves can be used for applications in liquid, suction and hot-gas lines in refrigeration and air-conditioning systems.

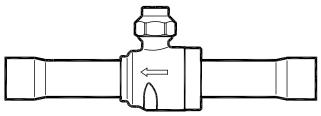
- Slimline body – easier to install and service
- ¼ turn from fully open to fully closed
- Rotation stops at fully open and fully closed positions
- Indicator on spindle top shows degree of opening
- Precision laser welded construction
- Burst-proof spindle design
- Valve seal of low friction, tight-sealing modified PTFE Teflon®

- Drilled and tapped for panel mounting
- Release of entrapped liquid via hole in the ball
- Refrigerants R 744 (CO_2)
- Temperature range -40 – 150 °C / -40 – 302 °F
- Max. working pressure (PS/MWP) 45 bar / 652 psig
- Flow direction: Single-flow
- Approval: C UL US LISTED, EAC

Technical data and ordering

The GBC for CO_2 can be supplied in inch and millimeter sizes 1/4 – 1 5/8 in. (6 – 42 mm).
All valves have holes for panel mounting.

GBC without access port, ODF/ODF

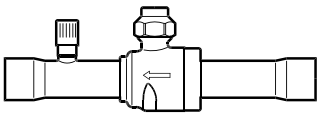


Ordering

Type	Solder ODF/ODF connection		Max. working pressure PS / MWP		K_v value [1] [m³/h]	C_v value [1] [gpm]	Code no.
	[in.]	[mm]	[Bar]	[psig]			
GBC 6s	–	6	45	650	1.74	2.01	009G7570
GBC 6s	1/4	–	45	650	1.74	2.01	009G7520
GBC 10s	–	10	45	650	7.52	8.69	009G7571
GBC 10s	3/8	–	45	650	7.52	8.69	009G7521
GBC 12s	–	12	45	650	12.9	14.9	009G7572
GBC 12s	1/2	–	45	650	12.9	14.9	009G7522
GBC 16s	5/8	16	45	650	15.7	18.1	009G7523
GBC 18s	–	18	45	650	21.9	25.4	009G7574
GBC 18s	3/4	–	45	650	21.9	25.4	009G7524
GBC 22s	7/8	22	45	650	33.3	38.5	009G7525
GBC 28s	–	28	45	650	62	71	009G7576
GBC 28s	1 1/8	–	45	650	62	71	009G7526
GBC 35s	1 3/8	35	45	650	92	107	009G7528
GBC 42s	–	42	45	650	134	155	009G7579
GBC 42s	1 5/8	–	45	650	134	155	009G7529

[1]) = calculated values

GBC with access port, ODF/ODF



Ordering

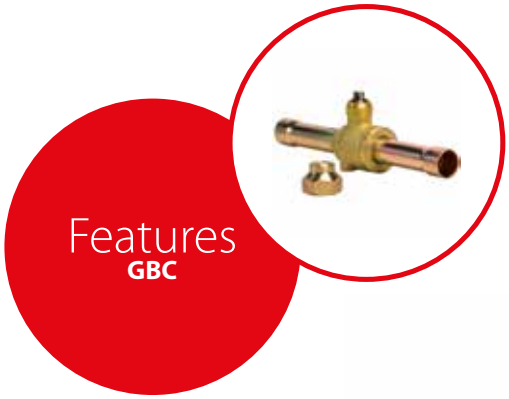
Type	Solder ODF/ODF connection		Max. working pressure PS / MWP		K_v value [1] [m³/h]	C_v value [1] [gpm]	Code no.
	[in.]	[mm]	[Bar]	[psig]			
GBC 16s	5/8	16	45	650	15.6	18.1	009G7534
GBC 22s	7/8	22	45	650	33.3	38.5	009G7536

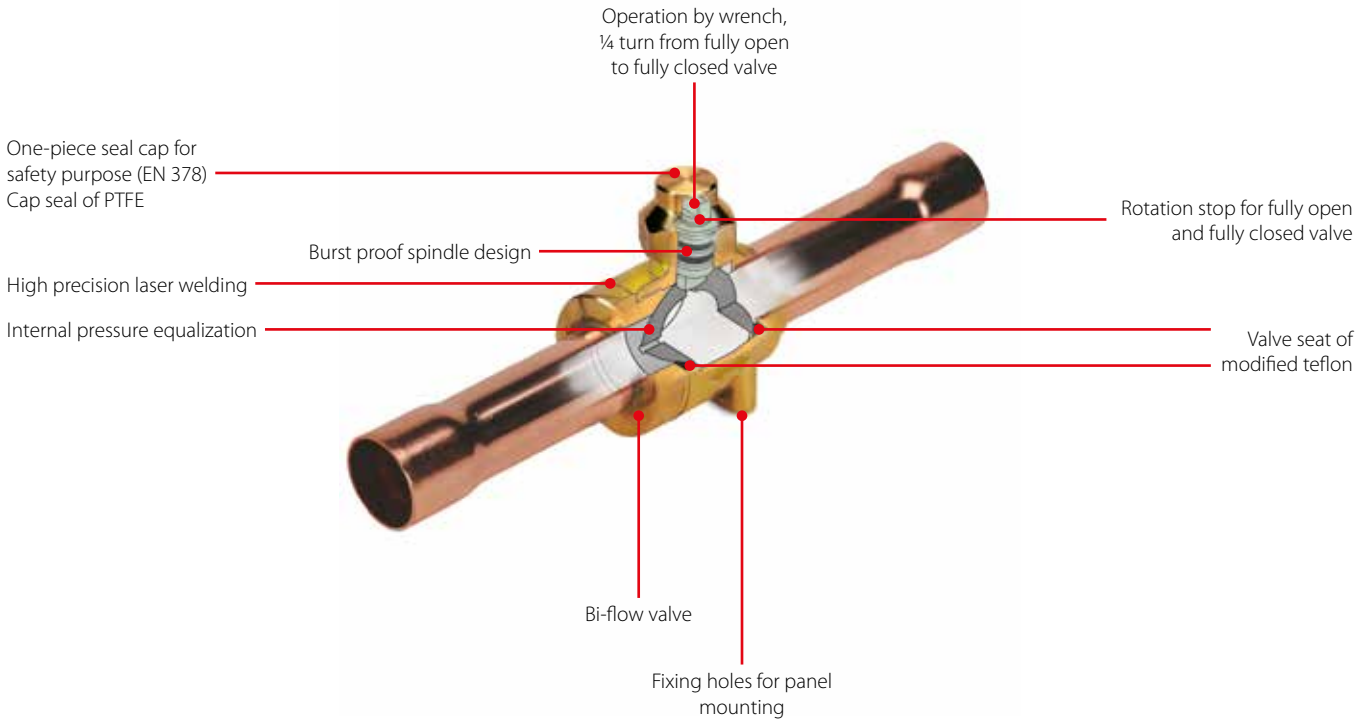
[1]) = calculated values

GBC – shut-off ball valve for R744 (CO_2) high pressure

The valves are specifically designed for intrinsic standstill security, meaning that the valves can withstand pressures normally arising when the refrigeration system is shut off, i.e. during serving or during unexpected power failure.
The valve structure and materials are designed and tested specifically for use with R744 (CO_2) refrigerant.

The valves are approved for use in all parts of the system with pressure ratings lower than the below stated Maximum Working Pressure, typically the liquid, suction, gas-bypass, lines.





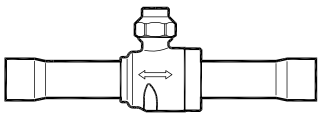
Facts

Application:
- The valves can be used for applications in liquid, suction lines in refrigeration and air-conditioning systems.

- Slimline body – easier to install and service
- ¼ turn from fully open to fully closed
- Rotation stops at fully open and fully closed positions
- Indicator on spindle top shows degree of opening
- Precision laser welded construction
- Burst-proof spindle design
- Valve seal of low friction, tight-sealing modified PTFE Teflon®
- Selected O-ring material for CO_2 refrigerant.
- Advanced design ensures trusted bi-flow function
- Drilled and tapped for panel mounting
- Release of entrapped liquid via hole in the ball
- Refrigerants R 744 CO_2
- Temperature range -40 – 100 °C / -40 – 212 °F
- Max. working pressure (PS/MWP) 75 - 90 bar /1088 -1305 psig
- Flow direction: Bi-flow
- Approval: CE

Technical data and ordering

GBC without access port - Copper solder ODF connections

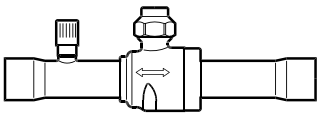


Ordering

Type	Solder ODF/ODF connection		Max. working pressure PS / MWP		K_v value [1] [m^3/h]	C_v value [1] [gpm]	Code no.
	[in.]	[mm]	[bar]	[psig]			
GBC 6s H	1/4	–	90	1305	2.05	2.37	009G7415
	–	6	90	1305	1.78	2.06	009G7395
GBC 10s H	3/8	–	90	1305	6.31	7.29	009G7416
	–	10	90	1305	7.39	8.54	009G7396
GBC 12s H	1/2	–	90	1305	15.0	17.3	009G7417
	–	12	90	1305	12.8	14.8	009G7397
GBC 16s H	5/8	16	90	1305	11.7	13.6	009G7418
GBC 18s H	3/4	–	90	1305	31.0	35.9	009G7419
	–	18	90	1305	33.7	39.0	009G7399
GBC 22s H	7/8	22	90	1305	24.4	28.2	009G7420

[1] *calculated based on fluid dynamic equations*

GBC with access port - Copper solder ODF connections

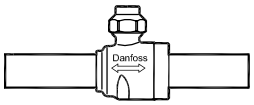


Ordering

Type	Solder ODF/ODF connection		Max. working pressure PS / MWP		K_v value [1] [m^3/h]	C_v value [1] [gal/min]	Code no.
	[in.]	[mm]	[bar]	[psig]			
GBC 6s H	1/4	–	90	1305	2.05	2.37	009G7581
	–	6	90	1305	1.78	2.06	009G7580
GBC 10s H	3/8	–	90	1305	6.31	7.29	009G7582
	–	10	90	1305	7.39	8.54	009G7583
GBC 12s H	1/2	–	90	1305	15.0	17.3	009G7585
	–	12	90	1305	12.8	14.8	009G7584
GBC 16s H	5/8	16	90	1305	11.7	13.6	009G7586
GBC 18s H	3/4	–	90	1305	31.0	35.9	009G7588
	–	18	90	1305	33.7	39.0	009G7587
GBC 22s H	7/8	22	90	1305	24.4	28.2	009G7589

[1] *calculated based on fluid dynamic equations*

GBC with Stainless steel connections - butt weld



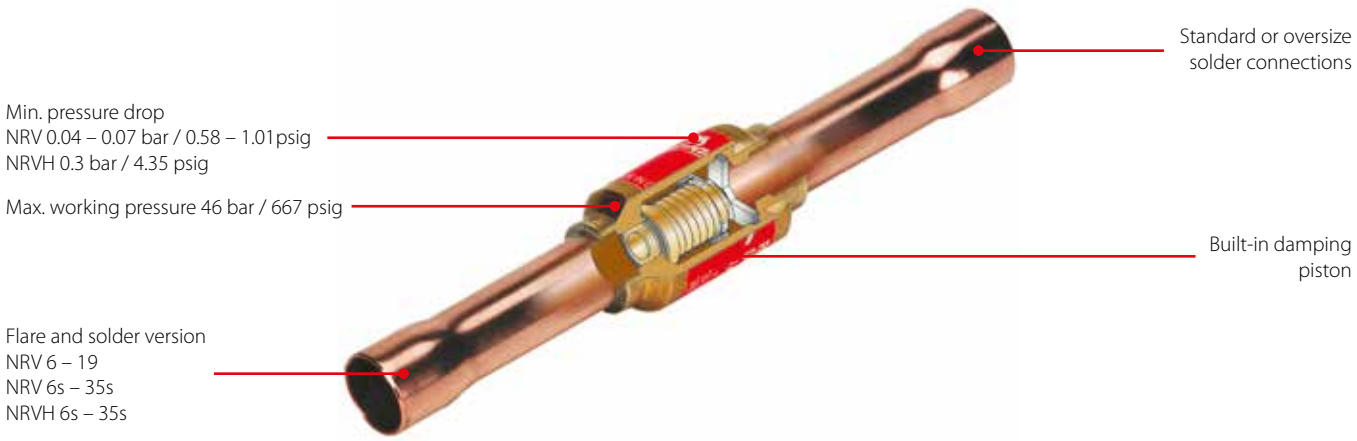
Ordering

Type	Solder ODF/ODF connection	Max. working pressure PS / MWP		K_v value [1] [m^3/h]	C_v value [1] [gpm]	Code no.
	[mm]	[bar]	[psig]			
GBC 28s H	28	90	1305	96	111	009G7406
GBC 35s H	35	75	1088	106	123	009G7410
GBC 42s H	42	75	1088	150	174	009G7411

[1] *calculated based on fluid dynamic equations*

NRV / NRVH – Check valves

NRV and NRVH check valves can be used in liquid, suction and hot gas lines in refrigeration and air conditioning plants with HCFC, HFC and HC flammable refrigerants. Special versions, with a max. working pressure of 90 bar / 1305 psig are available for CO_2 applications.
The valves ensure the correct flow direction and prevent back-condensation from a warm part of the system to the cold evaporator.
A built-in damping piston makes the valves suitable for installation in lines where pulsation can occur, e. g. in the discharge line from the compressor.



Facts

Application:
- Traditional refrigeration
- Heat pump systems
- Air conditioning units
- Liquid coolers
- Transport refrigeration

- Resonance problems can be avoided at partial load in the refrigeration plant
- Oversize connections provide flexibility in use
- Prevents back-condensation from warm to cold system part
- Ensures correct flow direction

- In refrigeration plants with compressors connected in parallel, it is advantageous to use NRVH, since the spring is stronger than in NRV
- Available in both straightway and angleway versions
- Solder versions are compliant with ATEX hazard zone 2

Technical data and ordering

NRV / NRVH

Technical data

Type	Description
Temperature range	-50 – 140 °C / -58 – 284 °F
Max. working pressure (PS/MWP)	46 bar / 667 psig
Approvals	C UL US LISTED, EAC

Note:
Only solder versions, connection size from 6s to 19s, are allowed for flammable refrigerants.

NRV Check valve - straight-way - flare

Ordering

Type	Connection type	Connection		Pressure drop across valve		k_v - value [2]	C_v - value [2]	Code no.
		[In.]	[mm]	[Δp bar] [1]	[Δp psig] [1]	[m³/h]	G/h	
NRV6	Straight-way - flare	¼	6	0.07	1.01	0.56	148	020-1040
NRV 10	Straight-way - flare	⅜	10	0.07	1.01	1.20	317	020-1041
NRV 12	Straight-way - flare	½	12	0.05	0.72	2.05	542	020-1042
NRV 16	Straight-way - flare	⅝	16	0.05	0.72	3.60	951	020-1043
NRV 19	Straight-way - flare	¾	19	0.05	0.72	5.50	1453	020-1044

[1] Δp = the minimum pressure at which the valve is completely open. The NRVH with a stronger spring is used in the discharge line from compressors connected in parallel.
[2] The k_v / C_v value is the flow of water in [m³/h – G/h] at a pressure drop across valve of 1 bar / 14.5 psig, ρ = 1000 kg/m³ - 2205 lbs/G.
[3] Oversize connections.

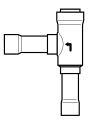
NRV Check valve - straight-way - solder ODF

Ordering

Type	Connection type	Connection		Pressure drop across valve		k_v - value [2]	C_v - value [2]	Code no.
		[In.]	[mm]	[Δp bar] [1]	[Δp psig] [1]	[m³/h]	G/h	
NRV 6s	Straight-way - Solder	¼	–	0.07	1.01	0.56	148	020-1010
	Straight-way - Solder	–	6	0.07	1.01	0.56	148	020-1014
NRV 6s [3]	Straight-way - Solder	⅜	–	0.07	1.01	0.56	148	020-1057
	Straight-way - Solder	-	10	0.07	1.01	0.56	148	020-1050
NRV 10s	Straight-way - Solder	⅜	–	0.07	1.01	1.20	317	020-1011
	Straight-way - Solder	–	10	0.07	1.01	1.20	317	020-1015
NRV 10s [3]	Straight-way - Solder	½	–	0.07	1.01	1.20	317	020-1058
	Straight-way - Solder	–	12	0.07	1.01	1.20	317	020-1051
NRV 12s	Straight-way - Solder	½	–	0.05	0.72	2.05	542	020-1012
	Straight-way - Solder	–	12	0.05	0.72	2.05	542	020-1016
NRV 12s [3]	Straight-way - Solder	⅝	16	0.05	0.72	2.05	542	020-1052
NRV 16s	Straight-way - Solder	⅝	16	0.05	0.72	3.60	951	020-1018
NRV 16s [3]	Straight-way - Solder	–	18	0.05	0.72	3.60	951	020-1053
	Straight-way - Solder	¾	19	0.05	0.72	3.60	951	020-1059
NRV 19s	Straight-way - Solder	–	18	0.05	0.72	5.50	1453	020-1017
	Straight-way - Solder	¾	19	0.05	0.72	5.50	1453	020-1019
NRV 19s [3]	Straight-way - Solder	⅞	22	0.05	0.72	5.50	1453	020-1054

[1] Δp = the minimum pressure at which the valve is completely open. The NRVH with a stronger spring is used in the discharge line from compressors connected in parallel.
[2] The k_v / C_v value is the flow of water in [m³/h – G/h] at a pressure drop across valve of 1 bar / 14.5 psig, ρ = 1000 kg/m³ - 2205 lbs/G.
[3] Oversize connections.

NRV Check valve - angle-way - solder ODF



Ordering

Type	Connection type	Connection		Pressure drop across valve		k_v - value [2]	C_v - value [2]	Code no.
		[In.]	[mm]	[Δp bar] [1]	[Δp psig] [1]	[m³/h]	G/h	
NRV 22s	Angle-way - solder	⅞	22	0.04	0.58	8.5	2245	020-1020
NRV 22s [3]	Angle-way - solder	1⅛	-	0.04	0.58	8.5	2245	020-1060
	Angle-way - solder	–	28	0.04	0.58	8.5	2245	020-1055
NRV 28s	Angle-way - solder	1⅛	–	0.04	0.58	16.5	4359	020-1021
	Angle-way - solder	–	28	0.04	0.58	16.5	4359	020-1025
NRV 28s [3]	Angle-way - solder	1⅜	35	0.04	0.58	16.5	4359	020-1056
NRV 35s	Angle-way - solder	1⅜	35	0.04	0.58	29.0	7661	020-1026
NRV 35s [3]	Angle-way - solder	1⅝	–	0.04	0.58	29.0	7661	020-1061
	Angle-way - solder	–	42	0.04	0.58	29.0	7661	020-1027

[1] Δp = the minimum pressure at which the valve is completely open. The NRVH with a stronger spring is used in the discharge line from compressors connected in parallel.
[2] The k_v / C_v value is the flow of water in [m³/h – G/h] at a pressure drop across valve of 1 bar / 14.5 psig, ρ = 1000 kg/m³ - 2205 lbs/G.
[3] Oversize connections.

Technical data and ordering

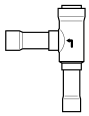
NRVH Check valve - straight-way - solder ODF

Ordering

Type	Version	Connection		Pressure drop across valve		k_v - value [2]	C_v - value [2]	Code no.
		[In.]	[mm]	[Δp bar] [1]	[Δp psig] [1]	[m³/h]	G/h	
NRVH 6s [3]	Straight-way - solder	3/8	–	0.30	4.35	0.56	148	020-1069
	Straight-way - solder	–	10	0.30	4.35	0.56	148	020-1062
NRVH 10s	Straight-way - solder	3/8	–	0.30	4.35	1.20	317	020-1046
	Straight-way - solder	–	10	0.30	4.35	1.20	317	020-1036
NRVH 10s [3]	Straight-way - solder	½	–	0.30	4.35	1.20	317	020-1070
	Straight-way - solder	–	12	0.30	4.35	1.20	317	020-1063
NRVH 12s	Straight-way - solder	½	–	0.30	4.35	2.05	542	020-1039
	Straight-way - solder	–	12	0.30	4.35	2.05	542	020-1037
NRVH 12s [3]	Straight-way - solder	5/8	16	0.30	4.35	2.05	542	020-1064
NRVH 16s	Straight-way - solder	5/8	16	0.30	4.35	3.60	951	020-1038
NRVH 16s [3]	Straight-way - solder	–	18	0.30	4.35	3.60	951	020-1065
	Straight-way - solder	¾	19	0.30	4.35	3.60	951	020-1071
NRVH 19s	Straight-way - solder	–	18	0.30	4.35	5.50	1453	020-1008
	Straight-way - solder	¾	19	0.30	4.35	5.50	1453	020-1023
NRVH 19s [3]	Straight-way - solder	7/8	22	0.30	4.35	5.50	1453	020-1066

[1] Δp = the minimum pressure at which the valve is completely open. The NRVH with a stronger spring is used in the discharge line from compressors connected in parallel.
[2] The k_v / C_v value is the flow of water in [m³/h – G/h] at a pressure drop across valve of 1 bar / 14.5 psig, ρ = 1000 kg/m³ - 2205 lbs/G.
[3] Oversize connections.

NRVH Check valve - angle-way - solder ODF

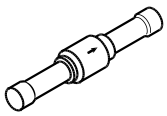


Ordering

Type	Connection type	Connection		Pressure drop across valve		k_v - value [2]	C_v - value [2]	Code no.
		[In.]	[mm]	[Δp bar] [1]	[Δp psig] [1]	[m³/h]	G/h	
NRVH 22s	Angle-way - solder	7/8	22	0.30	4.35	8.5	2245	020-1032
NRVH 22s [3]	Angle-way - solder	1 1/8	–	0.30	4.35	8.5	2245	020-1072
	Angle-way - solder	–	28	0.30	4.35	8.5	2245	020-1067
NRVH 28s	Angle-way - solder	1 1/8	–	0.30	4.35	16.5	4359	020-1029
	Angle-way - solder	–	28	0.30	4.35	16.5	4359	020-1033
NRVH 28s [3]	Angle-way - solder	1 3/8	35	0.30	4.35	16.5	4359	020-1068
NRVH 35s	Angle-way - solder	1 3/8	35	0.30	4.35	29.0	7661	020-1034
NRVH 35s [3]	Angle-way - solder	1 5/8	–	0.30	4.35	29.0	7661	020-1073
	Angle-way - solder	–	42	0.30	4.35	29.0	7661	020-1035

[1] Δp = the minimum pressure at which the valve is completely open. The NRVH with a stronger spring is used in the discharge line from compressors connected in parallel.
[2] The k_v / C_v value is the flow of water in [m³/h – G/h] at a pressure drop across valve of 1 bar / 14.5 psig, ρ = 1000 kg/m³ - 2205 lbs/G.
[3] Oversize connections.

NRV 10s H – Check valve for R744 (CO_2)



Technical data

Type	Description
Refrigerants	R744 (CO_2)
Oil	POE, PAG
Temperature range	-50 – 140 °C / -58 – 285 °F
Max. working pressure (PS/MWP)	90 bar / 1305 psig
Approvals	C UL US LISTED

NRV 10s H – Check valve - straight-way - solder ODF

Ordering

Type	Connection type	Connection size		Differential pressure to start opening the valve		Pressure drop across valve ΔP_2		k_v - value [2]	C_v - value [2]	Code no.
		[in.]	[mm]	[bar.] [1]	[psi] [1]	[bar.] [1]	[psi] [1]	[m³/h]	G/h	
NRV 10s H	Straightway Solder ODF	3/8	–	0.4	5.8	1.1	15.95	0.9	238	020-4000
	Straightway Solder ODF	–	10	0.4	5.8	1.1	15.95	0.9	238	020-4300

[1] ΔP_1 = the minimum pressure at which the valve start opening.
ΔP_2 = the minimum pressure at which the valve is completely open.
[2] The k_v / C_v value is the flow of water in [m³/h – G/h] at a pressure drop across valve of 1 bar / 14.5 psig, ρ = 1000 kg/m³ - 2205 lbs/G.

Quick Selection Notes:

Secop reciprocating compressors produced for Danfoss – Direct current

BD range is the leading and widest AC/DC compressor range tailored for cooling on the move.

The excellent performance of the BD series safeguards food, medical and telecommunication.

Features
Reciprocating compressors

Facts

Applications:
- 12/24 V DC mobile refrigerators and freezers,
- 12 V DC LBP/MBP van cooling boxes,
- 12/24 V DC HBP mobile spot cooling systems,
- 48 V DC HBP telecommunication applications.

- Operation under extreme conditions
- Minimal energy consumption
- Portable beyond traditional limits

- Safety against destructive battery discharge, electronic thermostat and fan speed control
- Low sound emission
- Application possible at extreme voltage rate

Technical data and ordering

Applications	BD35F	Compressors BD50F	BD80F
Truck refrigerators	x		
Boat refrigerators	x	x	x
Bus refrigerators	x		
Portable boxes	x	x	x
Car minibars (high end)	x		
Car minibars (SUV, MPV)	x		
Spot cooling (e.g. trucks)			
Self-contained van boxes		x	x
Battery cooling - telecommunication			
Solar chest cabinets	x	x	
Heatpumps			

Compressors R134a	Standard 12-24 V DC 101N0210	EMI 12-24 V DC 101N0220	High Start 12-24 V DC 101N0230	High Speed 12-24 V DC 101N0290	AEO EMI 12-24 V DC 101N0320	Solar 10-45 V DC 101N0400	AC/DC conv. 12-24 V DC and 100-240 V AC 101N0500	Automot. 12-24 V DC 101N0600 101N0630	Extended EMI 12-24 V DC 101N0900	Code no.
BD35F (mm con.)	x	x			x	x	x	x	x	101Z0200
BD35F (inch con.)	x	x			x	x	x	x	x	101Z0204
BD50F (mm con.)	x	x	x		x		x		x	101Z1220
BD50F (inch con.)	x	x	x		x		x		x	101Z0203
BD80F				x						101Z0280

Capacity [W] at max. speed
EN12900 Household/CECOMAF|ASHRAE

Compressors R134a	Evaporating temperature [°C]													
	-40	-35	-30	-25	-23.3	-20	-15	-10	-5	0	5	7.2	10	15
BD35F	–	–	26.2/32.2	35.9/44.2	40.4/49.7	50.5/62.2	69.8/86.0	93.6/115	122/150	–	–	–	–	–
BD50F	–	–	36.7/45.2	52.2/64.4	58.3/71.9	71.4/88.2	94.9/117	123/152	157/194	–	–	–	–	–
BD80F	–	–	54.8/67.6	78.0/96.1	86.7/107	105/130	138/170	176/218	221/274	–	–	–	–	–

Power consumption [W] at max. speed

Compressors R134a	Evaporating temperature [°C]														Code no.
	-40	-35	-30	-25	-23.3	-20	-15	-10	-5	0	5	7.2	10	15	
BD35F	–	–	36.0	42.8	45.4	50.8	59.5	68.9	78.5	–	–	–	–	–	101Z0200
BD50F	–	–	47.0	59.0	63.0	70.7	82.6	95.0	108	–	–	–	–	–	101Z1220
BD80F	–	–	69.0	87.0	93.0	105	123	144	168	–	–	–	–	–	101Z0280

Test condition
EN 12900-CECOMAF / ASHRAE LBP
Condensing temperature: 55 – 54.4 °C.
Ambient temperature: 32 – 32 °C.
Suction gas temperature: 32 – 32 °C.
Liquid temperature: 32 °C.

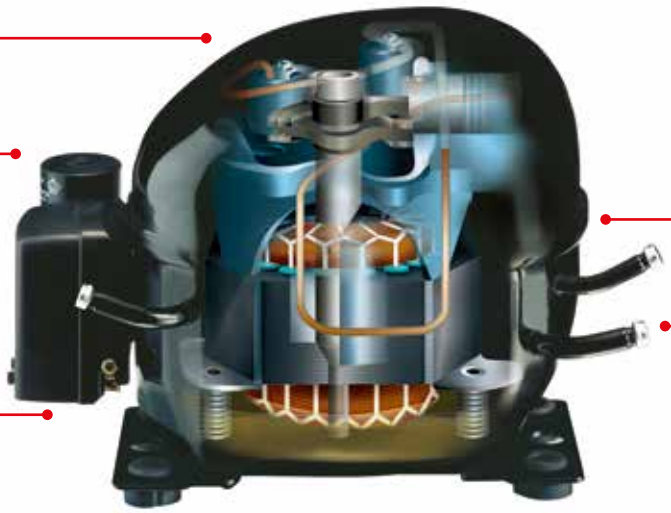
For other models in BD range, please contact Danfoss.

Secop reciprocating compressors produced for Danfoss – Light commercial

Specially optimised for use in household and light commercial applications, hermetic reciprocating compressors from Secop for Danfoss provide high cooling capacity in an energy saving design.

Compressor models are available for R134a, R290, R404A/R507A, R407C and R600a, for cooling needs from 20 W to 6 kW.

Features
Reciprocating compressors



Facts

Applications:
- Laboratory and medical equipment
- Compressed air dryers
- Glass door merchandisers
- Display cabinets
- Fridges and freezers
- Ice cream cabinets
- Vending machines
- Drink dispensers
- Ice making machines
- Bottle coolers
- Heat pumps
- Milk cooling tanks
- Wine cellars

- Easy installation
- Low noise and high energy efficiency
- Robust in tough operating conditions
- Immune to unstable power supply
- Environmentally friendly solutions

Secop inverter reciprocating compressors produced for Danfoss - Light Commercial

Cut a slice out of your energy bill with variable speed techology in supermarket and convenience store cabinets with SLV compressors. SLV inverter compressor with intelligent 220 V 50/60 Hz controller is the natural choice when you need a versatile package for a wide range of light commercial LBP and MBP applications like freezers and cabinets.
SLV compressors are available for R404A/R507 and the environmentally friendly refrigerant, R290.

Features
Inverter reciprocating compressors

Tight temperature control

Built-in data logging and failure detection

High temperature stability

Compressor, speed control, cabinet control functions, display and monitoring, all in one integrated solution

Low average motor speed and wide voltage range

Facts

Applications:
- Freezers
- Display cabinets

- Advanced efficiency reduces energy consumption dramatically
- Reduces food loss and increases food quality
- Environmentally friendly
- Enables shop owners to comply with the HACCP standard on food quality

- Easy integration in existing and new monitoring systems
- Simpler installation, less room for errors, easier field service
- Reduces food losses and increases food quality
- Lower noise level

Technical data and ordering

Reciprocating compressors - Light Commercial

R134a

Application	Compressor	Code no.			Capacity [W] conditions as listed														Power consumption [W]			
					Evaporating temperature [C°]														Evaporating temperature [C°]			
		Compressor on pallet	Compressor-single pack with HST equipment	Compressor with oil cooling	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5	10	15	20	-35	-25	-10	5
HBP/MBP/LBP	PL35G	101G0250	195B0245	–	–	–	–	–	28	39	53	69	89	112	140	172	209	–	–	48	67	90
	TL2.5G	102G4251	195B0268	–	–	–	11	22	36	51	69	90	116	145	179	219	264	–	48	60	84	113
	TL3G	102G4350	195B0006	–	–	–	–	25	41	59	81	106	136	170	211	258	312	–	–	66	96	133
	TL4G	102G4452	195B0008	–	–	–	–	41	58	80	107	140	180	226	280	342	413	–	–	83	118	154
	TL5G	102G4550	195B0011	–	–	–	–	56	79	107	139	178	224	278	341	414	497	–	–	100	149	205
	FR6G	103G6660	195B0191	–	–	–	–	48	83	124	171	226	290	365	452	552	–	–	–	109	172	241
	FR7.5G	103G6680	195B0024	103G6690	–	–	–	62	99	142	193	254	325	408	505	618	–	–	–	126	194	272
	FR8.5G	103G6780	195B0026	103G6790	–	–	–	85	123	171	228	298	381	478	592	722	–	–	–	151	231	321
	FR10G	103G6880	195B0027	103G6890	–	–	–	92	136	188	250	324	412	516	638	779	–	–	–	179	265	362
	FR11G	103G6980	195B0028	–	–	–	–	115	170	233	307	395	501	628	780		–	–	–	202	317	445
	SC10G	104G8000	195B0043	–	–	–	23	60	113	183	268	369	486	618	764	925	1100	–	93	181	290	383
	SC12G	104G8240	195B0050	104G8250	–	–	65	113	175	252	348	464	603	768	960	1182	1437	–	148	227	355	493
	SC15G	104G8520	195B0053	104G8530	–	–	–	–	164	290	424	568	728	908	1110	1340	1600	–	–	233	440	595
	SC18G	104G8820	195B0059	104G8830	–	–	–	–	283	394	526	684	870	1087	1337	1624	1950	–	–	331	507	695
	SC21G	104G8140	195B0636	–	–	–	–	–	333	453	606	792	1012	1268	1560	1889	2256	–	–	382	575	789
	SC12/12G	104G8280	195B0051	–	–	–	129	226	350	505	696	928	1206	1535	1920	2364	2875	–	296	454	710	986
	SC15/15G	104G8580	195B0056	–	–	–	–	–	328	581	847	1137	1457	1815	2220	2679	3201	–	–	465	879	1190
	SC18/18G	104G8880	195B0060	–	–	–	–	–	566	788	1052	1368	1740	2174	2674	3248	3900	–	–	662	1014	1390
	SC21/21G	104G8180	195B0049	–	–	–	–	–	667	907	1212	1584	2025	2536	3120	3778	4511	–	–	771	1156	1581
LBP	PL50F	101G0222	195B0001	–	–	–	–	–	40	56	74	95	120	148	–	–	–	–	–	58	84	–
	TLS3FT	102G4324	195B0484	–	–	–	21	34	50	69	92	120	–	–	–	–	–	–	45	62	92	–
	TLS4FT	102G4424	195B0463	–	–	–	27	43	63	88	117	152	–	–	–	–	–	–	68	87	123	–
	TLS5FT	102G4524	–	–	–	–	48	71	98	131	170	216	–	–	–	–	–	–	84.5	114	165	–
	TLES5.7FT.3	102G4615	–	–	–	–	66	90	120	156	200	253	–	–	–	–	–	–	90	120	170	–
	TLES6.5FT.3	102G4703	on request	–	–	–	72	100	134	176	228	290	–	–	–	–	–	–	107	142	200	–
	NL6FT	105G6628	195B0296	–	–	–	60	84	115	152	198	253	–	–	–	–	–	–	93	123	184	–
	NL6.1FT	105G6620	195B0440	–	–	–	60	84	115	152	198	253	–	–	–	–	–	–	93	123	184	–
	NL7.3FT	105G6726	195B0441	105G6731	–	–	71	100	136	181	235	299	–	–	–	–	–	–	108	145	220	–
	NL8.4FT	105G6865	195B0442	105G6866	–	–	87	120	162	213	275	350	–	–	–	–	–	–	127	169	252	–
	NL10FT	105G6829	+	105G6839	–	–	113	158	213	281	361	455	–	–	–	–	–	–	159	217	327	–
	SC12FT	–	195B0282 (O)	104G8215	–	–	103	163	233	314	408	517	645	–	–	–	–	–	184	265	380	–
	SC15FT	104G8505	195B0407	–	–	–	126	197	280	376	489	620	772	–	–	–	–	–	223	311	451	–
	SC18FTX	104G8805	195B0408	–	–	–	144	229	325	437	567	719	896	–	–	–	–	–	257	365	517	–
	SC21FTX	104G8105	195B0514	–	–	–	192	296	415	553	713	901	1119	–	–	–	–	–	296	428	613	–
	TL3F	102G4300	195B0254	–	–	–	–	–	42	60	82	108	138	173	–	–	–	–				
	TL4F	102G4400	195B0007	–	–	–	31	44	61	81	107	137	–	–	–	–	–	–	60	81	122	–
	TLS5F	102G4520	195B0010	–	–	–	48	71	98	131	170	216	–	–	–	–	–	–	–	66	99	–
	TLS6F	102G4620	195B0235	–	–	–	58	77	104	139	183	235	–	–	–	–	–	–	84	119	181	–
	TLS7F	102G4720	195B0255	–	–	–	66	89	120	160	208	264	–	–	–	–	–	–	97	136	207	–
	NL7F	105G6706	195B0176	–	–	–	71	99	136	182	238	303	–	–	–	–	–	–	71	136	303	–
	NL9F	105G6802	195B0178	–	–	–	74	111	155	207	268	340	–	–	–	–	–	–	109	167	260	–
	NL11F	105G6900	195B0182	105G6910	–	–	102	146	200	268	351	453	–	–	–	–	–	–	137	212	331	–
	SC15F	104G8500	195B0052	104G8510	–	–	100	155	230	325	439	573	726	–	–	–	–	–	186	275	432	–
	SC18F	104G8800	195B0057	104G8810	–	–	129	194	280	388	518	669	842	–	–	–	–	–	206	313	492	–
	SC21F	104G8100	195B0047	104G8110	–	–	186	246	335	454	602	780	987	–	–	–	–	–	275	380	600	–
MBP	NL6.1MF	105G6660	195B0411	–	–	–	–	–	–	141	189	245	312	390	482	588	709	–	–	–	187	243
	NL7.3MF	105G6772	195B0370	–	–	–	–	–	–	179	236	304	385	480	591	719	867	–	–	–	227	298
	NL8.4MF	105G6879	195B0371	–	–	–	–	–	–	213	277	353	445	553	679	825	994	–	–	–	261	349
	NL10MF	105G6885	195B0275	105G6887	–	–	–	–	–	266	346	441	554	687	843	1023	1231	–	–	–	323	435
	NL11MF	105G6151	195B0432	–	–	–	–	–	–	292	380	485	609	756	927	1125	1354	–	–	–	360	495
	NLE10MF	105G6888	–	–	–	–	88	137	194	262	343	440	554	688	845	–	–	–	134	198	308	426
	SC18MFX	104G8804	on request	–	–	–	–	–	–	430	563	722	912	1137	1400	–	–	–	–	–	507	657
	SC21MFX	104G8120	195B0478	–	–	–	–	–	–	530	682	866	1085	1343	1645	1996	–	–	–	–	594	784
	GS26MFX	107B0700	195B0433	–	–	–	–	–	–	754	989	1266	1591	1970	2411	–	–	–	–	–	696	942
	GS34MFX	107B0701	195B0435	–	–	–	–	–	–	998	1296	1648	2063	2550	3115	–	–	–	–	–	909	1234
HBP	TL4GH	102G4455	195B0122	–	–	–	–	–	–	–	104	140	182	230	287	353	429	–	–	–	121	159
	FR7GH	103G6683	195B0167	103G6692	–	–	–	–	–	–	199	255	327	417	525	655	807	–	–	–	192	258
	SC10GH	104G8041	195B0142		–	–	–	–	–	–	233	352	478	613	762	927	1113	1323	–	–	281	395
	SC10GHH	–	on request	104G8071	–	–	–	–	–	–	259	352	467	604	762	942	1144	–	–	–	260	345
	SC12GH	104G8261	195B0249	–	–	–	–	–	–	–	–	429	577	752	957	1196	1471	1787	–	–	356	487
	SC15GH	104G8561	195B0144	–	–	–	–	–	–	–	–	559	723	915	1139	1398	1698	2041	–	–	424	565
	SC15GHH	–	195B0055	104G8571	–	–	–	–	–	–	435	570	726	911	1135	1405	1731	–	–	–	377	505
	SC18GH	104G8860	195B0246	–	–	–	–	–	–	–	539	676	855	1077	1340	1645	1990	–	–	–	498	697
		104G8861	195B0266	–	–	–	–	–	–	–	485	639	825	1047	1310	1618	1976	2389	–	–	452	605
	GS26GHX	107B0702	195B0434	–	–	–	–	–	–	–	937	1198	1510	1880	2316	2826	3417	4098	–	–	737	970

***)** *For TLES5.7FT.3: single pack compressor.*
195B0421 (LST) if no additional connector (for run capacitor).
195B0562 (LST) if additional connector (for run capacitor).
***O)** Oil cooler.*
***LST)** Low Starting Torque.*

Test conditions (except GS)
EN 12900-CECOMAF
Condensing temperature 55 °C.
Ambient and suction gas temperature 32 °C.
Liquid temperature 55 °C.

Test condition for GS 26MFX and GS 34MFX
EN 12900-CECOMAF
Condensing temperature 45 °C.
Ambient temperature 32 °C.
Suction gas temperature 20 °C.
Liquid temperature 45 °C.

Test condition for GS 26GHX
EN 12900-CECOMAF
Condensing temperature 50 °C.
Ambient temperature 32 °C.
Suction gas temperature 20 °C.
Liquid temperature 50 °C.

Technical data and ordering

Displacement	Recommended compressor cooling at ambient temperatures									Voltage/ frequencies	Electrical equipment							Compressor	Dimensions					
											LST (RSIR)		HST (CSIR)		HST (CSR)	LST/HST			Height [mm]		Connectors location/I.D. [mm]			
	32 [C°]			38 [C°]			43 [C°]				PTC Starting device		Starting relay	Starting capacitor	Starting unit	Cord relief	Cover		A	B	Suction C	Process D	Discharge E	Oil cooler F
											spades		spades		spades									
[cm³]	LBP	MBP	HBP	LBP	MBP	HBP	LBP	MBP	HBP		6.3 mm	4.8 mm	6.3 mm	6.3 mm	6.3 mm									
2.00	–	F2	F2	–	F2	F2	–	–	–	1/5	103N0011	103N0018	117U6021	117U5014	–	103N1010	103N0491	PL35G	137	135	6.2	6.2	5.0	–
2.61	S	S	S	S	S	S	S	S	F2	1/2/3/4	103N0011	103N0018	117U6007	117U5014	–	103N1010	103N2011	TL2.5G	163	159	6.2	6.2	5.0	–
3.13	S	-	F2	S	S	F2	S	S	F2	1/2/3	103N0011	103N0018	117U6009	117U5014	–	103N1010	103N2010	TL3G	163	159	6.2	6.2	5.0	–
3.86	S	-	F2	S	S	F2	S	S	F2	1/2/3	103N0011	103N0018	117U6004	117U5014	–	103N1010	103N2010	TL4G	173	169	6.2	6.2	5.0	–
5.08	S	S	F2	S	S	F2	S	S	F2	1/2/3	103N0011	103N0018	117U6000	117U5014	–	103N1010	103N2010	TL5G	173	169	6.2	6.2	5.0	–
6.23	S	S	F2	S	S	F2	S	S	F2	1/2/3	103N0011	103N0018	117U6000	117U5015	–	103N1010	103N2010	FR6G	196	191	8.2	6.2	6.2	–
6.93	S	F2	F2	S	F2	F2	O/F1	F2	F2	1/2/3	103N0011	103N0018	117U6001	117U5015	–	103N1010	103N2010	FR7.5G	196	191	8.2	6.2	6.2	6.2
7.95	S	F2	F2	O/F1	F2	F2	O/F1	F2	F2	1/2/3	103N0011	103N0018	117U6015	117U5015	–	103N1010	103N2010	FR8.5G	196	191	8.2	6.2	6.2	6.2
9.05	S	F2	F2	O/F1	F2	F2	O/F1	F2	F2	1/2/3	103N0011	103N0018	117U6010	117U5015	–	103N1010	103N2010	FR10G	196	191	8.2	6.2	6.2	6.2
11.15	F2	F2	F2	F2	F2	F2	F2	F2	F2	1/2	103N0011	103N0018	117U6010	117U5015	–	103N1010	103N2010	FR11G	196	191	8.2	6.2	6.2	–
10.29	F1	F1	F2	F1	F1	F2	F1	F1	F2	1/2/3	103N0002	–	117U6002	117U5017	–	103N1004	103N2009	SC10G	199	193	8.2	6.2	6.2	–
12.87	O/F1	F2	F2	O/F1	F2	F2	O/F1	F2	F2	1/2/3	103N0002	–	117U6003	117U5017	–	103N1004	103N2009	SC12G	209	203	8.2	6.2	6.2	6.2
15.28	O/F1	F2	F2	O/F1	F2	F2	O/F1	F2	F2	1/2/3	–	–	117U6005	117U5017	–	103N1004	103N2009	SC15G	209	203	10.2	6.2	6.2	6.2
17.69	O/F1	F2	F2	O/F1	F2	F2	O/F1	F2	F2	2/3	–	–	117U6019	117U5017	–	103N1004	103N2009	SC18G	219	213	10.2	6.2	6.2	–
20.95	F2	F2	F2	F2	F2	F2	F2	F2	F2	1/2/3	–	–	–	–	117-7028	103N1004	103N2009	SC21G	219	213	10.2	6.2	6.2	–
2×12.87	F2	F2	F2	F2	F2	F2	F2	F2	F2	1	–	–	117U6003	117U5017	–	103N1004	103N2009	SC12/12G	249	244	12	6.2	6.2	–
2×15.28	F2	F2	F2	F2	F2	F2	F2	F2	F2	1	–	–	117U6005	117U5017	–	103N1004	103N2009	SC15/15G	249	244	12	6.2	6.2	–
2×17.69	F2	F2	F2	F2	F2	F2	F2	F2	F2	1	–	–	117U6019	117U5017	–	103N1004	103N2009	SC18/18G	259	254	16	6.2	6.2	–
2×20.95	F2	F2	F2	F2	F2	F2	F2	F2	F2	1	–	–	–	–	117-7028	103N1004	103N2009	SC21/21G	259	254	16	6.2	6.2	–
2.50	–	F2	–	–	F2	–	–	–	–	1	–	–	117U6021	117U5014	–	103N1010	103N0491	PL50F	137	135	6.2	6.2	5.0	–
3.13	S	–	–	S	–	–	S	–	–	2	103N0011	103N0018	117U6007	117U5014	–	103N1010	103N2010	TLS3FT	173	169	6.2	6.2	5.0	–
3.86	S	–	–	S	–	–	S	–	–	2	103N0011	103N0018	117U6004	117U5014	–	103N1010	103N2010	TLS4FT	173	169	6.2	6.2	5.0	–
5.08	S	–	–	S	–	–	S	–	–	2	103N0011	103N0018	117U6000	117U5014	–	103N1010	103N2010	TLS5FT	173	169	6.2	6.2	5.0	–
5.70	S	–	–	S	–	–	S	–	–	2	103N0011	103N0018	117U6004	117U5014	–	103N1010	103N2010	TLES5.7FT.3	173	169	6.2	6.2	5.0	–
6.49	S	–	–	S	–	–	S	–	–	2	103N0011	103N0018	117U6016	117U5014	–	103N1010	103N2011	TLES6.5FT.3	173	169	6.2	6.2	5.0	–
6.13	S	–	–	S	–	–	S	–	–	2/3	103N0011	103N0018	117U6000	117U5015	–	103N1010	103N2010	NL6FT	197	191	6.2	6.2	5.0	–
6.13	S	–	–	S	–	–	S	–	–	2	103N0011	103N0018	117U6000	117U5015	–	103N1010	103N2010	NL6.1FT	188	182	6.2	6.2	5.0	–
7.27	S	–	–	S	–	–	O/F1	–	–	2	103N0011	103N0018	117U6001	117U5015	–	103N1010	103N2010	NL7.3FT	188	182	6.2	6.2	5.0	5.0
8.35	S	–	–	O/F1	–	–	O/F1	–	–	2	103N0011	103N0018	117U6001	117U5015	–	103N1010	103N2010	NL8.4FT	190	184	6.2	6.2	5.0	5.0
10.10	S	–	–	O/F1	–	–	O/F1	–	–	2	103N0011	103N0018	117U6002	117U5015	–	103N1010	103N2010	NL10FT	203	197	8.2	6.2	6.2	6.2
12.87	O/F1	–	–	O/F1	–	–	F2	–	–	2/3	103N0002	–	117U6003	117U5017	–	103N1004	103N2009	SC12FT	209	203	8.2	6.2	6.2	6.2
15.28	F1	–	–	F1	–	–	F2	–	–	2/3	103N0002	–	117U6005	117U5017	–	103N1004	103N2009	SC15FT	209	203	10.2	6.2	6.2	–
17.69	F2	–	–	F2	–	–	F2	–	–	2/3	–	–	117U6019	117U5017	–	103N1004	103N2009	SC18FTX	219	213	10.2	6.2	6.2	–
20.95	F2	–	–	F2	–	–	F2	–	–	2	–	–	117U6019	117U5017	–	103N1004	103N2009	SC21FTX	219	213	10.2	6.2	6.2	–
3.13	S	–	–	S	–	–	–	–	–	1	103N0011	103N0018	117U6007	117U5014	–	103N1010	103N2010	TL3F	163	159	6.2	6.2	5.0	–
3.86	S	–	–	S	–	–	–	–	–	1	103N0011	103N0018	117U6009	117U5014	–	103N1010	103N2010	TL4F	163	159	6.2	6.2	5.0	–
5.08	S	–	–	S	–	–	–	–	–	1	103N0011	103N0018	117U6004	117U5014	–	103N1010	103N2010	TLS5FX	170	169	6.2	6.2	5.0	–
5.70	S	–	–	S	–	–	–	–	–	1	103N0011	103N0018	117U6004	117U5014	–	103N1010	103N2010	TLS6FX	170	169	6.2	6.2	5.0	–
6.49	S	–	–	S *)	–	–	–	–	–	1	103N0011	103N0018	117U6000	117U5014	103N0016	103N1010	103N2010	TLS7FX	170	157	6.2	6.2	5.0	–
7.27	S	–	–	S	–	–	–	–	–	1	103N0011	103N0018	117U6000	117U5015	–	103N1010	103N2010	NL7FX	190	184	6.2	6.2	5.0	–
8.35	S	–	–	S	–	–	–	–	–	1	103N0011	103N0018	117U6001	117U5015	–	103N1010	103N2010	NL9FX	197	191	8.2	6.2	6.2	–
11.15	O/F1	–	–	O/F1	–	–	–	–	–	1	103N0011	103N0018	117U6002	117U5015	–	103N1010	103N2010	NL11FX	203	197	8.2	6.2	6.2	–
15.28	O/F1	–	–	O/F1	–	–	–	–	–	1	103N0002	–	117U6003	117U5017	–	103N1004	103N2009	SC15FX	209	203	8.2	6.2	6.2	–
17.69	O/F1	–	–	O/F1	–	–	–	–	–	1	–	–	117U6005	117U5017	–	103N1004	103N2009	SC18FX	209	203	10.2	6.2	6.2	–
20.95	O/F1	–	–	O/F1	–	–	–	–	–	1	–	–	117U6019	117U5017	–	103N1004	103N2009	SC21FX	219	213	10.2	6.2	6.2	–
6.13	–	F1	F1	–	F1	F1	–	F1	F1	7/5	103N0011	103N0018	117U6015	117U5015	–	103N1010	103N2011	NL6.1MF	190	184	8.2	6.2	6.2	–
7.27	–	F1	F1	–	F1	F1	–	F1	F1	7/5	103N0011	103N0018	117U6016	117U5015	–	103N1010	103N2011	NL7.3MF	197	191	8.2	6.2	6.2	–
8.35	–	F1	F1	–	F1	F1	–	F1	F1	7/5	103N0011	103N0018	117U6016	117U5015	–	103N1010	103N2011	NL8.4MF	197	191	8.2	6.2	6.2	–
10.10	–	F1	F1	–	F1	F1	–	F1	F1	7/5	103N0011	103N0018	117U6022	117U5018	–	103N1010	103N2011	NL10MF	203	197	8.2	6.2	6.2	–
11.15	–	F2	F2	–	F2	F2	–	F2	F2	7	103N0011	103N0018	117U6022	117U5018	–	103N1010	103N2011	NL11MF	203	197	8.2	6.2	6.2	–
10.10	F1	F1	–	F1	F1		F1	F1	–	1	103N0011	103N0018	117U6003	117U5015	–	103N1010	103N2011	NLE10MF	203	197	8.2	6.2	6.2	–
17.69	–	F2	–	–	F2	–	–	F2	–	7/8	–	–	117U6019	117U5017	117-7012	103N1004	103N2008	SC18MFX	219	213	10.2	6.2	6.2	–
20.95	–	F2	–	–	F2	–	–	F2	–	7	–	–	117U6019	117U5017	117-7038	103N1004	103N2009	SC21MFX	219	213	10.2	6.2	6.2	–
26.30	–	F2	–	–	F2	–	–	F2	–	1	–	–	–	–	117-7055	107B9100/9101/9104*)		GS26MFX	259	247	12.9	6.5	8.2	–
33.80	–	F2	–	–	F2	–	–	F2	–	1	–	–	–	–	117-7056	107B9100/9101/9104*)		GS34MFX	259	247	12.9	6.5	8.2	–
3.86	–	–	F2	–	–	F2	–	–	F2	1/4	–	–	117U6000	117U5014	–	103N1010	103N2011	TL4GH	173	169	6.2	6.2	5.0	–
6.93	–	–	O/F1	–	–	O/F1	–	–	O/F1	1/4	–	–	117U6016	117U5015	–	103N1010	103N2011	FR7GH	196	191	8.2	6.2	8.2	8.2
10.29	–	–	F2	–	–	F2	–	–	F2	1/4	–	–	117U6005	117U5019	–	103N1004	103N2008	SC10GH	199	193	10.2	6.2	8.2	–
10.29	–	–	O	–	–	O	–	–	O	1	–	–	–	–	117-7011	103N1004	103N2009	SC10GHH	209	203	10.2	6.2	6.2	–
12.87	–	–	F2	–	–	F2	–	–	F2	1/4	–	–	117U6011	117U5019	–	103N1004	103N2008	SC12GH	209	203	10.2	6.2	8.2	–
15.28	–	–	F2	–	–	F2	–	–	F2	1/4	–	–	117U6011	117U5019	–	103N1004	103N2008	SC15GH	209	203	10.2	6.2	8.2	–
15.28	–	–	O	–	–	O	–	–	O	1	–	–	–	–	117-7012	103N1004	103N2009	SC15GHH	209	203	10.2	6.2	8.2	8.2
17.69	–	–	F2	–	–	F2	–	–	F2	1	–	–	117U6019	117U5017	–	103N1004	103N2009	SC18GH	219	213	10.2	6.2	8.2	–
17.69	–	–	F2	–	–	F2	–	–	F2	1/4	–	–	–	–	117-7038	103N1004	103N2008	SC18GH	219	213	10.2	6.2	8.2	–
26.30	–	–	F2	–	–	F2	–	–	F2	1	–	–	–	–	117-7070	107B9100/9101/9104*)		GS26GH	259	247	12.9	6.5	8.2	–

Technical data and ordering

Reciprocating compressors - Light Commercial

R404A/R507 - 50 Hz

Application	Compressor	Code no.		Cooling capacity [W] conditions as listed														Power consumption [W]				Displacement	Recommended at ambient (* = Run capacitor			
		Compressor	Compressor single pack with HST equipment	Evaporating temperature [°C]														Evaporating temperature [°C]					32 [C°]			
				-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5	10	15	20	-35	-25	-10	5	[cm³]	LBP	MBP	HBP	LBP
LBP	TL4CL	102U2071	195B0021	52	65	84	110	142	182	230	286	352	–	–	–	–	–	105	140	198	–	3.86	F_2	F_2	–	F_2
	TL4.5CLX	102U2117	195B0573	–	80	106	139	181	232	294	366		–	–	–	–	–	138	181	252	–	4.63	F_2		–	F_2
	FR6CL	103U2670	195B0031	77	108	145	189	243	307	383	473	578	–	–	–	–	–	180	242	353	–	6.23	F_2	F_2	–	F_2
	FR7.5CL	103U2790	195B0398	86	114	154	202	262	333	418	515	630	–	–	–	–	–	197	267	395	–	6.93	F_2	F_2	–	F_2
	FR8.5CL	103U2890	195B0038	99	126	168	222	290	372	468	577		–	–	–	–	–	231	315	472	–	7.95	F_2		–	F_2
	NL7CLX	105F3710	195B0350	102	146	199	263	340	430	536	657	796	–	–	–	–	–	214	274	381	–	7.27	F_1	F_1	–	F_1
	NL8.4CLX	105F3800	195B0481	111	158	216	287	370	468	583	715	866	–	–	–	–	–	238	305	428	–	8.35	F_2	F_2	–	F_2
	SC10CL	104L2523	195B0074	–	–	168	258	365	489	634	800	991	–	–	–	–	–	243	350	530	–	10.29	F_2	F_2	–	F_2
	SC10CLX	104L2533	195B0151	–	–	166	255	360	483	625	789	977	–	–	–	–	–	258	352	508	631	10.29	F_2	F_2	–	F_2
	SC12CL	104L2623	195B0076	58	140	237	353	490	650	835	–	–	–	–	–	–	–	316	445	654	–	12.87	F_2	F_2	–	F_2
	SC12CLX.2	104L2697	195B0379	130	205	294	399	522	666	834	–	–	–	–	–	–	–	365	475	659	–	12.87	F_2	–	–	F_2
	SC15CL	104L2853	195B0088	–	151	299	452	615	792	988	1208	1458	–	–	–	–	–	400	560	790	–	15.28	F_2	F_2	–	F_2
	SC18CL	104L2123	195B0066	167	271	395	542	715	918	1154	1425	1735	–	–	–	–	–	455	615	894	–	17.69	F_2	F_2	–	F_2
	SCE18CLX.2	104L2196	195B0525	194	306	439	595	780	995	–	–	–	–	–	–	–	–	459	621	888	–	17.68	F_2	–	–	F_2
	SC21CLX	104L2322	195B0640	226	325	455	617	813	–	–	–	–	–	–	–	–	–	534	702	989	–	20.95	F_2	–	–	F_2
	GS26CLX	107B0500	195B0427	325	497	703	949	1240	–	–	–	–	–	–	–	–	–	669	888	–	–	26.30	F_2	–	–	F_2
	GS34CLX	107B0501	195B0439	–	729	–	–	–	–	–	–	–	–	–	–	–	–	924	–	–	–	33.80	F_2	–	–	F_2
	SC10/10CL	104L4087	195B0108	–	–	336	517	730	979	1268	1601	1981	–	–	–	–	–	486	701	1060	–	2×10.29	F_2	F_2	–	F_2
	SC12/12CL	104L4088	195B0119	115	279	475	706	980	–	–	–	–	–	–	–	–	–	633	891	–	–	2×12.87	F_2	F_2	–	F_2
	SC15/15CL	104L4089	195B0109	–	302	599	905	–	–	–	–	–	–	–	–	–	–	801	–	–	–	2×15.28	F_2	F_2	–	F_2
	SC18/18CL	104L4090	195B0110	333	541	789	–	–	–	–	–	–	–	–	–	–	–	910	–	–	–	2×17.68	F_2	F_2	–	F_2
	SC21/21CL	104L4094	195B0114	452	650	910	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2×20.95	F_2	–	–	F_2
MBP	NL6.1MLX	105F3611	on request	–	–	–	–	–	334	425	530	650	789	946	–	–	–	–	–	312	375	6.13	–	F_2	–	–
	NF7MLX	105F3720	195B0443	–	–	–	–	–	–	511	635	777	940	–	–	–	–	–	–	406	488	7.27	–	F_2	–	–
	SC10MLX	104L2506	195B0345	–	–	–	–	–	546	687	855	–	–	–	–	–	–	–	–	518	633	10.29	–	F_2	–	–
	SC12MLX	104L2606	195B0323	–	–	–	–	–	669	838	–	–	–	–	–	–	–	–	–	620	762	12.87	–	F_2	–	–
	SC15MLX	104L2869	195B0391	–	–	–	–	–	829	–	–	–	–	–	–	–	–	–	–	780	979	15.28	–	F_2	–	–
	SC18MLX	104L2139	195B0652	–	–	–	–	–	968	–	–	–	–	–	–	–	–	–	–	860	–	17.68	–	F_2	–	–
	SC18MLX.3	104L2146	195B0653	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	878	–	17.68	–	F_2	–	–
	GS21MLX	107B0502	195B0436	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	965	–	21.20	–	F_2	–	–
	GS26MLX	107B0503	195B0437	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	26.30	–	F_2	–	–
	GS34MLX	107B0504	195B0438	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	33.80	–	F_2	–	–
HBP	TL4DL	102U2038	195B0166	–	–	–	–	–	196	229	281	349	432	527	631	–	–	–	–	203	256	3.86	–	F_2	F_2	–
	FR6DL	103U2680	195B0032	–	–	–	–	–	317	385	471	576	698	840	999	–	–	–	–	354	456	6.23	–	F_2	F_2	–
	SC10DL	104L2525	195B0075	–	–	–	–	–	471	611	775	968	–	–	–	–	–	–	–	479	590	10.29	–	F_2	F_2	–
	SC12DL	104L2625	195B0077	–	–	–	–	–	609	806	–	–	–	–	–	–	–	–	–	624	750	12.87	–	F_2	F_2	–
	SC15DL	104L2856	195B0089	–	–	–	–	–	759	964	–	–	–	–	–	–	–	–	–	722	865	15.28	–	F_2	F_2	–
	SC15DLX.2	104L2871	on request	–	–	–	–	–	774	983	–	–	–	–	–	–	–	–	–	739	870	15.28	–	F_2	F_2	–
	SC10/10DL	104L4091	195B0111	–	–	–	–	–	943	–	–	–	–	–	–	–	–	–	–	957	–	2×10.29	–	F_2	F_2	–
	SC12/12DL	104L4092	195B0112	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2×12.87	–	F_2	F_2	–
	SC15/15DL	104L4093	195B0113	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2×15.28	–	F_2	F_2	–

SLV) *SC Variable speed Compressor.*
Performances are displayed at 4.000 rpm.

Test conditions (except GS)
EN 12900-CECOMAF
Condensing temperature 55 °C.
Ambient and suction gas temperature 32 °C.
Liquid temperature 55 °C.

Test condition for GS 26MFX and GS 34MFX
EN 12900-CECOMAF
Condensing temperature 45 °C.
Ambient temperature 32 °C.
Suction gas temperature 20 °C.
Liquid temperature 45 °C.

Test condition for GS 26GHX
EN 12900-CECOMAF
Condensing temperature 50 °C.
Ambient temperature 32 °C.
Suction gas temperature 20 °C.
Liquid temperature 50 °C.

Technical data and ordering

compressor cooling temperature (compulsory)					Voltage and frequencies	Electrical Equipment					Dimensions				
						HST (CSIR)		HST (CSR)	LST/HST		Height [mm]		Connectors location/I.D. [mm]		
38 [C°]		43 [C°]				Starting relay	Starting capacitor	Starting device	Cord relief	Cover	A	B	Suction C	Process D	Discharge E
						spades		spades							
MBP	HBP	LBP	MBP	HBP		6.3 mm	6.3 mm	6.3 mm							
F_2	–	–	–	–	1	117U6000	117U5014	–	103N1010	103N2010	173	169	6.2	6.2	5.0
	–	F_2			1	117U6001	117U5014	–	103N1004	117U1022	173	169	6.2	6.2	5.0
F_2	–	–	–	–	1	117U6015	117U5015	–	103N1010	103N2010	196	191	8.2	6.2	6.2
F_2	–	–	–	–	1	117U6016	117U5015	–	103N1010	103N2010	196	191	8.2	6.2	6.2
–	–	–	–	–	1	117U6010	117U5015	–	103N1010	103N2010	196	191	8.2	6.2	6.2
F_1	–	F_2	F_2	–	1	117U6002	117U5015	–	103N1010	103N2010	203	197	8.2	6.2	6.2
F_2	–	F_2	F_2	–	1	117U6003	117U5015	–	103N1010	103N2010	203	197	8.2	6.2	6.2
F_2	–	–	–	–	1	117U6003	117U5017	–	103N1004	103N2009	209	203	8.2	6.2	6.2
F_2	–	–	–	–	1/3	117U6005	117U5017	–	103N1004	103N2008	209	203	8.2	6.2	6.2
F_2	–	–	–	–	1	117U6005	117U5017	–	103N1004	103N2009	209	203	8.2	6.2	6.2
–	–	–	–	–	1/4	117U6019	117U5017	–	103N1004	103N2008	219	213	8.2	6.2	6.2
F_2	–	–	–	–	1	117U6019	117U5017	–	103N1004	103N2009	219	213	10.2	6.2	6.2
F_2	–	–	–	–	1	–	–	117-7012	103N1004	103N2009	219	213	10.2	6.2	6.2
–	–	F_2	–	–	1	–	–	117-7012	103N1004	103N2009	219	213	10.2	6.2	6.2
–	–	–	–	–	1	–	–	117-7012	103N1004	103N2009	219	213	10.2	6.2	6.2
–	–	F_2	–	–	1	–	–	117-7056	107B9100/9101/9104 *)		259	247	12.9	6.5	8.2
–	–	–	–	–	1	–	–	117-7074	107B9100/9101/9104 *)		279	267	12.9	6.5	8.2
F_2	–	–	–	–	1	117U6003	117U5017	–	103N1004	103N2009	249	244	12	6.2	6.2
F_2	–	–	–	–	1	117U6005	117U5017	–	103N1004	103N2009	249	244	12	6.2	6.2
F_2	–	–	–	–	1	117U6019	117U5017	–	103N1004	103N2009	259	254	12	6.2	6.2
F_2	–	–	–	–	1	–	–	117-7012	103N1004	103N2009	259	254	16	6.2	6.2
–	–	–	–	–	1	–	–	117-7012	103N1004	103N2009	259	254	16	6.2	6.2
F_2	–	–	F_2	–	7/8	117U6022	117U5015	–	103N1010	103N2011	203	197	8.2	6.5	6.5
F_2	–	–	F_2	–	7/8	117U4139	117U5018	–	2 × 117U0349	117U1021	203	197	9.7	6.5	6.5
F_2	–	–	F_2	–	7/8	117U6011	117U5017	–	103N1004	103N2008	209	203	8.2	6.5	6.5
F_2	–	–	F_2	–	7/8	117U6011	117U5017	–	103N1004	103N2008	219	213	8.2	6.5	6.5
F_2	–	–	–	–	1	117U6013	117U5012	–	103N1004	103N2009	219	213	10.2	6.2	6.2
F_2	–	–	–	–	1	–	–	117-7012	103N1004	103N2009	219	213	10.2	6.2	6.2
F_2	–	–	–	–	1	–	–	117-7012	103N1004	103N2009	219	213	10.2	6.2	6.2
F_2	–	–	F_2	–	1	–	–	117-7070	107B9100/9101/9104 *)		259	247	12.9	6.5	8.2
F_2	–	–	F_2	–	1	–	–	117-7072	107B9100/9101/9104 *)		279	267	16.1	6.5	9.7
F_2	–	–	F_2	–	1	–	–	117-7056	107B9100/9101/9104 *)		279	267	16.1	6.5	9.7
F_2	F_2	–	–	–	1	117U6001	117U5014	–	103N1010	103N2010	173	169	6.2	6.2	5.0
F_2	F_2	–	–	–	1	117U6010	117U5015	–	103N1010	103N2010	196	191	8.2	6.2	6.2
F_2	F_2	–	–	–	1	117U6005	117U5017	–	103N1004	103N2009	209	203	8.2	6.2	6.2
F_2	F_2	–	–	–	1	117U6019	117U5017	–	103N1004	103N2009	219	213	10.2	6.2	6.2
F_2	F_2	–	–	–	1	–	–	117-7028	103N1004	103N2009	219	213	10.2	6.2	6.2
F_2	F_2	–	–	–	1	117U6019	117U5017	–	103N1004	103N2009	219	213	10.2	6.2	8.2
F_2	F_2	–	–	–	1	117U6005	117U5017	–	103N1004	103N2009	249	244	12	6.2	6.2
F_2	F_2	–	–	–	1	117U6019	117U5017	–	103N1004	103N2009	249	244	12	6.2	6.2
F_2	F_2	–	–	–	1	–	–	117-7028	103N1004	103N2009	259	254	16	6.2	6.2

Technical data and ordering

Reciprocating compressors - Light Commercial

R290

Application	Compressor	Code no.		EN 12900 (CECOMAF) Capacity [W]														Power consumption [W]				Displacement	Recommended at ambient (* = Run capacitor			
		Compressor	Compressor single pack with HST equipment	Evaporating temperature [C°]														Evaporating temperature [C°]					32 + [C°]			38 [C°]
				-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5	10	15	20	-35	-25	-10	5	[cm³]	LBP	MBP	HBP	LBP
LBP / MBP	TL3CN	102H4380	195B0581	–	38	54	75	99	128	161	200	244	294	351	–	–	–	90	108	135	162	3.13	F_1	F_1	–	F_1
	TL4CN	102H4490	195B0589	–	56.5	77.8	103	132	166	205	250	302	360	426	–	–	–	101	127	162	188	3.86	F_1	F_1	–	F_1
	TL5CN	102H4590	195B0420	–	81	109	143	183	230	283	345	416	496	586	–	–	–	130	162	211	266	5.08	F_1	F_1	–	F_1
	NL7CN	105H6756	195B0451	–	118	166	223	290	368	458	561	679	814	965	–	–	–	174	221	291	372	7.27	F_1	F_1	–	F_1
	NL9CN	105H6856	195B0265	–	138	194	259	335	423	526	643	778	930	1102	–	–	–	196	250	334	428	8.35	F_1	F_1	–	F_1
	SC10CNX	–	195B0474	–	126	179	245	325	420	531	660	809	979	1172	–	–	–	208	274	362	–	10.29	F_2	F_2	–	F_2
	SC12CNX	104H8265	195B0333	–	178	250	331	426	540	678	846	1050	1293	1582	–	–	–	269	344	456	–	12.87	F_2	F_2	–	F_2
	SC15CNX	104H8565	195B0203	–	195	297	415	550	707	887	1093	1328	1594	1894	–	–	–	315	420	560	–	15.28	F_2	F_2	–	F_2
	SC18CNX	104H8865	195B0414	–	219	341	480	640	824	1033	1272	1543	1849	2193	–	–	–	370	500	707	–	17.69	F_2	F_2	–	F_2
	DLE5.7CN	102H4652	195B0714	–	–	155	198	247	303	367	443	530	632	752	–	–	–	142	176	222	261	5.7	F_2	F_2	–	F_2
	DLE7.5CN	102H4852	195B0715	–	–	193	246	308	382	467	567	682	813	964	–	–	–	185	226	288	352	7.5	F_2	F_2	–	F_2
	NLE8.8CN	105H6880	195B0716	–	–	237	297	368	451	549	664	796	949	1123	–	–	–	206	255	326	382	8.8	F_2	F_2	–	F_2
	NLE10CN	105H6175	195B0717	–	–	260	331	417	520	638	774	928	1102	1296	–	–	–	234	303	401	470	10.1	F_2	F_2	–	F_2
LBP	NLE11CNL	105H6174	195B0718	–	–	279	359	456	570	700	848	–	–	–	–	–	–	262	329	436	–	11.2	F_2	F_2	–	F_2
	SC12CNX.2	104H8266	195B0458	–	186	258	346	453	578	725	895	–	–	–	–	–	–	298	379	502	–	12.87	F_2	–	–	F_2
	SC15CNX.2	104H8566	195B0505	–	252	332	434	560	714	900	1120	–	–	–	–	–	–	351	445	610	–	15.28	F_2	–	–	F_2
	SC18CNX.2	104H8866	195B0489	–	244	384	531	689	863	1057	1273	–	–	–	–	–	–	417	541	682	–	17.69	F_2	–	–	F_2
	SC21CNX.2	104H8166	195B0459	–	339	492	654	828	1020	1233	1471	–	–	–	–	–	–	491	623	855	–	20.95	F_2	–	–	F_2
	SLV15CNK.2	104L8541	195B0505	–	325	460	615	792	996	1228	1494	–	–	–	–	–	–	436	583	771	–	15.28	F_2	–	–	F_2

SLV) *SC Variable speed Compressor. Performances are displayed at 4.000 rpm.*

Test condition
EN 12900/CECOMAF LBP
Condensing temperature 45 °C
Ambient temperature 32 °C
Suction gas temperature 32 °C
Liquid temperature no subcooling

R600a

Application	Compressor	Code no.		EN 12900 (CECOMAF) Capacity [W]														Power consumption [W]				Displacement	Recommended at ambient (* = Run capacitor			
		Compressor	Compressor single pack with LST equipment	Evaporating temperature [C°]														Evaporating temperature [C°]					32 [°C]			38 [°C]
				-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5	10	15	20	-35	-25	-10	5	[cm³]	LBP	MBP	HBP	LBP
MBP	PLE35K	101H0360	195B0542	–	–	–	–	27.2	38.4	51.7	67.7	86.6	109	–	–	–	–	–	40.1	53.1	–	3.00	S *)	S	–	S *)
LBP / MBP	TLES4KK.2	102H4435	on request	–	–	18	28	40	55	74	96	123	154	–	–	–	–	35	45	61	–	3.86	S	–	–	S
	TLES5KK.2	102H4535	on request	–	–	28	41	57	76	99	126	159	196	–	–	–	–	44	57	80	–	5.08	S	–	–	S
LBP	TLX4.8KK.3	102H4541	195B0565	–	–	29	42.1	57	74.2	94.2	117	–	–	–	–	–	–	34.5	46.5	65.5	–	4.78	S *)	–	–	S *)
	TLES5.7KK.3	102H4638	195B0366	–	–	36.4	50.7	68	89	114	144	–	–	–	–	–	–	50.1	66.5	93.4	–	5.70	S	–	–	S
	TLX8.7KK.3	102H4947	195B0361	–	–	64.8	87.9	115	146	184	227	–	–	–	–	–	–	65.7	87.7	123	–	8.67	S *)	–	–	S *)
	NLX10KK.2	105H6101	195B0405	–	–	74.5	101	133	171	217	271	–	–	–	–	–	–	63.5	89.5	134	–	10.09	S *)	–	–	S *)
	NLE10KK.2	105H6851	–	–	–	67	91	120	155	198	249	–	–	–	–	–	–	82	109	157	–	10.09	S	–	–	S
	NLE10KK.4	105H6867	195B0517	–	–	73.9	98.3	128	164	207	257	–	–	–	–	–	–	81.3	108	161	–	10.09	S	–	–	S

Test condition
EN 12900/CECOMAF LBP
ondensing temperature 45 °C.
Ambient temperature 32 °C.
Suction gas temperature 20 °C.
Liquid temperature no subcooling.

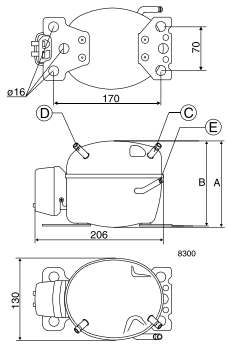
Technical data and ordering

compressor cooling (temperature compulsory)					Voltage and frequencies	Electrical Equipment											Dimensions				
						LST (RSIR)		LST (RSCR)		Run capacitor		HST (CSIR)		HST (CSR)	LST/HST		Height [mm]		Connectors location/I.D. [mm]		
38 [C°]		43 [C°]				PTC Starting device w/o run capacitor connector		PTC device with run capacitor connector		1 optional 2 compulsory		Starting relay	Starting capacitor	Starting unit	Cordrelief	Cover					
						spades		spades		spades		spades		spades							
MBP	HBP	LBP	MBP	HBP		6.3 mm	4.8 mm	6.3 mm	4.8 mm	6.3 mm	4.8 mm	6.3 mm	6.3 mm	6.3 mm			A	B	Suction C	Process D	Discharge E
F_1	–	F_1	F_1	–	1	103N0011	103N0018	–	–	–	–	117U7004	117U5014	–	103N1010	103N2010	163	159	6.2	6.2	5.0
F_1	–	F_1	F_1	–	1	103N0011	103N0018	–	–	–	–	117U7004	117U5014	–	103N1010	103N2010	173	169	6.2	6.2	5.0
F_1	–	F_1	F_1	–	1	103N0011	103N0018	103N0016	103N0021	117-7117[1]	117-7119[1]	117U7000	117U5014	–	103N1010	103N2010	173	169	6.2	6.2	5.0
F_1	–	F_1	F_2	–	1	103N0011	103N0018	103N0016	103N0021	117-7117[1]	117-7119[1]	117U7002	117U5015	–	103N1010	103N2010	203	197	8.2	6.2	6.2
F_1	–	F_2	F_2	–	1	103N0011	103N0018	103N0016	103N0021	117-7117[1]	117-7119[1]	117U7002	117U5015	–	103N1010	103N2010	203	197	8.2	6.2	6.2
F_2	–	F_2	F_2	–	1	–	–	–	–	–	–	–	–	117-7049	103N1004	103N2009	209	203	8.2	6.2	6.2
F_2	–	F_2	F_2	–	1	–	–	–	–	–	–	–	–	117-7049	103N1004	103N2009	209	203	8.2	6.2	6.2
F_2	–	F_2	F_2	–	1	–	–	–	–	–	–	–	–	117-7051	103N1004	103N2009	209	203	8.2	6.2	6.2
F_2	–	F_2	F_2	–	1	–	–	–	–	–	–	–	–	117-7034	103N1004	103N2009	219	213	10.2	6.2	6.2
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
–	–	F_2	–	–	1	–	–	–	–	–	–	117U7003	117U5017	–	103N1004	103N2009	209	203	8.2	6.2	6.2
–	–	F_2	–	–	1	–	–	–	–	–	–	117U7005	117U5017	–	103N1004	103N2009	209	203	8.2	6.2	6.2
–	–	F_2	–	–	1	–	–	–	–	–	–	117U7011	117U5017	–	103N1004	103N2009	219	213	10.2	6.2	6.2
–	–	F_2	–	–	1	–	–	–	–	–	–	117U7013	117U5012	–	103N1004	103N2009	219	213	10.2	6.2	6.2
–	–	F_2	–	–	1	105N46xx series controllers									103N1004	103N2009	199	193	10.2	6.2	6.2

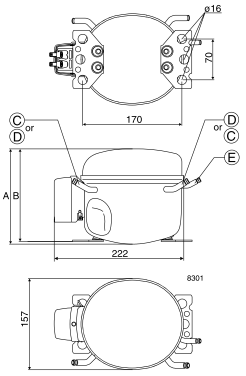
compressor cooling (temperature compulsory)					Voltage and frequencies	Electrical Equipment											Dimensions				
						LST (RSIR)		LST (RSCR)		Run capacitor		HST (CSIR)		HST (CSR)	LST/HST		Height [mm]		Connectors location/I.D. [mm]		
38 [°C]		43 [°C]				PTC Starting device w/o run capacitor connector		PTC device with run capacitor connector		1 optional 2 compulsory		Starting relay	Starting capacitor	Starting unit	Cord relief	Cover					
						spades		spades		spades		spades		spades							
MBP	HBP	LBP	MBP	HBP		6.3 mm	4.8 mm	6.3 mm	4.8 mm	6.3 mm	4.8 mm	6.3 mm	6.3 mm	6.3 mm			A	B	Suction C	Process D	Discharge E
S		–	–	–	1	–	–	103N0016	103N0021	117-7117[2]	117-7119[2]	–	–	–	103N1010	103N0491	137	135	6.2	6.2	5.0
–	–	–	–	–	1	103N0011	103N0018	103N0016	103N0021	117-7117[1]	117-7119[1]	–	–	–	103N1010	103N2010	173	169	6.2	6.2	5.0
–	–	–	–	–	1	103N0011	103N0018	103N0016	103N0021	117-7117[1]	117-7119[1]	–	–	–	103N1010	103N2010	173	169	6.2	6.2	5.0
–	–	S*	–	–	1	–	–	103N0016	103N0021	117-7131[2]	117-7132[2]	–	–	–	103N1010	103N2010	173	169	6.2	6.2	5.0
–	–	S	–	–	1	103N0011	103N0018	103N0016	103N0021	117-7117[1]	117-7119[1]	–	–	–	103N1010	103N2010	163	159	6.2	6.2	5.0
–	–	S*	–	–	1	–	–	103N0016	103N0021	117-7117[2]	117-7119[2]	–	–	–	103N1010	103N2010	173	169	6.2	6.2	5.0
–	–	S*	–	–	1	–	–	103N0016	103N0021	–	117-7136[2]	–	–	–	103N1010	103N2010	203	197	6.2	6.2	5.0
–	–		–	–	1	103N0011	103N0018	103N0016	103N0021	117-7117[1]	117-7119[1]	–	–	–	103N1010	103N2010	197	191	6.2	6.2	5.0
–	–	S	–	–	1	103N0011	103N0018	103N0016	103N0021	117-7117[1]	117-7119[1]	–	–	–	103N1010	103N2010	190	183	6.2	6.2	5.0

Diagram and dimensions

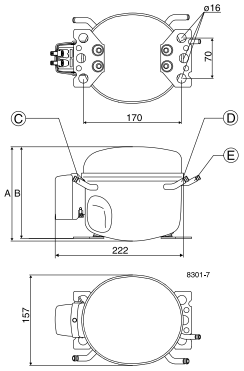
PL/PLE



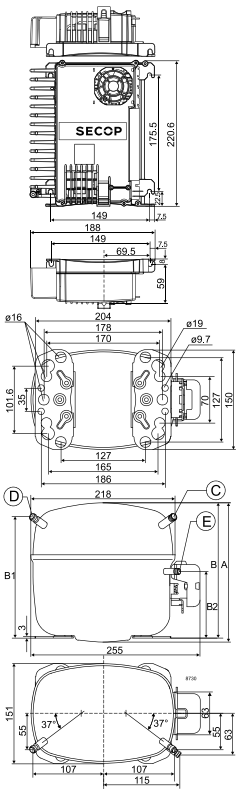
TL



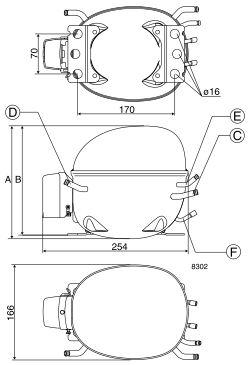
TLS/TLES/ TLX



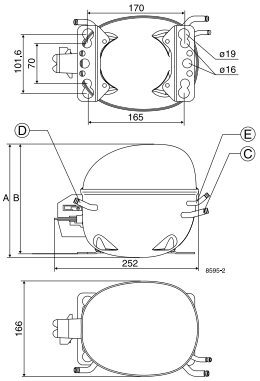
SLV



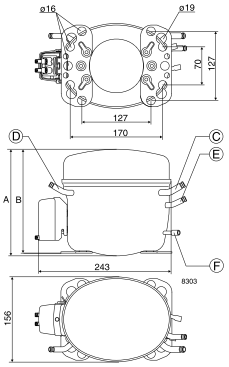
NL/NLE/NLX



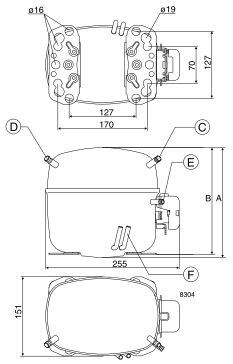
NF



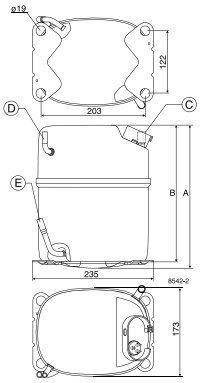
FR



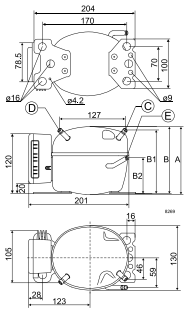
SC



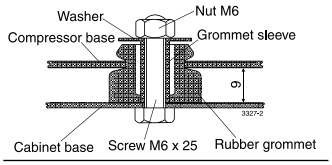
GS



BD

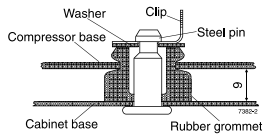


Mounting accessories



Bolt joint for
one compressor: 118-1917
in quantities: 118-1918

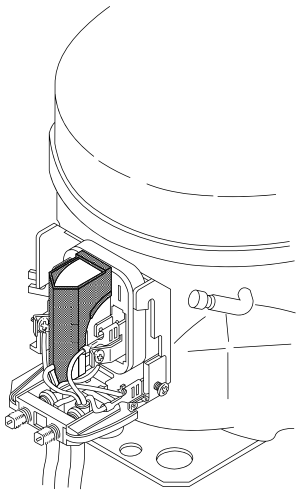
Bolt joint for
one GS compressor: 107B9150 (M8 × 40, base plate distance: 17 mm)



Snap-on
in quantities: 118-1919.

Protection Screen for PTC

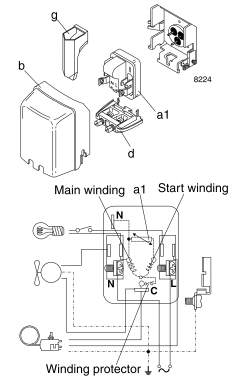
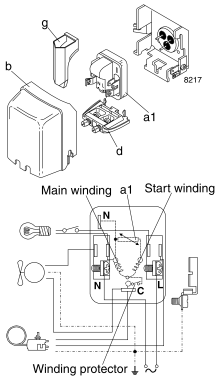
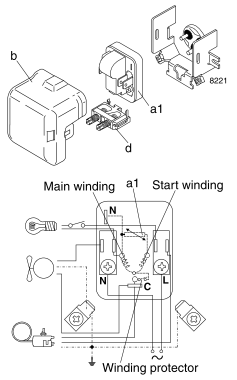
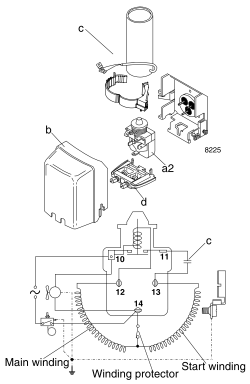
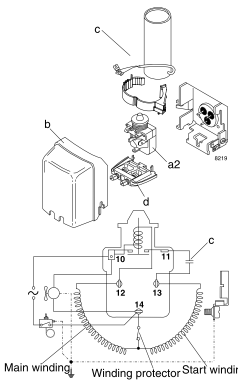
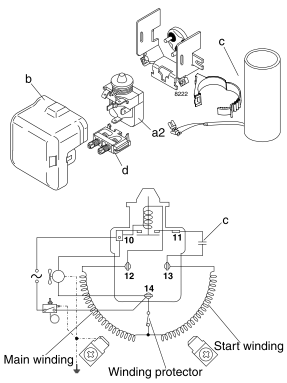
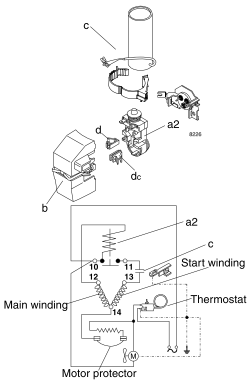
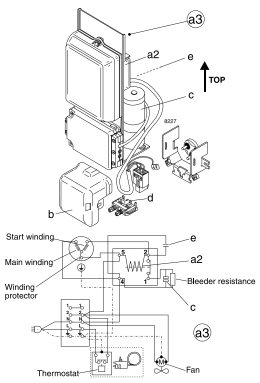
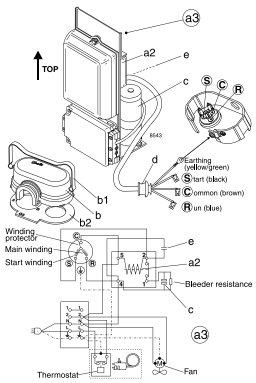
Note:
to fulfil the requirements of EN 60355-2-34 the protection screen 103N0476 must be applied to the PTC starting device.



Compressor design	Optimization level	Compressor size	Application range	Start characteristics	Generation
PL TL NL FR SC GS	***Blank*** Standard energy level ***S*** Semi-direct intake ***E*** Energy-optimized	***Nominal*** displacement in cm³ ***Exception***: For PL compressors the capacity at rating point is stated	***CL R404A/R507*** LBP ***CN R290*** LBP (MBP) ***DL R404A/R507*** HBP ***F R134a*** LBP/(MBP) ***FT R134a*** LBP tropical ***G R134a*** LBP/MBP/HBP ***GH R134a*** Heat Pumps ***GHH R134a*** Heat Pumps optimized ***K R600a*** LBP/(MBP) ***MF R134a*** MBP ***ML R404A/R507*** MBP	***Blank =>*** universal (principal rule) ***X = HST*** characteristics (expansion valve)	***Blank =>*** first generation ***.2 =>*** second generation ***.3 =>*** third generation etc.

Examples					
TL	ES	5.7	FT		.3
NL	E	10	MF		
SC		15	CN	X	.2

Diagram and dimensions

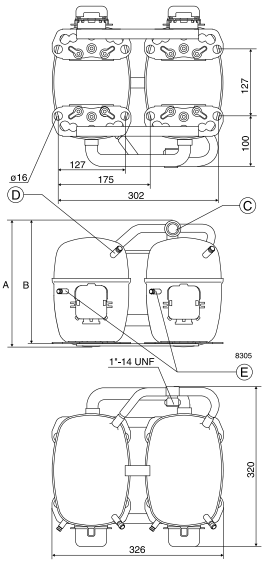
LST/RSIR - PL	LST/RSIR - TL-TLS-TLES-NL-NLE-FR	LST/RSIR - SC
		
HST/CSIR - PL	**HST/CSIR - TL-TLS-TLES-NL-NLE-FR**	**HST/CSIR - SC**
		
HST/CSIR - NF	**HST/CSR - SC**	**HST/CSR - GS**
		

Legend

a1) *PTC starting device.*
a2) *Starting relay.*
a3) *Starting device.*
b) *Cover.*
b1) *Clamp (part of compressor).*
b2) *Gasket (part of compressor).*
c) *Starting capacitor.*
d) *Cord relief.*
e) *Run capacitor.*
g) *Protection screen for PTC.*

Diagram and dimensions

SC Twin



Accessories for SC Twin

SC10/10, SC12/12 and SC15/15:

Service valve for 12 mm tube	*118-7350*
Solder connector for 12 mm tube	*104B0584*

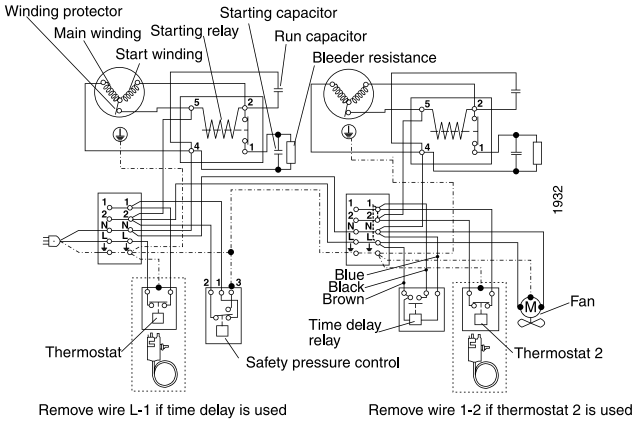
SC18/18 and SC21/21:

Service valve for 16 mm tube	*118-7351*
Solder connector for 16 mm tube	*118-7405*

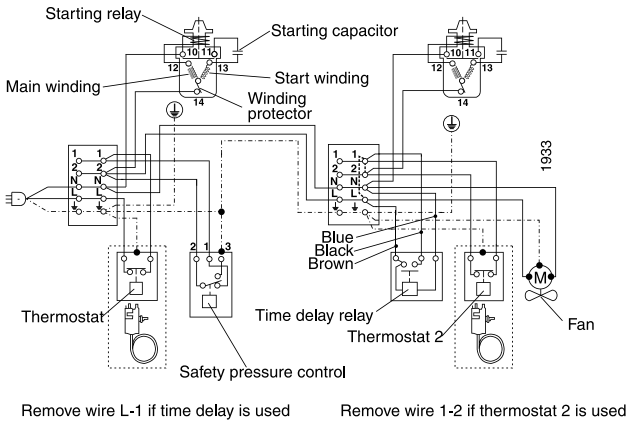
SC10/10, SC12/12, SC15/15, SC18/18 and SC21/21:

Seal ring for service valve and solder connector	*118-3638*
Time-delay relay	*117N0001*
Check valve (to be used with time-delay relay)	*020-1014*

HST/CSR - SC Twin



HST/CSIR - SC Twin



Applications
LBP: Low Back Pressure.
MBP: Medium Back Pressure.
HBP: High Back Pressure.

Motor types
RSIR: Resistant Start Induction Run.
RSCR: Resistant Start Capacitor Run.
CSIR: Capacitor Start Induction Run.
CSR: Capacitor Start Run.

Starting devices
LST: Low Starting Torque.
LST is used with capillary tube control and pressure. equalizing. (Pressure equalizing may exceed 10 minutes). The PTC starting device requires 5 minutes cooling before each start.
HST: High Starting Torque.
HST consisting of relay and starting capacitor, is used for expansion valve control or for capillary tube control without pressure equalizing.

Test conditions EN 12900 (CECOMAF)
PL/TL/TLS/NL/FR/SC/BD

Application	*R134a*	*R404A/R507 R290*
Condensing temperature	*55 °C*	*45 °C*
Ambient temperature	*32 °C*	*32 °C*
Suction gas temperature	*32 °C*	*32 °C*

No subcooling
PL/TL/TLS/NL/FR/SC: 220 V 50 Hz.
BD: 12 V, 24 V or 56 V DC.

Test conditions ASHRAE
BD

Application	*R600a R134a*	*R404A/R507 R290*
Condensing temperature	*54.4 °C*	*45 °C*
Ambient temperature	*32 °C*	*32 °C*
Suction gas temperature	*32 °C*	*32 °C*
Liquid temperature	*32 °C*	*32 °C*

12 V, 24 V or 56 V DC

Test conditions EN 12900
GS

Application	*LBP*	*MBP*	*HBP*
Condensing temperature	*40 °C*	*45 °C*	*50 °C*
Ambient temperature	*32 °C*	*32 °C*	*32 °C*
Suction gas temperature	*20 °C*	*20 °C*	*20 °C*
Liquid temperature	*no subcooling*		

220 V, 50 Hz

Electrical equipment GS compressors
**) Gasket/cover/clamp are parts of compressor.*

Compressor cooling
S) Static cooling normally sufficient.
O) Oil cooling.
F_1) Fan cooling 1.5 m/s (compressor compartment temperature equal to ambient temperature).
F_2) Fan cooling 3.0 m/s necessary.
***) run capacitor 4 µF compulsory.*

Voltages and frequencies
1) 198-254 V, 50 Hz.
2) 187-254 V, 50 Hz, LBP.
3) 198-254 V, 60 Hz, LBP.
4) 198-254 V, 60 Hz, HBP.
5) 198-254 V, 60 Hz, MBP.
6) 207-254 V, 60 Hz, HBP.
7) 187-254 V, 50 Hz, MBP.
8) 187-254 V, 60 Hz, MBP.
9) 187-254 V, 60 Hz, LBP.

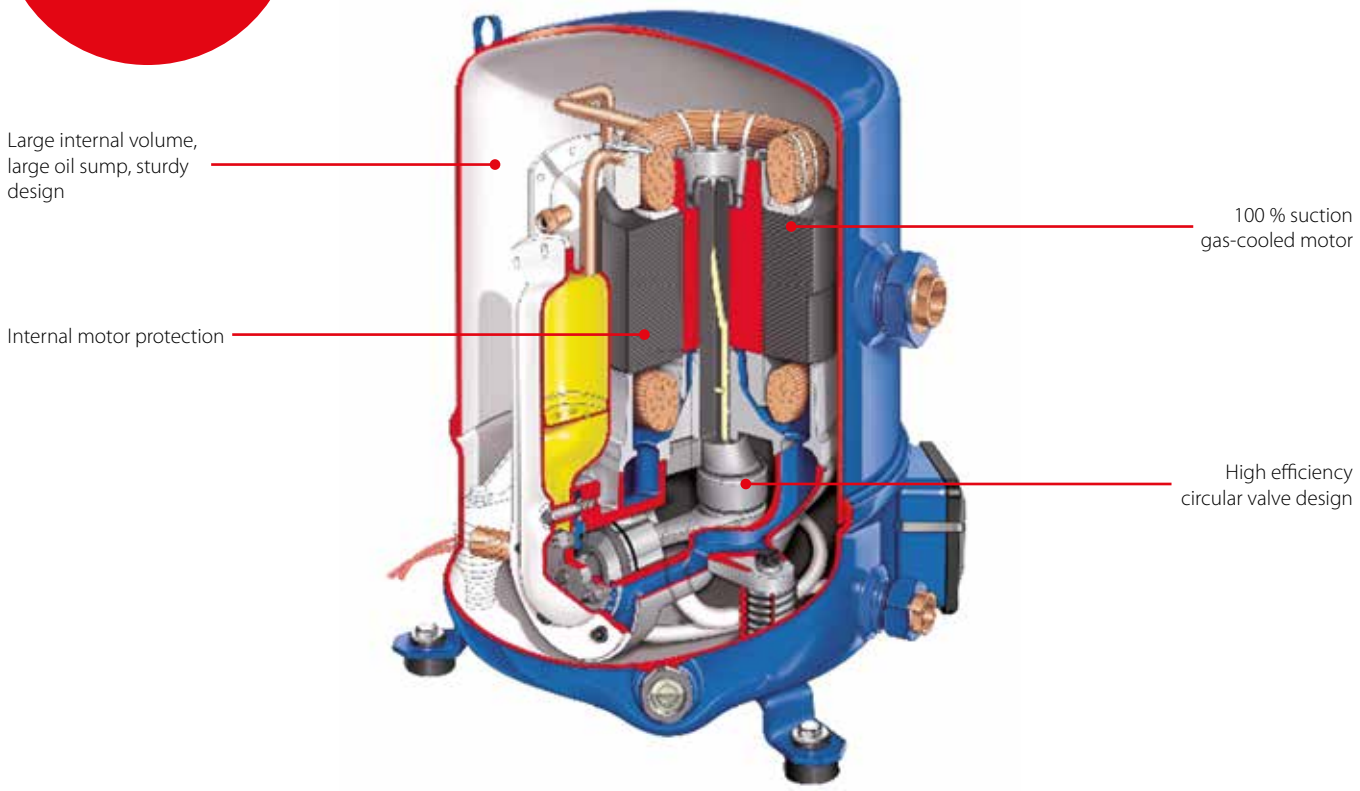
1 Watt = 0.86 kcal/h.
1 Watt = 3.41 Btu/h.

Quick Selection Notes:

MT/MTZ/NTZ – Danfoss reciprocating compressors

Maneurop® MT and MTZ series compressors are of the hermetic reciprocating type and are designed for medium and high evaporating temperature applications.

Available in a large variety of single and tandem models for refrigerants R404A, R134a, R407A/F, the compressors fit in lots of different applications.



Facts

Applications:
- Walk-in freezers and cold rooms
- Frozen food processing and storage
- Blast freezers
- Low temperature racks
- Ice cream machines
- Display cabinets
- Water chillers
- Large packaged air conditioners

- Operation under extreme conditions
- Versatile

- No need for air circulation around the compressor
- Long lifetime expectancy and reliability

Technical data and ordering

MT/MTZ/NTZ - Reciprocating compressors

Technical data

	Type	4 460/3/60 400/3/50	5 230/1/50	6 230/3/50	7 575/3/60 500/3/50	Swept volume [cm³/rev]	Displacement m³/h at 2900 [rpm]	Cylinder number	Oil charge [dm³]	Net weight [kg]
Low back pressure applications	NTZ048	120F0001	120F0087	–	–	48	8.4	1	0.95	21
	NTZ068	120F0002	120F0088	–	–	68	11.8	1	0.95	23
	NTZ096	120F0003	–	–	–	96	16.7	2	1.8	35
	NTZ108	120F0004	–	–	–	108	18.7	2	1.8	35
	NTZ136	120F0005	–	–	–	136	23.6	2	1.8	35
	NTZ215	120F0006	–	–	–	215	37.5	4	3.9	62
	NTZ271	120F0007	–	–	–	271	47.3	4	3.9	64
	NTZ430	120F0024	–	–	–	2 x 215	2 x 37.5	2 x 4	2 x 3.9	138
	NTZ542	120F0025	–	–	–	2 x 271	2 x 47.3	2 x 4	2 x 2.9	142
Medium -High back pressure applications	MT018	MT18-4VI	MT18-5VI	–	–	30	5.3	1	0.95	21
	MT022	MT22-4VI	MT22-5VI	MT22-6VI	–	38	6.6	1	0.95	21
	MT028	MT28-4VI	MT28-5VI	MT28-6VI	–	48	8.4	1	0.95	23
	MT032	MT32-4VI	MT32-5VI	MT32-6VI	–	54	9.4	1	0.95	24
	MT036	MT36-4VI	MT36-5VI	MT36-6VI	–	60	10.5	1	0.95	25
	MT040	MT40-4VI	–	MT40-6VI	–	68	11.8	1	0.95	26
	MT044	MT44-4VI	–	MT44-6VI	MT44-7VI	76	13.3	2	1.8	37
	MT050	MT50-4VI	–	MT50-6VI	MT50-7VI	86	14.9	2	1.8	37
	MT056	MT56-4VI	–	MT56-6VI	MT56-7VI	96	16.7	2	1.8	39
	MT064	MT64-4VI	–	MT64-6VI	–	108	18.7	2	1.8	39
	MT072	MT72-4VI	–	MT72-6VI	–	121	21.0	2	1.8	40
	MT080	MT80-4VI	–	MT80-6VI	–	136	23.6	2	1.8	40
	MT100	MT100-4VI	–	MT100-6VI	MT100-7VI	171	29.8	4	3.9	60
	MT125	MT125-4VI	–	MT125-6VI	MT125-7VI	215	37.5	4	3.9	64
	MT144	MT144-4VI	–	MT144-6VI	MT144-7VI	242	42.1	4	3.9	67
	MT160	MT160-4VI	–	MT160-6VI	MT160-7VI	272	47.3	4	3.9	67
	MTM200	MTM200T4SA	–	–	–	2 x 171	2 x 29.8	2 x 4	2 x 3.9	134
	MTM250	MTM250T4SA	–	–	–	2 x 215	2 x 37.5	2 x 4	2 x 3.9	142
	MTM288	MTM288T4SA	–	–	–	2 x 242	2 x 42.1	2 x 4	2 x 3.9	148
	MTM320	MTM320T4SA	–	–	–	2 x 272	2 x 47.3	2 x 4	2 x 3.9	148
	MTZ018	MTZ18-4VI	MTZ18-5VI	MTZ18-6VI	–	30	5.3	1	0.95	21
	MTZ022	MTZ22-4VI	MTZ22-5VI	MTZ22-6VI	–	38	6.6	1	0.95	21
	MTZ028	MTZ28-4VI	MTZ28-5VI	MTZ28-6VI	–	48	8.4	1	0.95	23
	MTZ032	MTZ32-4VI	MTZ32-5VI	MTZ32-6VI	MTZ32-7VI	54	9.4	1	0.95	24
	MTZ036	MTZ36-4VI	MTZ36-5VI	MTZ36-6VI	MTZ36-7VI	60	10.5	1	0.95	25
	MTZ040	MTZ40-4VI	–	MTZ40-6VI	–	68	11.8	1	0.95	26
	MTZ044	MTZ44-4VI	–	MTZ44-6VI	MTZ44-7VI	76	13.3	2	1.8	37
	MTZ050	MTZ50-4VI	–	MTZ50-6VI	MTZ50-7VI	86	14.9	2	1.8	37
	MTZ056	MTZ56-4VI	–	MTZ56-6VI	MTZ56-7VI	96	16.7	2	1.8	39
	MTZ064	MTZ64-4VI	–	MTZ64-6VI	–	108	18.7	2	1.8	39
	MTZ072	MTZ72-4VI	–	MTZ72-6VI	–	121	21.0	2	1.8	40
	MTZ080	MTZ80-4VI	–	MTZ80-6VI	–	136	23.6	2	1.8	40
	MTZ100	MTZ100-4VI	–	MTZ100-6VI	MTZ100-7VI	171	29.8	4	3.9	60
	MTZ125	MTZ125-4VI	–	MTZ125-6VI	MTZ125-7VI	215	37.5	4	3.9	64
	MTZ144	MTZ144-4VI	–	MTZ144-6VI	MTZ144-7VI	242	42.1	4	3.9	67
	MTZ160	MTZ160-4VI	–	MTZ160-6VI	MTZ160-7VI	272	47.3	4	3.9	67
	MTZ200	MTZ200T4SA	–	–	–	2 x 171	2 x 29.8	2 x 4	2 x 3.9	134
	MTZ250	MTZ250T4SA	–	–	–	2 x 215	2 x 37.5	2 x 4	2 x 3.9	142
	MTZ288	MTZ288T4SA	–	–	–	2 x 242	2 x 42.1	2 x 4	2 x 3.9	148
	MTZ320	MTZ320T4SA	–	–	–	2 x 272	2 x 47.3	2 x 4	2 x 3.9	148

Technical data and ordering

MTZ - R134a - 50 Hz

Reciprocating compressors

Type	To	-15		-10		-5		0		5		10		15		20	
	Tc	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe
MTZ018	45	700	0.61	1 050	0.69	1 470	0.76	1 970	0.82	2 570	0.87	3 270	0.91	4 090	0.93	5 020	0.93
MTZ022	45	940	0.72	1 370	0.81	1 900	0.91	2 550	0.99	3 320	1.06	4 240	1.11	5 310	1.15	6 560	1.16
MTZ028	45	1 230	0.91	1 720	1.02	2 350	1.13	3 130	1.23	4 090	1.34	5 260	1.43	6 650	1.51	8 300	1.58
MTZ032	45	1 430	1.09	2 020	1.25	2 770	1.40	3 690	1.54	4 810	1.66	6 160	1.76	7 760	1.83	9 630	1.86
MTZ036	45	2 050	1.29	2 740	1.45	3 580	1.60	4 590	1.74	5 780	1.86	7 170	1.97	8 790	2.05	10 660	2.10
MTZ040	45	2 450	1.47	3 160	1.61	4 000	1.75	4 980	1.89	6 100	2.01	7 390	2.12	8 860	2.21	10 520	2.27
MTZ044	45	2 070	1.62	2 900	1.80	3 940	1.96	5 210	2.12	6 760	2.25	8 610	2.35	10 800	2.42	13 350	2.45
MTZ050	45	2 400	1.79	3 380	2.01	4 600	2.21	6 090	2.40	7 880	2.56	10 020	2.69	12 540	2.78	15 480	2.83
MTZ056	45	2 680	1.95	3 790	2.20	5 150	2.44	6 820	2.66	8 810	2.85	11 180	3.01	13 970	3.13	17 200	3.20
MTZ064	45	3 030	2.14	4 300	2.43	5 860	2.71	7 750	2.97	10 010	3.20	12 680	3.40	15 810	3.54	19 440	3.63
MTZ072	45	3 650	2.34	5 110	2.67	6 880	2.99	9 000	3.30	11 500	3.58	14 450	3.83	17 870	4.03	21 810	4.18
MTZ080	45	4 430	2.76	6 060	3.11	8 020	3.46	10 360	3.80	13 120	4.13	16 360	4.42	20 100	4.69	24 420	4.91
MTZ100	45	4 660	3.25	6 550	3.65	8 860	4.02	11 680	4.35	15 050	4.63	19 050	4.84	23 730	4.96	29 170	4.98
MTZ125	45	5 870	3.63	8 230	4.17	11 090	4.69	14 520	5.16	18 590	5.57	23 380	5.89	28 950	6.09	35 380	6.18
MTZ144	45	7 880	4.85	10 680	5.40	14 060	5.94	18 090	6.46	22 850	6.93	28 420	7.34	34 870	7.67	42 290	7.92
MTZ160	45	8 770	5.23	11 800	5.84	15 470	6.45	19 890	7.06	25 130	7.65	31 300	8.21	38 480	8.72	46 760	9.18
MTZ200	45	9 320	6.50	13 090	7.29	17 730	8.04	23 350	8.70	30 100	9.26	38 090	9.68	47 460	9.92	58 340	9.96
MTZ250	45	11 740	7.25	16 460	8.35	22 180	9.39	29 040	10.33	37 190	11.14	46 760	11.77	57 910	12.19	70 770	12.35
MTZ288	45	15 750	9.71	21 370	10.81	28 130	11.89	36 190	12.91	45 710	13.85	56 840	14.67	69 750	15.35	84 580	15.84
MTZ320	45	17 540	10.46	23 600	11.67	30 950	12.90	39 780	14.11	50 260	15.29	62 590	16.41	76 950	17.44	93 530	18.37

To *Evaporating temperature in °C.*
Tc *Condensing temperature in °C.*
Qo *Cooling Capacity in W.*
Pe *Power input in kw.*
Superheat *= 10 K*
Subcooling *= 0 K.*
Voltage: *400 V/3/50 Hz.*

MTZ - R134a - 60 Hz

Reciprocating compressors

Type	To	-15		-10		-5		0		5		10		15		20	
	Tc	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe
MTZ018	45	1070	0,73	1480	0,82	2010	0,91	2670	0,99	3470	1,06	4440	1,12	5600	1,16	6960	1,17
MTZ022	45	1430	0,90	2000	1,03	2700	1,15	3550	1,26	4580	1,36	5790	1,43	7220	1,48	8890	1,50
MTZ028	45	1890	1,14	2680	1,32	3600	1,50	4670	1,66	5900	1,80	7320	1,91	8940	1,98	10770	2,02
MTZ032	45	2050	1,37	2880	1,58	3870	1,78	5040	1,96	6430	2,12	8030	2,24	9890	2,31	12010	2,34
MTZ036	45	2580	1,53	3530	1,79	4660	2,04	5980	2,27	7530	2,48	9310	2,64	11350	2,77	13680	2,84
MTZ040	45	3120	1,68	4190	1,99	5440	2,28	6900	2,57	8590	2,82	10530	3,04	12740	3,22	15250	3,35
MTZ050	45	3090	1,97	4460	2,25	6110	2,49	8080	2,69	10400	2,87	13120	3,01	16280	3,12	19910	3,20
MTZ056	45	3420	2,20	5010	2,56	6910	2,87	9170	3,15	11850	3,38	14970	3,57	18590	3,72	22750	3,84
MTZ064	45	4040	2,42	5820	2,81	7950	3,15	10480	3,44	13440	3,69	16890	3,91	20870	4,09	25430	4,24
MTZ072	45	4670	2,78	6680	3,19	9060	3,58	11880	3,93	15170	4,25	19000	4,54	23420	4,78	28490	4,99
MTZ080	45	5540	3,17	7710	3,64	10310	4,06	13410	4,46	17070	4,82	21370	5,17	26350	5,51	32080	5,85
MTZ100	45	6010	3,80	8650	4,37	11810	4,92	15570	5,41	20010	5,83	25200	6,16	31200	6,37	38090	6,43
MTZ125	45	7680	4,33	10880	5,02	14740	5,71	19340	6,37	24780	6,98	31140	7,53	38510	7,99	46990	8,35
MTZ144	45	11010	6,06	14700	6,84	19030	7,56	24060	8,21	29850	8,74	36490	9,14	44040	9,36	52580	9,37
MTZ160	45	12270	6,52	16380	7,40	21180	8,26	26740	9,07	33120	9,82	40410	10,48	48690	11,03	58010	11,43
MTZ200	45	12030	7,59	17290	8,75	23620	9,84	31150	10,83	40030	11,67	50400	12,32	62400	12,73	76190	12,86
MTZ250	45	15370	8,65	21770	10,04	29480	11,42	38690	12,73	49560	13,96	62280	15,05	77030	15,98	93980	16,70
MTZ288	45	22010	12,12	29410	13,67	38060	15,12	48110	16,42	59710	17,49	72990	18,27	88090	18,71	105160	18,75
MTZ320	45	24540	13,05	32770	14,79	42360	16,51	53470	18,14	66240	19,64	80830	20,96	97370	22,05	116030	22,86

To *Evaporating temperature in °C.*
Tc *Condensing temperature in °C.*
Qo *Cooling Capacity in W.*
Pe *Power input in kw.*
Superheat *= 11.1 K*
Subcooling *= 8.3 K*
Voltage: *400 V/3/60 Hz.*

Technical data and ordering

MTZ - R404A/R507A - 50 Hz

Reciprocating compressors

Type	To	-30		-25		-20		-15		-10		-5		0		5		10	
	Tc	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe
MTZ018	45	390	0.69	650	0.83	980	0.96	1 400	1.09	1 900	1.21	2 520	1.31	3 250	1.40	4 110	1.47	5 120	1.53
MTZ022	45	640	0.86	980	1.03	1 410	1.19	1 960	1.34	2 620	1.48	3 440	1.61	4 410	1.72	5 550	1.82	6 880	1.90
MTZ028	45	760	1.05	1 250	1.30	1 850	1.53	2 570	1.75	3 430	1.96	4 450	2.14	5 640	2.31	7 040	2.45	8 640	2.56
MTZ032	45	1 040	1.20	1 580	1.46	2 240	1.71	3 030	1.94	3 980	2.16	5 110	2.36	6 440	2.55	7 980	2.71	9 760	2.86
MTZ036	45	1 300	1.50	1 930	1.78	2 690	2.06	3 600	2.33	4 670	2.58	5 930	2.81	7 400	3.01	9 100	3.19	11 050	3.34
MTZ040	45	1 600	1.70	2 320	2.05	3 160	2.37	4 160	2.67	5 330	2.95	6 700	3.20	8 290	3.44	10 130	3.65	12 230	3.84
MTZ044	45	1 320	2.00	1 970	2.29	2 800	2.59	3 850	2.88	5 150	3.16	6 750	3.42	8 690	3.64	11 010	3.83	13 750	3.96
MTZ050	45	1 680	2.27	2 440	2.61	3 420	2.95	4 640	3.29	6 150	3.61	8 000	3.90	10 220	4.15	12 870	4.36	15 990	4.50
MTZ056	45	1 650	2.40	2 640	2.81	3 840	3.22	5 280	3.62	7 000	4.00	9 030	4.35	11 420	4.66	14 190	4.90	17 390	5.08
MTZ064	45	2 080	2.77	3 200	3.21	4 560	3.66	6 190	4.11	8 130	4.54	10 420	4.94	13 090	5.30	16 190	5.61	19 760	5.84
MTZ072	45	2 490	3.05	3 730	3.52	5 220	4.01	7 010	4.50	9 150	4.99	11 680	5.45	14 640	5.88	18 080	6.26	22 040	6.59
MTZ080	45	2 770	3.63	4 250	4.17	6 010	4.72	8 080	5.29	10 520	5.84	13 360	6.38	16 640	6.88	20 400	7.34	24 680	7.73
MTZ100	45	3 240	4.01	4 930	4.80	6 960	5.53	9 390	6.18	12 280	6.76	15 700	7.26	19 710	7.70	24 370	8.06	29 760	8.34
MTZ125	45	4 660	5.16	6 620	6.02	9 060	6.86	12 060	7.67	15 710	8.44	20 080	9.16	25 250	9.83	31 300	10.44	38 310	10.98
MTZ144	45	5 700	6.08	8 060	7.05	10 920	8.00	14 370	8.91	18 490	9.78	23 380	10.60	29 110	11.36	35 770	12.06	43 450	12.69
MTZ160	45	6 280	6.80	8 870	7.95	12 010	9.04	15 790	10.08	20 310	11.08	25 640	12.05	31 900	13.01	39 160	13.97	47 540	14.95
MTZ200	45	6 480	8.02	9 860	9.60	13 920	11.05	18 770	12.36	24 560	13.52	31 400	14.53	39 420	15.39	48 750	16.11	59 510	16.68
MTZ250	45	9 320	10.32	13 230	12.05	18 110	13.73	24 120	15.34	31 420	16.88	40 160	18.32	50 500	19.66	62 600	20.88	76 620	21.96
MTZ288	45	11 410	12.17	16 120	14.11	21 840	16.00	28 740	17.82	36 990	19.56	46 760	21.20	58 220	22.72	71 550	24.12	86 900	25.37
MTZ320	45	12 550	13.61	17 740	15.90	24 030	18.08	31 590	20.15	40 610	22.15	51 280	24.10	63 790	26.03	78 330	27.95	95 070	29.90

To *Evaporating temperature in °C.*
Tc *Condensing temperature in °C.*
Qo *Cooling capacity in W.*
Pe *Power input in kW.*
Superheat *= 10 K*
Subcooling *= 0 K.*
Voltage: *400 V/3/50 Hz.*

MTZ - R404A/R507A - 60 Hz

Reciprocating compressors

Type	To	-30		-25		-20		-15		-10		-5		0		5		10	
	Tc	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe
MTZ018	45	400	0,78	840	1,06	1370	1,29	2000	1,48	2750	1,64	3620	1,76	4650	1,85	5830	1,91	7180	1,96
MTZ022	45	950	1,08	1480	1,30	2110	1,51	2880	1,70	3790	1,87	4880	2,03	6160	2,17	7650	2,29	9370	2,39
MTZ028	45	1440	1,42	2120	1,71	2920	1,98	3860	2,23	4960	2,45	6250	2,66	7730	2,84	9440	2,99	11380	3,13
MTZ032	45	1570	1,52	2290	1,84	3150	2,15	4180	2,44	5420	2,72	6870	2,97	8590	3,19	10580	3,37	12880	3,51
MTZ036	45	1630	1,67	2490	2,01	3530	2,35	4770	2,69	6250	3,03	7990	3,36	10030	3,67	12400	3,97	15120	4,24
MTZ040	45	1930	1,93	2910	2,32	4080	2,69	5480	3,06	7140	3,42	9090	3,77	11380	4,12	14020	4,47	17050	4,82
MTZ050	45	2290	2,29	3530	2,80	5020	3,27	6790	3,69	8870	4,06	11320	4,38	14170	4,66	17460	4,90	21240	5,10
MTZ056	45	2510	2,41	3960	3,07	5680	3,64	7720	4,14	10120	4,58	12910	4,98	16140	5,35	19840	5,69	24060	6,03
MTZ064	45	3050	2,83	4600	3,53	6450	4,15	8650	4,70	11240	5,21	14290	5,67	17840	6,10	21950	6,51	26650	6,90
MTZ072	45	3670	3,44	5360	4,16	7400	4,83	9850	5,45	12770	6,01	16230	6,53	20260	7,00	24940	7,41	30320	7,78
MTZ080	45	4570	4,02	6440	4,91	8680	5,72	11360	6,47	14540	7,16	18280	7,80	22640	8,40	27690	8,96	33490	9,51
MTZ100	45	4390	4,61	6700	5,63	9440	6,54	12710	7,35	16560	8,06	21080	8,69	26350	9,23	32430	9,70	39390	10,10
MTZ125	45	6750	6,37	9570	7,47	12900	8,52	16830	9,52	21460	10,45	26860	11,30	33130	12,06	40350	12,72	48620	13,28
MTZ144	45	8350	7,40	11570	8,66	15400	9,83	19940	10,92	25300	11,95	31590	12,94	38900	13,92	47360	14,91	57040	15,91
MTZ160	45	9270	8,38	12730	9,64	16850	10,93	21730	12,23	27500	13,53	34260	14,80	42140	16,05	51240	17,26	61680	18,40
MTZ200	45	8780	9,21	13390	11,26	18890	13,08	25410	14,70	33120	16,13	42170	17,37	52700	18,46	64850	19,40	78790	20,21
MTZ250	45	13500	12,74	19140	14,94	25800	17,05	33670	19,04	42920	20,89	53720	22,59	66260	24,12	80710	25,45	97230	26,56
MTZ288	45	16700	14,81	23140	17,33	30800	19,65	39880	21,83	50600	23,89	63180	25,89	77810	27,85	94710	29,81	114090	31,82
MTZ320	45	18540	16,75	25470	19,28	33700	21,86	43460	24,46	55000	27,05	68530	29,61	84280	32,11	102480	34,51	123360	36,80

To *Evaporating temperature in °C.*
Tc *Condensing temperature in °C.*
Qo *Cooling capacity in W.*
Pe *Power input in kW.*
Superheat *= 11.1 K - Voltage: 400 V/3/60 Hz.*
Subcooling *= 8.3 K*
Voltage: *400 V/3/60 Hz.*

Technical data and ordering

MTZ - R407A - 50 Hz

Reciprocating compressors

Type	To	-30		-25		-20		-15		-10		-5		0		5		10	
	Tc	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe
MTZ018-4	45	260	0,49	510	0,63	830	0,76	1240	0,90	1740	1,02	2340	1,14	3070	1,24	3930	1,32	4940	1,39
MTZ022-4	45	430	0,60	760	0,77	1190	0,94	1730	1,10	2390	1,26	3200	1,40	4170	1,53	5300	1,64	6630	1,72
MTZ028-4	45	510	0,74	990	0,99	1570	1,23	2280	1,46	3130	1,67	4140	1,86	5330	2,03	6720	2,19	8330	2,32
MTZ032-4	45	700	0,85	1240	1,11	1890	1,37	2690	1,61	3630	1,84	4760	2,05	6080	2,25	7630	2,43	9400	2,59
MTZ036-4	45	870	1,06	1510	1,35	2270	1,64	3180	1,92	4260	2,19	5520	2,44	7000	2,66	8700	2,86	10670	3,03
MTZ040-4	45	1070	1,21	1830	1,56	2700	1,90	3710	2,22	4890	2,51	6250	2,79	7840	3,04	9670	3,27	11760	3,47
MTZ050-4	45	1140	1,36	1940	1,73	2950	2,08	4190	2,42	5700	2,73	7520	3,02	9670	3,28	12190	3,50	15120	3,69
MTZ056-4	45	1160	1,43	2030	1,84	3120	2,24	4470	2,62	6120	2,98	8100	3,32	10460	3,63	13240	3,91	16480	4,15
MTZ064-4	45	1450	1,64	2480	2,15	3760	2,64	5340	3,12	7270	3,57	9600	3,99	12360	4,38	15620	4,73	19420	5,03
MTZ072-4	45	1710	1,93	2850	2,46	4260	2,98	6010	3,49	8130	3,98	10670	4,44	13680	4,88	17190	5,27	21260	5,61
MTZ080-4	45	2130	2,23	3520	2,91	5190	3,57	7180	4,18	9540	4,76	12330	5,31	15590	5,81	19360	6,28	23710	6,72
MTZ100-4	45	2170	2,83	3860	3,64	5880	4,41	8300	5,11	11200	5,74	14620	6,31	18640	6,80	23310	7,22	28700	7,56
MTZ125-4	45	3130	3,65	5130	4,56	7610	5,46	10650	6,33	14330	7,17	18710	7,96	23890	8,70	29950	9,36	36940	9,95
MTZ144-4	45	3830	4,33	6270	5,37	9190	6,39	12700	7,38	16870	8,32	21780	9,21	27540	10,04	34220	10,81	41910	11,49
MTZ160-4	45	4220	4,84	6900	6,05	10120	7,21	13960	8,33	18520	9,42	23890	10,48	30180	11,51	37470	12,53	45860	13,53
MTZ200-4	45	4300	5,65	7700	7,29	11800	8,81	16600	10,21	22400	11,48	29200	12,61	37300	13,60	46600	14,44	57400	15,13
MTZ250-4	45	6300	7,31	10300	9,12	15200	10,91	21300	12,66	28700	14,34	37400	15,92	47800	17,39	59900	18,73	73900	19,89
MTZ288-4	45	7700	8,66	12500	10,74	18400	12,78	25400	14,75	33700	16,64	43600	18,42	55100	20,09	68400	21,61	83800	22,99
MTZ320-4	45	8400	9,69	13800	12,10	20200	14,42	27900	16,66	37000	18,84	47800	20,96	60400	23,02	74900	25,06	91700	27,06

To *Evaporating temperature in ℃.*
Tc *Condensing temperature in ℃.*
Qo *Cooling Capacity in W.*
Pe *Power input in kw.*
Superheat *= 10 K.*
Subcooling *= 0 K.*
Voltage: *400 V/3/50 Hz.*

MTZ - R407A - 60 Hz

Reciprocating compressors

Type	To	-30		-25		-20		-15		-10		-5		0		5		10	
	Tc	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe
MTZ018-4	45	310	0,58	620	0,75	1000	0,92	1490	1,07	2080	1,23	2810	1,36	3690	1,48	4720	1,59	5930	1,66
MTZ022-4	45	520	0,72	910	0,93	1420	1,13	2070	1,32	2870	1,51	3840	1,68	5000	1,83	6360	1,97	7950	2,07
MTZ028-4	45	620	0,89	1190	1,19	1890	1,48	2740	1,75	3760	2,00	4970	2,23	6400	2,44	8070	2,63	9990	2,78
MTZ032-4	45	840	1,02	1490	1,34	2270	1,64	3220	1,93	4360	2,21	5710	2,46	7300	2,70	9150	2,92	11290	3,11
MTZ036-4	45	1050	1,27	1810	1,62	2730	1,97	3820	2,31	5110	2,62	6630	2,92	8400	3,19	10440	3,44	12800	3,64
MTZ040-4	45	1290	1,45	2190	1,88	3230	2,28	4450	2,66	5860	3,02	7510	3,35	9410	3,65	11600	3,92	14110	4,16
MTZ050-4	45	1370	1,64	2330	2,08	3540	2,50	5030	2,90	6840	3,28	9020	3,62	11600	3,93	14630	4,21	18140	4,43
MTZ056-4	45	1400	1,72	2440	2,21	3750	2,68	5370	3,14	7340	3,58	9720	3,99	12560	4,36	15890	4,69	19770	4,98
MTZ064-4	45	1740	1,97	2980	2,58	4520	3,17	6410	3,74	8730	4,29	11520	4,79	14840	5,26	18750	5,67	23300	6,03
MTZ072-4	45	2050	2,32	3420	2,95	5120	3,57	7210	4,18	9760	4,77	12810	5,33	16410	5,85	20630	6,32	25510	6,73
MTZ080-4	45	2560	2,67	4230	3,50	6230	4,28	8620	5,02	11450	5,71	14800	6,37	18700	6,97	23240	7,54	28450	8,06
MTZ100-4	45	2610	3,39	4630	4,37	7050	5,29	9960	6,13	13440	6,89	17540	7,57	22360	8,16	27970	8,67	34440	9,08
MTZ125-4	45	3750	4,39	6150	5,47	9130	6,55	12780	7,59	17190	8,60	22460	9,55	28670	10,44	35930	11,24	44330	11,94
MTZ144-4	45	4600	5,19	7520	6,45	11030	7,67	15240	8,85	20240	9,98	26140	11,05	33050	12,05	41070	12,97	50300	13,79
MTZ160-4	45	5060	5,81	8280	7,26	12140	8,65	16750	10,00	22220	11,30	28670	12,57	36210	13,82	44960	15,03	55030	16,24
MTZ200-4	45	5200	6,78	9300	8,75	14100	10,57	19900	12,25	26900	13,77	35100	15,13	44700	16,32	55900	17,33	68900	18,15
MTZ250-4	45	7500	8,77	12300	10,94	18300	13,09	25600	15,19	34400	17,20	44900	19,11	57300	20,87	71900	22,47	88700	23,87
MTZ288-4	45	9200	10,39	15000	12,89	22100	15,33	30500	17,70	40500	19,96	52300	22,10	66100	24,10	82100	25,94	100600	27,58
MTZ320-4	45	10100	11,63	16600	14,52	24300	17,30	33500	19,99	44400	22,61	57300	25,15	72400	27,63	89900	30,07	110100	32,47

To *Evaporating temperature in ℃.*
Tc *Condensing temperature in ℃.*
Qo *Cooling Capacity in W.*
Pe *Power input in kw.*
Superheat *= 10 K.*
Subcooling *= 0 K.*
Voltage: *460 V/3/60 Hz.*

Technical data and ordering

MTZ - R407F - 50 Hz

Reciprocating compressors

Type	To	-25		-20		-15		-10		-5		0		5		10	
	Tc	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe
MTZ018-4	45	540	0,70	890	0,83	1320	0,96	1850	1,08	2490	1,20	3260	1,30	4170	1,39	5230	1,44
MTZ022-4	45	810	0,86	1270	1,02	1840	1,18	2540	1,33	3400	1,48	4410	1,61	5620	1,72	7030	1,80
MTZ028-4	45	1030	1,09	1660	1,31	2420	1,54	3320	1,76	4390	1,97	5650	2,15	7130	2,31	8830	2,42
MTZ032-4	45	1310	1,22	2010	1,46	2850	1,70	3860	1,94	5050	2,17	6450	2,38	8080	2,56	9970	2,71
MTZ036-4	45	1610	1,49	2430	1,76	3390	2,04	4520	2,32	5860	2,57	7410	2,81	9210	3,01	11290	3,16
MTZ040-4	45	1930	1,71	2850	2,02	3920	2,34	5170	2,65	6620	2,94	8300	3,21	10250	3,44	12480	3,63
MTZ050-4	45	2090	1,88	3160	2,24	4470	2,58	6060	2,90	7970	3,19	10240	3,44	12910	3,67	16020	3,85
MTZ056-4	45	2180	2,04	3340	2,40	4770	2,78	6500	3,16	8590	3,51	11080	3,84	14020	4,11	17460	4,33
MTZ064-4	45	2670	2,38	4040	2,84	5700	3,31	7730	3,78	10180	4,22	13100	4,63	16540	4,97	20580	5,25
MTZ072-4	45	3060	2,74	4570	3,21	6410	3,71	8640	4,21	11310	4,69	14480	5,14	18190	5,53	22520	5,85
MTZ080-4	45	3790	3,23	5560	3,84	7650	4,44	10140	5,04	13070	5,61	16500	6,13	20490	6,60	25100	7,01
MTZ100-4	45	4090	4,01	6270	4,73	8840	5,42	11900	6,07	15500	6,66	19740	7,18	24680	7,59	30400	7,89
MTZ125-4	45	5520	5,07	8160	5,88	11360	6,73	15220	7,58	19830	8,41	25290	9,17	31700	9,84	39130	10,38
MTZ144-4	45	6730	5,92	9840	6,85	13530	7,81	17910	8,78	23090	9,72	29160	10,60	36220	11,36	44370	11,99
MTZ160-4	45	7420	6,70	10820	7,75	14870	8,84	19670	9,95	25320	11,05	31950	12,13	39650	13,16	48540	14,12
MTZ200-4	45	8200	8,01	12500	9,45	17700	10,84	23800	12,14	31000	13,33	39500	14,35	49400	15,18	60800	15,78
MTZ250-4	45	11000	10,14	16300	11,76	22700	13,46	30400	15,16	39700	16,81	50600	18,34	63400	19,67	78300	20,75
MTZ288-4	45	13500	11,85	19700	13,69	27100	15,62	35800	17,57	46200	19,45	58300	21,19	72400	22,73	88700	23,98
MTZ320-4	45	14800	13,40	21700	15,50	29700	17,68	39300	19,90	50600	22,11	63900	24,27	79300	26,32	97100	28,23

To *Evaporating temperature in ℃.*
Tc *Condensing temperature in ℃.*
Qo *Cooling Capacity in W.*
Pe *Power input in kw.*
Superheat *= 10 K.*
Subcooling *= 0 K.*
Voltage: *400 V/3/50 Hz.*

MTZ - R407F - 60 Hz

Reciprocating compressors

Type	To	-25		-20		-15		-10		-5		0		5		10	
	Tc	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe
MTZ018-4	45	650	0,84	1060	0,99	1580	1,15	2220	1,30	2990	1,44	3910	1,57	5010	1,67	6280	1,73
MTZ022-4	45	970	1,04	1520	1,22	2210	1,41	3050	1,60	4070	1,77	5300	1,93	6740	2,06	8430	2,16
MTZ028-4	45	1240	1,30	1990	1,57	2900	1,84	3980	2,11	5270	2,36	6780	2,58	8550	2,77	10600	2,91
MTZ032-4	45	1580	1,46	2420	1,75	3430	2,04	4630	2,33	6060	2,60	7740	2,85	9700	3,07	11960	3,25
MTZ036-4	45	1930	1,79	2910	2,12	4070	2,45	5430	2,78	7030	3,09	8890	3,37	11060	3,61	13550	3,79
MTZ040-4	45	2320	2,05	3420	2,43	4700	2,81	6200	3,18	7940	3,53	9970	3,85	12300	4,13	14980	4,36
MTZ050-4	45	2500	2,26	3790	2,69	5370	3,10	7270	3,48	9560	3,82	12290	4,13	15490	4,40	19220	4,62
MTZ056-4	45	2610	2,44	4010	2,88	5720	3,34	7800	3,79	10310	4,22	13300	4,61	16830	4,94	20950	5,19
MTZ064-4	45	3210	2,85	4840	3,41	6840	3,97	9280	4,53	12210	5,07	15710	5,55	19850	5,97	24690	6,30
MTZ072-4	45	3680	3,28	5490	3,86	7690	4,45	10370	5,05	13570	5,63	17370	6,17	21830	6,64	27030	7,02
MTZ080-4	45	4540	3,88	6670	4,60	9180	5,33	12170	6,05	15680	6,73	19800	7,36	24590	7,92	30120	8,41
MTZ100-4	45	4910	4,81	7520	5,67	10610	6,51	14270	7,29	18600	8,00	23690	8,61	29610	9,11	36480	9,47
MTZ125-4	45	6630	6,08	9790	7,06	13630	8,07	18260	9,10	23800	10,09	30350	11,00	38040	11,80	46960	12,45
MTZ144-4	45	8080	7,11	11810	8,22	16240	9,38	21500	10,54	27710	11,67	34990	12,72	43460	13,64	53240	14,39
MTZ160-4	45	8900	8,04	12990	9,30	17850	10,61	23600	11,94	30390	13,27	38340	14,56	47580	15,79	58250	16,94
MTZ200-4	45	9800	9,62	15000	11,34	21200	13,01	28600	14,57	37200	15,99	47400	17,22	59200	18,22	73000	18,94
MTZ250-4	45	13300	12,17	19600	14,11	27300	16,15	36500	18,19	47600	20,17	60700	22,00	76100	23,61	93900	24,90
MTZ288-4	45	16200	14,22	23600	16,43	32500	18,75	43000	21,08	55400	23,34	70000	25,43	86900	27,27	106500	28,77
MTZ320-4	45	17800	16,08	26000	18,60	35700	21,21	47200	23,88	60800	26,53	76700	29,12	95200	31,59	116500	33,88

To *Evaporating temperature in ℃.*
Tc *Condensing temperature in ℃.*
Qo *Cooling Capacity in W.*
Pe *Power input in kw.*
Superheat *= 10 K.*
Subcooling *= 0 K.*
Voltage: *460 V/3/60 Hz.*

Technical data and ordering

MTZ - R407C - 50 Hz

Reciprocating compressors

Type	To	-15		-10		-5		0		5		10		15	
	Tc	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe
MTZ018	45	1 180	0.82	1 750	0.94	2 430	1.04	3 240	1.13	4 180	1.20	5 270	1.25	6 530	1.30
MTZ022	45	1 770	1.07	2 490	1.24	3 330	1.39	4 320	1.50	5 460	1.60	6 790	1.67	8 310	1.73
MTZ028	45	2 160	1.30	3 110	1.52	4 220	1.72	5 520	1.89	7 030	2.03	8 770	2.13	10 800	2.21
MTZ032	45	2 710	1.50	3 740	1.75	4 940	1.95	6 330	2.12	7 940	2.27	9 800	2.38	11 900	2.48
MTZ036	45	3 270	1.81	4 400	2.10	5 710	2.36	7 200	2.57	8 920	2.73	10 900	2.86	13 100	2.95
MTZ040	45	3 890	2.18	5 150	2.48	6 610	2.74	8 290	2.98	10 200	3.18	12 400	3.35	15 000	3.48
MTZ044	45	3 390	2.21	4 770	2.47	6 420	2.72	8 390	2.94	10 700	3.14	13 400	3.28	16 500	3.38
MTZ050	45	3 880	2.42	5 450	2.74	7 330	3.04	9 570	3.32	12 200	3.57	15 300	3.78	18 800	3.94
MTZ056	45	4 460	2.67	6 260	3.05	8 420	3.43	11 000	3.78	14 000	4.10	17 500	4.38	21 500	4.60
MTZ064	45	5 020	2.91	7 060	3.36	9 490	3.80	12 400	4.22	15 700	4.61	19 600	4.96	24 100	5.25
MTZ072	45	5 850	3.30	8 110	3.81	10 800	4.32	13 900	4.80	17 600	5.25	21 900	5.64	26 700	5.98
MTZ080	45	6 850	3.76	9 380	4.35	12 400	4.93	15 800	5.48	19 900	6.00	24 500	6.46	29 800	6.85
MTZ100	45	7 870	4.81	11 000	5.47	14 800	6.04	19 300	6.52	24 500	6.92	30 700	7.26	37 800	7.56
MTZ125	45	11 500	6.13	15 500	6.97	20 100	7.69	25 600	8.31	31 900	8.84	39 300	9.30	47 700	9.69
MTZ144	45	12 700	7.07	17 000	7.92	22 200	8.70	28 200	9.42	35 300	10.04	43 500	10.58	52 900	11.01
MTZ160	45	15 400	8.21	20 200	9.20	25 800	10.09	32 500	10.91	40 300	11.68	49 400	12.42	59 900	13.16
MTZ200	45	15 700	9.61	22 000	10.94	29 600	12.08	38 600	13.03	49 100	13.84	61 400	14.53	75 500	15.11
MTZ250	45	23 000	12.26	30 900	13.93	40 200	15.37	51 100	16.61	63 800	17.68	78 500	18.59	95 400	19.38
MTZ288	45	25 300	14.13	34 000	15.83	44 400	17.41	56 500	18.83	70 600	20.09	87 000	21.16	105 900	22.02
MTZ320	45	30 700	16.43	40 300	18.39	51 700	20.17	65 100	21.81	80 700	23.36	98 800	24.85	119 700	26.32

To *Evaporating temperature in °C.*
Tc*: Condensing temperature in °C.*
Qo *Cooling capacity in W.*
Pe *Power input in kW.*
Superheat *= 11.1 K.*
Subcooling *= 8.3 K.*
Voltage: *400 V/3/50 Hz.*

MTZ - R407C - 60 Hz

Reciprocating compressors

Type	To	-15		-10		-5		0		5		10		15	
	Tc	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe
MTZ018	45	1690	1,03	2420	1,20	3260	1,33	4250	1,42	5380	1,49	6680	1,54	8170	1,57
MTZ022	45	2320	1,32	3170	1,52	4170	1,68	5340	1,82	6710	1,93	8290	2,02	10120	2,10
MTZ028	45	3160	1,77	4190	1,96	5430	2,14	6910	2,30	8680	2,45	10760	2,58	13190	2,71
MTZ032	45	3590	1,94	4700	2,17	6030	2,37	7620	2,57	9510	2,74	11730	2,89	14320	3,03
MTZ036	45	3900	2,21	5130	2,54	6630	2,86	8450	3,15	10620	3,41	13180	3,63	16160	3,80
MTZ040	45	4310	2,46	5890	2,81	7740	3,18	9890	3,54	12400	3,90	15290	4,23	18610	4,52
MTZ050	45	5310	2,92	7120	3,32	9300	3,66	11910	3,95	15010	4,19	18660	4,38	22940	4,53
MTZ056	45	6050	3,24	8120	3,69	10610	4,07	13580	4,40	17100	4,69	21230	4,96	26040	5,22
MTZ064	45	6620	3,64	9050	4,14	11880	4,56	15170	4,93	18970	5,27	23340	5,58	28350	5,89
MTZ072	45	7840	4,25	10560	4,88	13750	5,43	17480	5,91	21800	6,33	26800	6,70	32530	7,03
MTZ080	45	8480	4,80	11490	5,47	15000	6,08	19130	6,64	23990	7,15	29710	7,64	36400	8,10
MTZ100	45	10390	5,95	14170	6,79	18630	7,47	23870	8,02	30010	8,48	37140	8,88	45370	9,25
MTZ125	45	14650	7,79	19270	8,75	24670	9,63	30960	10,43	38260	11,15	46680	11,82	56340	12,45
MTZ144	45	16610	8,78	21990	9,90	28140	10,88	35190	11,73	43240	12,47	52430	13,11	62860	13,68
MTZ160	45	18680	9,98	24390	11,22	31060	12,42	38850	13,54	47890	14,57	58320	15,46	70290	16,19
MTZ200	45	20770	11,91	28330	13,57	37250	14,93	47750	16,04	60020	16,96	74290	17,76	90740	18,49
MTZ250	45	29310	15,57	38550	17,50	49340	19,26	61910	20,85	76510	22,31	93360	23,65	112680	24,90
MTZ288	45	33220	17,56	43980	19,80	56280	21,76	70370	23,46	86480	24,94	104850	26,23	125710	27,36
MTZ320	45	37360	19,95	48770	22,44	62120	24,84	77690	27,09	95770	29,13	116640	30,91	140590	32,38

To *Evaporating temperature in °C.*
Tc*: Condensing temperature in °C.*
Qo *Cooling capacity in W.*
Pe *Power input in kW.*
Superheat *= 11.1 K - Voltage: 400 V/3/60 Hz.*
Subcooling *= 8.3 K.*
Voltage: *400 V/3/60 Hz.*

Technical data and ordering

MT - R22 - 50 Hz

Reciprocating compressors

Type	To	-25		-20		-15		-10		-5		0		5		10		15	
	Tc	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe
MT018	45	570	0.64	890	0.76	1 300	0.88	1 810	1.00	2 450	1.10	3 220	1.19	4 150	1.26	5 260	1.31	6 550	1.33
MT022	45	740	0.77	1 280	0.95	1 920	1.12	2 670	1.29	3 540	1.44	4 560	1.56	5 720	1.66	7 040	1.73	8 550	1.76
MT028	45	1 460	1.22	2 190	1.43	3 030	1.63	4 000	1.81	5 090	1.98	6 330	2.11	7 720	2.20	9 280	2.25	11 000	2.24
MT032	45	1 550	1.46	2 310	1.68	3 190	1.90	4 230	2.11	5 440	2.31	6 830	2.47	8 420	2.60	10 200	2.69	12 300	2.74
MT036	45	1 960	1.68	2 890	1.90	3 950	2.13	5 150	2.35	6 500	2.56	8 020	2.76	9 710	2.93	11 600	3.07	13 700	3.17
MT040	45	2 050	1.77	3 080	2.08	4 260	2.39	5 590	2.67	7 090	2.93	8 780	3.15	10 700	3.32	12 800	3.42	15 100	3.45
MT044	45	2 350	1.82	3 240	2.13	4 340	2.44	5 680	2.72	7 310	2.98	9 250	3.19	11 600	3.34	14 200	3.43	17 400	3.44
MT050	45	2 560	1.99	3 530	2.31	4 740	2.63	6 230	2.95	8 050	3.25	10 200	3.54	12 800	3.79	15 900	4.00	19 400	4.16
MT056	45	2 660	2.21	3 990	2.64	5 530	3.05	7 320	3.44	9 380	3.78	11 700	4.07	14 400	4.28	17 500	4.40	20 900	4.42
MT064	45	3 090	2.57	4 500	3.02	6 190	3.46	8 190	3.89	10 500	4.28	13 300	4.62	16 500	4.91	20 100	5.11	24 300	5.22
MT072	45	3 470	3.07	5 070	3.47	6 950	3.88	9 130	4.29	11 700	4.69	14 600	5.08	17 900	5.44	21 600	5.76	25 900	6.03
MT080	45	3 950	3.46	5 780	3.91	7 930	4.38	10 400	4.84	13 300	5.30	16 600	5.74	20 400	6.14	24 700	6.51	29 500	6.83
MT100	45	4 570	4.06	6 650	4.66	9 150	5.25	12 100	5.79	15 700	6.27	19 900	6.66	24 700	6.94	30 400	7.09	36 800	7.08
MT125	45	6 690	5.48	9 360	6.17	12 500	6.87	16 400	7.55	20 800	8.18	26 100	8.75	32 200	9.24	39 300	9.63	47 400	9.88
MT144	45	7 700	6.16	10 700	6.94	14 200	7.71	18 500	8.47	23 600	9.17	29 600	9.81	36 600	10.36	44 700	10.80	54 000	11.09
MT160	45	8 660	6.93	11 900	7.79	15 800	8.65	20 600	9.49	26 200	10.28	32 800	11.00	40 500	11.61	49 500	12.10	59 800	12.44
MTM200	45	9 140	8.12	13 300	9.32	18 300	10.49	24 300	11.58	31 400	12.54	39 700	13.32	49 500	13.89	60 700	14.19	73 600	14.17
MTM250	45	13 400	10.95	18 700	12.35	25 100	13.74	32 700	15.09	41 700	16.36	52 200	17.51	64 500	18.49	78 600	19.25	94 800	19.77
MTM288	45	15 400	12.32	21 300	13.87	28 500	15.42	37 000	16.93	47 200	18.35	59 200	19.63	73 200	20.72	89 400	21.59	108 000	22.18
MTM320	45	17 300	13.86	23 800	15.58	31 700	17.30	41 100	18.98	52 300	20.57	65 600	22.00	81 000	23.23	98 900	24.20	119 500	24.88

To) *Evaporating temperature in °C.*
Tc) *Condensing temperature in °C.*
Qo) *Cooling Capacity in W.*
Pe) *Power input in kw.*
Superheat *= 11.1 K.*
Subcooling *= 8.3 K.*
Voltage: *400 V/3/50 Hz.*

MT - R22 - 60 Hz

Reciprocating compressors

Type	To	-25		-20		-15		-10		-5		0		5		10		15	
	Tc	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe
MT018	45	690	0,77	1070	0,92	1560	1,06	2170	1,20	2940	1,32	3860	1,43	4980	1,52	6310	1,57	7860	1,60
MT022	45	890	0,92	1540	1,14	2310	1,35	3210	1,54	4250	1,72	5470	1,88	6860	2,00	8450	2,08	10250	2,11
MT028	45	1750	1,46	2630	1,71	3640	1,95	4800	2,18	6110	2,37	7590	2,53	9260	2,64	11140	2,70	13220	2,69
MT032	45	1870	1,75	2770	2,02	3830	2,28	5080	2,54	6520	2,77	8190	2,97	10110	3,13	12290	3,23	14760	3,28
MT036	45	2350	2,01	3470	2,28	4740	2,55	6180	2,82	7800	3,07	9620	3,31	11660	3,51	13920	3,68	16410	3,80
MT040	45	2460	2,13	3700	2,50	5110	2,86	6710	3,21	8510	3,52	10540	3,78	12800	3,98	15310	4,11	18090	4,14
MT050	45	2950	2,43	4260	2,86	5830	3,24	7700	3,56	9900	3,85	12460	4,10	15430	4,31	18850	4,50	22740	4,66
MT056	45	3280	2,68	4820	3,14	6640	3,56	8770	3,93	11250	4,27	14110	4,57	17400	4,85	21150	5,09	25400	5,32
MT064	45	4260	3,24	5790	3,65	7680	4,05	9980	4,43	12720	4,80	15960	5,15	19730	5,48	24080	5,80	29050	6,10
MT072	45	4720	3,39	6560	3,97	8800	4,51	11500	5,03	14700	5,52	18460	5,97	22830	6,39	27850	6,76	33580	7,10
MT080	45	5420	3,97	7600	4,59	10180	5,19	13240	5,76	16820	6,30	21000	6,83	25820	7,35	31350	7,86	37640	8,36
MT100	45	5490	4,87	7980	5,59	10980	6,30	14570	6,95	18830	7,52	23840	7,99	29680	8,33	36430	8,51	44180	8,50
MT125	45	8030	6,57	11230	7,41	15060	8,24	19620	9,06	25020	9,82	31340	10,51	38690	11,09	47180	11,55	56880	11,86
MT144	45	9240	7,39	12790	8,32	17080	9,25	22220	10,16	28320	11,01	35510	11,78	43910	12,44	53630	12,95	64790	13,31
MT160	45	10400	8,31	14300	9,35	19020	10,38	24680	11,39	31410	12,34	39350	13,20	48620	13,94	59360	14,52	71700	14,93
MTM200	45	10970	9,75	15960	11,19	21960	12,59	29140	13,89	37660	15,05	47680	15,99	59360	16,67	72870	17,02	88360	17,00
MTM250	45	16060	13,14	22460	14,81	30120	16,49	39240	18,11	50030	19,64	62680	21,01	77390	22,18	94350	23,10	113770	23,72
MTM288	45	18470	14,79	25580	16,65	34160	18,51	44430	20,32	56640	22,02	71020	23,55	87820	24,87	107260	25,91	129590	26,61
MTM320	45	20790	16,63	28610	18,69	38040	20,77	49350	22,78	62820	24,68	78690	26,40	97240	27,87	118720	29,04	143400	29,85

To) *Evaporating temperature in °C.*
Tc) *Condensing temperature in °C.*
Qo) *Cooling Capacity in W.*
Pe) *Power input in kw.*
Superheat *= 11.1 K.*
Subcooling *= 8.3 K.*
Voltage: *400 V/3/60 Hz.*

Technical data and ordering

NTZ - R404A/R507A - 50 Hz

Reciprocating compressors

Type	To	-45 [1]		-40 [1]		-35 [1]		-30 [2]		-25 [2]		-20 [2]		-15 [2]		-10 [2]	
	Tc	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe
NTZ048	45	190	0.35	420	0.59	710	0.84	1 240	1.09	1 700	1.34	2 240	1.57	2 860	1.79	3 570	1.99
NTZ068	45	520	1.02	870	1.28	1290	1.54	2110	1.81	2785	2.09	3570	2.38	4490	2.68	5540	2.99
NTZ096	45	–	–	910	1.29	1 420	1.67	2 430	2.09	3 360	2.53	4 510	2.99	5 900	3.47	7 550	3.97
NTZ108	45	–	–	1120	1.57	1770	2.03	3010	2.49	4080	2.95	5340	3.40	680	3.85	8530	4.29
NTZ136	45	–	–	1 570	2.27	2 360	2.86	3 890	3.47	5 200	4.08	6 750	4.69	8 570	5.29	10 710	5.87
NTZ215	45	1 190	2.31	2 240	3.17	3 540	4.08	5 970	5.01	8 030	5.94	10 440	6.86	13 220	7.72	16 420	8.52
NTZ271	45	2 120	3.57	3 470	4.61	5 140	5.66	8 380	6.73	11 050	7.81	14 190	8.90	17 840	10.00	22 040	11.10
NTZ430	45	2 370	4.61	4 480	6.33	7 080	8.15	11 930	10.02	16 060	11.89	20 880	13.71	26 450	15.44	32 840	17.04
NTZ542	45	4 240	7.14	6 940	9.21	10 290	11.32	16 760	13.46	22 110	15.62	28 380	17.80	35 670	19.99	44 080	22.20

To) *Evaporating temperature in °C.*
Tc) *Condensing temperature in °C.*
Qo) *Cooling capacity in W.*
Pe) *Power input in kW.*
[1] ***Superheat*** *= 10 K;* ***Subcooling*** *= 0 K;* ***Voltage****: 400 V/3/50 Hz.*
[2] **Suction temperature** *= 20 °C;* ***Subcooling*** *= 0 K;* ***Voltage****: 400 V/3/50 Hz.*

NTZ - R404A/R507A - 60 Hz

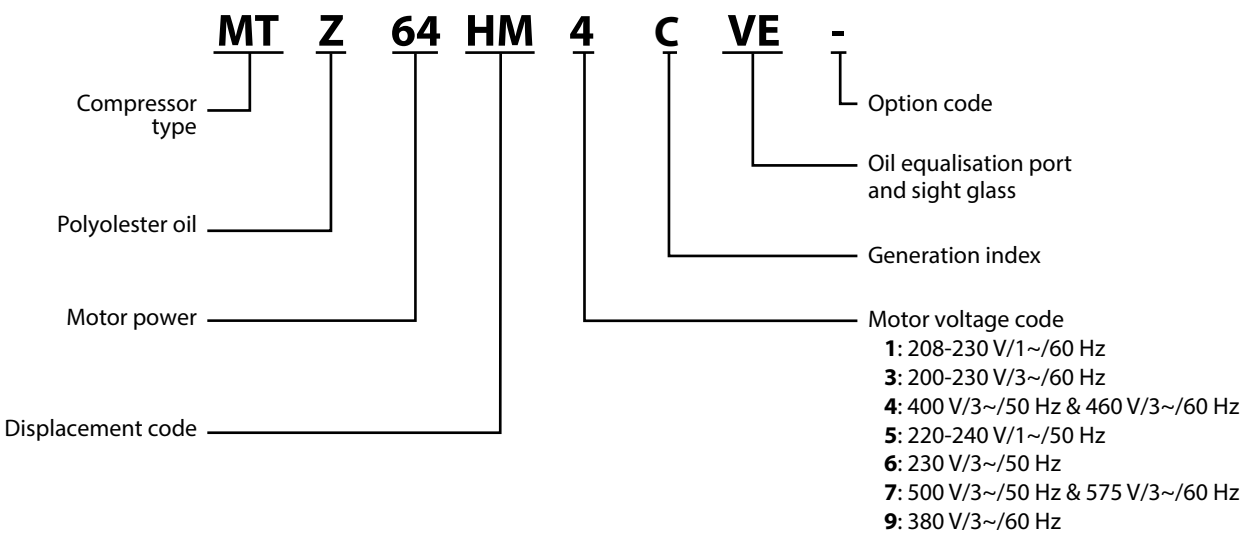
Reciprocating compressors

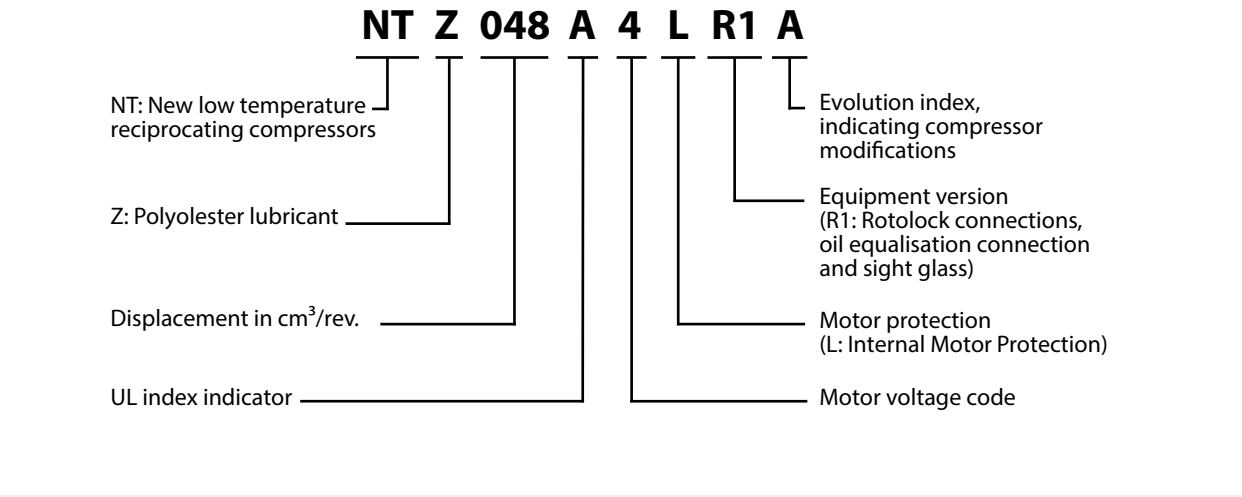
Type	To	-45 [1]		-40 [1]		-35 [1]		-30 [2]		-25 [2]		-20 [2]		-15 [2]		-10 [2]	
	Tc	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe
NTZ048	45	220	0,40	500	0,71	850	1,02	1480	1,33	2040	1,62	2690	1,89	3440	2,13	4310	2,33
NTZ068	45	610	1,20	1020	1,51	1530	1,82	2490	2,14	3290	2,47	4220	2,81	5290	3,16	6530	3,53
NTZ096	45	–	–	890	1,40	1630	1,96	2960	2,54	4160	3,12	5560	3,70	7190	4,24	9050	4,75
NTZ108	45	–	–	1240	2,04	2040	2,51	3530	3,04	4860	3,62	6440	4,24	8290	4,88	10460	5,53
NTZ136	45	–	–	1690	2,65	2720	3,31	4620	4,03	6260	4,80	8170	5,60	10380	6,44	12920	7,31
NTZ215	45	1400	2,72	2640	3,74	4170	4,81	7040	5,91	9480	7,01	12320	8,09	15600	9,11	19380	10,05
NTZ271	45	2500	4,22	4090	5,44	6070	6,68	9890	7,94	13040	9,21	16740	10,50	21050	11,80	26010	13,10
NTZ430	45	2800	5,44	5280	7,47	8350	9,62	14080	11,82	18950	14,03	24640	16,18	31210	18,22	38750	20,10
NTZ542	45	5000	8,43	8180	10,87	12140	13,36	19780	15,88	26090	18,43	33490	21,00	42090	23,59	52010	26,20

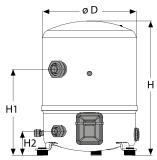
To) *Evaporating temperature in °C.*
Tc) *Condensing temperature in °C.*
Qo) *Cooling capacity in W.*
Pe) *Power input in kW.*
[1] ***Superheat*** *= 10 K;* ***Subcooling*** *= 0 K;* ***Voltage****: 400 V/3/60 Hz.*
[2] **Suction temperature** *= 20 °C;* ***Subcooling*** *= 0 K;* ***Voltage****: 400 V/3/60 Hz.*

Dimensions

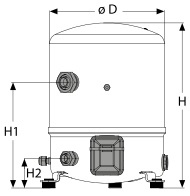
Nomenclature



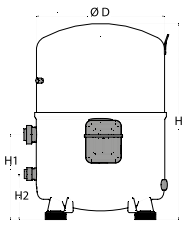




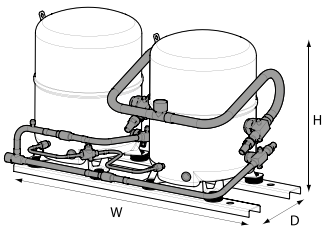
MT/MTZ/NTZ
1 cylinder



MT/MTZ/NTZ
2 cylinders



MT/MTZ/NTZ
4 cylinders



MT / MTZ / NTZ Tandem
2 x 4 cylinders

Single compressors [mm]

Type	D	H	H1	H2
1 cylinder	224	333/358	263	68
2 cylinders	288	413	265	74
4 cylinders	352	519/540	233	128

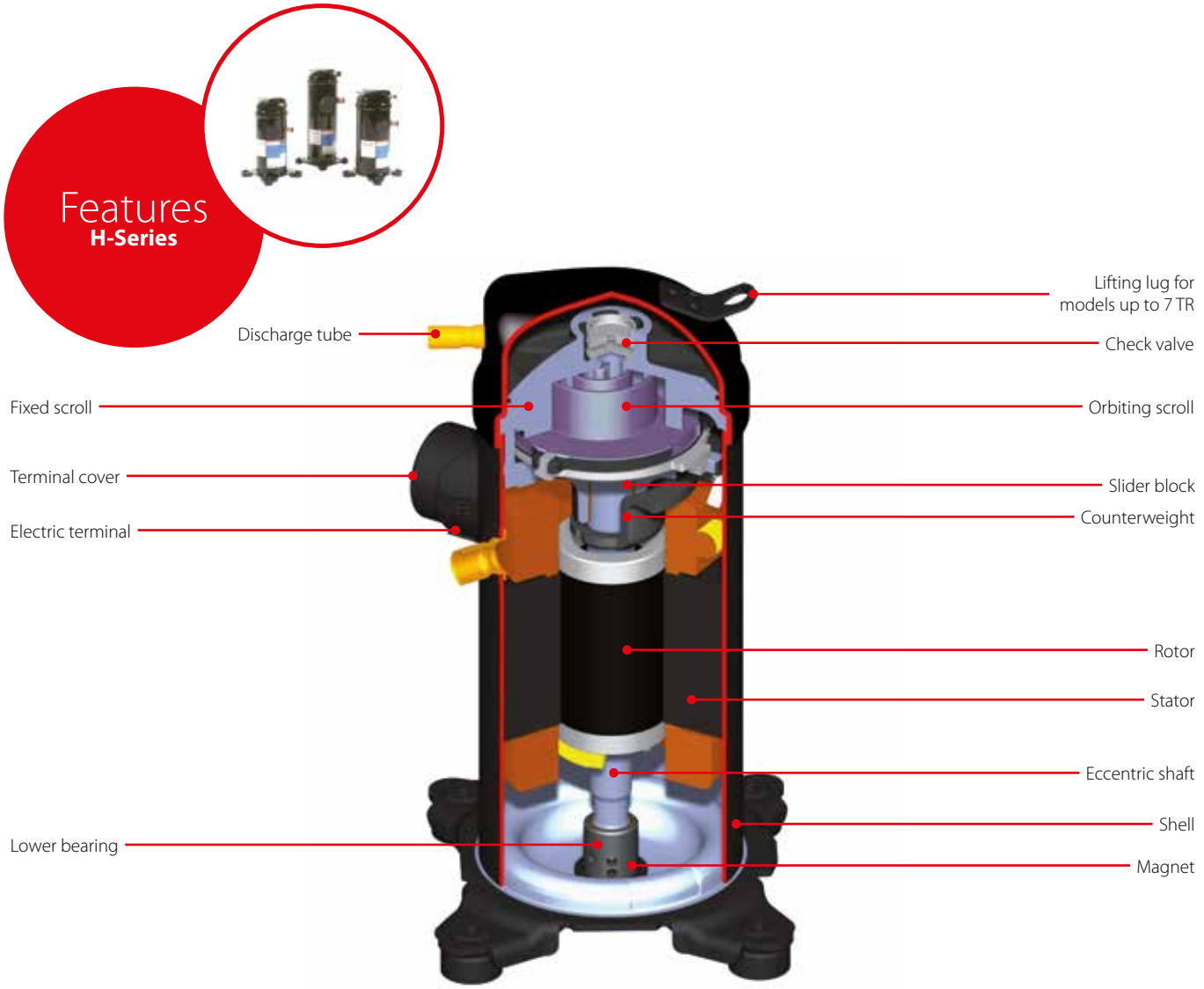
Tandem model [mm]

Type	D	H	W	
2 x 4 cylinders	515	544/565	925	–

H-Series – Danfoss Scroll Compressors

Danfoss scrolls are designed for excellence in performance, silence and endurance. They feature compressors that are among the quietest, most efficient, reliable and available on the market. Ranging from 2.5 – 10 TR, the universal dimension, footprint and connections of the H series make it the natural choice for greater comfort in existing or new residences.

Available in a large variety of single and tandem models for refrigerants R407C, R134a, R410A and R22, the compressors combine high energy efficiency with low sound and minimal vibration.



Facts

- Discharge check valve: no reverse rotation hence no shutdown noise
- Radial scroll compliance: good resistance to liquid fl ood back
- Axial scroll compliance: low starting current
- Oil injection: good lubrication at fierce conditions
- Lead-free bearings: high reliability even with low lubrication
- Patented internal protection combined with HOOP (Hot Oil Over Protector) thermal valve: excellent reliability
- Standard dimensions and tubing: ideal for both new installations and replacement markets

Technical data and ordering

H series - R22/R407C/R410A - 50 Hz - Scroll compressors

Technical data

	Type	Nominal Cap 60 Hz	Nominal cooling capacity		Power input	A max.	Efficiency		Swept volume	Displacement	Oil charge	Net weight
		[TR]	[W]	[Btu/h]	[kW]	[A]	COP W/W	EER Btu/h/W	[cm³/rev]	[m³/h]	[dm³]	[kg]
R22	HRM025T4	2,1	5900	20300	1,86	7	3,20	10,93	33,77	5,88	1,06	31
	HRM032T4	2,7	7800	26800	2,35	9,5	3,34	11,40	43,43	7,56	1,06	31
	HRM032U4	2,7	7800	26800	2,55	9,5	3,08	10,52	43,59	7,58	1,06	31
	HRM034T4	2,8	8200	28000	2,50	9,5	3,28	11,20	46,24	8,05	1,06	31
	HRM034U4	2,8	8300	28500	2,66	9,5	3,14	10,72	46,21	8,04	1,06	31
	HRM038T4	3,2	9200	31500	2,78	10	3,31	11,30	51,67	8,99	1,06	31
	HRM038U4	3,2	9200	31500	2,95	10	3,14	10,72	51,62	8,98	1,06	31
	HRM040T4	3,3	9600	32900	2,88	10	3,34	11,40	54,39	9,46	1,06	31
	HRM040U4	3,3	9700	33100	2,98	10	3,25	11,10	54,4	9,47	1,06	31
	HRM042T4	3,5	10100	34500	3,08	11	3,28	11,20	57,11	9,94	1,06	31
	HRM042U4	3,5	10200	34800	3,13	11	3,25	11,10	57,19	9,95	1,06	31
	HRM045U4	3,8	10900	37300	3,45	12	3,17	10,82	61,45	10,69	1,33	31
	HRM047T4	3,9	11500	39300	3,46	12	3,33	11,37	64,07	11,15	1,33	31
	HRM047U4	3,9	11500	39300	3,57	12	3,22	10,99	64,07	11,15	1,33	31
	HRM048U4	4,0	11500	39300	3,57	12,5	3,22	10,99	64,4	11,21	1,57	37
	HRM051T4	4,3	12400	42300	3,67	13	3,37	11,51	68,83	11,98	1,57	37
	HRM051U4	4,3	12800	43700	3,83	13	3,34	11,40	68,83	11,98	1,57	37
	HRM054T4	4,5	13300	45400	3,84	12,5	3,46	11,81	72,84	12,67	1,57	37
	HRM054U4	4,5	13400	45700	3,97	13	3,37	11,51	72,92	12,69	1,57	37
	HRM058U4	4,8	14300	49000	4,25	15	3,37	11,51	78,17	13,60	1,57	37
	HRM060T4	5,0	14600	49700	4,29	15	3,40	11,61	80,95	14,09	1,57	37
	HRM060U4	5,0	14800	50600	4,40	15	3,37	11,51	80,95	14,09	1,57	37
	HLM068T4	5,7	16900	57600	5,01	15	3,37	11,51	93,08	16,20	1,57	37
	HLM072T4	6,0	17800	60900	5,29	15	3,37	11,51	98,57	17,15	1,57	37
	HLM075T4	6,3	18400	62900	5,37	16	3,43	11,71	102,75	17,88	1,57	37
	HLM078T4	6,5	19400	66400	5,81	16	3,34	11,40	107,48	18,70	1,57	37
	HLM081T4	6,8	20000	68400	5,94	17	3,37	11,51	110,94	19,30	1,57	37
	HCM094T4	7,8	23100	78700	6,80	21	3,39	11,57	126,02	21,93	2,66	44
	HCM109T4	9,1	26700	91100	7,77	24	3,43	11,71	148,79	25,89	2,66	45
	HCM120T4	10,0	29000	99100	8,85	25	3,28	11,20	162,4	28,26	2,66	45
R407C	HRP025T4	2,1	5700	19600	1,86	7	3,08	10,52	33,77	5,88	1,06	31
	HRP034T4	2,8	7900	27100	2,68	9,5	2,96	10,11	46,21	8,04	1,06	31
	HRP038T4	3,2	8800	30200	2,82	11	3,14	10,72	51,62	8,98	1,06	31
	HRP040T4	3,3	9100	31100	3,14	11,5	2,90	9,90	54,4	9,47	1,06	31
	HRP042T4	3,5	9600	32700	3,30	10	2,90	9,90	57,19	9,95	1,06	31
	HRP045T4	3,8	10800	36900	3,58	12	3,02	10,31	61,45	10,69	1,33	31
	HRP047T4	3,9	11100	38000	3,69	12	3,02	10,31	64,07	11,15	1,33	31
	HRP048T4	4,0	11100	37900	3,35	12	3,31	11,30	64,4	11,21	1,57	37
	HRP051T4	4,3	12100	41400	3,83	13	3,17	10,82	68,83	11,98	1,57	37
	HRP054T4	4,5	12600	42900	3,97	12,5	3,17	10,82	72,76	12,66	1,57	37
	HRP058T4	4,8	13500	46000	4,25	14	3,17	10,82	78,17	13,60	1,57	37
	HRP060T4	5,0	13900	47300	4,26	15	3,25	11,10	80,95	14,09	1,57	37
	HLP068T4	5,7	15700	53600	5,10	15	3,08	10,52	93,08	16,20	1,57	37
	HLP072T4	6,0	16600	56700	5,30	15	3,14	10,72	98,65	17,17	1,57	37
	HLP075T4	6,3	18000	61600	5,54	16	3,25	11,10	102,75	17,88	1,57	37
	HLP078T4	6,5	19200	65500	5,83	16	3,29	11,23	107,48	18,70	1,57	37
	HLP081T4	6,8	19500	66500	5,99	17	3,25	11,10	110,94	19,30	1,57	37
	HCP094T4	7,8	21600	73700	6,63	21	3,25	11,10	126,02	21,93	2,66	44
	HCP109T4	9,1	26000	88900	7,93	24	3,28	11,20	148,79	25,89	2,66	45
	HCP120T4	10,0	28100	96100	8,88	25	3,17	10,82	162,4	28,26	2,66	45
R410A	HRH029U4	2,4	7100	24300	2,43	10	2,93	10,00	27,79	4,84	1,06	31
	HRH031U4	2,6	7500	25700	2,68	10	2,81	9,59	29,69	5,17	1,06	31
	HRH032U4	2,7	7700	26200	2,76	10	2,78	9,49	30,64	5,33	1,06	31
	HRH034U4	2,8	8500	29000	2,90	10	2,93	10,00	33,04	5,75	1,06	31
	HRH036U4	3,0	8800	30100	3,13	10	2,81	9,59	34,74	6,04	1,06	31
	HRH038U4	3,2	9300	31600	3,36	12	2,75	9,39	36,54	6,36	1,06	32
	HRH040U4	3,3	10200	34800	3,58	12	2,84	9,70	39,64	6,90	1,33	32
	HRH041U4	3,4	10000	34300	3,43	13	2,93	10,00	39,33	6,84	1,57	37
	HRH044U4	3,7	10800	36900	3,92	13,5	2,75	9,39	42,61	7,41	1,57	37
	HRH047U4	3,9	11300	38700	3,87	13	2,93	10,00	44,43	7,73	1,33	31
	HRH048U4	4,0	11900	40600	4,02	14	2,96	10,11	46,41	8,08	1,33	31
	HRH049U4	4,1	12100	41300	4,05	13,5	2,99	10,21	47,36	8,24	1,57	37
	HRH050U4	4,2	12400	42500	4,20	14	2,96	10,11	48,92	8,51	1,33	31
	HRH051U4	4,3	12900	43900	4,22	13	3,05	10,41	49,32	8,58	1,57	37
	HRH054U4	4,5	13300	45500	4,41	15	3,02	10,31	52,11	9,07	1,57	37
	HRH056U4	4,7	13800	47200	4,58	15	3,02	10,31	54,11	9,42	1,57	37
	HLH061T4	5,1	14800	50700	4,78	15	3,11	10,62	57,78	10,05	1,57	37
	HLH068T4	5,7	16900	57600	5,26	19	3,21	10,96	64,4	11,21	1,57	37
	HLJ072T4	6,0	17800	60900	5,56	19	3,21	10,96	67,97	11,83	1,57	37
	HLJ075T4	6,3	18600	63500	5,77	18	3,22	10,99	70,79	12,32	1,57	37
	HLJ083T4	6,9	20400	69700	6,27	19	3,25	11,10	78,08	13,59	1,57	37
	HCJ090T4	7,5	22300	76200	7,18	19	3,11	10,62	86,85	15,11	2,66	45
	HCJ091T4	7,5	22380	76360	7,03	18,0	3,18	10,87	86,9	15,11	2,46	49
	HCJ105T4	8,8	26000	88700	8,21	25	3,17	10,82	101,6	17,68	2,66	45
	HCJ106T4	8,8	26050	88880	8,07	21,0	3,23	11,01	101,6	17,68	2,46	49
	HCJ120T4	10,0	29600	101100	9,52	27	3,11	10,62	113,07	19,67	2,66	45
	HCJ121T4	10,0	29720	101400	9,22	22,0	3,22	11,0	116,4	20,24	2,46	49

TR) *Ton of Refrigeration.*
COP) *Coefficient Of Performance.*
EER) *Energy Efficiency Ratio.*

****)****: ARI standard rating conditions, 400 V/3 ph/50 Hz.*

Evaporating temperature: 7.2 °C.
Condensing temperature: 54.4 °C.
Superheat: 11.1 K.
Sub-cooling: 8.3 K.

Technical data and ordering

H series - R22/R407C/R410A - 60 Hz - Scroll compressors

Technical data

	Type	Nominal Cap. 60 Hz	Nominal cooling capacity		Power input	A max.	Efficiency		Swept volume	Displacement	Oil charge	Net weight
		[TR]	[W]	[Btu/h]	[kW]	[A]	COP W/W	EER Btu/h/W	[cm³/rev]	[m³/h]	[dm³]	[kg]
R22	HRM025T4	2,1	7100	24200	2,22	7	3,20	10,93	33,77	7,09	1,06	31
	HRM032T4	2,7	9300	31700	2,78	9,5	3,34	11,40	43,43	9,12	1,06	31
	HRM032U4	2,7	9300	31800	2,94	9,5	3,17	10,82	43,59	9,15	1,06	31
	HRM034T4	2,8	10000	34000	2,98	9,5	3,34	11,40	46,24	9,71	1,06	31
	HRM034U4	2,8	9800	33500	3,07	9,5	3,20	10,93	46,21	9,70	1,06	31
	HRM038T4	3,2	11100	37800	3,25	10	3,40	11,61	51,67	10,85	1,06	31
	HRM038U4	3,2	11100	38000	3,39	10	3,28	11,20	51,62	10,84	1,06	31
	HRM040T4	3,3	11500	39300	3,41	10	3,37	11,51	54,39	11,42	1,06	31
	HRM040U4	3,3	11700	40000	3,57	10	3,28	11,20	54,4	11,42	1,06	31
	HRM042T4	3,5	12200	41500	3,64	11	3,34	11,40	57,11	11,99	1,06	31
	HRM042U4	3,5	12300	42000	3,75	11	3,28	11,20	57,19	12,01	1,06	31
	HRM045U4	3,8	13200	45000	4,01	12	3,28	11,20	61,45	12,90	1,33	31
	HRM047T4	3,9	13900	47500	4,13	12	3,37	11,51	64,07	13,45	1,33	31
	HRM047U4	3,9	13900	47500	4,22	12	3,30	11,27	64,07	13,45	1,33	31
	HRM048U4	4,0	13800	47200	4,25	12,5	3,25	11,10	64,4	13,52	1,57	37
	HRM051T4	4,3	15000	51300	4,46	13	3,37	11,51	68,83	14,45	1,57	37
	HRM051U4	4,3	15000	51300	4,46	13	3,37	11,51	68,83	14,45	1,57	37
	HRM054T4	4,5	15800	54000	4,53	12,5	3,49	11,92	72,84	15,30	1,57	37
	HRM054U4	4,5	15700	53700	4,63	13	3,40	11,61	72,92	15,31	1,57	37
	HRM058U4	4,8	16900	57800	5,02	15	3,37	11,51	78,17	16,42	1,57	37
	HRM060T4	5,0	17500	59700	5,14	15	3,40	11,61	80,95	17,00	1,57	37
	HRM060U4	5,0	17500	59700	5,19	15	3,37	11,51	80,95	17,00	1,57	37
	HLM068T4	5,7	20200	68900	5,94	15	3,40	11,61	93,08	19,55	1,57	37
	HLM072T4	6,0	21300	72800	6,27	15	3,40	11,61	98,57	20,70	1,57	37
	HLM075T4	6,3	22100	75500	6,45	16	3,43	11,71	102,75	21,58	1,57	37
	HLM078T4	6,5	23000	78500	6,70	16	3,43	11,71	107,48	22,57	1,57	37
	HLM081T4	6,8	23900	81500	6,96	17	3,43	11,71	110,94	23,30	1,57	37
	HCM094T4	7,8	27700	94500	8,07	21	3,43	11,71	126,02	26,46	2,66	44
	HCM109T4	9,1	32000	109300	9,33	24	3,43	11,71	148,79	31,25	2,66	45
	HCM120T4	10,0	34900	119300	10,22	25	3,42	11,68	162,4	34,10	2,66	45
R407C	HRP025T4	2,1	6900	23500	2,21	7	3,11	10,62	33,77	7,09	1,06	31
	HRP034T4	2,8	9500	32400	3,24	9,5	2,93	10,00	46,21	9,70	1,06	31
	HRP040T4	3,3	11000	37500	3,70	11,5	2,97	10,14	54,4	11,42	1,06	31
	HRP042T4	3,5	11500	39400	3,90	10	2,96	10,11	57,19	12,01	1,06	31
	HRP047T4	3,9	12700	43300	4,23	12	3,00	10,24	64,07	13,45	1,33	31
	HRP051T4	4,3	14400	49100	4,46	13	3,22	10,99	68,83	14,45	1,57	37
	HRP060T4	5,0	16600	56600	5,33	15	3,11	10,62	80,95	17,00	1,57	37
	HLP072T4	6,0	19900	68100	6,24	15	3,19	10,89	98,65	20,72	1,57	37
	HLP078T4	6,5	23000	78600	6,95	16	3,31	11,30	107,48	22,57	1,57	37
	HLP081T4	6,8	23400	79800	7,14	17	3,27	11,17	110,94	23,30	1,57	37
	HCP094T4	7,8	25900	88400	7,89	21	3,28	11,20	126,02	26,46	2,66	44
	HCP120T4	10,0	33800	115300	10,58	25	3,19	10,89	162,4	34,10	2,66	45
R410A	HRH029U4	2,4	8500	29000	2,84	10	2,99	10,21	27,79	5,84	1,06	31
	HRH031U4	2,6	9100	31000	3,04	10	2,99	10,21	29,69	6,23	1,06	31
	HRH032U4	2,7	9400	32000	3,10	10	3,02	10,31	30,64	6,43	1,06	31
	HRH034U4	2,8	10100	34500	3,38	10	2,99	10,21	33,04	6,94	1,06	31
	HRH036U4	3,0	10400	35400	3,47	10	2,99	10,21	34,74	7,30	1,06	31
	HRH038U4	3,2	11100	37900	3,79	12	2,93	10,00	36,54	7,67	1,06	32
	HRH040U4	3,3	12200	41500	4,03	12	3,02	10,31	39,64	8,32	1,33	32
	HRH041U4	3,4	12100	41300	4,05	13	2,99	10,21	39,33	8,26	1,57	37
	HRH044U4	3,7	13000	44400	4,31	13,5	3,02	10,31	42,61	8,95	1,57	37
	HRH047U4	3,9	13600	46500	4,55	13	2,99	10,21	44,43	9,33	1,33	31
	HRH048U4	4,0	14100	48200	4,68	14	3,02	10,31	46,41	9,75	1,33	31
	HRH049U4	4,1	14300	49000	4,66	13,5	3,08	10,52	47,36	9,95	1,57	37
	HRH050U4	4,2	14800	50500	4,90	14	3,02	10,31	48,92	10,27	1,33	31
	HRH051U4	4,3	15200	51800	4,84	13	3,14	10,72	49,32	10,36	1,57	37
	HRH054U4	4,5	16000	54500	5,14	15	3,11	10,62	52,11	10,94	1,57	37
	HRH056U4	4,7	16700	56900	5,36	15	3,11	10,62	54,11	11,36	1,57	37
	HLH061T4	5,1	18100	61900	5,73	15	3,17	10,82	57,78	12,13	1,57	37
	HLH068T4	5,7	20100	68700	6,30	19	3,20	10,93	64,4	13,52	1,57	37
	HLJ072T4	6,0	21200	72500	6,65	19	3,19	10,89	67,97	14,27	1,57	37
	HLJ075T4	6,3	22300	76200	6,86	18	3,25	11,10	70,79	14,87	1,57	37
	HLJ083T4	6,9	24300	83100	7,55	19	3,22	10,99	78,08	16,40	1,57	37
	HCJ090T4	7,5	26800	91500	8,46	19	3,17	10,82	86,85	18,24	2,66	45
	HCJ091T4	7,5	27140	92600	8,37	17,0	3,24	11,07	86,9	18,24	2,46	49
	HCJ105T4	8,8	31200	106400	9,74	25	3,20	10,93	101,6	21,34	2,66	45
	HCJ106T4	8,8	31670	108050	9,67	20,0	3,28	11,18	101,6	21,34	2,46	49
	HCJ120T4	10,0	35600	121600	11,14	27	3,20	10,93	113,07	23,74	2,66	45
	HCJ121T4	10,0	35940	122620	11,07	21,0	3,25	11,08	116,4	24,43	2,46	49

TR) *Ton of Refrigeration.*
COP) *Coefficient Of Performance.*
EER) *Energy Efficiency Ratio.*

****)***: *ARI standard rating conditions, 460 V/3 ph/60 Hz.*

Evaporating temperature: 7.2 °C.
Condensing temperature: 54.4 °C.
Superheat: 11.1 K.
Sub-cooling: 8.3 K.

Technical data and ordering

R410A Single pack

Ordering

Type	Model Variation	Connect.	Features	Code no.					
				1	2	4	5	7	9
HRH029	U	P	6	120U2277	120U2282	120U2287	–	–	–
HRH031	U	P	6	120U1136	120U1251	120U1191	120U1166	120U1216	–
HRH032	U	P	6	120U1141	120U1256	120U1196	120U1171	120U1221	–
HRH034	U	P	6	120U1146	120U1261	120U2446	120U2650	120U1226	120U2654
HRH036	U	P	6	120U1151	120U1266	120U1201	120U1176	120U1231	
HRH038	U	P	6	120U1156	120U1271	120U1206	120U1181	120U1236	120U2658
HRH039	U	P	6	120U2466	–	–	–	–	–
HRH040	U	P	6	120U1161	120U1276	120U1211	120U1186	120U1241	–
HRH041	U	P	6	120U1281	120U1451	120U1356	–	120U1406	–
	U	C	6	–	120U2412	–	–	–	–
	U	C	8	–	120U2407	120U2397	–	120U2402	–
HRH044	U	P	6	120U1286	120U1456	120U1361	–	120U1411	–
HRH047	U	P	6	120U2362	–	–	–	–	–
HRH048	U	P	6	120U2582	–	–	–	–	–
HRH049	U	P	6	120U1291	120U1461	120U1366	–	120U1416	–
	U	C	8	–	120U2482	120U2474	–	120U2478	–
HRH050	U	P	6	120U2470	–	–	–	–	–
HRH051	U	P	6	120U1296	120U1466	120U1371	120U1326	120U1421	–
HRH054	U	P	6	120U1301	120U1471	120U1376	120U1331	120U1426	–
HRH056	U	C	6	–	–	120U1386	–	120U2237	–
	U	P	6	120U1306	120U1476	120U1381	120U1336	120U1431	–
HLH061	T	C	6	–	120U2062	120U2052	–	120U2057	120U2450
	T	P	6	120U2042	–	–	120U2047	–	–
	T	C	8	–	120U2494	120U2486	–	120U2490	–
HLH068	T	C	6	–	120U1481	120U1391	–	120U1436	–
	T	P	6	120U1311	–	–	120U1341	–	–
	T	C	8	–	120U2427	120U2417	–	120U2422	–
HLJ072	T	C	6	–	120U1486	120U1396	–	120U2037	–
	T	P	6	120U1316	–	–	120U1346	–	–
	T	C	8	–	120U2177	120U2167	–	120U2498	–
HLJ075	T	C	6	–	120U2272	120U2267	–	120U2262	–
	T	C	8	–	120U2442	120U2432	–	120U2437	–
HLJ083	T	C	6	–	120U1491	120U1401	–	120U1441	120U2387
	T	P	6	120U1321	–	–	120U1351	–	–
	T	C	8	–	120U2182	120U2172	–	120U2502	–
HCJ090	T	C	6	–	120U2307	120U2302	–	120U2312	–
	T	C	7	–	–	–	–	–	–
	T	C	8	–	–	120U2538	–	–	–
HCJ091	T	C	6	–	–	121L3113	–	–	–
	T	C	7	–	–	–	–	–	–
HCJ105	T	C	6	–	120U2327	120U2322	–	120U2332	–
	T	C	7	–	–	–	–	–	–
	T	C	8	–	–	120U2578	–	–	–
HCJ106	T	C	6	–	–	121L3115	–	–	–
	T	C	8	–	–	121L3121	–	–	–
HCJ120	T	C	6	–	120U2347	120U2342	–	120U2352	–
	T	C	7	–	–	–	–	–	–
	T	C	8	–	120U2570	120U2562	–	–	–
HCJ121	T	C	6	–	–	121L3117	–	–	–
	T	C	8	–	–	121L3121	–	–	–

Technical data and ordering

R410A Industrial pack

Ordering

Type	Model Variation	Connect.	Features	Code no.					
				1	2	4	5	7	9
HRH029	U	P	6	120U2274	120U2279	120U2284	–	–	–
HRH031	U	P	6	120U1133	120U1248	120U1188	120U1163	120U1213	–
HRH032	U	P	6	120U1138	120U1253	120U1193	120U1168	120U1218	–
HRH034	U	P	6	120U1143	120U1258	120U2443	120U2647	120U1223	120U2651
HRH036	U	P	6	120U1148	120U1263	120U1198	120U1173	120U1228	–
HRH038	U	P	6	120U1153	120U1268	120U1203	120U1178	120U1233	–
HRH039	U	P	6	120U2463	–	–	–	–	–
HRH040	U	P	6	120U1158	120U1273	120U1208	120U1183	120U1238	–
HRH041	U	P	6	120U1278	120U1448	120U1353	–	120U1403	–
	U	C	6	–	120U2409	–	–	–	–
	U	C	8	–	120U2404	120U2394	–	120U2399	–
HRH044	U	P	6	120U1283	120U1453	120U1358	–	120U1408	–
HRH047	U	P	6	120U2359	–	–	–	–	–
HRH048	U	P	6	120U2579	–	–	–	–	–
HRH049	U	P	6	120U1288	120U1458	120U1363	–	120U1413	–
	U	C	8	–	120U2479	120U2471	–	120U2475	–
HRH050	U	P	6	120U2467	–	–	–	–	–
HRH051	U	P	6	120U1293	120U1463	120U1368	120U1323	120U1418	–
HRH054	U	P	6	120U1298	120U1468	120U1373	120U1328	120U1423	–
HRH056	U	C	6	–	–	120U1383	–	120U2234	–
HRH056	U	P	6	120U1303	120U1473	120U1378	120U1333	120U1428	–
HLH061	T	P	6	120U2039	–	–	120U2044	–	–
	T	C	6	–	120U2059	120U2049	–	120U2054	120U2447
	T	C	8	–	120U2491	120U2483	–	120U2487	–
HLH068	T	C	6	–	120U1478	120U1388	–	120U1433	–
	T	C	8	–	120U2424	120U2414	–	120U2419	–
	T	P	6	120U1308	–	–	120U1338	–	–
HLJ072	T	C	6	–	120U1483	120U1393	–	120U2034	–
	T	C	8	–	120U2174	120U2164	–	120U2495	–
	T	P	6	120U1313	–	–	120U1343	–	–
HLJ075	T	C	6	–	120U2269	120U2264	–	120U2259	120U1443
	T	C	8	–	120U2439	120U2429	–	120U2434	–
HLJ083	T	C	6	–	120U1488	120U1398	–	120U1438	120U2384
	T	C	8	–	120U2179	120U2169	–	120U2499	–
	T	P	6	120U1318	–	–	120U1348	–	–
HCJ090	T	C	6	–	120U2304	120U2299	–	–	–
	T	C	7	–	120U2539	120U2531	–	–	–
	T	C	8	–	–	–	–	–	–
HCJ091	T	C	6	–	–	121L3112	–	–	–
	T	C	8	–	–	121L3118	–	–	–
HCJ105	T	C	6	–	120U2324	120U2319	–	120U2329	–
	T	C	7	–	120U2547	120U2571	–	–	–
	T	C	8	–	–	120U2575	–	–	–
HCJ106	T	C	6	–	–	121L3114	–	–	–
	T	C	8	–	–	121L3120	–	–	–
HCJ120	T	C	6	–	120U2344	120U2339	–	120U2349	–
	T	C	7	–	–	120U2555	–	–	–
	T	C	8	–	–	120U2559	–	–	–
HCJ121	T	C	6	–	–	121L3116	–	–	–
	T	C	8	–	–	121L3122	–	–	–

Technical data and ordering

R407C Single pack

Ordering

Type	Model Variation	Connect.	Features	Code no.					
				1	2	4	5	7	9
HRP034	T	P	6	–	–	120U2024	120U2019	–	–
HRP038	T	P	6	–	120U1086	120U1006	120U0961	–	–
HRP040	T	P	6	–	120U1096	120U1016	120U1929	–	–
HRP042	T	P	6	–	–	120U1026	–	–	–
HRP045	T	P	6	–	–	120U1036	120U0976	–	–
HRP047	T	P	6	–	120U1126	120U1046	120U0986	–	–
HRP048	T	C	8	–	–	120U1661	–	–	–
HRP048	T	P	6	–	–	120U1656	–	–	–
HRP051	T	P	6	120U1501	120U1861	120U1681	120U2192	120U1796	–
HRP054	T	P	6	–	–	120U1691	120U2197	120U1806	–
	T	C	8	–	–	120U2004	–	–	–
HRP058	T	C	8	–	–	120U1706	–	–	–
	T	P	6	–	–	120U1701	120U1596	120U1816	–
HRP060	T	C	8	–	–	120U1731	–	–	–
	T	P	6	–	120U2297	120U1726	120U1606	120U1826	–
HLP068	T	C	6	–	–	120U2014		–	–
	T	P	6	–	–	–	120U1621	–	–
HLP072	T	C	6	–	–	120U1756	–	–	–
	T	C	8	–	–	120U2072	–	–	–
	T	P	6	120U1571	–	–	120U1631	–	–
HLP075	T	C	6	–	–	120U1766	–	120U1841	–
	T	P	6	120U1581	–	–	120U1641	–	–
HLP078	T	C	6	–	120U2458	120U2454	–	–	–
HLP081	T	C	6	–	120U1916	120U1781	–	120U1851	–
	T	C	8	–	–	120U1786	–	–	–
	T	P	6	120U1591	–	–	120U1651	–	–
HCP094	T	C	6	–	120U0906	120U0601	–	–	–
	T	C	7	–	–	120U0606	–	–	–
	T	C	8	–	–	120U0611	–	–	–
HCP109	T	C	6	–	–	120U0376	–	–	–
	T	C	7	–	–	120U0381	–	–	–
	T	C	8	–	–	120U0386	–	–	–
HCP120	T	C	6	–	120U0766	120U0401	–	–	–
	T	C	7	–	–	120U0406	–	–	–
	T	C	8	–	–	120U0411	–	–	–

Technical data and ordering

R407C Industrial pack

Ordering

Type	Model Variation	Connect.	Features	Code no.					
				1	2	4	5	7	9
HRP034	T	P	6	–	–	120U2021	120U2016	–	–
HRP038	T	P	6	–	120U1083	120U1003	120U0958	–	–
HRP040	T	P	6	–	120U1093	120U1013	120U1926	–	–
HRP042	T	P	6	–	120U1103	120U1023	–	–	–
HRP045	T	P	6	–	120U1113	120U1033	–	–	–
HRP047	T	P	6	–	–	120U1043	120U0983	–	–
HRP048	T	C	8	–	–	120U1658	–	–	–
HRP048	T	P	6	–	–	120U1653	–	–	–
HRP051	T	P	6	120U1498	120U1858	120U1678	120U2189	120U1793	–
HRP054	T	P	6	–	–	120U1688	120U2194	120U1803	–
	T	C	8	–	–	120U2001	–	–	–
HRP058	T	C	8	–	–	120U1703	–	–	–
	T	P	6	–	–	120U1698	120U1593	120U1813	–
HRP060	T	C	8	–	–	120U1728	–	–	–
	T	P	6	–	120U2297	120U1723	120U1603	120U1823	–
HLP068	T	C	6	–	–	120U2011	–	–	–
	T	P	6	120U1558	–		120U1618	–	–
HLP072	T	C	6	–	–	120U1753	–	–	–
	T	C	8	–	–	120U2074	–	–	–
	T	P	6	120U1568	–		120U1628	–	–
HLP075	T	C	6	–	–	120U1763	–	120U1838	–
	T	P	6	120U1578	–		120U1638	–	–
HLP078	T	C	6	–	120U2455	120U2451	–	–	–
HLP081	T	C	6	–	120U1913	120U1778	–	120U1848	–
	T	C	8	–	–	120U1783	–	–	–
	T	P	6	120U1588	–	–	120U1648	–	–
HCP094	T	C	6	–	–	120U0598	–	–	–
	T	C	7	–	–	120U0603	–	–	–
	T	C	8	–	–	120U0608	–	–	–
HCP109	T	C	6	–	–	120U0373	–	–	–
	T	C	7	–	–	–	–	–	–
	T	C	8	–	–	120U0383	–	–	–
HCP120	T	C	6	–	–	120U0398	–	–	–
	T	C	7	–	–	–	–	–	–
	T	C	8	–	–	120U0408	–	–	–

Technical data and ordering

R22 Single pack

Ordering

Type	Model Variation	Connect.	Features	Code no.					
				1	2	4	5	7	9
HRM032	U	P	6	120U0921	120U2029	120U0996	–	–	–
	T	P	6	–	–	–	120U0956	–	–
HRM034	U	P	6	120U0926	120U1081	120U1001	–	120U2232	–
	T	P	6	–	–	120U2367	120U2122	–	120U2087
HRM038	U	P	6	120U0931	120U1091	120U1011	120U0966	120U1056	–
	T	P	6	–	–	120U2372	120U2137	–	120U2092
HRM040	U	P	6	120U0936	120U1101	120U1021	120U2147	120U1061	–
	T	P	6	–	–	120U2377	120U2142	–	120U2462
HRM042	U	P	6	120U0941	120U1111	120U1031	120U0971	120U1066	–
	T	P	6	–	–	120U2127	120U2152	–	120U2107
HRM045	U	P	6	120U0946	120U1121	120U1041	120U0981	120U1071	–
HRM047	U	P	6	120U0951	120U1131	120U1051	120U0991	120U1076	–
	T	P	6	–	–	120U2132	120U2162	–	120U2097
HRM048	U	C	8	–	–	120U1671	–	–	–
	U	P	6	120U1496	–	120U1666	–	120U1791	–
HRM051	T	P	6	–	–	120U1676	120U2187	–	120U2382
	U	P	6	120U1506	120U1866	120U1686	120U2252	120U1801	–
HRM054	U	C	6	120U1516	–	–	–	–	–
	U	P	6	120U1511	120U1871	120U1696	120U2257	120U1811	–
	T	P	6	–	–	–	–	–	120U2292
HRM058	T	P	6	120U1521	–	–	–	–	120U2112
	U	C	6	120U1536	–	–	–	–	–
	U	P	6	120U1531	120U1876	120U1711	–	120U1821	–
HRM060	T	P	6	120U1541	–	120U1721	–	–	120U2082
	T	C	6	120U2242	–	–	–	–	–
	U	C	6	120U1551	120U2077	–	–	–	–
	U	C	8	–	–	120U1741	–	–	–
	U	P	6	120U1546	120U1881	120U1736	120U1611	120U1831	–
HLM068	T	C	6	–	120U1891	120U1746	–	120U2598	120U2392
	T	P	6	120U1556	–	–	120U1616		
HLM072	T	C	6	–	120U1896	120U1751	–	120U2602	120U1856
	T	C	8	–	120U2202	120U2067	–	–	–
	T	P	6	120U1566	–	–	120U1626	–	–
HLM075	T	C	6	–	120U1901	120U1761	–	120U1836	–
	T	P	6	120U1576	–	–	120U1636	–	–
HLM078	T	C	6		120U1906	120U1771	–	–	–
HLM081	T	C	6	–	120U1911	120U1776	–	120U1846	120U2102
	T	P	6	120U1586	–	–	120U1646	–	–
HCM094	T	C	6	–	120U0891	120U0581	–	120U0711	120U0746
	T	C	7	–	–	120U0586	–	–	–
	T	C	8	–	–	120U0596	–	–	–
HCM109	T	C	6	–	120U2506	120U0366	–	–	–
	T	C	7	–	–	–	–	–	–
	T	C	8	–	–	120U1924	–	–	–
HCM120	T	C	6	–	120U0761	120U0391	–	–	–
	T	C	7	–	–	120U0396	–	–	–
	T	C	8	–	–	120U2207	–	–	–

Technical data and ordering

R22 Industrial pack

Ordering

Type	Model Variation	Connect.	Features	Code no.					
				1	2	4	5	7	9
HRM032	U	P	6	120U0918	120U2026	120U0993	–	–	–
	T	P	6	–	–	–	120U0953	–	–
HRM034	T	P	6	–	–	120U2364	120U2119	–	120U2084
	U	P	6	120U0923	120U1078	120U0998	–	120U2229	–
HRM038	T	P	6	–	–	120U2369	120U2134	–	120U2089
	U	P	6	120U0928	120U1088	120U1008	120U0963	120U1053	–
HRM040	T	P	6	–	–	120U2374	120U2139	–	120U2459
	U	P	6	120U0933	120U1098	120U1018	120U2144	120U1058	
HRM042	T	P	6	–	–	120U2124	120U2149	–	120U2104
	U	P	6	120U0938	120U1108	120U1028	120U0968	120U1063	–
HRM045	U	P	6	120U0943	120U1118	120U1038	120U0978	120U1068	–
HRM047	T	P	6	–	–	120U2129	120U2159	–	120U2094
	U	P	6	120U0948	120U1128	120U1048	120U0988	120U1073	
HRM048	U	C	8	–	–	120U1668	–	–	–
	U	P	6	120U1493	–	120U1663	–	120U1788	–
HRM051	T	P	6	–	–	120U1673	120U2184	–	120U2379
	U	P	6	120U1503	120U1863	120U1683	120U2249	120U1798	–
HRM054	T	P	6	–	–	–	–	–	120U2289
	U	C	6	120U1513	–	–	–	–	–
	U	P	6	120U1508	120U1868	120U1693	120U2254	120U1808	–
HRM058	T	C	6	120U1523	–	–	–	–	–
	T	P	6	120U1518	–	–	–	–	120U2109
	U	C	6	120U1533	–	–	–	–	–
	U	C	8	–	–	120U1716	–	–	–
	U	P	6	120U1528	120U1873	120U1708	120U1598	120U1818	–
HRM060	T	C	6	120U2239	–	–	–	–	–
	T	P	6	120U1538	–	120U1718	–	–	120U2079
	U	C	6	120U1548	120U2074	–	–	–	–
	U	C	8	–	–	120U1738	–	–	–
	U	P	6	120U1543	120U1878	120U1733	120U1608	120U1828	–
HLM068	T	C	6	–	120U1888	120U1743	–	120U2595	120U2389
	T	P	6	120U1553	–	–	120U1613	–	–
HLM072	T	C	6	–	120U1893	120U1748	–	120U2599	120U1853
	T	C	8	–	120U2199	120U2064	–	–	–
	T	P	6	120U1563	–	–	120U1623	–	–
HLM075	T	C	6	–	120U1898	120U1758	–	120U1833	–
	T	P	6	120U1573	–	–	120U1633	–	–
HLM078	T	C	6	–	120U1903	120U1768	–	–	–
HLM081	T	C	6	–	120U1908	120U1773	–	120U1843	120U2099
	T	C	8	–	–	120U2006	–	–	–
	T	P	6	120U1583	–	–	120U1643	–	–
HCM094	T	C	6	–	120U0888	120U0578	–	–	120U0743
	T	C	7	–	–	120U0583	–	–	–
	T	C	8	–	–	–	–	–	–
HCM109	T	C	6	–	–	120U0363	–	–	–
	T	C	7	–	–	–	–	–	–
	T	C	8	–	–	–	–	–	–
HCM120	T	C	6	–	120U0758	120U0388	–	–	–
	T	C	7	–	–	–	–	–	–
	T	C	8	–	–	–	–	–	–

Technical data and ordering

H-Series - R410A - 50 Hz

Performance table

Type	To	-25		-20		-15		-10		-5		0		5		10	
	Tc	H	Pe	H	Pe	H	Pe	H	Pe	H	Pe	H	Pe	H	Pe	H	Pe
HRH029U4	35	-	-	2670	1.62	3480	1.60	4430	1.58	5550	1.56	6850	1.54	8330	1.52	10010	1.49
	55	-	-	-	-	-	-	-	-	4150	2.56	5230	2.52	6460	2.48	7860	2.44
HRH031U4	35	-	-	2870	1.74	3730	1.71	4750	1.69	5950	1.67	7340	1.65	8930	1.63	10730	1.60
	55	-	-	-	-	-	-	-	-	4380	2.82	5520	2.78	6830	2.74	8300	2.69
HRH032U4	35	-	-	2910	1.71	3780	1.68	4820	1.66	6040	1.65	7450	1.63	9060	1.60	10890	1.57
	55	-	-	-	-	-	-	-	-	4470	2.91	5630	2.87	6960	2.82	8470	2.78
HRH034U4	35	-	-	3220	1.88	4190	1.86	5340	1.83	6690	1.81	8250	1.79	10030	1.77	12060	1.74
	55	-	-	-	-	-	-	-	-	4950	3.06	6230	3.01	7700	2.97	9370	2.91
HRH036U4	35	-	-	3350	1.98	4350	1.95	5550	1.93	6950	1.91	8570	1.88	10420	1.86	12530	1.82
	55	-	-	-	-	-	-	-	-	5130	3.31	6470	3.26	8000	3.21	9730	3.15
HRH038U4	35	-	-	3550	2.16	4610	2.13	5880	2.10	7360	2.08	9080	2.05	11050	2.02	13280	1.99
	55	-	-	-	-	-	-	-	-	5390	3.55	6790	3.49	8390	3.44	10210	3.38
HRH040U4	35	-	-	3850	2.34	5010	2.31	6390	2.28	8000	2.25	9870	2.23	12000	2.20	14430	2.16
	55	-	-	-	-	-	-	-	-	5940	3.78	7480	3.73	9250	3.67	11250	3.60
HRH041U4	35	-	-	4450	2.13	5560	2.15	6790	2.17	8210	2.17	9880	2.15	11840	2.12	14170	2.07
	35	-	-	4450	2.13	5560	2.15	6790	2.17	8210	2.17	9880	2.15	11840	2.12	14170	2.07
HRH044U4	35	-	-	4450	2.13	5560	2.15	6790	2.17	8210	2.17	9880	2.15	11840	2.12	14170	2.07
	35	-	-	4450	2.13	5560	2.15	6790	2.17	8210	2.17	9880	2.15	11840	2.12	14170	2.07
HRH047U4	35	-	-	4450	2.13	5560	2.15	6790	2.17	8210	2.17	9880	2.15	11840	2.12	14170	2.07
	35	-	-	4450	2.13	5560	2.15	6790	2.17	8210	2.17	9880	2.15	11840	2.12	14170	2.07
HRH048U4	35	-	-	4450	2.13	5560	2.15	6790	2.17	8210	2.17	9880	2.15	11840	2.12	14170	2.07
	35	-	-	4450	2.13	5560	2.15	6790	2.17	8210	2.17	9880	2.15	11840	2.12	14170	2.07
HRH049U4	35	-	-	4450	2.13	5560	2.15	6790	2.17	8210	2.17	9880	2.15	11840	2.12	14170	2.07
	35	-	-	4450	2.13	5560	2.15	6790	2.17	8210	2.17	9880	2.15	11840	2.12	14170	2.07
HRH050U4	35	-	-	4450	2.13	5560	2.15	6790	2.17	8210	2.17	9880	2.15	11840	2.12	14170	2.07
	35	-	-	4450	2.13	5560	2.15	6790	2.17	8210	2.17	9880	2.15	11840	2.12	14170	2.07
HRH051U4	35	-	-	4450	2.13	5560	2.15	6790	2.17	8210	2.17	9880	2.15	11840	2.12	14170	2.07
	35	-	-	4450	2.13	5560	2.15	6790	2.17	8210	2.17	9880	2.15	11840	2.12	14170	2.07
HRH054U4	35	-	-	4450	2.13	5560	2.15	6790	2.17	8210	2.17	9880	2.15	11840	2.12	14170	2.07
	35	-	-	4450	2.13	5560	2.15	6790	2.17	8210	2.17	9880	2.15	11840	2.12	14170	2.07
HRH056U4	35	-	-	4450	2.13	5560	2.15	6790	2.17	8210	2.17	9880	2.15	11840	2.12	14170	2.07
	35	-	-	4450	2.13	5560	2.15	6790	2.17	8210	2.17	9880	2.15	11840	2.12	14170	2.07
HLH061T4	35	-	-	4450	2.13	5560	2.15	6790	2.17	8210	2.17	9880	2.15	11840	2.12	14170	2.07
	35	-	-	4450	2.13	5560	2.15	6790	2.17	8210	2.17	9880	2.15	11840	2.12	14170	2.07
HLH068T4	35	-	-	4450	2.13	5560	2.15	6790	2.17	8210	2.17	9880	2.15	11840	2.12	14170	2.07
	35	-	-	4450	2.13	5560	2.15	6790	2.17	8210	2.17	9880	2.15	11840	2.12	14170	2.07
HLJ072T4	35	-	-	4450	2.13	5560	2.15	6790	2.17	8210	2.17	9880	2.15	11840	2.12	14170	2.07
	35	-	-	4450	2.13	5560	2.15	6790	2.17	8210	2.17	9880	2.15	11840	2.12	14170	2.07
HLJ075T4	35	-	-	4450	2.13	5560	2.15	6790	2.17	8210	2.17	9880	2.15	11840	2.12	14170	2.07
	35	-	-	4450	2.13	5560	2.15	6790	2.17	8210	2.17	9880	2.15	11840	2.12	14170	2.07
HLJ083T4	35	-	-	4450	2.13	5560	2.15	6790	2.17	8210	2.17	9880	2.15	11840	2.12	14170	2.07
	35	-	-	4450	2.13	5560	2.15	6790	2.17	8210	2.17	9880	2.15	11840	2.12	14170	2.07
HCJ090T4	35	-	-	4450	2.13	5560	2.15	6790	2.17	8210	2.17	9880	2.15	11840	2.12	14170	2.07
	35	-	-	4450	2.13	5560	2.15	6790	2.17	8210	2.17	9880	2.15	11840	2.12	14170	2.07
HCJ091T4	35	-	-	4450	2.13	5560	2.15	6790	2.17	8210	2.17	9880	2.15	11840	2.12	14170	2.07
	35	-	-	4450	2.13	5560	2.15	6790	2.17	8210	2.17	9880	2.15	11840	2.12	14170	2.07
HCJ105T4	35	-	-	4450	2.13	5560	2.15	6790	2.17	8210	2.17	9880	2.15	11840	2.12	14170	2.07
	35	-	-	4450	2.13	5560	2.15	6790	2.17	8210	2.17	9880	2.15	11840	2.12	14170	2.07
HCJ106T4	35	-	-	4450	2.13	5560	2.15	6790	2.17	8210	2.17	9880	2.15	11840	2.12	14170	2.07
	35	-	-	4450	2.13	5560	2.15	6790	2.17	8210	2.17	9880	2.15	11840	2.12	14170	2.07
HCJ120T4	35	-	-	4450	2.13	5560	2.15	6790	2.17	8210	2.17	9880	2.15	11840	2.12	14170	2.07
	35	-	-	4450	2.13	5560	2.15	6790	2.17	8210	2.17	9880	2.15	11840	2.12	14170	2.07
HCJ121T4	35	-	-	4450	2.13	5560	2.15	6790	2.17	8210	2.17	9880	2.15	11840	2.12	14170	2.07
	35	-	-	4450	2.13	5560	2.15	6790	2.17	8210	2.17	9880	2.15	11840	2.12	14170	2.07

To) *Evaporating temperature in °C.*
Tc) *Condensing temperature in °C.*
H) *Heating capacity in W.*
Pe) *Power input in kW.*
Subcooling*: 8.3 K.*
Superheat*: 11.1 K.*
Voltage code*: G: 380-480 V/3/50 Hz.*

Technical data and ordering

H-Series - R410A - 60 Hz

Performance table

Type	To	-25		-20		-15		-10		-5		0		5		10	
	Tc	H	Pe	H	Pe	H	Pe	H	Pe	H	Pe	H	Pe	H	Pe	H	Pe
HRH029U4	35	-	-	3210	1.91	4180	1.89	5320	1.87	6670	1.84	8220	1.82	10000	1.80	12020	1.77
	55	-	-	-	-	-	-	-	-	4950	2.99	6230	2.95	7710	2.90	9370	2.85
HRH031U4	35	-	-	3430	2.05	4470	2.02	5690	2.00	7130	1.97	8790	1.95	10700	1.92	12860	1.89
	55	-	-	-	-	-	-	-	-	5290	3.20	6660	3.15	8240	3.10	10020	3.05
HRH032U4	35	-	-	3520	2.10	4580	2.07	5840	2.05	7310	2.02	9010	2.00	10970	1.97	13180	1.94
	55	-	-	-	-	-	-	-	-	5460	3.27	6880	3.22	8500	3.17	10350	3.12
HRH034U4	35	-	-	3810	2.25	4950	2.22	6310	2.20	7900	2.17	9750	2.15	11860	2.12	14250	2.08
	55	-	-	-	-	-	-	-	-	5880	3.56	7420	3.51	9170	3.46	11150	3.40
HRH036U4	35	-	-	3940	2.33	5120	2.30	6520	2.27	8170	2.25	10080	2.22	12260	2.19	14740	2.15
	55	-	-	-	-	-	-	-	-	6040	3.66	7610	3.60	9400	3.54	11440	3.48
HRH038U4	35	-	-	4180	2.47	5440	2.44	6930	2.41	8680	2.38	10710	2.35	13030	2.32	15660	2.28
	55	-	-	-	-	-	-	-	-	6460	4.00	8150	3.94	10070	3.87	12250	3.81
HRH040U4	35	-	-	4560	2.69	5930	2.65	7560	2.62	9470	2.59	11680	2.56	14210	2.53	17080	2.48
	55	-	-	-	-	-	-	-	-	7080	4.24	8920	4.18	11030	4.12	13420	4.04
HRH041U4	35	-	-	5380	2.55	6720	2.58	8210	2.59	9930	2.60	11940	2.58	14310	2.54	17130	2.48
	55	-	-	-	-	-	-	-	-	7340	4.11	9150	4.12	11080	4.11	13200	4.09
HRH044U4	35	-	-	5830	2.70	7280	2.73	8890	2.75	10750	2.75	12930	2.73	15500	2.69	18550	2.63
	55	-	-	-	-	-	-	-	-	7890	4.38	9840	4.39	11910	4.38	14190	4.35
HRH047U4	35	-	-	5130	3.00	6670	2.96	8500	2.93	10640	2.89	13130	2.86	15970	2.82	19190	2.77
	55	-	-	-	-	-	-	-	-	7930	4.80	10000	4.73	12360	4.66	15030	4.58
HRH048U4	35	-	-	5350	3.14	6960	3.10	8880	3.06	11120	3.02	13710	2.99	16680	2.95	20050	2.90
	55	-	-	-	-	-	-	-	-	8220	4.93	10360	4.86	12810	4.78	15580	4.70
HRH049U4	35	-	-	6380	2.95	7970	2.98	9740	3.00	11770	3.00	14150	2.98	16970	2.94	20310	2.87
	55	-	-	-	-	-	-	-	-	8710	4.74	10860	4.75	13150	4.74	15670	4.71
HRH050U4	35	-	-	5620	3.29	7310	3.25	9320	3.21	11670	3.18	14400	3.14	17520	3.10	21060	3.04
	55	-	-	-	-	-	-	-	-	8610	5.16	10860	5.09	13420	5.01	16320	4.92
HRH051U4	35	-	-	6800	3.10	8490	3.13	10370	3.15	12540	3.15	15080	3.13	18080	3.08	21640	3.01
	55	-	-	-	-	-	-	-	-	9200	4.92	11470	4.92	13890	4.91	16560	4.88
HRH054U4	35	-	-	7160	3.31	8940	3.35	10920	3.37	13200	3.37	15870	3.35	19030	3.30	22780	3.22
	55	-	-	-	-	-	-	-	-	9680	5.22	12070	5.23	14620	5.22	17420	5.19
HRH056U4	35	-	-	6320	3.65	8220	3.60	10470	3.56	13120	3.52	16170	3.48	19680	3.43	23650	3.37
	55	-	-	-	-	-	-	-	-	9700	5.65	12230	5.57	15120	5.48	18390	5.38
HLH061T4	35	6160	3.82	8040	3.89	10050	3.93	12270	3.95	14840	3.95	17840	3.93	21390	3.87	25600	3.79
	55	-	-	-	-	-	-	8360	5.78	11000	5.81	13720	5.82	16610	5.81	19790	5.77
HLH068T4	35	6810	4.10	8880	4.16	11090	4.21	13550	4.23	16380	4.23	19700	4.20	23620	4.14	28260	4.05
	55	-	-	-	-	-	-	9280	6.37	12210	6.39	15220	6.40	18440	6.39	21970	6.35
HLJ072T4	35	7190	4.31	9380	4.38	11710	4.43	14310	4.45	17290	4.45	20790	4.42	24930	4.36	29840	4.26
	55	-	-	-	-	-	-	9800	6.72	12890	6.75	16070	6.76	19460	6.75	23190	6.70
HLJ075T4	35	7680	4.62	10040	4.70	12540	4.75	15320	4.78	18510	4.78	22260	4.75	26700	4.68	31950	4.58
	55	-	-	-	-	-	-	10280	6.92	13540	6.96	16880	6.97	20440	6.95	24350	6.91
HLJ083T4	35	8320	5.08	10860	5.17	13570	5.23	16570	5.26	20030	5.26	24090	5.22	28890	5.15	34570	5.03
	55	-	-	-	-	-	-	11220	7.62	14770	7.66	18410	7.67	22290	7.65	26560	7.60
HCJ090T4	35	9020	5.49	11770	5.57	14710	5.61	17990	5.61	21740	5.61	26110	5.62	31250	5.68	37300	5.79
	55	-	-	-	-	-	-	13710	8.55	16960	8.59	20540	8.59	24600	8.58	29280	8.58
HCJ091T4	35	9770	5.36	12280	5.38	15200	5.42	18590	5.46	22510	5.51	27020	5.57	32180	5.64	38040	5.71
	55	-	-	-	-	-	-	13910	8.43	17050	8.43	20680	8.44	24850	8.46	29640	8.50
HCJ105T4	35	10580	6,03	13810	6,13	17350	6,21	21310	6,29	25790	6,39	30920	6,51	36790	6,69	43510	6,93
	55	–	–	–	–	–	–	15690	9,53	19420	9,62	23650	9,71	28510	9,81	34100	9,94
HCJ106T4	35	11410	6.19	14330	6.25	17740	6.30	21700	6.35	26270	6.41	31530	6.48	37550	6.56	44390	6.66
	55	-	-	-	-	-	-	16230	9.75	19890	9.76	24130	9.77	29000	9.79	34580	9.81
HCJ120T4	35	12110	7,01	15810	7,13	19860	7,22	24390	7,30	29520	7,39	35390	7,53	42110	7,74	49810	8,04
	55	–	–	–	–	–	–	17950	10,94	22190	11,00	27030	11,08	32580	11,20	38980	11,38
HCJ121T4	35	12950	7.09	16270	7.12	20130	7.17	24620	7.22	29800	7.29	35770	7.36	42590	7.46	50340	7.56
	55	-	-	-	-	-	-	18430	11.14	22580	11.15	27390	11.17	32910	11.20	39240	11.25

To) *Evaporating temperature in °C.*
Tc) *Condensing temperature in °C.*
H) *Heating capacity in W.*
Pe) *Power input in kW.*
Subcooling*: 8.3 K.*
Superheat*: 11.1 K.*
Voltage code*: G: 380-480 V/3/60 Hz.*

Technical data and ordering

H-Series - R407C - 50 Hz

Performance table

Type	To	-25		-20		-15		-10		-5		0		5		10	
	Tc	H	Pe	H	Pe	H	Pe	H	Pe	H	Pe	H	Pe	H	Pe	H	Pe
HRP025T4	35	1920	1,11	2440	1,15	3050	1,18	3750	1,21	4550	1,24	5460	1,26	6480	1,29	7630	1,32
	55	–	–	–	–	–	–	3020	1,76	3680	1,81	4440	1,85	5290	1,88	6240	1,89
HRP034T4	35	2480	1,73	3190	1,71	4050	1,70	5080	1,69	6290	1,68	7710	1,67	9340	1,64	11220	1,59
	55	–	–	–	–	–	–	3790	2,77	4760	2,76	5900	2,75	7220	2,73	8740	2,71
HRP038T4	35	2710	1,85	3480	1,83	4410	1,82	5530	1,82	6850	1,80	8390	1,79	10170	1,76	12210	1,71
	55	–	–	–	–	–	–	4230	2,91	5300	2,90	6570	2,89	8040	2,87	9740	2,84
HRP040T4	35	2850	2,03	3670	2,01	4660	2,00	5840	1,99	7230	1,97	8850	1,95	10730	1,92	12890	1,87
	55	–	–	–	–	–	–	4350	3,24	5460	3,23	6770	3,22	8280	3,20	10030	3,17
HRP042T4	35	3000	2,13	3860	2,11	4900	2,10	6140	2,09	7600	2,08	9310	2,06	11290	2,02	13560	1,97
	55	–	–	–	–	–	–	4570	3,41	5740	3,40	7120	3,38	8710	3,36	10550	3,33
HRP045T4	35	3270	2,19	4200	2,16	5320	2,15	6670	2,14	8260	2,13	10120	2,11	12270	2,07	14720	2,01
	55	–	–	–	–	–	–	5170	3,70	6490	3,69	8040	3,68	9840	3,66	11920	3,62
HRP047T4	35	3430	2,30	4410	2,28	5600	2,26	7020	2,25	8690	2,24	10650	2,22	12910	2,18	15500	2,12
	55	–	–	–	–	–	–	5320	3,81	6680	3,80	8270	3,78	10130	3,76	12270	3,73
HRP048T4	35	3460	2,39	4450	2,38	5640	2,37	7070	2,36	8760	2,35	10730	2,32	13010	2,28	15620	2,23
	55	–	–	–	–	–	–	5300	3,44	6660	3,44	8250	3,42	10100	3,40	12230	3,37
HRP051T4	35	3750	2,33	4790	2,36	6070	2,39	7610	2,42	9420	2,46	11540	2,50	14000	2,54	16810	2,60
	55	–	–	–	–	–	–	5830	4,00	7300	3,95	9030	3,91	11040	3,89	13350	3,87
HRP054T4	35	3920	2,44	5010	2,46	6350	2,50	7950	2,53	9850	2,57	12070	2,61	14630	2,66	17580	2,72
	55	–	–	–	–	–	–	6050	4,15	7570	4,10	9360	4,06	11440	4,03	13840	4,01
HRP058T4	35	4200	2,61	5380	2,64	6810	2,68	8530	2,71	10560	2,75	12940	2,80	15690	2,85	18840	2,91
	55	–	–	–	–	–	–	6490	4,45	8120	4,39	10030	4,35	12260	4,32	14840	4,30
HRP060T4	35	4340	2,71	5560	2,74	7040	2,78	8820	2,81	10920	2,85	13380	2,90	16230	2,95	19490	3,02
	55	–	–	–	–	–	–	6690	4,50	8350	4,42	10320	4,36	12610	4,32	15260	4,31
HLP068T4	35	5320	3,37	6830	3,42	8630	3,46	10790	3,50	13340	3,55	16330	3,60	19820	3,67	23850	3,77
	55	–	–	–	–	–	–	7760	5,43	9540	5,31	11680	5,22	14240	5,16	17260	5,15
HLP072T4	35	5580	3,57	7170	3,66	9060	3,71	11330	3,75	14010	3,78	17150	3,83	20810	3,89	25040	4,00
	55	–	–	–	–	–	–	8200	5,76	10090	5,56	12370	5,42	15080	5,35	18280	5,37
HLP075T4	35	5550	3,84	7130	3,81	9040	3,80	11330	3,78	14040	3,76	17200	3,72	20850	3,65	25020	3,56
	55	–	–	–	–	–	–	8620	5,70	10820	5,69	13410	5,67	16410	5,64	19880	5,58
HLP078T4	35	5940	3,42	7600	3,46	9620	3,50	12050	3,55	14930	3,61	18290	3,67	22180	3,74	26630	3,81
	55	–	–	–	–	–	–	9220	6,04	11550	6,00	14280	5,96	17460	5,93	21130	5,91
HLP081T4	35	5730	4,16	7330	4,15	9280	4,13	11640	4,11	14420	4,07	17660	4,02	21400	3,95	25670	3,85
	55	–	–	–	–	–	–	9340	6,26	11700	6,21	14490	6,16	17750	6,10	21510	6,02
HCP094T4	35	6600	4,61	8480	4,59	10750	4,57	13480	4,55	16690	4,52	20450	4,47	24790	4,40	29750	4,29
	55	–	–	–	–	–	–	10320	6,83	12960	6,81	16050	6,78	19650	6,74	23800	6,68
HCP109T4	35	8100	4,80	10230	4,93	12990	5,02	16360	5,09	20270	5,15	24670	5,21	29530	5,26	34780	5,32
	55	–	–	–	–	–	–	12560	7,84	15580	7,98	19310	8,05	23700	8,06	28700	8,01
HCP120T4	35	8980	5,49	11340	5,64	14380	5,75	18060	5,81	22330	5,86	27160	5,91	32520	5,98	38360	6,07
	55	–	–	–	–	–	–	13670	8,82	16830	8,94	20810	8,99	25560	9,01	31050	8,99

To) *Evaporating temperature in °C.*
Tc) *Condensing temperature in °C.*
H) *Heating capacity in W.*
Pe) *Power input in kW.*
Subcooling*: 8.3 K.*
Superheat*: 11.1 K.*
Voltage code*: G: 380-480 V/3/50 Hz.*

Technical data and ordering

H-Series - R407C - 60 Hz

Performance table

Type	To	-25		-20		-15		-10		-5		0		5		10	
	Tc	H	Pe	H	Pe	H	Pe	H	Pe	H	Pe	H	Pe	H	Pe	H	Pe
HRP025T4	35	2310	1,31	2930	1,35	3650	1,40	4500	1,43	5460	1,47	6550	1,50	7780	1,53	9150	1,57
	55	–	–	–	–	–	–	3620	2,09	4420	2,15	5320	2,20	6340	2,23	7490	2,25
HRP034T4	35	2960	2,17	3810	2,15	4840	2,14	6060	2,13	7510	2,12	9190	2,09	11150	2,06	13390	2,01
	55	–	–	–	–	–	–	4530	3,34	5690	3,33	7050	3,31	8630	3,30	10450	3,26
HRP040T4	35	3490	2,07	4460	2,08	5650	2,11	7070	2,14	8760	2,18	10730	2,22	13010	2,26	15640	2,29
	55	–	–	–	–	–	–	5320	3,79	6630	3,78	8180	3,78	9990	3,77	12100	3,75
HRP042T4	35	3630	2,51	4670	2,49	5930	2,47	7430	2,46	9200	2,45	11270	2,42	13660	2,38	16410	2,32
	55	–	–	–	–	–	–	5510	4,02	6920	4,01	8570	4,00	10490	3,97	12710	3,94
HRP047T4	35	4110	2,38	5260	2,40	6660	2,43	8330	2,47	10310	2,51	12630	2,56	15320	2,60	18420	2,64
	55	–	–	–	–	–	–	6180	4,34	7670	4,33	9450	4,32	11530	4,31	13970	4,29
HRP051T4	35	4410	2,98	5660	2,96	7180	2,94	9000	2,93	11150	2,91	13660	2,88	16560	2,83	19870	2,76
	55	–	–	–	–	–	–	6880	4,60	8630	4,58	10690	4,57	13090	4,54	15850	4,50
HRP060T4	35	5100	3,53	6560	3,50	8320	3,48	10430	3,47	12910	3,44	15820	3,41	19170	3,35	23020	3,27
	55	–	–	–	–	–	–	7920	5,50	9950	5,48	12320	5,46	15080	5,43	18270	5,38
HLP072T4	35	6700	4,23	8600	4,30	10880	4,36	13590	4,40	16810	4,45	20580	4,52	24980	4,61	30050	4,74
	55	–	–	–	–	–	–	9830	6,70	12110	6,53	14840	6,40	18100	6,32	21940	6,30
HLP078T4	35	7120	4,32	9110	4,37	11540	4,43	14460	4,49	17910	4,55	21940	4,63	26610	4,72	31950	4,82
	55	–	–	–	–	–	–	11070	7,30	13860	7,19	17150	7,11	20960	7,05	25360	7,03
HLP081T4	35	6880	4,95	8790	4,92	11140	4,90	13960	4,88	17300	4,85	21200	4,80	25680	4,72	30800	4,60
	55	–	–	–	–	–	–	11210	7,34	14040	7,33	17390	7,31	21300	7,26	25810	7,19
HCP094T4	35	8220	4,91	10390	5,05	13170	5,14	16550	5,20	20470	5,24	24910	5,28	29820	5,34	35160	5,43
	55	–	–	–	–	–	–	12570	7,85	15490	7,94	19160	7,99	23530	8,00	28560	7,99
HCP120T4	35	10760	6,69	13600	6,90	17240	7,01	21650	7,07	26770	7,11	32570	7,16	38990	7,24	45990	7,40
	55	–	–	–	–	–	–	16410	10,56	20210	10,65	24980	10,69	30680	10,70	37260	10,74

To) *Evaporating temperature in °C.*
Tc) *Condensing temperature in °C.*
H) *Heating capacity in W.*
Pe) *Power input in kW.*
Subcooling*: 8.3 K.*
Superheat*: 11.1 K.*
Voltage code*: G: 380-480 V/3/60 Hz.*

Technical data and ordering

H-Series - R22 - 50 Hz

Performance table

Type	To	-25		-20		-15		-10		-5		0		5		10	
	Tc	H	Pe	H	Pe	H	Pe	H	Pe	H	Pe	H	Pe	H	Pe	H	Pe
HRM025T4	35	–	–	2550	1,33	3100	1,32	3810	1,31	4670	1,30	5660	1,28	6780	1,26	8010	1,22
	55	–	–	–	–	–	–	–	–	3600	1,95	4490	1,91	5450	1,89	6480	1,88
HRM032T4	35	–	–	3280	1,45	4000	1,44	4930	1,45	6040	1,48	7330	1,53	8780	1,57	10350	1,59
	55	–	–	–	–	–	–	–	–	4750	2,27	5940	2,33	7210	2,37	8550	2,38
HRM032U4	35	–	–	3330	1,69	4050	1,67	4980	1,66	6110	1,65	7400	1,63	8870	1,60	10470	1,54
	55	–	–	–	–	–	–	–	–	4760	2,68	5930	2,63	7200	2,60	8560	2,58
HRM034T4	35	2950	1,83	3470	1,80	4220	1,79	5190	1,77	6350	1,76	7700	1,74	9220	1,70	10890	1,65
	55	–	–	–	–	–	–	3870	2,70	4970	2,62	6190	2,57	7530	2,53	8950	2,52
HRM034U4	35	–	–	3530	1,75	4300	1,73	5280	1,72	6470	1,71	7840	1,69	9390	1,65	11090	1,60
	55	–	–	–	–	–	–	–	–	5060	2,80	6300	2,74	7660	2,71	9110	2,69
HRM038T4	35	3340	1,98	3930	1,94	4780	1,92	5880	1,91	7200	1,89	8740	1,87	10460	1,83	12350	1,78
	55	–	–	–	–	–	–	4350	3,02	5590	2,93	6970	2,87	8460	2,83	10070	2,81
HRM038U4	35	–	–	3970	1,93	4830	1,90	5940	1,89	7270	1,88	8820	1,85	10560	1,82	12480	1,76
	55	–	–	–	–	–	–	–	–	5590	3,10	6970	3,04	8470	3,00	10070	2,98
HRM040T4	35	3480	2,12	4100	2,09	4990	2,06	6130	2,05	7510	2,03	9110	2,01	10900	1,97	12880	1,91
	55	–	–	–	–	–	–	4540	3,12	5840	3,02	7280	2,96	8840	2,93	10510	2,91
HRM040U4	35	–	–	4140	1,99	5030	1,97	6190	1,96	7580	1,94	9190	1,92	11000	1,88	13000	1,82
	55	–	–	–	–	–	–	–	–	5880	3,14	7330	3,07	8900	3,04	10590	3,02
HRM042T4	35	3660	2,23	4310	2,19	5240	2,17	6450	2,15	7900	2,13	9580	2,11	11460	2,07	13540	2,01
	55	–	–	–	–	–	–	4760	3,33	6120	3,23	7630	3,16	9270	3,13	11020	3,10
HRM042U4	35	–	–	4340	2,09	5280	2,07	6490	2,05	7950	2,04	9640	2,01	11550	1,97	13640	1,91
	55	–	–	–	–	–	–	–	–	6170	3,29	7690	3,23	9350	3,19	11120	3,17
HRM045U4	35	–	–	4690	2,22	5710	2,19	7020	2,17	8600	2,16	10420	2,13	12480	2,09	14740	2,02
	55	–	–	–	–	–	–	–	–	6620	3,64	8260	3,56	10030	3,52	11920	3,50
HRM047T4	35	4170	2,43	4910	2,38	5970	2,36	7340	2,34	8990	2,32	10900	2,30	13050	2,25	15420	2,18
	55	–	–	–	–	–	–	5430	3,75	6970	3,63	8690	3,56	10560	3,52	12560	3,49
HRM047U4	35	–	–	4910	2,32	5970	2,30	7340	2,28	8990	2,26	10900	2,24	13050	2,19	15420	2,12
	55	–	–	–	–	–	–	–	–	6970	3,75	8690	3,68	10550	3,63	12550	3,61
HRM048U4	35	–	–	4940	2,36	6010	2,36	7390	2,36	9060	2,35	10980	2,33	13150	2,29	15530	2,23
	55	–	–	–	–	–	–	–	–	6970	3,67	8690	3,64	10560	3,62	12550	3,61
HRM051T4	35	4430	2,43	5210	2,35	6340	2,32	7810	2,33	9580	2,38	11620	2,44	13910	2,51	16410	2,56
	55	–	–	–	–	–	–	5820	3,48	7500	3,56	9370	3,64	11380	3,70	13500	3,74
HRM051U4	35	–	–	5310	2,48	6460	2,47	7940	2,47	9730	2,46	11800	2,44	14120	2,40	16680	2,34
	55	–	–	–	–	–	–	–	–	7760	3,95	9670	3,91	11750	3,89	13980	3,88
HRM054T4	35	–	–	5610	2,39	6830	2,37	8410	2,39	10310	2,44	12510	2,51	14970	2,57	17670	2,62
	55	–	–	–	–	–	–	–	–	8060	3,72	10050	3,81	12210	3,87	14500	3,90
HRM054U4	35	–	–	5620	2,60	6840	2,60	8410	2,60	10300	2,59	12490	2,56	14950	2,52	17660	2,46
	55	–	–	–	–	–	–	–	–	8110	4,09	10110	4,05	12290	4,03	14610	4,02
HRM058U4	35	–	–	6030	2,79	7340	2,79	9020	2,79	11050	2,77	13400	2,75	16040	2,71	18940	2,64
	55	–	–	–	–	–	–	–	–	8690	4,38	10830	4,34	13160	4,32	15650	4,31
HRM060T4	35	5210	2,85	6120	2,75	7460	2,72	9190	2,73	11270	2,78	13670	2,85	16360	2,93	19310	3,00
	55	–	–	–	–	–	–	6840	4,07	8830	4,15	11020	4,24	13380	4,31	15880	4,36
HRM060U4	35	–	–	6230	2,88	7580	2,88	9320	2,88	11420	2,87	13850	2,84	16580	2,80	19580	2,73
	55	–	–	–	–	–	–	–	–	8980	4,53	11190	4,49	13600	4,47	16180	4,45
HLM068T4	35	6120	3,36	7200	3,25	8760	3,21	10770	3,22	13200	3,28	16000	3,36	19160	3,45	22630	3,54
	55	–	–	–	–	–	–	7950	4,76	10220	4,85	12740	4,94	15480	5,03	18410	5,09
HLM072T4	35	6420	3,53	7550	3,41	9190	3,36	11310	3,38	13860	3,44	16810	3,53	20130	3,63	23760	3,71
	55	–	–	–	–	–	–	8390	5,02	10810	5,13	13480	5,23	16370	5,32	19450	5,38
HLM075T4	35	6520	3,70	7650	3,70	9310	3,70	11440	3,70	14020	3,68	17000	3,65	20350	3,59	24030	3,51
	55	–	–	–	–	–	–	8700	5,59	11170	5,52	13920	5,48	16920	5,45	20120	5,43
HLM078T4	35	6760	3,61	7940	3,46	9700	3,43	11980	3,48	14720	3,57	17870	3,69	21380	3,78	25180	3,82
	55	–	–	–	–	–	–	9060	5,42	11780	5,62	14740	5,79	17890	5,88	21160	5,87
HLM081T4	35	7370	3,86	8670	3,72	10540	3,67	12940	3,70	15840	3,78	19200	3,89	22990	3,99	27190	4,07
	55	–	–	–	–	–	–	9480	5,60	12140	5,75	15110	5,89	18370	5,99	21880	6,03
HCM094T4	35	8240	4,77	9680	4,78	11780	4,79	14480	4,78	17740	4,76	21510	4,72	25760	4,64	30420	4,54
	55	–	–	–	–	–	–	10880	7,08	13970	6,99	17410	6,93	21160	6,89	25160	6,87
HCM109T4	35	9480	5,94	11140	5,86	13550	5,80	16660	5,76	20410	5,71	24750	5,64	29630	5,54	34990	5,38
	55	–	–	–	–	–	–	12600	8,39	16170	8,15	20160	7,98	24500	7,88	29140	7,83
HCM120T4	35	8980	5,61	11550	5,71	14710	5,78	18410	5,84	22610	5,88	27260	5,93	32320	6,01	37740	6,11
	55	–	–	–	–	–	–	14550	9,27	18150	9,00	22220	8,87	26730	8,90	31630	9,09

To) *Evaporating temperature in °C.*
Tc) *Condensing temperature in °C.*
H) *Heating capacity in W.*
Pe) *Power input in kW.*
Subcooling*: 8.3 K.*
Superheat*: 11.1 K.*
Voltage code*: G: 380-480 V/3/50 Hz.*

Technical data and ordering

H-Series - R22 - 60 Hz

Performance table

Type	To	-25		-20		-15		-10		-5		0		5		10	
	Tc	H	Pe	H	Pe	H	Pe	H	Pe	H	Pe	H	Pe	H	Pe	H	Pe
HRM025T4	35	–	–	3030	1,59	3690	1,58	4530	1,56	5550	1,55	6730	1,53	8060	1,50	9530	1,46
	55	–	–	–	–	–	–	–	–	4290	2,33	5350	2,28	6500	2,25	7730	2,24
HRM032T4	35	–	–	3900	1,78	4750	1,76	5850	1,77	7180	1,80	8710	1,85	10420	1,90	12300	1,94
	55	–	–	–	–	–	–	–	–	5620	2,69	7020	2,75	8530	2,80	10120	2,83
HRM032U4	35	–	–	3930	1,96	4780	1,94	5870	1,93	7200	1,91	8730	1,89	10450	1,85	12340	1,79
	55	–	–	–	–	–	–	–	–	5640	3,09	7040	3,03	8550	2,99	10170	2,97
HRM034T4	35	3570	2,17	4200	2,14	5110	2,12	6280	2,10	7690	2,08	9330	2,06	11170	2,02	13190	1,96
	55	–	–	–	–	–	–	4700	3,22	6030	3,13	7520	3,06	9140	3,02	10870	3,00
HRM034U4	35	–	–	4190	2,05	5100	2,03	6280	2,01	7690	2,00	9320	1,98	11160	1,94	13180	1,87
	55	–	–	–	–	–	–	–	–	5940	3,23	7410	3,16	9000	3,13	10700	3,10
HRM038T4	35	3980	2,36	4680	2,32	5700	2,30	7000	2,28	8580	2,26	10400	2,23	12460	2,19	14710	2,13
	55	–	–	–	–	–	–	5220	3,52	6710	3,42	8360	3,35	10160	3,31	12080	3,28
HRM038U4	35	–	–	4760	2,30	5800	2,27	7120	2,25	8730	2,24	10580	2,21	12670	2,17	14970	2,10
	55	–	–	–	–	–	–	–	–	6740	3,56	8400	3,49	10210	3,45	12140	3,43
HRM040T4	35	4150	2,51	4880	2,47	5940	2,45	7300	2,43	8950	2,41	10850	2,38	12990	2,34	15340	2,27
	55	–	–	–	–	–	–	5430	3,69	6970	3,58	8690	3,51	10560	3,46	12560	3,44
HRM040U4	35	–	–	5010	2,42	6100	2,39	7500	2,37	9190	2,36	11140	2,33	13340	2,28	15760	2,21
	55	–	–	–	–	–	–	–	–	7100	3,75	8850	3,68	10750	3,63	12780	3,61
HRM042T4	35	4370	2,65	5140	2,60	6260	2,58	7690	2,56	9420	2,54	11430	2,51	13680	2,46	16160	2,39
	55	–	–	–	–	–	–	5730	3,93	7360	3,82	9180	3,74	11150	3,69	13270	3,67
HRM042U4	35	–	–	5210	2,54	6340	2,51	7790	2,49	9540	2,47	11570	2,45	13850	2,40	16360	2,32
	55	–	–	–	–	–	–	–	–	7450	3,94	9290	3,86	11290	3,81	13430	3,79
HRM045U4	35	–	–	5610	2,66	6820	2,63	8390	2,61	10280	2,59	12460	2,56	14920	2,51	17620	2,43
	55	–	–	–	–	–	–	–	–	7980	4,22	9950	4,14	12090	4,09	14380	4,06
HRM047T4	35	4970	2,86	5840	2,81	7110	2,78	8730	2,76	10700	2,74	12980	2,71	15540	2,65	18350	2,57
	55	–	–	–	–	–	–	6570	4,47	8430	4,34	10510	4,25	12770	4,20	15190	4,17
HRM047U4	35	–	–	5840	2,77	7110	2,74	8740	2,72	10700	2,70	12980	2,67	15540	2,62	18350	2,53
	55	–	–	–	–	–	–	–	–	8430	4,44	10510	4,35	12770	4,30	15190	4,27
HRM048U4	35	–	–	5870	2,78	7140	2,78	8780	2,78	10760	2,77	13040	2,74	15620	2,70	18450	2,63
	55	–	–	–	–	–	–	–	–	8380	4,38	10440	4,34	12690	4,32	15080	4,30
HRM051T4	35	5340	2,94	6280	2,83	7660	2,80	9430	2,82	11570	2,87	14040	2,95	16800	3,03	19820	3,10
	55	–	–	–	–	–	–	7040	4,22	9100	4,32	11370	4,41	13800	4,49	16370	4,53
HRM051U4	35	–	–	6310	2,93	7680	2,93	9440	2,92	11570	2,91	14030	2,89	16790	2,84	19830	2,77
	55	–	–	–	–	–	–	–	–	9110	4,59	11350	4,55	13790	4,53	16400	4,51
HRM054T4	35	–	–	6660	2,85	8110	2,82	9990	2,84	12250	2,90	14860	2,98	17780	3,06	20990	3,12
	55	–	–	–	–	–	–	–	–	9580	4,39	11960	4,49	14520	4,57	17240	4,60
HRM054U4	35	–	–	6650	3,09	8090	3,09	9950	3,09	12190	3,07	14780	3,04	17690	3,00	20900	2,92
	55	–	–	–	–	–	–	–	–	9530	4,76	11880	4,72	14430	4,70	17160	4,68
HRM058U4	35	–	–	7140	3,32	8690	3,31	10690	3,31	13090	3,30	15880	3,27	19000	3,21	22450	3,13
	55	–	–	–	–	–	–	–	–	10260	5,17	12790	5,13	15540	5,10	18480	5,09
HRM060T4	35	6250	3,42	7350	3,31	8960	3,26	11030	3,28	13530	3,34	16410	3,43	19640	3,52	23180	3,61
	55	–	–	–	–	–	–	8210	4,88	10590	4,98	13220	5,08	16060	5,17	19060	5,23
HRM060U4	35	–	–	7380	3,42	8980	3,42	11040	3,42	13520	3,41	16400	3,37	19630	3,32	23190	3,24
	55	–	–	–	–	–	–	–	–	10600	5,34	13210	5,29	16050	5,27	19080	5,25
HLM068T4	35	7330	3,98	8630	3,85	10500	3,80	12910	3,82	15810	3,88	19170	3,98	22950	4,09	27120	4,20
	55	–	–	–	–	–	–	9520	5,64	12230	5,75	15240	5,86	18520	5,97	22020	6,04
HLM072T4	35	7670	4,17	9020	4,03	10990	3,98	13520	4,00	16570	4,07	20100	4,17	24060	4,29	28400	4,39
	55	–	–	–	–	–	–	10030	5,95	12920	6,07	16110	6,20	19570	6,31	23250	6,38
HLM075T4	35	7820	4,43	9180	4,44	11160	4,44	13730	4,44	16820	4,42	20390	4,38	24410	4,31	28830	4,21
	55	–	–	–	–	–	–	10440	6,72	13410	6,63	16710	6,57	20310	6,54	24160	6,52
HLM078T4	35	8210	4,66	9650	4,66	11740	4,67	14430	4,66	17680	4,64	21440	4,60	25670	4,53	30310	4,42
	55	–	–	–	–	–	–	10850	6,98	13930	6,89	17370	6,83	21110	6,79	25100	6,77
HLM081T4	35	8520	4,83	10020	4,84	12190	4,85	14980	4,84	18350	4,82	22260	4,77	26640	4,70	31460	4,59
	55	–	–	–	–	–	–	11260	7,25	14470	7,15	18030	7,09	21910	7,05	26060	7,03
HCM094T4	35	9880	5,79	11620	5,81	14130	5,82	17380	5,82	21290	5,79	25820	5,73	30900	5,65	36500	5,52
	55	–	–	–	–	–	–	13060	8,39	16770	8,29	20910	8,21	25410	8,17	30220	8,14
HCM109T4	35	11380	6,82	13370	6,85	16260	6,86	19990	6,86	24500	6,82	29710	6,76	35560	6,66	41990	6,51
	55	–	–	–	–	–	–	15110	9,69	19400	9,58	24190	9,50	29390	9,44	34960	9,41
HCM120T4	35	12420	7,47	14600	7,50	17760	7,51	21830	7,51	26740	7,47	32430	7,40	38820	7,29	45850	7,13
	55	–	–	–	–	–	–	16490	10,61	21180	10,49	26400	10,40	32080	10,34	38160	10,30

To) *Evaporating temperature in °C.*
Tc) *Condensing temperature in °C.*
H) *Heating capacity in W.*
Pe) *Power input in kW.*
Subcooling*: 8.3 K.*
Superheat*: 11.1 K.*
Voltage code*: G: 380-480 V/3/60 Hz.*

Dimensions

Nomenclature

Type	Size	Motor	Features
HRH	**036**	**U1L**	**P6**

Application:
H: high temperature / air conditioning

Family:
C: light commercial scroll
R: residential scroll (new platform)
L: light commercial scroll (new platform)

Refrigerant & lubricant:
M: R22, alkylbenzene lubricant
P: R407C, PVE lubricant
H: R410A, PVE lubricant
J: R410A, PVE lubricant

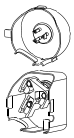
Nominal capacity:
In thousand Btu/h at 60 Hz, ARI conditions

Model variation
T: design optimized for 7.2/54.4°C
U: design optimized for 7.2/37.8°C

Other features

	Oil sight glass	Oil equali-sation	Oil drain	LP gauge port	Gas equali-sation port
6	None	None	None	None	None
7	Threaded	None	None	None	None
8	None	Brazed	None	None	Brazed

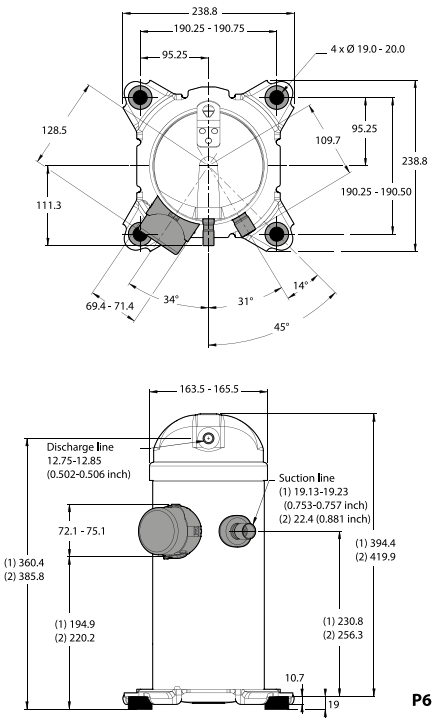
Tubing and electrical connections
P: brazed connections, spade terminals
C: brazed connections, screw terminals



Motor protection
L: internal motor protection

Motor voltage code
1: 208-230V/1~/60 Hz
2: 200-220V/3~/50Hz & 208-230V/3~/60 Hz
4: 380-400V/3~/50 Hz & 460V/3~/60 Hz
5: 220-240V/1~/50 Hz
7: 500V/3~/50 Hz & 575V/ 3~/60 Hz
9: 380V/3~/60 Hz

HRM032-034-038-040-042/HRP034-038-040-042/HRH029-031-032-034-036-038/HRM-045-047/HRP-045-047/HRH039-040



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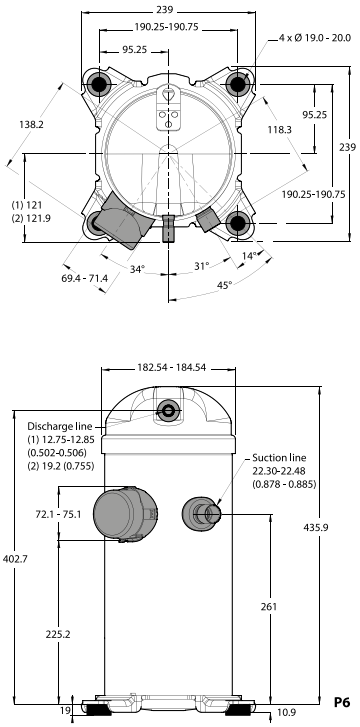
(2) HRM-045-047 / HRP-045-047 / HRH039-040

All dimensions in mm

Dimensions

HRM048-051-054-058-060/HLM068-072-075-078-081/HRP048-051-054-058-060/ HLP068-072-075-078-081/HRH041-044-049-051-054-056/HLH061-068/HLJ072-075-083



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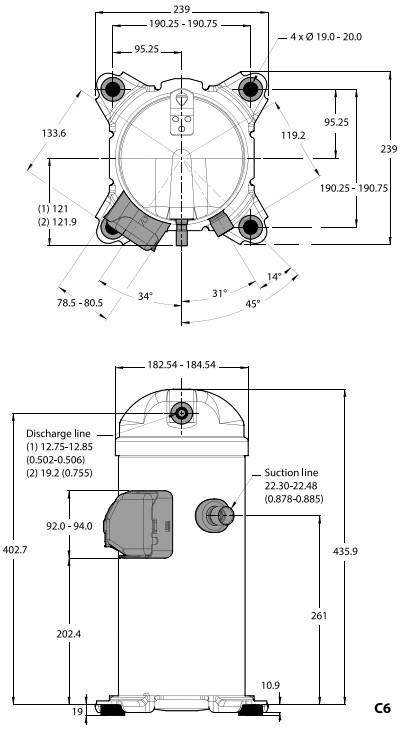
(2) HLM078-081 / HLP078-081

All dimensions in mm



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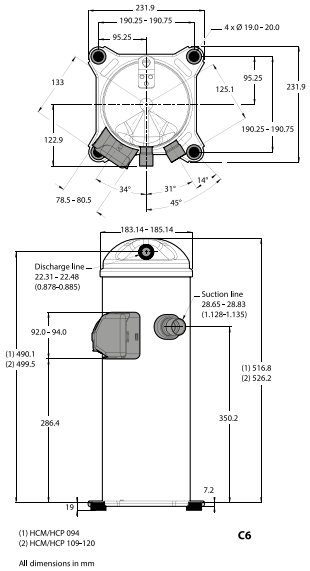
(2) HLM078-081 / HLP078-081

All dimensions in mm

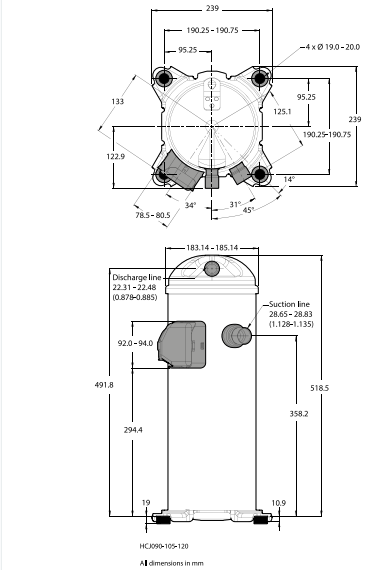
HCM/HCP 094-109-120



(1) HCM/HCP 094
(2) HCM/HCP 109-120

All dimensions in mm

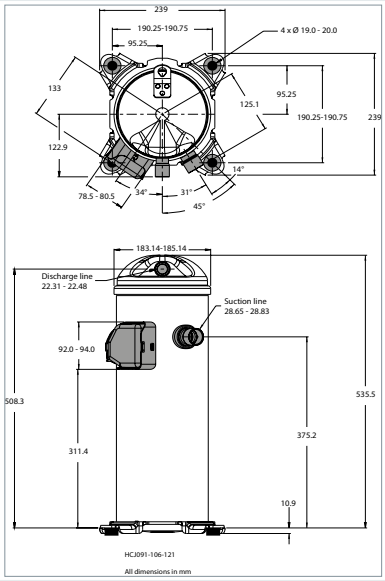
HCJ090-105-120



HCJ090-105-120

All dimensions in mm

HCJ091-106-121



HCJ091-106-121

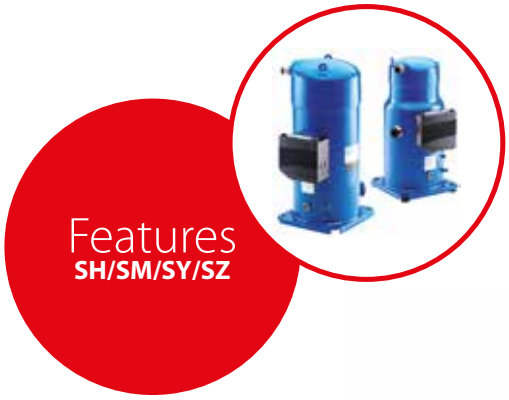
All dimensions in mm

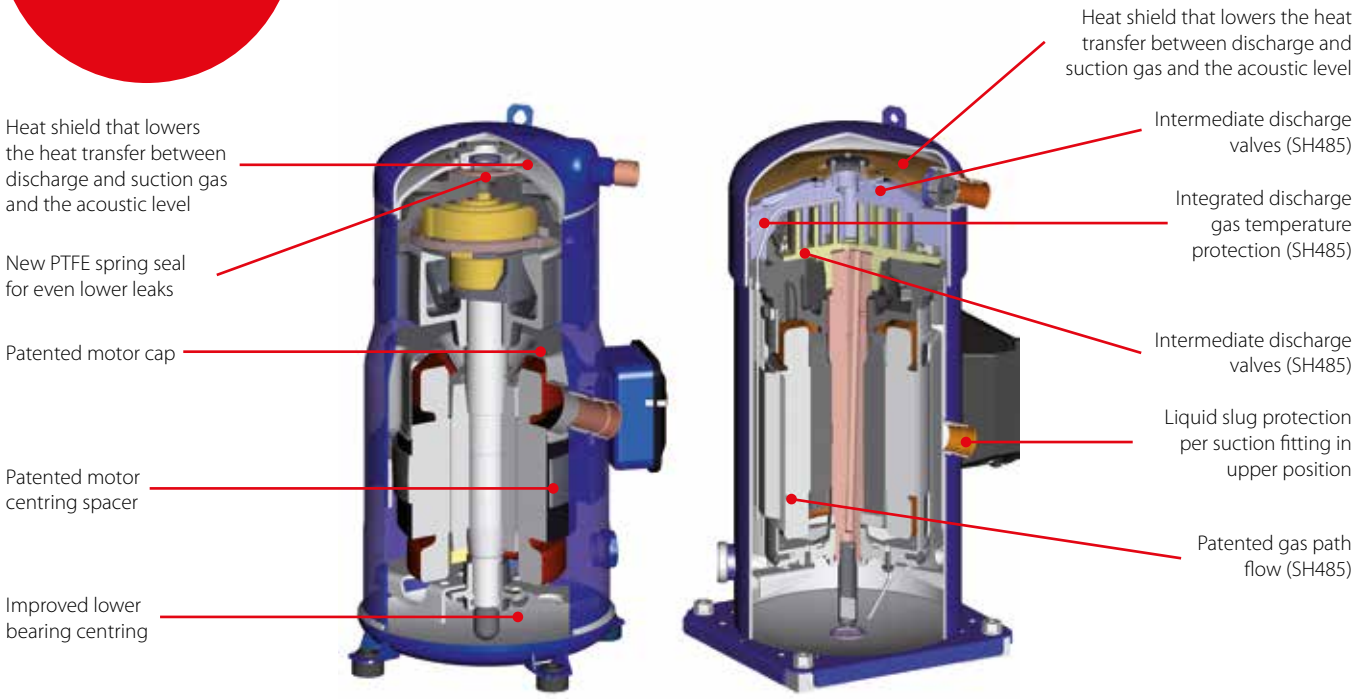
Quick Selection Notes:

SH/SM/SY/SZ - S-Series – Danfoss Scroll compressors

By combining an in-depth understanding of customer needs with continuous investment in product technology Danfoss is able to offer you the S series, which comprise a 7.5-40TR industry-leading range of high efficiency scroll compressors optimized for rooftop and chiller applications.

Available in a large variety of single and manifold models for R410A, R407C, R134a and R22. The compressors combine high energy efficency with low sound and minimal vibration.





Facts

S-Series compressor design

- Improved energy efficiency and reduced sound levels with the intermediate cap design feature
- Greater reliability with the internal non-return valve, which avoids refrigerant migration from the high pressure side
- Quieter and more efficient operation with "*no contact – no wear*" scroll design for reduced friction
- Environmentally-friendly lead-free bearings
- Highly efficient and reliable protection against overheating, overloading, phase loss and phase order with specific electronic module protection
- Prepared for manifolding with oil sight glass and oil equalizer
- Easy maintenance with oil drain tube
- The Surface Sump Heater provides thermal insulation, higher efficiency and greater noise reduction from 2 to 4 dB(A)

Technical data and ordering

SH - R410A - 50/60 Hz

Scroll compressors

	Type	Nominal tons 60 [Hz]	Nominal cooling capacity		Power input	COP	E.E.R.	Swept volume	Displacement [1]	Oil charge	Net weight [2]
		[TR]	[W]	[Btu/h]	[kW]	[W/W]	[Btu/h/W]	[cm³/rev]	[m³/h]	[dm³]	[kg]
50 Hz	SH090	7.5	22300	76100	7.19	3.10	10.58	88.40	15.4	3.0	58.0
	SH105	9	26800	91500	8.47	3.17	10.82	103.50	18.0	3.3	64.0
	SH120	10	30000	102400	9.46	3.17	10.82	116.90	20.3	3.3	64.0
	SH140	12	34700	118400	10.58	3.28	11.19	133.00	23.1	3.3	67.0
	SH161	13	38800	132400	12.15	3.19	10.89	151.70	26.4	3.3	69.0
	SH184	15	44700	152600	13.73	3.25	11.09	170.30	29.6	3.6	71.5
	SH180	15	44500	151900	13.87	3.21	10.96	170.20	29.6	6.7	108.0
	SH240	20	59700	203800	18.50	3.23	11.02	227.60	39.6	6.7	108.0
	SH295 *)	25	73200	249800	22.51	3.25	11.09	276.20	48.1	6.7	111.0
	SH380	30	90500	308900	28.18	3.21	10.96	345.00	60.0	6.7	159.0
	SH485	40	116400	397300	35.65	3.26	11.13	442.60	77.0	6.7	175.0
60 Hz	SH090	7.5	27100	92500	8.57	3.16	10.78	88.40	18.6	3.0	58.0
	SH105	9	32100	109600	9.96	3.22	10.99	103.50	21.8	3.3	64.0
	SH120	10	36800	125600	11.25	3.27	11.16	116.90	24.6	3.3	64.0
	SH140	12	42300	144400	12.77	3.31	11.30	133.00	27.9	3.3	67.0
	SH161	13	47200	161100	14.43	3.27	11.16	151.70	31.9	3.3	69.0
	SH184	15	54000	184300	16.45	3.28	11.19	170.30	35.8	3.6	71.5
	SH180	15	54300	185300	16.58	3.27	11.16	170.20	35.7	6.7	108.0
	SH240	20	72200	246400	22.10	3.27	11.16	227.60	47.8	6.7	108.0
	SH295 *)	25	88500	302000	27.21	3.25	11.09	276.20	58.0	6.7	111.0
	SH380	30	109600	374100	33.99	3.22	10.99	345.00	72.3	6.7	159.0
	SH485	40	140600	479900	43.28	3.25	11.09	442.60	92.9	6.7	175.0

[1] Displacement at nominal speed: 2900 rpm at 50 Hz, 3500 rpm at 60 Hz.
[2] Net weight with oil charge.

TR *Ton of Refrigeration.*
EER *Energy Efficiency Ratio.*
COP *Coefficient Of Performance.*

Standard rating conditions ARI standard.
Refrigerant R410A.

Evaporating temperature 7.2 °C.
Condensing temperature 54.4 °C.

Superheat: 11.1 K.
Subcooling 8.3 K.

Subject to modification without prior notification.
Data given for motor code 4 compressor.

****)*** *SH295 replaces SH300. SH300 model remains available for after-market.*

SH - R410A - 50/60 Hz

Ordering single pack

Type	Connections	Mounting feet	Motor protection	Code no.				
				3	4	6	7	9
				200-230/3/60	460/3/60 380-400/3/50	230/3/50	575/3/60 500/3/50	380/3/60
SH090	Brazed	Flexible	Internal	120H0001	120H0003	120H0005	120H0007	120H0009
SH105	Brazed	Flexible	Internal	120H0209	120H0211	120H0213	120H0215	120H0217
SH120	Brazed	Flexible	Internal	120H0011	120H0013	120H0015	120H0017	120H0019
SH140	Brazed	Flexible	Internal	120H0199	120H0201	120H0203	120H0205	120H0207
SH161	Brazed	Flexible	Internal	120H0021	120H0023	120H0025	120H0027	120H0029
SH184	Brazed	Flexible	Internal	120H0359	120H0361	120H0363	120H0365	120H0367
SH180	Brazed	Rigid	Module 24V AC *)	120H0265	120H0267	–	120H0269	120H0271
	Brazed	Rigid	Module 230V *)	120H0273	120H0275	–	120H0277	120H0279
SH240	Brazed	Rigid	Module 24V AC *)	120H0289	120H0291	–	120H0293	120H0295
	Brazed	Rigid	Module 115-230V *)	120H0297	120H0299	–	120H0301	120H0303
SH295	Brazed	Rigid	Module 24V AC *)	120H0851	120H0825	–	120H0833	120H0841
	Brazed	Rigid	Module 115-230V *)	120H0853	120H0827	–	120H0835	120H0843
SH380	Brazed	Rigid	Module 24V AC *)	120H0151	120H0253	–	120H0257	120H0261
	Brazed	Rigid	Module 115-230V *)	120H0152	120H0255	–	120H0259	120H0263
SH485	Brazed	Rigid	Module 24V AC *)	120H1105	120H1062	–	120H1099	120H1072
	Brazed	Rigid	Module 115-230V *)	120H1107	120H1064	–	120H1098	120H1074

****)*** *Electronic motor protection, module located in terminal box.*

Technical data and ordering

SH - R410A - 50/60 Hz

Ordering industrial pack

Model	Connections	Mounting feet	Motor protection	Code no.		
				3	4	9
				200-230/3/60	400/3/50 460/3/60	380/3/60
SH090	Brazed	Flexible	Internal	120H0002	120H0004	120H0010
SH105	Brazed	Flexible	Internal	120H0210	120H0212	120H0218
SH120	Brazed	Flexible	Internal	120H0012	120H0014	120H0020
SH140	Brazed	Flexible	Internal	120H0200	120H0202	120H0208
SH161	Brazed	Flexible	Internal	120H0022	120H0024	120H0030
SH184	Brazed	Flexible	Internal	120H0360	120H0362	120H0368
SH180	Brazed	Rigid	Module 24V AC *)	–	120H0268	120H0272
	Brazed	Rigid	Module 230V *)	120H0274	120H0276	120H0280
SH240	Brazed	Rigid	Module 24V AC *)	120H0290	120H0292	120H0296
	Brazed	Rigid	Module 115-230V *)	120H0298	120H0300	120H0304
SH295	Brazed	Rigid	Module 24V AC *)	120H0852	120H0826	120H0842
	Brazed	Rigid	Module 115-230V *)	120H0854	120H0828	120H0844
SH380	Brazed	Rigid	Module 24V AC *)	120H0250	120H0254	120H0262
	Brazed	Rigid	Module 115-230V *)	120H0252	120H0256	120H0264
SH485	Brazed	Rigid	Module 24V AC *)	–	120H1063	120H1073
	Brazed	Rigid	Module 115-230V *)	–	120H1065	120H1075

***)** *Electronic motor protection, module located in terminal box.*

SH - R410A - 50 Hz

Scroll compressors

Type	To	-20		-15		-10		-5		0		5		10		15	
	Tc	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe
SH090-4	35	9.700	4,5	12.100	4,6	15.000	4,7	18.200	4,8	22.000	4,8	26.300	4,9	31.200	4,9	36.800	4,9
	45	8.500	5,6	10.700	5,7	13.200	5,7	16.200	5,8	19.600	5,9	23.500	5,9	28.000	6,0	33.000	6,0
	55	–	–	–	–	11.300	7,1	13.900	7,1	16.900	7,2	20.400	7,3	24.400	7,3	28.900	7,4
SH105-4	35	11.200	5,4	14.100	5,5	17.400	5,6	21.400	5,7	25.900	5,7	31.200	5,9	37.200	6,0	44.000	6,1
	45	10.200	6,7	12.800	6,7	15.900	6,8	19.400	6,8	23.500	6,9	28.100	7,0	33.400	7,2	39.500	7,3
	55	–	–	–	–	13.900	8,4	17.000	8,4	20.600	8,5	24.600	8,5	29.200	8,6	34.500	8,8
SH120-4	35	13.100	5,9	16.300	6,0	20.100	6,1	24.500	6,2	29.500	6,3	35.300	6,4	41.900	6,5	49.400	6,5
	45	11.400	7,4	14.300	7,4	17.800	7,5	21.800	7,6	26.300	7,7	31.600	7,8	37.600	7,9	44.400	7,9
	55	–	–	–	–	15.200	9,3	18.700	9,4	22.800	9,5	27.400	9,6	32.700	9,6	38.800	9,7
SH140-4	35	15.700	6,8	19.300	6,9	23.500	7,0	28.400	7,0	34.000	7,1	40.400	7,2	47.700	7,2	56.000	7,2
	45	13.700	8,3	17.000	8,4	20.900	8,5	25.400	8,6	30.500	8,6	36.400	8,7	43.200	8,8	50.800	8,8
	55	–	–	–	–	18.000	10,5	22.000	10,5	26.500	10,6	31.800	10,7	37.900	10,7	44.800	10,8
SH161-4	35	17.300	7,8	21.500	7,9	26.300	7,9	31.900	8,0	38.300	8,0	45.700	8,1	54.100	8,2	63.600	8,4
	45	15.100	9,8	18.900	9,8	23.300	9,8	28.400	9,8	34.300	9,9	41.000	9,9	48.700	10,0	57.400	10,1
	55	–	–	–	–	19.900	12,4	24.300	12,3	29.500	12,3	35.500	12,3	42.400	12,3	50.200	12,3
SH180-4	35	19.200	9,1	24.000	9,1	29.600	9,1	36.000	9,2	43.500	9,2	52.100	9,2	61.800	9,3	72.700	9,4
	45	16.600	11,3	21.000	11,3	26.200	11,3	32.100	11,3	39.000	11,3	46.800	11,3	55.700	11,3	65.800	11,4
	55	–	–	–	–	22.300	14,1	27.600	14,1	33.700	14,1	40.700	14,1	48.700	14,0	57.800	14,0
SH184-4	35	20.200	8,7	24.900	8,8	30.300	9,0	36.700	9,2	44.000	9,4	52.400	9,5	61.900	9,7	72.700	9,8
	45	17.800	10,6	22.100	10,8	27.100	10,9	32.800	11,1	39.400	11,2	47.000	11,4	55.700	11,6	65.500	11,8
	55	–	–	–	–	23.400	13,4	28.400	13,5	34.300	13,6	41.000	13,8	48.700	14,0	57.500	14,2
SH240-4	35	26.700	12,0	33.200	12,0	40.700	12,1	49.200	12,1	59.000	12,2	70.200	12,3	82.800	12,4	97.100	12,6
	45	23.300	14,8	29.300	14,9	36.100	15,0	43.900	15,0	52.800	15,1	63.000	15,1	74.500	15,2	87.400	15,3
	55	–	–	–	–	30.900	18,6	37.800	18,6	45.800	18,7	54.800	18,7	65.100	18,8	76.800	18,8
SH295-4	35	32.700	14,5	40.600	14,6	49.800	14,7	60.300	14,8	72.400	14,9	86.100	15,1	101.700	15,5	119.200	15,9
	45	28.700	17,9	35.800	18,1	44.100	18,2	53.600	18,3	64.600	18,3	77.100	18,5	91.200	18,7	107.200	18,9
	55	–	–	–	–	37.800	22,4	46.200	22,6	56.000	22,7	67.100	22,7	79.900	22,9	94.300	23,0
SH380-4	35	40.400	18,4	50.000	18,6	61.100	18,7	74.000	18,8	88.900	19,0	105.900	19,2	125.300	19,6	147.200	20,2
	45	35.500	22,3	44.200	22,7	54.300	22,9	66.000	23,0	79.600	23,1	95.100	23,3	112.900	23,5	133.000	23,8
	55	–	–	–	–	46.600	28,0	57.000	28,2	69.000	28,3	82.900	28,5	98.900	28,6	117.100	28,8
SH485-4	35	52.600	23,0	64.800	23,5	78.900	23,8	95.400	24,1	114.400	24,1	136.200	23,9	161.100	23,4	189.400	22,6
	45	46.700	28,0	57.700	28,4	70.600	28,8	85.400	29,2	102.500	29,4	122.200	29,5	144.700	29,4	170.300	29,0
	55	–	–	–	–	61.200	35,0	74.300	35,4	89.400	35,8	106.900	36,0	126.900	36,1	149.800	36,0

***To)** Evaporating temperature in °C.*
***Tc)** Condensing temperature in °C.*
***H)** Heating capacity in W.*
***Qo)** Cooling capacity in W.*
***Subcooling**: 8.3 K.*
***Superheat**: 11.1 K.*
***Voltage**: 400 V/3/60 Hz.*

Technical data and ordering

SH - R410A - 60 Hz

Scroll compressors

Type	To	-20		-15		-10		-5		0		5		10		15	
	Tc	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe
SH090	35	11500	5,53	14400	5,56	17800	5,61	21800	5,66	26400	5,72	31600	5,79	37600	5,87	44400	5,96
	45	10000	6,84	12700	6,87	15800	6,90	19500	6,94	23600	6,98	28500	7,04	33900	7,11	40200	7,20
	55	–	–	–	–	13500	8,58	16800	8,60	20500	8,62	24800	8,66	29700	8,71	35300	8,77
SH105	35	14200	6,51	17500	6,59	21400	6,68	25900	6,78	31000	6,88	37000	6,96	43700	7,03	51300	7,06
	45	12500	7,91	15600	7,94	19200	8,01	23300	8,10	28000	8,21	33500	8,33	39700	8,44	46800	8,55
	55	–	–	–	–	16600	9,76	20300	9,81	24500	9,90	29400	10,01	35100	10,15	41500	10,29
SH120	35	16000	7,15	19900	7,26	24500	7,38	29800	7,51	35800	7,67	42800	7,85	50700	8,06	59700	8,31
	45	14000	8,80	17600	8,88	21800	8,98	26600	9,08	32200	9,21	38500	9,36	45700	9,55	53900	9,77
	55	–	–	–	–	18700	11,08	23000	11,14	28000	11,22	33700	11,32	40100	11,46	47500	11,63
SH140	35	19100	8,18	23400	8,31	28500	8,44	34400	8,59	41200	8,73	49000	8,88	57900	9,02	67900	9,16
	45	16900	9,97	20900	10,07	25500	10,19	30900	10,32	37100	10,47	44300	10,63	52400	10,80	61700	10,96
	55	–	–	–	–	22100	12,47	26900	12,57	32400	12,70	38800	12,85	46100	13,01	54500	13,18
SH161	35	21400	9,22	26300	9,34	32100	9,47	38700	9,60	46400	9,75	55200	9,91	65200	10,09	76600	10,28
	45	18700	11,37	23300	11,47	28500	11,56	34600	11,67	41600	11,79	49600	11,92	58800	12,07	69200	12,24
	55	–	–	–	–	24500	14,34	29900	14,40	36100	14,48	43200	14,56	51500	14,67	60800	14,79
SH180	35	23400	10,85	29300	10,89	36100	10,93	44000	10,96	53200	11,00	63600	11,03	75500	11,07	88900	11,11
	45	20300	13,46	25700	13,48	31900	13,51	39200	13,54	47600	13,56	57200	13,59	68100	13,62	80400	13,65
	55	–	–	–	–	27200	16,86	33600	16,84	41100	16,82	49600	16,81	59400	16,79	70600	16,78
SH184	35	24500	10,44	30100	10,66	36600	10,89	44100	11,11	52700	11,32	62600	11,51	73800	11,66	86500	11,76
	45	21600	12,68	26700	12,87	32700	13,08	39500	13,31	47500	13,55	56500	13,77	66800	13,98	78500	14,16
	55	–	–	–	–	28300	15,90	34400	16,09	41500	16,31	49600	16,53	58900	16,76	69500	16,98
SH240	35	32800	14,32	40400	14,41	49200	14,48	59400	14,56	71200	14,69	84600	14,89	100000	15,20	117300	15,65
	45	28800	17,53	35700	17,71	43800	17,83	53000	17,92	63700	18,01	75900	18,14	89900	18,33	105800	18,62
	55	–	–	–	–	37800	21,90	46000	22,07	55400	22,20	66300	22,32	78700	22,46	93000	22,66
SH295	35	40300	17,44	49600	17,66	60300	17,86	72800	18,07	87200	18,37	103700	18,79	122400	19,39	143600	20,23
	45	35500	21,18	43900	21,55	53700	21,82	65000	22,04	78000	22,26	93000	22,54	110100	22,93	129400	23,48
	55	–	–	–	–	46400	26,60	56400	26,92	68000	27,18	81300	27,42	96500	27,69	113800	28,06
SH380	35	48700	22,23	60200	22,44	73600	22,71	89200	23,02	107100	23,37	127600	23,77	151000	24,19	177500	24,65
	45	42800	27,08	53300	27,23	65400	27,44	79600	27,69	96000	28,00	114800	28,35	136300	28,73	160800	29,15
	55	–	–	–	–	56400	33,48	68900	33,68	83500	33,94	100400	34,24	119900	34,58	142100	34,97
SH485	35	63100	28,00	77700	28,38	94700	28,81	114500	29,22	137400	29,50	163800	29,56	193900	29,33	228200	28,71
	45	55800	34,23	69100	34,42	84500	34,79	102400	35,24	123100	35,69	147100	36,05	174500	36,23	205800	36,14
	55	–	–	–	–	73300	42,35	89200	42,68	107600	43,12	129000	43,58	153500	43,99	181700	44,24

To) *Evaporating temperature in °C.*
Tc) *Condensing temperature in °C.*
Pe) *Power input in kW.*
Qo) *Cooling capacity in W.*
Subcooling*: 8.3 K.*
Superheat*: 11.1 K.*
Voltage*: 400 V/3/60 Hz.*

Technical data and ordering

SM/SY/SZ - R22/R407C - 50 Hz

Scroll compressors

	Type	Nominal Cap. 60 [Hz]	Nominal cooling capacity		Power input	COP	E.E.R.	Swept volume	Displacement [1]	Oil charge	Net weight [2]
		[TR]	[W]	[Btu/h]	[kW]	[W/W]	[Btu/h/W]	[cm³/rev]	[m³/h]	[dm³]	[kg]
R22 SINGLE	SM084	7	20400	69600	6.12	3.33	11.4	114.5	19.9	3.25	64
	SM090	7.5	21800	74400	6.54	3.33	11.4	120.5	21.0	3.25	65
	SM100	8	23100	78800	6.96	3.33	11.4	127.2	22.1	3.25	65
	SM110	9	25900	88400	7.82	3.32	11.3	144.2	25.1	3.25	73
	SM112	9.5	27600	94200	7.92	3.49	11.9	151.5	26.4	3.3	64
	SM120	10	30100	102700	8.96	3.36	11.5	166.6	29.0	3.25	73
	SM124	10	31200	106500	8.75	3.56	12.2	169.5	29.5	3.3	64.2
	SM147	12	36000	122900	10.08	3.57	12.2	193.5	33.7	3.3	67
	SM148	12	36100	123200	10.8	3.34	11.4	199	34.6	3.6	88
	SM161	13	39000	133100	11.59	3.37	11.5	216.6	37.7	3.6	88
	SM175	14	42000	143300	12.47	3.37	11.5	233	40.5	6.2	100
	SM/SY185	15	45500	155300	13.62	3.34	11.4	249.9	43.5	6.2	100
	SY240	20	61200	208900	18.2	3.36	11.5	347.8	60.5	8	150
	SY300	25	78200	266900	22.83	3.43	11.7	437.5	76.1	8	157
	SY380	30	94500	322500	27.33	3.46	11.8	531.2	92.4	8.4	158
R407C SINGLE	SZ084	7	19300	65900	6.13	3.15	10.8	114.5	19.9	3.25	64
	SZ090	7.5	20400	69600	6.45	3.16	10.8	120.5	21.0	3.25	65
	SZ100	8	21600	73700	6.84	3.15	10.8	127.2	22.1	3.25	65
	SZ110	9	24600	84000	7.76	3.17	10.8	144.2	25.1	3.25	73
	SZ120	10	28600	97600	8.99	3.17	10.8	166.6	29.0	3.25	73
	SZ147	12	34900	119079	9.92	3.52	12.0	193.5	33.7	3.30	67
	SZ148	12	35100	119800	10.99	3.19	10.9	199	34.6	3.6	88
	SZ161	13	38000	129700	11.84	3.21	11.0	216.6	37.7	3.6	88
	SZ175	14	40100	136900	12.67	3.17	10.8	233	40.5	6.2	100
	SZ185	15	43100	147100	13.62	3.16	10.8	249.9	43.5	6.2	100
	SZ240	20	59100	201700	18.55	3.19	10.9	347.8	60.5	8	150
	SZ300	25	72700	248100	22.73	3.2	10.9	437.5	76.1	8	157
	SZ380	30	89600	305800	27.59	3.25	11.1	531.2	92.4	8.4	158

TR) *Ton of Refrigeration.*
COP) *Coefficient Of Performance.*
EER) *Energy Efficiency Ratio.*
Subcooling *: 8.3 K.*
Superheat *: 11.1 K.*
[1]) *Displacement at nominal speed: 2900 rpm at 50 Hz, 3500 rpm at 60 Hz.*
[2]) *Net weight with oil charge.*

Technical data and ordering

SM/SY/SZ - R22/R407C - 60 Hz

Scroll compressors

	Type	Nominal Cap. 60 [Hz]	Nominal cooling capacity		Power input	COP	E.E.R.	Swept volume	Displacement [1]	Oil charge	Net weight [2]
		[TR]	[W]	[Btu/h]	[kW]	[W/W]	[Btu/h /W]	[cm³/rev]	[m³/h]	[dm³]	[kg]
R22 SINGLE	SM084	7	24600	84000	7.40	3.34	11.4	114.5	24.1	3.25	64
	SM090	7.5	26400	90100	7.80	3.37	11.5	120.5	25.3	3.25	65
	SM100	8	27500	93900	8.10	3.38	11.5	127.2	26.7	3.25	65
	SM110	9	31600	107800	9.30	3.38	11.5	144.2	30.3	3.25	73
	SM112	9.5	34000	116000	9.60	3.53	12.1	151.5	31.8	3.30	64
	SM120	10	36 700	125 300	10.80	3.40	11.6	166.6	35.0	3.25	73
	SM124	10.5	37 700	128 700	10.60	3.56	12.2	169.5	35.6	3.30	64
	SM147	12	43 600	148 800	12.20	3.58	12.2	193.5	40.6	3.30	67
	SM148	12	43 800	149 500	13.00	3.37	11.5	199.0	41.8	3.60	88
	SM161	13	47 600	162500	14.10	3.39	11.6	216.6	45.5	3.60	88
	SM175	14	51 100	174 400	15.30	3.34	11.4	233.0	48.9	6.20	100
	SM/SY185	15	55 300	188 700	16.30	3.39	11.6	249.9	52.5	6.20	100
	SY240	20	74 100	252 900	22.10	3.35	11.4	347.8	73.0	8.00	150
	SY300	25	94 500	322 500	27.50	3.43	11.7	437.5	91.9	8.00	157
	SY380	30	115 300	393500	33.40	3.46	11.8	531.2	111.6	8.40	158
R407C SINGLE	SZ084	7	22 500	76 800	7.10	3.19	10.9	114.5	24.1	3.25	64
	SZ090	7.5	24 400	83 300	7.60	3.20	10.9	120.5	25.3	3.25	65
	SZ100	8	26 500	90 400	8.20	3.24	11.1	127.2	26.7	3.25	65
	SZ110	9	30 100	102 700	9.30	3.24	11.1	144.2	30.3	3.25	73
	SZ120	10	34800	118800	10.70	3.24	11.1	166.6	35.0	3.25	73
	SZ147	12	42300	144328	12.03	3.52	12.0	193.5	40.6	3.30	67
	SZ148	12	42 600	145 400	13.30	3.19	10.9	199.0	41.8	3.60	88
	SZ161	13	46 000	157 000	14.30	3.21	11.0	216.6	45.5	3.60	88
	SZ175	14	48 700	166 200	15.30	3.19	10.9	233.0	48.9	6.20	100
	SZ185	15	51 800	176 800	16.40	3.15	10.8	249.9	52.5	6.20	100
	SZ240	20	71 100	242 700	22.70	3.14	10.7	347.8	73.0	8.00	150
	SZ300	25	87 900	300 000	27.50	3.20	10.9	437.5	91.9	8.00	157
	SZ380	30	107 300	366 200	33.50	3.20	10.9	531.2	111.6	8.40	158

TR) *Ton of Refrigeration.*
COP) *Coefficient Of Performance.*
EER) *Energy Efficiency Ratio.*
Subcooling*: 8.3 K.*
Superheat*: 11.1 K.*
[1]) Displacement at nominal speed: 2900 rpm at 50 Hz, 3500 rpm at 60 Hz.
[2]) Net weight with oil charge.

SM112-124-147 - R22

Ordering single pack

Type	Connections	Motor protection	Code no.				
			3	4	6	7	9
			200-230/3/60	460/3/60 380-400/3/50	230/3/50	575/3/60 500/3/50	380/3/60
SM112	Brazed	Internal	–	120H0611	–	–	120H0613
SM124	Brazed	Internal	120H0183	120H0185	–	–	120H0187
SM147	Brazed	Internal	120H0189	120H0191	–	–	120H0197
SZ147	Brazed	Internal	–	120H1096	–	–	–

SM112-124-147 - R22

Ordering industrial pack

Type	Connections	Motor protection	Code no.				
			3	4	6	7	9
			200-230/3/60	460/3/60 380-400/3/50	230/3/50	575/3/60 500/3/50	380/3/60
SM112	Brazed	Internal	120H0610	120H0612	–	–	120H0614
SM124	Brazed	Internal	120H0184	120H0186	–	–	120H0188
SM147	Brazed	Internal	120H0190	120H0311	–	–	120H0198
SZ147	Brazed	Internal	–	120H1097	–	–	–

Technical data and ordering

SM/SY - R22

Ordering single pack

Type	Connections	Motor protection	Code no.				
			3	4	6	7	9
			200-230/3/60	460/3/60 380-400/3/50	230/3/50	575/3/60 500/3/50	380/3/60
SM084	Brazed	Internal	–	SM084-4VI	–	SM084-7VI	SM084-9VI
SM090	Brazed	Internal	SM090-3VI	SM090-4VI	SM090-6VI	SM090-7VI	SM090-9VI
SM100	Brazed	Internal	SM100-3VI	SM100-4VI	–	SM100-7VI	SM100-9VI
SM110	Brazed	Internal	SM110-3VI	SM110-4VI	SM110-6VI	SM110-7VI	SM110-9VI
SM120	Brazed	Internal	SM120-3VI	SM120-4VI	SM120-6VI	SM120-7VI	SM120-9VI
SM148	Brazed	Internal	SM148-3VAI	SM148-4VAI	SM148-6VAI	–	SM148-9VAI
SM161	Brazed	Internal	SM161-3VAI	SM161-4VAI	–	SM161-7VAI	SM161-9VAI
SM175	Brazed	Thermostat	SM175-3CAI	SM175-4CAI	SM175-6CAI	SM175-7CAI	–
	Brazed	Module 24V AC	–	SM175-4PCI	–	–	–
	Rotolock	Thermostat	–	SM175-4RI	–	–	–
	Rotolock	Module 24V AC	SM175-3SCI	SM175-4SCI	–	SM175-7SCI	–
SM185	Brazed	Thermostat	SM185-3CAI	SM185-4CAI	–	SM185-7CAI	SM185-9CAI
	Brazed	Module 24 V AC	–	SM185-4PCI	–	–	–
	Brazed	Module 230 V AC	–	–	–	–	SM185-9XCI
	Rotolock	Thermostat	SM185-3RI	SM185-4RI	SM185-6RI	–	SM185-9RI
	Rotolock	Module 24 V AC	SM185-3SCI	–	–	SM185-7SCI	–
	Rotolock	Module 230 V AC	–	SM185-4YCI	–	–	SM185-9YCI
SY185 *)	Brazed	Thermostat	–	SY185-4CAI	–	–	–
	Rotolock	Thermostat	–	SY185-4RI	–	–	–
SY240	Brazed	Module 24V AC	–	SY240A4CAI	–	–	–
	Brazed	Module 115-230V AC	SY240A3CBI	SY240A4CBI	SY240A6CBI	SY240A7CBI	SY240A9CBI
	Rotolock	Module 24V AC	–	SY240A4PAI	–	–	–
	Rotolock	Module 115-230V AC	SY240A3PBI	SY240A4PBI	SY240A6PBI	SY240A7PBI	SY240A9PBI
SY300	Brazed	Module 24V AC	–	SY300A4CAI	–	–	–
	Brazed	Module 115-230V AC	SY300A3CBI	SY300A4CBI	SY300A6CBI	SY300A7CBI	SY300A9CBI
	Rotolock	Module 24V AC	–	SY300A4PAI	–	–	–
	Rotolock	Module 115-230V AC	SY300A3PBI	SY300A4PBI	SY300A6PBI	SY300A7PBI	SY300A9PBI
SY380	Brazed	Module 24V AC	–	SY380A4CAI	–	–	–
	Brazed	Module 115-230V AC	–	SY380A4CBI	–	–	–

***)** *No module version available.*

SM/SY compressors in industrial pack: use numbers from above table and replace the last digit by "M". Example: SY240A3CAM, except for voltage codes 6 and 7 available in single pack only.

Technical data and ordering

SZ - R407C/R134a

Ordering single pack

Type	Connections	Motor protection	Code no.				
			3	4	6	7	9
			200-230/3/60	460/3/60 380-400/3/50	230/3/50	575/3/60 500/3/50	380/3/60
SZ084	Brazed	Internal	SZ084-3VI	SZ084-4VI	SZ084-6VI	–	SZ084-9VI
SZ090	Brazed	Internal	SZ090-3VI	SZ090-4VI	SZ090-6VI	–	SZ090-9VI
SZ100	Brazed	Internal	SZ100-3VI	SZ100-4VI	SZ100-6VI	SZ100-7VI	SZ100-9VI
SZ110	Brazed	Internal	SZ110-3VI	SZ110-4VI	SZ110-6VI	SZ110-7VI	SZ110-9VI
SZ120	Brazed	Internal	SZ120-3VI	SZ120-4VI	SZ120-6VI	SZ120-7VI	SZ120-9VI
SZ147	Brazed	Internal	–	–	–	–	–
SZ148	Brazed	Internal	SZ148-3VAI	SZ148-4VAI	SZ148-6VAI	–	SZ148-9VAI
SZ161	Brazed	Internal	SZ161-3VAI	SZ161-4VAI	SZ161-6VAI	–	SZ161-9VAI
SZ175	Brazed	Thermostat	SZ175-3CAI	SZ175-4CAI	SZ175-6CAI	SZ175-7CAI	SZ175-9CAI
	Brazed	Module 24 V AC	–	SZ175-4PCI	–	–	–
	Rotolock	Thermostat	–	SZ175-4RI	–	–	SZ175-9RI
	Rotolock	Module 24 V AC	SZ175-3SCI	SZ175-4SCI	–	SZ175-7SCI	–
SZ185	Brazed	Thermostat	SZ185-3CAI	SZ185-4CAI	SZ185-6CAI	SZ185-7CAI	SZ185-9CAI
	Brazed	Module 24 V AC	–	SZ185-4PCI	–	–	–
	Brazed	Module 230 V	–	SZ185-4XCI	–	–	SZ185-9XCI
	Rotolock	Thermostat	SZ185-3RI	SZ185-4RI	SZ185-6RI	SZ185-7RI	SZ185-9RI
	Rotolock	Module 24 V AC	–	SZ185-4SCI	–	SZ185-7SCI	–
	Rotolock	Module 230 V	–	–	–	–	SZ185-9YCI
SZ240	Brazed	Module 24 V AC	–	SZ240A4CAI	–	–	–
	Brazed	Module 115/230 V	–	SZ240A4CBI	SZ240A6CBI	–	SZ240A9CBI
	Rotolock	Module 24 V AC	–	SZ240A4PAI	–	–	–
	Rotolock	Module 115/230 V	SZ240A3PBI	SZ240A4PBI	SZ240A6PBI	SZ240A7PBI	SZ240A9PBI
SZ300	Brazed	Module 24 V AC	–	SZ300A4CAI	–	–	–
	Brazed	Module 115/230 V	SZ300A3CBI	SZ300A4CBI	SZ300A6CBI	SZ300A7CBI	SZ300A9CBI
	Rotolock	Module 24 V AC	–	SZ300A4PAI	–	–	–
	Rotolock	Module 115/230 V	SZ300A3PBI	SZ300A4PBI	–	SZ300A7PBI	SZ300A9PBI
SZ380	Brazed	Module 24 V AC	–	SZ380A4CAI	–	–	–
	Brazed	Module 115/230 V	–	SZ380A4CBI	–	–	–

SZ compressors in industrial pack: use numbers from above table and replace the last digit by "M". Example: SZ240A4CAM, except for voltage codes 6 and 7 available in single pack only.

Technical data and ordering

SZ - R134a - 50 Hz

Scroll compressors

Type	To	-15		-10		-5		0		5		10		15	
	Tc	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe
SZ084	35	6 200	2.8	8 000	2.8	10 100	2.8	12 600	2.8	15 400	2.7	18 700	2.7	22 400	2.6
	55	–	–	6 100	4.3	7 900	4.3	9 900	4.3	12 400	4.3	15 100	4.3	18 300	4.2
SZ090	35	6 700	2.9	8 600	2.9	10 900	3.0	13 400	2.9	16 400	2.9	19 800	2.9	23 600	2.8
	55	–	–	6 600	4.5	8 500	4.6	10 700	4.6	13 200	4.6	16 000	4.5	19 300	4.5
SZ100	35	7 300	3.1	9 400	3.1	11 700	3.1	14 400	3.1	17 500	3.1	21 000	3.1	25 000	3.1
	55	–	–	7 300	4.8	9 300	4.8	11 500	4.9	14 100	4.9	17 100	4.9	20 400	4.8
SZ110	35	8 200	3.5	10 500	3.5	13 200	3.5	16 200	3.5	19 800	3.5	23 800	3.5	28 400	3.5
	55	–	–	8 100	5.4	10 400	5.4	13 000	5.5	16 000	5.5	19 400	5.5	23 300	5.4
SZ120	35	9 400	4.0	12 000	4.0	15 100	4.1	18 700	4.1	22 800	4.1	27 500	4.1	32 900	4.0
	55	–	–	9 300	6.2	11 900	6.3	14 900	6.3	18 400	6.3	22 400	6.3	27 000	6.2
SZ148	35	11 200	5.0	14 400	5.0	18 100	5.0	22 600	5.0	27 900	5.0	34 000	5.0	41 100	5.0
	55	–	–	11 200	7.7	14 200	7.7	17 800	7.7	22 100	7.7	27 100	7.8	32 800	7.8
SZ161	35	12 000	5.2	15 300	5.2	19 200	5.3	23 800	5.3	29 200	5.4	35 500	5.4	42 700	5.4
	55	–	–	12 100	8.0	15 300	8.0	19 200	8.1	23 700	8.1	28 900	8.1	35 000	8.1
SZ175	35	13 200	5.7	16 900	5.8	21 200	5.8	26 200	5.9	32 100	5.9	38 700	5.9	46 200	5.8
	55	–	–	13 100	8.6	16 700	8.6	21 000	8.7	26 000	8.7	31 700	8.8	38 100	8.8
SZ185	35	14 000	6.1	18 000	6.1	22 600	6.2	27 900	6.2	34 100	6.3	41 200	6.3	49 200	6.2
	55	–	–	13 900	9.1	17 800	9.2	22 400	9.3	27 700	9.3	33 700	9.3	40 600	9.3
SZ240	35	18 900	8.4	23 900	8.5	29 900	8.6	37 100	8.7	45 700	8.7	56 000	8.8	68 200	8.9
	55	–	–	18 800	12.3	23 800	12.5	29 700	12.6	36 700	12.7	45 000	12.9	54 700	13.0
SZ300	35	23 700	10.2	30 000	10.4	37 500	10.5	46 300	10.6	56 700	10.7	68 900	10.8	82 800	11.0
	55	–	–	23 600	15.2	29 700	15.4	37 100	15.6	45 800	15.9	55 900	16.1	67 800	16.4
SZ380	35	30 200	12.3	38 000	12.5	47 300	12.7	58 200	12.9	71 000	13.1	85 800	13.4	102 900	13.6
	55	–	–	30 100	18.1	37 800	18.4	46 900	18.7	57 600	19.0	70 000	19.2	84 400	19.4
SZ170	35	12 200	5.5	15 700	5.6	19 900	5.6	24 800	5.5	30 400	5.5	36 800	5.4	44 000	5.3
	55	–	–	11 900	8.6	15 500	8.6	19 600	8.6	24 300	8.6	29 800	8.5	36 000	8.4
SZ180	35	13 300	5.9	17 000	5.9	21 400	5.9	26 500	5.9	32 300	5.8	39 000	5.8	46 500	5.7
	55	–	–	13 100	9.1	16 800	9.1	21 100	9.1	26 000	9.1	31 600	9.1	38 000	9.0
SZ200	35	14 500	6.2	18 400	6.2	23 000	6.3	28 400	6.3	34 500	6.2	41 400	6.2	49 200	6.1
	55	–	–	14 400	9.6	18 200	9.7	22 700	9.7	27 800	9.7	33 600	9.7	40 200	9.7
SZ220	35	16 300	7.0	20 700	7.0	25 900	7.1	32 000	7.1	39 000	7.1	46 900	7.0	56 000	6.9
	55	–	–	16 100	10.8	20 500	10.9	25 600	10.9	31 400	10.9	38 200	10.9	45 900	10.9
SZ230	35	17 800	7.6	22 800	7.6	28 600	7.6	35 300	7.6	43 000	7.6	51 700	7.5	61 600	7.4
	55	–	–	17 500	11.7	22 500	11.8	28 200	11.8	34 800	11.8	42 200	11.8	50 700	11.7
SZ242	35	18 600	8.0	23 700	8.1	29 700	8.1	36 800	8.1	44 900	8.1	54 200	8.1	64 900	8.0
	55	–	–	18 300	12.5	23 400	12.5	29 300	12.5	36 200	12.5	44 200	12.5	53 300	12.4
SZ250	35	19 000	8.1	24 300	8.1	30 500	8.1	37 600	8.1	45 800	8.1	55 100	8.0	65 600	7.9
	55	–	–	18 600	12.5	23 900	12.5	30 000	12.6	37 000	12.6	45 000	12.5	54 000	12.5
SZ268	35	20 600	9.0	26 400	9.1	33 200	9.1	41 200	9.1	50 600	9.1	61 400	9.1	73 900	9.0
	55	–	–	20 100	13.9	25 700	14.0	32 300	14.0	39 900	14.0	48 800	14.0	59 100	14.0
SZ271	35	20 200	8.7	25 800	8.7	32 300	8.8	40 000	8.9	48 900	8.9	59 200	8.9	71 000	8.9
	55	–	–	19 900	13.4	25 300	13.5	31 600	13.5	39 000	13.6	47 600	13.6	57 400	13.6
SZ281	35	21 400	9.2	27 300	9.3	34 300	9.3	42 400	9.4	51 900	9.4	62 900	9.4	75 500	9.4
	55	–	–	21 000	14.2	26 800	14.3	33 500	14.3	41 500	14.4	50 600	14.4	61 200	14.3
SZ285	35	21 700	9.3	27 800	9.4	34 900	9.4	43 100	9.5	52 600	9.5	63 400	9.4	75 600	9.3
	55	–	–	21 400	14.2	27 500	14.2	34 500	14.3	42 600	14.4	51 900	14.4	62 400	14.3
SZ290	35	21 900	9.5	28 000	9.6	35 200	9.6	43 500	9.7	53 100	9.7	64 000	9.6	76 300	9.5
	55	–	–	21 600	14.4	27 700	14.5	34 800	14.6	43 000	14.6	52 300	14.7	62 900	14.6
SZ296	35	22 100	10.0	28 300	10.0	35 700	10.0	44 500	10.0	54 900	10.0	67 000	10.0	80 900	10.0
	55	–	–	22 000	15.4	28 000	15.4	35 200	15.4	43 500	15.5	53 300	15.5	64 700	15.6
SZ310	35	23 300	10.1	29 800	10.2	37 500	10.3	46 300	10.3	56 500	10.3	68 100	10.2	81 200	10.1
	55	–	–	23 000	15.4	29 500	15.5	37 100	15.5	45 800	15.6	55 700	15.6	67 000	15.6
SZ320	35	24 400	10.5	31 300	10.6	39 300	10.7	48 700	10.8	59 400	10.8	71 700	10.8	85 700	10.8
	55	–	–	24 200	15.8	31 000	15.9	39 000	16.0	48 200	16.1	58 700	16.2	70 700	16.2
SZ322	35	23 600	10.4	30 100	10.5	37 800	10.5	46 900	10.6	57 600	10.7	69 900	10.8	84 100	10.8
	55	–	–	23 800	15.9	30 200	16.0	37 800	16.1	46 600	16.2	56 900	16.2	68 900	16.2
SZ350	35	26 000	11.4	33 200	11.5	41 800	11.6	51 700	11.7	63 100	11.8	76 200	11.7	91 100	11.7
	55	–	–	25 700	17.1	33 000	17.3	41 400	17.4	51 200	17.5	62 400	17.5	75 100	17.5
SZ370	35	27 600	12.1	35 400	12.3	44 500	12.4	55 000	12.5	67 200	12.5	81 100	12.5	96 900	12.4
	55	–	–	27 400	18.2	35 100	18.4	44 100	18.5	54 500	18.6	66 400	18.7	79 900	18.6

To) *Evaporating temperature in °C.*
Tc) *Condensing temperature in °C.*
Pe) *Power input in kW.*
Qo) *Cooling capacity in W.*
Subcooling*: 8.3 K.*
Superheat*: 11.1 K.*
Voltage*: 400 V/3/50 Hz.*

Technical data and ordering

SZ - R134a - 60 Hz

Scroll compressors

Type	To	-15		-10		-5		0		5		10		15	
	Tc	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe
SZ084	35	7800	3,28	9800	3,30	12300	3,31	15300	3,32	18700	3,31	22700	3,28	27200	3,25
	55	–	–	7800	5,02	9900	5,05	12300	5,09	15200	5,11	18500	5,13	22400	5,13
SZ090	35	8200	3,45	10400	3,48	13100	3,50	16100	3,51	19700	3,50	23900	3,48	28600	3,45
	55	–	–	8300	5,28	10500	5,33	13000	5,36	16000	5,39	19500	5,41	23600	5,41
SZ100	35	8800	3,65	11100	3,68	13900	3,70	17100	3,72	20900	3,72	25300	3,71	30200	3,68
	55	–	–	8800	5,58	11100	5,63	13800	5,67	17000	5,70	20700	5,72	24900	5,72
SZ110	35	10100	4,14	12800	4,18	15900	4,23	19600	4,26	23800	4,27	28700	4,28	34300	4,26
	55	–	–	10000	6,35	12700	6,40	15800	6,45	19400	6,48	23600	6,50	28300	6,51
SZ120	35	11900	4,78	15000	4,85	18600	4,91	22800	4,97	27700	5,00	33300	5,02	39600	5,02
	55	–	–	11700	7,35	14800	7,41	18400	7,47	22600	7,51	27400	7,54	32800	7,54
SZ148	35	13400	6,00	17100	6,14	21400	6,23	26500	6,27	32500	6,26	39500	6,17	47500	6,01
	55	–	–	13400	9,24	17000	9,39	21300	9,48	26300	9,50	32200	9,45	39000	9,31
SZ161	35	14600	6,23	18600	6,34	23300	6,42	28800	6,48	35300	6,52	42800	6,54	51400	6,53
	55	–	–	14700	9,44	18700	9,59	23300	9,70	28600	9,78	34900	9,82	42000	9,84
SZ175	35	16300	6,76	20500	6,85	25600	6,94	31500	7,02	38400	7,08	46300	7,11	55300	7,13
	55	–	–	16100	10,13	20300	10,25	25400	10,37	31200	10,47	38000	10,56	45800	10,63
SZ185	35	17300	7,22	21900	7,32	27200	7,42	33500	7,50	40900	7,56	49300	7,60	58900	7,61
	55	–	–	17100	10,82	21700	10,95	27000	11,08	33300	11,19	40500	11,29	48800	11,36
	35	17300	7,22	21900	7,32	27200	7,42	33500	7,50	40900	7,56	49300	7,60	58900	7,61
	55	–	–	17100	10,82	21700	10,95	27000	11,08	33300	11,19	40500	11,29	48800	11,36
SZ240	35	23200	10,14	29400	10,24	36700	10,37	45400	10,51	55500	10,68	67300	10,86	80800	11,06
	55	–	–	23000	14,86	29100	15,04	36400	15,23	44900	15,44	54800	15,67	66200	15,91
SZ300	35	29100	12,32	36500	12,69	45400	12,98	55900	13,21	68300	13,40	82700	13,58	99500	13,75
	55	–	–	28800	18,40	36100	18,91	44700	19,34	55100	19,69	67200	20,00	81400	20,28
SZ380	35	36200	15,20	45500	15,65	56500	16,00	69500	16,29	84800	16,54	102600	16,78	123200	17,05
	55	–	–	36000	22,19	45200	22,72	56100	23,11	68900	23,38	84000	23,56	101500	23,68
SZ170	35	15300	6,56	19400	6,60	24300	6,62	30100	6,63	36800	6,61	44700	6,56	53600	6,49
	55	–	–	15400	10,02	19500	10,10	24300	10,17	29900	10,22	36500	10,25	44100	10,26
SZ180	35	16200	6,90	20500	6,95	25700	6,99	31800	7,01	38900	7,00	47100	6,96	56400	6,89
	55	–	–	16300	10,56	20600	10,65	25700	10,72	31600	10,77	38500	10,81	46500	10,82
SZ200	35	17200	7,29	21800	7,35	27300	7,40	33700	7,43	41200	7,44	49800	7,41	59600	7,35
	55	–	–	17300	11,16	21800	11,25	27200	11,33	33500	11,39	40800	11,43	49100	11,43
SZ220	35	19900	8,27	25100	8,36	31300	8,45	38600	8,51	47000	8,54	56600	8,54	67500	8,51
	55	–	–	19800	12,68	25000	12,79	31200	12,88	38300	12,95	46400	12,99	55800	13,00
SZ242	35	23300	9,56	29500	9,70	36700	9,82	45000	9,93	54600	10,00	65500	10,04	77900	10,04
	55	–	–	23100	14,69	29200	14,82	36300	14,93	44500	15,01	53900	15,06	64600	15,07
SZ268	35	24900	10,78	31600	10,99	39400	11,15	48600	11,24	59300	11,26	71600	11,19	85700	11,03
	55	–	–	24700	16,58	31400	16,80	39200	16,95	48200	17,01	58700	16,98	70700	16,85
SZ271	35	24300	10,36	30900	10,52	38600	10,65	47700	10,74	58200	10,79	70400	10,81	84400	10,79
	55	–	–	24400	15,78	30900	15,99	38500	16,14	47300	16,26	57600	16,32	69300	16,34
SZ281	35	26100	11,01	33000	11,19	41300	11,34	50900	11,45	62100	11,52	74900	11,56	89600	11,55
	55	–	–	26000	16,79	33000	17,00	41100	17,17	50500	17,29	61300	17,36	73700	17,38
SZ296	35	26500	11,99	33700	12,27	42200	12,46	52300	12,54	64000	12,50	77700	12,33	93500	12,01
	55	–	–	26400	18,46	33500	18,77	42000	18,95	51900	19,00	63500	18,88	76900	18,61
SZ322	35	28800	12,44	36600	12,67	45900	12,84	56800	12,96	69500	13,03	84300	13,06	101300	13,05
	55	–	–	29000	18,87	36700	19,16	45800	19,38	56400	19,54	68700	19,63	82800	19,66
SZ350	35	32100	13,50	40500	13,70	50400	13,88	62100	14,03	75600	14,14	91200	14,22	109000	14,24
	55	–	–	31600	20,25	40100	20,49	50000	20,73	61500	20,94	74900	21,11	90200	21,25
SZ370	35	34100	14,42	43100	14,63	53700	14,82	66100	14,98	80500	15,11	97100	15,19	116000	15,21
	55	–	–	33700	21,63	42700	21,89	53200	22,14	65500	22,37	79700	22,56	96100	22,70

To) *Evaporating temperature in °C.*
Tc) *Condensing temperature in °C.*
Pe) *Power input in kW.*
Qo) *Cooling capacity in W.*
Subcooling*: 8.3 K.*
Superheat*: 11.1 K.*
Voltage*: 400 V/3/60 Hz.*

Technical data and ordering

SZ - R407C - 50 Hz

Scroll compressors

Type	To	-20		-15		-10		-5		0		5		10		15	
	Tc	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe
SZ084	35	7 200	3.9	9 300	3.9	11 800	4.0	14 800	4.0	18 300	4.0	22 300	4.0	27 000	4.0	32 300	3.9
	55	–	–	–	–	–	–	11 300	6.2	14 200	6.2	17 500	6.2	21 400	6.2	25 800	6.2
SZ090	35	7 600	4.1	9 800	4.1	12 500	4.2	15 600	4.2	19 300	4.2	23 600	4.2	28 500	4.2	34 100	4.1
	55	–	–	–	–	–	–	12 000	6.5	15 000	6.5	18 500	6.5	22 500	6.5	27 200	6.5
SZ100	35	8 100	4.3	10 500	4.4	13 300	4.4	16 600	4.4	20 500	4.5	25 000	4.4	30 100	4.4	36 000	4.4
	55	–	–	–	–	–	–	12 700	6.9	15 900	6.9	19 600	6.9	23 800	6.9	28 700	6.9
SZ110	35	9 300	4.9	12 000	5.0	15 200	5.0	19 000	5.0	23 400	5.0	28 500	5.0	34 300	5.0	40 900	4.9
	55	–	–	–	–	–	–	14 500	7.9	18 100	7.9	22 300	7.9	27 200	7.8	32 700	7.8
SZ120	35	11 000	5.7	14 200	5.7	17 900	5.8	22 200	5.8	27 300	5.8	33 200	5.8	39 900	5.7	47 600	5.6
	55	–	–	–	–	–	–	17 000	9.2	21 200	9.2	26 100	9.2	31 600	9.1	38 000	9.0
SZ148	35	13 500	6.9	17 300	7.0	21 700	7.0	27 000	7.0	33 100	7.1	40 300	7.1	48 500	7.1	57 800	7.2
	55	–	–	–	–	–	–	21 200	11.1	26 200	11.1	32 100	11.1	38 900	11.1	46 700	11.1
SZ161	35	14 600	7.4	18 700	7.5	23 500	7.5	29 200	7.6	35 800	7.6	43 500	7.6	52 400	7.7	62 600	7.8
	55	–	–	–	–	–	–	22 900	12.0	28 400	12.0	34 700	12.0	42 100	12.0	50 600	12.0
SZ175	35	15 500	8.0	19 800	8.0	25 000	8.1	31 100	8.2	38 100	8.2	46 300	8.2	55 600	8.2	66 200	8.2
	55	–	–	–	–	–	–	24 000	12.7	29 800	12.8	36 500	12.8	44 200	12.8	53 000	12.8
SZ185	35	16 600	8.6	21 300	8.6	26 900	8.7	33 400	8.8	41 000	8.8	49 700	8.8	59 700	8.8	71 100	8.8
	55	–	–	–	–	–	–	25 700	13.7	32 000	13.7	39 200	13.8	47 500	13.8	56 900	13.8
SZ240	35	22 400	11.7	28 900	11.8	36 500	11.9	45 400	12.1	55 900	12.2	68 000	12.4	82 000	12.5	98 000	12.6
	55	–	–	21 900	17.9	28 100	18.0	35 500	18.2	44 000	18.4	54 000	18.7	65 500	18.9	78 800	19.2
SZ300	35	28 700	13.7	36 200	13.9	45 100	14.1	55 500	14.3	67 600	14.5	81 700	14.7	98 000	14.9	116 600	15.2
	55	–	–	28 500	21.2	35 900	21.6	44 600	22.1	54 800	22.5	66 600	22.9	80 400	23.2	96 300	23.6
SZ380	35	36 000	16.9	45 300	17.3	56 400	17.6	69 400	18.0	84 600	18.3	102 200	18.6	122 400	18.9	145 400	19.4
	55	–	–	35 000	26.1	44 200	26.6	55 000	27.0	67 500	27.4	82 100	27.8	98 900	28.1	118 200	28.5
SZ170	35	14 200	7.8	18 300	7.9	23 200	8.0	29 100	8.0	36 000	8.0	44 000	8.0	53 200	8.0	63 700	7.9
	55	–	–	–	–	–	–	22 300	12.3	27 900	12.4	34 500	12.4	42 100	12.4	50 900	12.4
SZ180	35	15 000	8.2	19 400	8.3	24 600	8.3	30 800	8.4	38 000	8.4	46 400	8.4	56 100	8.3	67 100	8.2
	55	–	–	–	–	–	–	23 600	13.0	29 500	13.0	36 400	13.1	44 400	13.0	53 600	13.0
SZ200	35	16 000	8.7	20 600	8.8	26 100	8.8	32 700	8.9	40 300	8.9	49 200	8.9	59 300	8.8	70 900	8.7
	55	–	–	–	–	–	–	25 000	13.8	31 300	13.9	38 600	13.9	47 000	13.8	56 600	13.8
SZ220	35	18 400	9.9	23 700	9.9	30 000	10.0	37 400	10.1	46 100	10.1	56 100	10.0	67 500	10.0	80 600	9.8
	55	–	–	–	–	–	–	28 600	15.8	35 800	15.8	44 000	15.8	53 500	15.7	64 400	15.5
SZ230	35	20 000	10.8	25 800	10.8	32 800	10.9	40 900	10.9	50 400	10.9	61 200	10.9	73 700	10.8	87 700	10.7
	55	–	–	–	–	–	–	31 100	17.4	38 900	17.3	48 000	17.3	58 400	17.2	70 200	17.0
SZ242	35	21 600	11.4	27 900	11.5	35 200	11.6	43 800	11.6	53 800	11.6	65 400	11.5	78 600	11.4	93 700	11.2
	55	–	–	–	–	–	–	33 600	18.3	41 800	18.4	51 300	18.3	62 300	18.1	74 800	17.9
SZ250	35	21 200	11.4	27 500	11.4	34 900	11.5	43 500	11.5	53 600	11.5	65 200	11.4	78 300	11.4	93 300	11.3
	55	–	–	–	–	–	–	33 100	18.3	41 400	18.3	51 100	18.2	62 100	18.1	74 700	17.9
SZ268	35	24 100	12.6	31 000	12.7	39 000	12.8	48 500	12.9	59 500	12.9	72 300	12.9	87 000	12.9	103 800	12.8
	55	–	–	–	–	–	–	37 600	20.3	46 700	20.3	57 300	20.3	69 400	20.2	83 400	20.1
SZ271	35	23 900	12.4	30 600	12.5	38 700	12.6	48 100	12.6	59 100	12.6	71 900	12.7	86 600	12.7	103 400	12.7
	55	–	–	–	–	–	–	36 700	19.9	45 700	19.9	56 000	19.9	68 000	19.9	81 800	19.8
SZ281	35	25 200	13.1	32 300	13.2	40 800	13.3	50 700	13.4	62 200	13.4	75 600	13.4	90 900	13.4	108 500	13.4
	55	–	–	–	–	–	–	39 300	21.2	48 800	21.2	59 900	21.2	72 600	21.1	87 200	21.0
SZ285	35	25 500	13.0	32 900	13.2	41 500	13.3	51 700	13.3	63 500	13.3	77 200	13.3	92 900	13.3	110 800	13.2
	55	–	–	–	–	–	–	39 300	21.0	48 900	21.0	60 100	21.0	73 100	21.0	87 900	20.9
SZ290	35	25 200	13.4	32 500	13.5	41 000	13.5	51 100	13.6	62 800	13.7	76 200	13.7	91 600	13.6	109 000	13.5
	55	–	–	–	–	–	–	39 100	21.4	48 800	21.5	59 900	21.5	72 700	21.4	87 300	21.3
SZ296	35	26 600	13.8	34 000	13.9	42 800	14.0	53 200	14.1	65 300	14.2	79 300	14.2	95 500	14.3	114 000	14.4
	55	–	–	–	–	–	–	41 700	22.2	51 700	22.3	63 200	22.3	76 600	22.3	92 000	22.3
SZ310	35	27 000	14.2	34 700	14.4	43 900	14.5	54 700	14.5	67 200	14.6	81 600	14.6	98 000	14.5	116 700	14.4
	55	–	–	–	–	–	–	41 900	22.9	52 200	22.9	64 100	22.9	77 800	22.9	93 400	22.8
SZ320	35	29 200	14.7	37 300	14.9	47 000	15.0	58 400	15.1	71 800	15.2	87 200	15.2	105 000	15.2	125 400	15.2
	55	–	–	–	–	–	–	45 700	23.6	56 700	23.7	69 400	23.8	84 200	23.8	101 300	23.9
SZ322	35	28 700	14.9	36 800	15.0	46 300	15.1	57 500	15.1	70 600	15.2	85 800	15.3	103 300	15.4	123 300	15.5
	55	–	–	–	–	–	–	45 100	23.9	55 900	24.0	68 400	24.0	82 900	24.0	99 600	24.0
SZ350	35	30 500	15.9	39 100	16.1	49 300	16.2	61 200	16.3	75 200	16.4	91 200	16.4	109 500	16.4	130 300	16.4
	55	–	–	–	–	–	–	47 200	25.4	58 600	25.6	71 900	25.6	87 100	25.7	104 400	25.7
SZ370	35	32 700	17.1	42 000	17.3	52 900	17.4	65 800	17.5	80 700	17.6	98 000	17.7	117 700	17.7	140 000	17.6
	55	–	–	–	–	–	–	50 700	27.4	63 000	27.5	77 200	27.6	93 500	27.6	112 100	27.6

To) *Evaporating temperature in °C.*
Tc) *Condensing temperature in °C.*
Pe) *Power input in kW.*
Qo) *Cooling capacity in W.*
Subcooling*: 8.3 K.*
Superheat*: 11.1 K.*
Voltage*: 400 V/3/50 Hz.*

Technical data and ordering

SZ - R407C - 60 Hz

Scroll compressors

Type	To	-20		-15		-10		-5		0		5		10		15	
	Tc	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe
SZ084	35	8400	4,45	11100	4,49	14300	4,52	17900	4,53	22000	4,52	26700	4,49	32000	4,42	37900	4,33
	55	–	–	–	–	–	–	12600	7,16	16200	7,17	20300	7,17	25000	7,14	30100	7,08
SZ090	35	9200	4,82	12000	4,87	15300	4,92	19100	4,95	23500	4,96	28500	4,95	34200	4,91	40700	4,84
	55	–	–	–	–	–	–	14100	7,69	17800	7,72	22100	7,74	27000	7,73	32500	7,69
SZ100	35	10000	5,16	12900	5,23	16400	5,30	20400	5,35	25100	5,39	30600	5,41	36800	5,40	43800	5,36
	55	–	–	–	–	–	–	15800	8,19	19700	8,24	24100	8,28	29200	8,29	35000	8,28
SZ110	35	11500	5,85	14800	5,93	18700	6,01	23300	6,06	28600	6,10	34700	6,10	41700	6,08	49600	6,02
	55	–	–	–	–	–	–	18000	9,35	22400	9,40	27400	9,41	33200	9,40	39700	9,35
SZ112	35	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	55	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
SZ120	35	13500	6,76	17300	6,85	21800	6,94	27000	7,00	33100	7,03	40100	7,02	48100	6,98	57100	6,88
	55	–	–	–	–	–	–	20900	10,88	25900	10,91	31700	10,91	38300	10,86	45900	10,76
SZ124	35	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	55	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
SZ147	35	17200	7,51	21500	7,59	26600	7,71	32500	7,85	39500	8,03	47600	8,25	56900	8,52	67600	8,82
	55	–	–	–	–	–	–	26100	11,94	31900	12,01	38700	12,12	46500	12,27	55600	12,47
SZ148	35	16500	8,31	21100	8,40	26400	8,52	32700	8,66	40000	8,78	48500	8,88	58300	8,92	69500	8,89
	55	–	–	–	–	–	–	25800	13,28	31800	13,36	38800	13,47	46900	13,59	56200	13,70
SZ161	35	17800	8,90	22700	9,03	28500	9,14	35300	9,24	43200	9,34	52300	9,44	62900	9,56	75000	9,69
	55	–	–	–	–	–	–	27900	14,27	34400	14,38	41900	14,47	50600	14,55	60700	14,63
SZ175	35	19300	9,48	24600	9,63	30800	9,77	38000	9,89	46500	9,99	56300	10,07	67500	10,12	80200	10,14
	55	–	–	–	–	–	–	29400	15,14	36300	15,29	44300	15,43	53600	15,54	64100	15,62
SZ185	35	20600	10,19	26100	10,35	32700	10,50	40500	10,63	49500	10,75	59900	10,83	71800	10,89	85400	10,90
	55	–	–	–	–	–	–	31300	16,28	38600	16,44	47200	16,59	57000	16,71	68200	16,79
SZ185	35	20600	10,19	26100	10,35	32700	10,50	40500	10,63	49500	10,75	59900	10,83	71800	10,89	85400	10,90
	55	–	–	–	–	–	–	31300	16,28	38600	16,44	47200	16,59	57000	16,71	68200	16,79
SZ240	35	26900	13,97	34700	14,33	43900	14,68	54700	15,00	67300	15,31	81900	15,62	98700	15,92	117900	16,22
	55	–	–	26600	21,18	34200	21,63	42900	22,05	53100	22,43	64800	22,78	78400	23,11	94000	23,40
SZ300	35	35800	16,75	44900	17,09	55700	17,43	68400	17,76	83500	18,09	101300	18,42	122000	18,75	146100	19,08
	55	–	–	34300	25,62	43000	26,11	53300	26,61	65500	27,10	80000	27,61	97100	28,11	117100	28,62
SZ380	35	42900	20,29	54100	20,75	67300	21,23	82900	21,73	101000	22,24	122100	22,76	146400	23,28	174100	23,81
	55	–	–	41900	31,38	52800	31,88	65500	32,42	80500	33,00	97900	33,62	118100	34,26	141300	34,93
SZ170	35	16600	8,90	21900	8,98	28100	9,04	35300	9,06	43400	9,04	52600	8,97	63000	8,84	74600	8,65
	55	–	–	–	–	–	–	24800	14,31	31900	14,34	40000	14,33	49200	14,26	59400	14,14
SZ180	35	18100	9,63	23600	9,74	30100	9,83	37600	9,89	46300	9,92	56200	9,89	67500	9,82	80100	9,68
	55	–	–	–	–	–	–	27800	15,37	35100	15,44	43600	15,47	53100	15,45	63900	15,37
SZ200	35	19800	10,31	25500	10,46	32300	10,59	40200	10,70	49500	10,77	60200	10,80	72400	10,78	86300	10,71
	55	–	–	–	–	–	–	31200	16,37	38700	16,48	47500	16,55	57600	16,57	69000	16,54
SZ220	35	22700	11,69	29200	11,86	36800	12,00	45800	12,12	56300	12,19	68300	12,20	82100	12,15	97600	12,02
	55	–	–	–	–	–	–	35500	18,69	44100	18,78	54000	18,81	65300	18,79	78200	18,69
SZ242	35	26600	13,50	34000	13,70	42900	13,86	53200	13,98	65200	14,05	79000	14,04	94800	13,95	112600	13,76
	55	–	–	–	–	–	–	41200	21,75	51100	21,81	62500	21,80	75500	21,71	90400	21,51
SZ268	35	29600	15,07	37800	15,25	47400	15,46	58800	15,65	72000	15,81	87300	15,90	104800	15,90	124700	15,77
	55	–	–	–	–	–	–	46100	24,16	56900	24,27	69500	24,37	84000	24,45	100600	24,46
SZ271	35	28900	14,75	37000	14,96	46500	15,14	57700	15,30	70700	15,43	85700	15,54	103000	15,63	122700	15,71
	55	–	–	–	–	–	–	45200	23,63	55900	23,78	68300	23,89	82500	23,95	98900	23,98
SZ281	35	30900	15,65	39400	15,88	49500	16,07	61300	16,24	75100	16,37	91100	16,46	109300	16,53	130100	16,57
	55	–	–	–	–	–	–	48100	25,16	59400	25,30	72500	25,38	87600	25,41	105000	25,39
SZ294	35	34100	15,02	42600	15,18	52700	15,41	64500	15,70	78300	16,07	94400	16,51	112800	17,03	133900	17,64
	55	–	–	–	–	–	–	51800	23,88	63300	24,02	76700	24,24	92300	24,54	110200	24,94
SZ296	35	32600	16,62	41500	16,79	52000	17,03	64400	17,30	78800	17,55	95500	17,74	114800	17,83	136900	17,76
	55	–	–	–	–	–	–	50900	26,55	62700	26,70	76500	26,92	92500	27,16	110800	27,38
SZ322	35	35100	17,78	44800	18,04	56100	18,27	69500	18,47	85000	18,66	103100	18,87	123900	19,10	147700	19,37
	55	–	–	–	–	–	–	54900	28,53	67700	28,75	82600	28,93	99800	29,09	119600	29,24
SZ350	35	38100	18,95	48400	19,24	60600	19,52	74900	19,77	91700	19,98	110900	20,14	133000	20,23	158100	20,26
	55	–	–	–	–	–	–	57900	30,26	71600	30,56	87300	30,83	105500	31,05	126200	31,22
SZ370	35	40500	20,38	51500	20,69	64400	20,99	79700	21,26	97500	21,48	118000	21,65	141500	21,76	168200	21,79
	55	–	–	–	–	–	–	61600	32,53	76100	32,86	92900	33,15	112300	33,39	134300	33,57

To) *Evaporating temperature in °C.*
Tc) *Condensing temperature in °C.*
Pe) *Power input in kW.*
Qo) *Cooling capacity in W.*
Subcooling*: 8.3 K.*
Superheat*: 11.1 K.*
Voltage*: 400 V/3/60 Hz.*

Technical data and ordering

SM/SY - R22 - 50 Hz

Scroll compressors

Model	To	-20		-15		-10		-5		0		5		10		15	
	Tc	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe
SM084	35	7 700	4.0	9 900	4.0	12 500	4.0	15 500	4.0	18 900	4.0	22 800	4.0	27 200	3.9	32 100	3.9
	55	–	–	–	–	–	–	12 000	6.4	15 000	6.3	18 500	6.2	22 500	6.2	26 900	6.1
SM090	35	8 600	4.3	10 900	4.4	13 600	4.4	16 700	4.4	20 200	4.4	24 300	4.4	28 900	4.4	34 100	4.4
	55	–	–	–	–	–	–	13 300	6.7	16 400	6.7	19 900	6.6	23 900	6.6	28 400	6.5
SM100	35	9 000	4.6	11 500	4.6	14 400	4.7	17 700	4.7	21 500	4.7	25 800	4.7	30 700	4.7	36 200	4.7
	55	–	–	–	–	–	–	14 200	7.1	17 400	7.1	21 200	7.1	25 400	7.0	30 200	7.0
SM110	35	10 200	5.2	13 000	5.2	16 200	5.2	20 000	5.2	24 200	5.2	29 000	5.2	34 400	5.2	40 400	5.2
	55	–	–	–	–	–	–	15 900	8.0	19 600	8.0	23 800	7.9	28 400	7.9	33 700	7.8
SM112	35	11 300	5.1	14 100	5.1	17 400	5.2	21 200	5.3	25 500	5.4	30 500	5.5	36 100	5.6	42 500	5.7
	55	–	–	–	–	–	–	17 500	7.8	21 200	7.9	25 400	8.0	30 200	8.1	35 700	8.2
SM120	35	11 800	6.0	15 200	6.0	19 000	6.0	23 300	5.9	28 200	5.9	33 700	5.9	39 900	5.9	46 700	5.9
	55	–	–	–	–	–	–	18 600	9.2	22 800	9.2	27 600	9.1	33 000	9.0	38 900	9.0
SM124	35	13 100	5.4	16 200	5.5	19 800	5.7	23 900	5.8	28 700	6.0	34 100	6.1	40 300	6.2	47 200	6.4
	55	–	–	–	–	–	–	19 800	8.4	24 000	8.6	28 700	8.8	34 100	9.0	40 200	9.2
SM147	35	14 900	6.3	18 600	6.4	22 900	6.5	27 800	6.7	33 500	6.9	40 000	7.1	47 300	7.2	55 600	7.4
	55	–	–	–	–	–	–	22 700	9.8	27 500	9.9	33 100	10.1	39 400	10.3	46 600	10.5
SM148	35	14 800	7.0	18 500	7.0	22 900	7.1	27 800	7.1	33 600	7.2	40 100	7.2	47 500	7.3	55 900	7.3
	55	–	–	–	–	–	–	22 600	10.9	27 500	10.9	33 100	10.9	39 500	11.0	46 800	11.0
SM161	35	16 000	7.5	20 100	7.6	24 700	7.6	30 100	7.6	36 300	7.7	43 400	7.7	51 400	7.8	60 500	7.8
	55	–	–	–	–	–	–	24 400	11.7	29 700	11.7	35 800	11.7	42 800	11.8	50 600	11.8
SM175	35	17 000	8.1	21 300	8.1	26 400	8.2	32 300	8.3	39 000	8.4	46 600	8.4	55 200	8.5	64 800	8.5
	55	–	–	–	–	–	–	26 200	12.4	32 000	12.5	38 500	12.6	46 000	12.6	54 400	12.7
SM185	35	18 400	8.8	23 100	8.9	28 600	9.0	35 000	9.1	42 200	9.1	50 500	9.2	59 800	9.3	70 200	9.3
	55	–	–	–	–	–	13.5	28 400	13.6	34 600	13.7	41 800	13.8	49 800	13.8	58 900	13.9
SY185	35	17 600	8.7	22 500	8.7	28 100	8.7	34 500	8.8	42 000	8.9	50 400	9.0	60 000	9.1	70 900	9.2
	55	–	–	–	–	–	13.3	28 600	13.3	34 800	13.3	41 900	13.4	49 800	13.5	58 600	13.7
SY240	35	25 100	11.7	31 400	11.8	38 800	12.0	47 300	12.1	57 100	12.4	68 300	12.6	81 000	13.0	95 300	13.3
	55	–	–	–	–	–	–	38 400	17.8	46 600	18.0	56 100	18.3	67 000	18.6	79 300	18.9
SY300	35	31 900	14.2	39 900	14.5	49 300	14.8	60 300	15.1	73 100	15.6	87 900	16.1	104 800	16.7	124 100	17.4
	55	–	–	–	–	–	–	48 600	22.0	59 200	22.4	71 600	22.8	85 900	23.4	102 300	24.1
SY380	35	40 100	17.3	49 500	17.6	60 500	18.0	73 300	18.4	88 100	18.8	104 900	19.2	124 100	19.8	145 800	20.4
	55	–	–	–	–	–	–	59 700	26.8	72 300	27.1	86 800	27.5	103 400	27.9	122 300	28.4
SM170	35	15 200	8.0	19 500	8.0	24 600	8.0	30 500	8.0	37 200	8.0	44 900	7.9	53 500	7.9	63 200	7.8
	55	–	–	–	–	–	–	23 600	12.7	29 600	12.6	36 500	12.5	44 300	12.3	53 100	12.1
SM180	35	16 900	8.6	21 400	8.7	26 700	8.8	32 800	8.8	39 900	8.8	47 900	8.8	56 900	8.8	67 100	8.7
	55	–	–	–	–	–	–	26 200	13.4	32 300	13.3	39 300	13.3	47 100	13.2	56 000	13.1
SM200	35	17 700	9.2	22 600	9.3	28 300	9.3	34 800	9.3	42 300	9.4	50 900	9.4	60 500	9.4	71 300	9.4
	55	–	–	–	–	–	–	27 900	14.3	34 400	14.2	41 700	14.1	50 000	14.0	59 400	13.9
SM220	35	20 000	10.4	25 500	10.4	32 000	10.4	39 300	10.4	47 700	10.5	57 100	10.5	67 700	10.4	79 500	10.4
	55	–	–	–	–	–	–	31 400	16.0	38 600	16.0	46 800	15.9	56 000	15.8	66 300	15.6
SM230	35	22 000	10.8	27 400	10.9	33 700	10.9	41 000	10.9	49 500	10.9	59 100	10.9	70 100	10.9	82 400	10.8
	55	–	–	–	–	–	–	32 500	17.2	40 800	17.1	50 200	16.9	61 000	16.7	73 100	16.5
SM242	35	23 300	12.0	29 900	11.9	37 400	11.9	45 900	11.9	55 600	11.9	66 400	11.9	78 500	11.8	92 000	11.8
	55	–	–	–	–	–	–	36 600	18.4	45 000	18.3	54 400	18.2	64 900	18.1	76 600	17.9
SM248	35	26 300	10.9	32 500	11.1	39 600	11.3	47 900	11.6	57 400	11.9	68 200	12.2	80 500	12.5	94 400	12.7
	55	–	–	–	–	–	–	39 700	16.9	47 900	17.2	57 400	17.5	68 100	17.9	80 300	18.4
SM250	35	23 700	11.6	29 500	11.7	36 200	11.7	44 100	11.7	53 200	11.7	63 500	11.7	75 300	11.7	88 600	11.6
	55	–	–	–	–	–	–	35 000	18.5	43 800	18.4	54 000	18.2	65 600	18.0	78 600	17.7
SM268	35	26 600	13.0	33 700	13.0	41 800	13.0	51 100	13.1	61 700	13.1	73 700	13.2	87 300	13.2	102 400	13.2
	55	–	–	–	–	–	–	40 700	20.1	49 800	20.1	60 100	20.0	71 700	20.0	84 800	20.0
SM271	35	25 800	12.7	32 500	12.8	40 300	12.8	49 300	12.9	59 600	12.9	71 300	13.0	84 500	13.0	99 300	13.0
	55	–	–	–	–	–	–	39 700	19.7	48 600	19.7	58 700	19.7	70 100	19.6	83 000	19.6
SM272	35	28 000	11.7	34 800	11.9	42 600	12.2	51 700	12.5	62 100	12.8	73 900	13.2	87 400	13.5	102 600	13.8
	55	–	–	–	–	–	–	41 700	18.3	50 500	18.5	60 600	18.9	72 100	19.3	85 200	19.7
SM281	35	27 500	13.5	34 700	13.5	43 000	13.6	52 600	13.6	63 600	13.6	75 900	13.7	89 900	13.7	105 500	13.7
	55	–	–	–	–	–	–	42 300	20.9	51 800	20.9	62 500	20.8	74 600	20.8	88 200	20.8
SM285	35	27 100	13.4	34 000	13.5	42 100	13.6	51 400	13.7	62 000	13.8	74 100	13.9	87 800	14.0	103 200	14.1
	55	–	–	–	–	–	–	41 200	20.8	51 100	20.8	62 300	20.8	75 000	20.8	89 300	20.7
SM290	35	27 700	13.5	34 700	13.6	42 900	13.7	52 300	13.8	63 100	13.8	75 400	13.9	89 400	13.9	105 100	13.9
	55	–	–	–	–	–	–	42 000	21.0	51 900	21.1	63 100	21.1	75 800	21.0	90 100	20.9
SM294	35	29 900	12.5	37 200	12.7	45 800	13.0	55 600	13.4	67 000	13.7	79 900	14.1	94 600	14.5	111 200	14.8
	55	–	–	–	–	–	–	45 400	19.7	55 100	19.9	66 200	20.2	78 900	20.6	93 300	21.1
SM296	35	29 200	14.0	36 500	14.1	45 000	14.2	54 800	14.2	66 100	14.3	79 000	14.4	93 600	14.5	110 100	14.6
	55	–	–	–	–	–	–	44 500	21.8	5 4 100	21.8	65 200	21.8	77 900	21.9	92 200	21.9
SM310	35	30 000	14.6	37 500	14.7	46 300	14.8	56 500	14.9	68 200	15.0	81 500	15.1	96 500	15.1	113 500	15.1
	55	–	–	–	–	–	–	45 400	22.8	56 000	22.9	68 100	22.9	81 900	22.8	97 300	22.7
SM320	35	30 600	15.2	38 600	15.4	47 900	15.6	58 600	15.7	70 800	15.9	84 700	16.1	100 300	16.3	117 900	16.5
	55	–	–	–	–	–	–	47 400	23.1	58 300	23.3	70 600	23.4	84 500	23.5	100 100	23.7
SM322	35	31 600	15.0	39 500	15.1	48 700	15.2	59 300	15.3	71 500	15.4	85 500	15.5	101 300	15.6	119 100	15.6
	55	–	–	–	–	–	–	48 100	23.4	58 600	23.4	70 600	23.4	84 200	23.5	99 700	23.5
SM350	35	33 500	16.1	42 000	16.3	52 000	16.4	63 600	16.6	76 800	16.7	91 800	16.8	108 700	16.9	127 700	17.0
	55	–	–	–	–	–	–	51 600	24.9	63 000	25.0	75 900	25.2	90 600	25.3	107 100	25.4
SM370	35	36 200	17.6	45 500	17.8	56 400	18.0	68 900	18.1	83 200	18.3	99 400	18.4	117 700	18.5	138 300	18.6
	55	–	–	–	–	–	–	55 900	27.2	68 200	27.3	82 300	27.5	98 200	27.6	116 000	27.7

To) *Evaporating temperature in °C.*
Tc) *Condensing temperature in °C.*
Pe) *Power input in kW.*
Qo) *Cooling capacity in W.*
Subcooling*: 8.3 K.*
Superheat*: 11.1 K.*
Voltage*: 400 V/3/50 Hz.*

Technical data and ordering

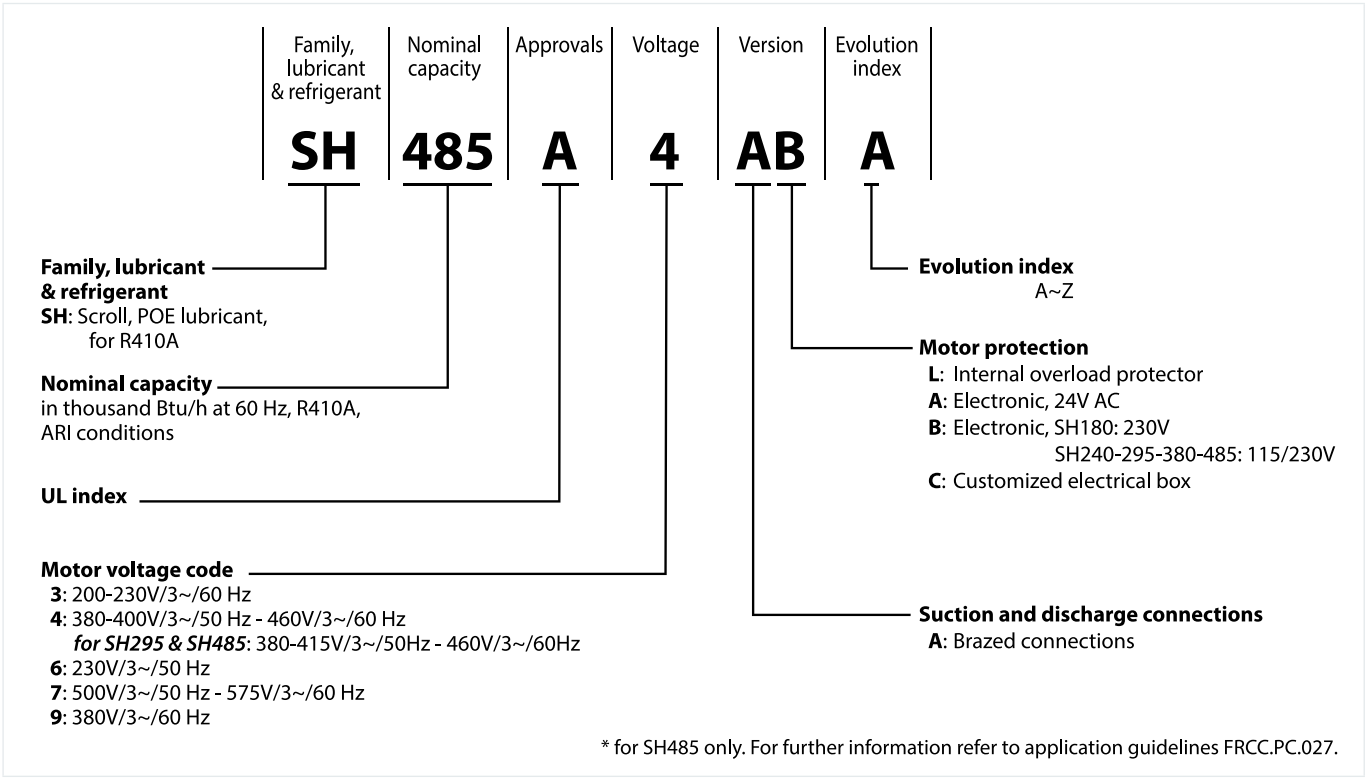
SM/SY - R22 - 60 Hz

Scroll compressors

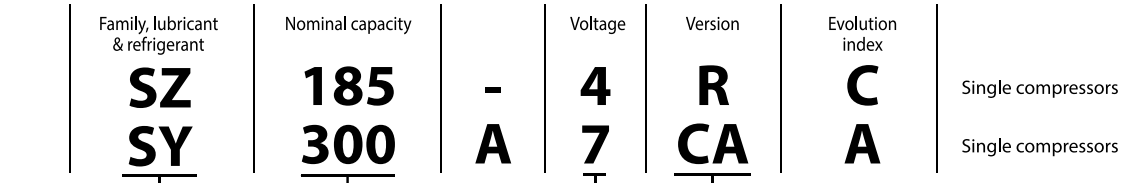
Model	To	-20		-15		-10		-5		0		5		10		15	
	Tc	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe
SM084	35	9600	4,78	12200	4,81	15200	4,83	18700	4,86	22600	4,89	27100	4,91	32100	4,92	37800	4,93
	55	–	–	–	–	–	–	15000	7,53	18500	7,51	22500	7,49	27000	7,45	32100	7,40
SM090	35	10600	5,20	13300	5,25	16500	5,29	20200	5,33	24500	5,36	29400	5,38	34900	5,39	41100	5,39
	55	–	–	–	–	–	–	16400	7,93	20000	7,93	24200	7,92	28900	7,90	34300	7,86
SM100	35	11200	5,41	14100	5,46	17400	5,50	21300	5,54	25700	5,58	30700	5,61	36400	5,62	42700	5,63
	55	–	–	–	–	–	–	17200	8,26	21000	8,26	25300	8,25	30100	8,23	35600	8,19
SM110	35	12800	6,17	16100	6,22	20000	6,26	24400	6,30	29500	6,34	35200	6,37	41600	6,40	48800	6,43
	55	–	–	–	–	–	–	19800	9,46	24100	9,47	29000	9,47	34500	9,46	40700	9,44
SM112	35	14100	6,07	17600	6,19	21600	6,33	26200	6,48	31500	6,64	37600	6,83	44400	7,02	52200	7,23
	55	–	–	–	–	–	–	21700	9,40	26200	9,51	31300	9,66	37100	9,82	43700	10,02
SM120	35	15000	7,10	18800	7,13	23300	7,17	28400	7,20	34200	7,25	40800	7,29	48300	7,34	56600	7,39
	55	–	–	–	–	–	–	23000	10,92	28000	10,93	33700	10,94	40100	10,94	47300	10,95
SM124	35	16000	6,50	19800	6,64	24300	6,82	29500	7,05	35400	7,32	42200	7,63	49900	7,97	58600	8,36
	55	–	–	–	–	–	–	24100	10,20	29100	10,37	34700	10,60	41200	10,87	48600	11,18
SM147	35	18600	7,58	22800	7,75	27800	7,93	33500	8,10	40000	8,29	47500	8,47	55900	8,66	65500	8,84
	55	–	–	–	–	–	–	28000	11,75	33600	11,97	40100	12,20	47600	12,46	56000	12,73
SM148	35	18100	8,32	22600	8,44	27800	8,54	33800	8,62	40600	8,71	48500	8,79	57400	8,89	67500	9,00
	55	–	–	–	–	–	–	27600	12,91	33500	13,03	40300	13,13	48000	13,22	56700	13,31
SM161	35	19700	8,99	24600	9,12	30200	9,23	36700	9,32	44200	9,41	52700	9,51	62400	9,61	73300	9,72
	55	–	–	–	–	–	–	30000	13,96	36400	14,08	43800	14,19	52100	14,29	61600	14,39
SM175	35	21100	9,81	26400	9,98	32500	10,15	39500	10,31	47500	10,46	56500	10,59	66600	10,70	77800	10,80
	55	–	–	–	–	–	–	32200	15,06	39200	15,23	47000	15,39	55800	15,53	65600	15,65
SM185	35	22500	10,42	28100	10,60	34600	10,78	42000	10,95	50500	11,10	60100	11,25	70800	11,37	82800	11,47
	55	–	–	–	–	–	–	34300	15,99	41700	16,17	50000	16,34	59300	16,49	69800	16,62
SY185	35	22500	10,37	28000	10,49	34500	10,60	42000	10,71	50800	10,83	60800	10,94	72200	11,05	85100	11,16
	55	–	–	–	–	–	–	34600	15,85	42100	16,13	50800	16,39	60700	16,63	71900	16,86
SY240	35	30600	13,98	38200	14,17	47100	14,43	57300	14,75	69100	15,15	82500	15,63	97600	16,19	114800	16,84
	55	–	–	–	–	–	–	46700	21,37	56700	21,74	68100	22,16	81000	22,64	95700	23,19
SY300	35	39800	16,39	49400	16,85	60600	17,38	73600	17,97	88500	18,59	105600	19,25	125000	19,91	146900	20,58
	55	–	–	–	–	–	–	59600	25,95	72300	26,65	86800	27,43	103400	28,30	122300	29,22
SY380	35	49000	20,86	60600	21,18	74200	21,63	89900	22,16	108000	22,77	128600	23,41	152100	24,06	178600	24,68
	55	–	–	–	–	–	–	72800	32,58	88300	32,94	106000	33,45	126200	34,09	149000	34,81
SM170	35	18900	9,54	24000	9,60	29900	9,66	36800	9,72	44500	9,77	53300	9,80	63300	9,83	74400	9,85
	55	–	–	–	–	–	–	29500	15,04	36400	15,01	44300	14,96	53300	14,89	63300	14,80
SM180	35	20900	10,40	26200	10,49	32600	10,57	39900	10,65	48300	10,71	57900	10,76	68700	10,78	80900	10,78
	55	–	–	–	–	–	–	32300	15,85	39400	15,85	47600	15,83	57000	15,79	67500	15,71
SM200	35	22000	10,81	27700	10,91	34300	11,00	41900	11,08	50600	11,15	60500	11,21	71700	11,24	84200	11,25
	55	–	–	–	–	–	–	34000	16,50	41400	16,51	49800	16,49	59400	16,45	70100	16,37
SM220	35	25300	12,34	31800	12,42	39400	12,51	48100	12,59	58000	12,66	69300	12,74	82000	12,80	96200	12,85
	55	–	–	–	–	–	–	39000	18,91	47500	18,92	57100	18,92	68000	18,90	80300	18,86
SM242	35	29500	14,19	37100	14,25	45800	14,32	55900	14,40	67400	14,48	80400	14,58	95100	14,67	111400	14,78
	55	–	–	–	–	–	–	45300	21,83	55200	21,84	66400	21,86	79100	21,87	93200	21,88
SM248	35	32000	13,01	39600	13,27	48600	13,64	58900	14,09	70700	14,63	84300	15,25	99700	15,95	117200	16,71
	55	–	–	–	–	–	–	48100	20,40	58100	20,75	69400	21,19	82400	21,73	97100	22,36
SM268	35	32600	15,41	40800	15,56	50300	15,70	61200	15,83	73700	15,95	88000	16,08	104100	16,23	122200	16,39
	55	–	–	–	–	–	–	49900	23,83	60600	23,95	72900	24,06	86800	24,16	102500	24,25
SM271	35	32100	15,16	40100	15,33	49400	15,48	60200	15,62	72500	15,75	86600	15,88	102500	16,01	120300	16,15
	55	–	–	–	–	–	–	49100	23,42	59600	23,55	71700	23,66	85400	23,75	100800	23,83
SM272	35	34500	14,08	42600	14,39	52000	14,74	62900	15,15	75300	15,60	89600	16,09	105700	16,63	124000	17,20
	55	–	–	–	–	–	–	52000	21,95	62600	22,34	74800	22,80	88700	23,32	104500	23,91
SM281	35	34200	16,09	42700	16,25	52700	16,39	64100	16,53	77200	16,66	92100	16,80	109000	16,95	128000	17,11
	55	–	–	–	–	–	–	52200	24,87	63500	25,01	76300	25,13	90900	25,24	107300	25,34
SM294	35	37100	15,15	45600	15,50	55500	15,85	66900	16,21	79900	16,57	94800	16,94	111700	17,31	130900	17,69
	55	–	–	–	–	–	–	55900	23,50	67200	23,94	80200	24,40	95000	24,91	111800	25,46
SM296	35	35800	16,62	44500	16,86	54700	17,06	66500	17,24	80000	17,40	95500	17,57	113100	17,76	132900	17,98
	55	–	–	–	–	–	–	54400	25,80	66000	26,04	79300	26,24	94500	26,42	111700	26,60
SM322	35	38900	17,97	48400	18,22	59500	18,44	72300	18,63	87000	18,81	103800	19,00	122900	19,20	144500	19,43
	55	–	–	–	–	–	–	59100	27,89	71700	28,15	86200	28,37	102700	28,57	121400	28,76
SM350	35	41600	19,61	52000	19,95	64000	20,28	77800	20,60	93500	20,90	111200	21,16	131100	21,40	153300	21,58
	55	–	–	–	–	–	–	63500	30,10	77100	30,44	92600	30,75	109900	31,04	129200	31,28
SM370	35	44300	20,83	55300	21,19	68100	21,54	82800	21,88	99500	22,19	118300	22,48	139500	22,72	163100	22,92
	55	–	–	–	–	–	–	67600	31,96	82100	32,32	98500	32,66	116900	32,96	137500	33,22

To) *Evaporating temperature in °C.*
Tc) *Condensing temperature in °C.*
Pe) *Power input in kW.*
Qo) *Cooling capacity in W.*
Subcooling*: 8.3 K.*
Superheat*: 11.1 K.*
Voltage*: 400 V/3/60 Hz.*

Nomenclature



* for SH485 only. For further information refer to application guidelines FRCC.PC.027.



Family, lubricant & refrigerant
SM: Scroll, Mineral oil, R22/R417A*
SY: Scroll, POE lubricant, R22/R417A (and R407C for SY185-240-300)
SZ: Scroll, POE lubricant, R407C - R134a (and R404A, R507A for SZ084 to SZ185)

Nominal capacity
in thousand Btu/h at 60 Hz, R22, ARI conditions

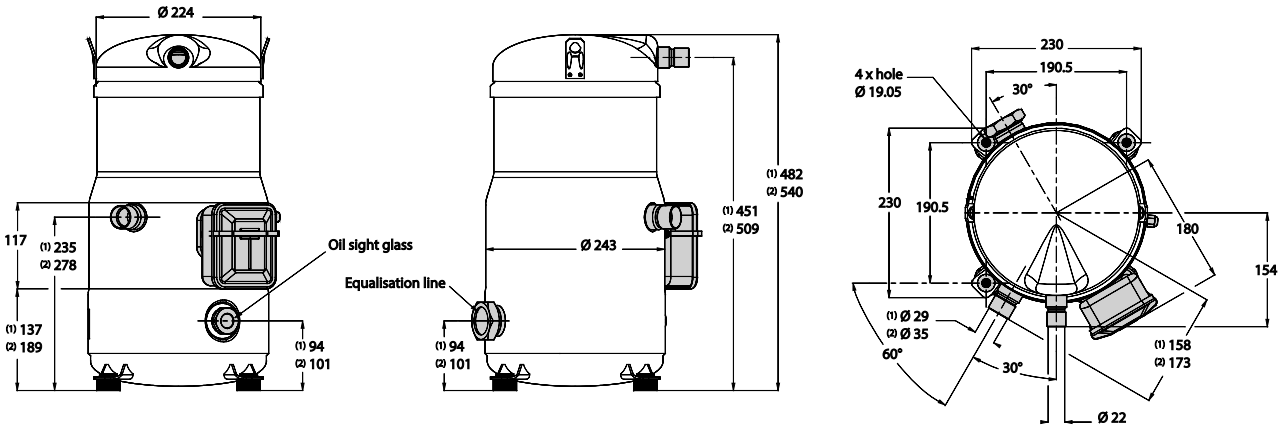
Motor voltage code
3: 200-230V/3~/60 Hz
4: 380-400V/3~/50 - 460V/3~/60 Hz
6: 230V/3~/50 Hz
7: 500V/3~/50 Hz - 575V/3~/60 Hz
9: 380V/3~/60 Hz

Motor protection type		Connection	Module voltage	Applies to
Internal overload protector	**V**	: brazed		S 084-090-100-110-120-148-161
	A	: brazed		S 112-124-147
Internal thermostat	**C**	: brazed		S 175-185
	R	: rotolock		
Electronic protection module	**P**	: brazed	24 V AC	
	X	: brazed	230 V	
	S	: rotolock	24 V AC	
	Y	: rotolock	230 V	
	CA	**C**: brazed	**A**: 24V AC	S 240 - 300
	CB		**B**: 115/230V	
	PA	**P**: rotolock	**A**: 24V AC	
	PB		**B**: 115/230V	
	CA	**C**: brazed	**A**: 24V AC	S 380
	CB		**B**: 115/230V	

* When SM compressors are used with R417A, the factory charged mineral oil 160P must be replaced by polyolester oil 160SZ

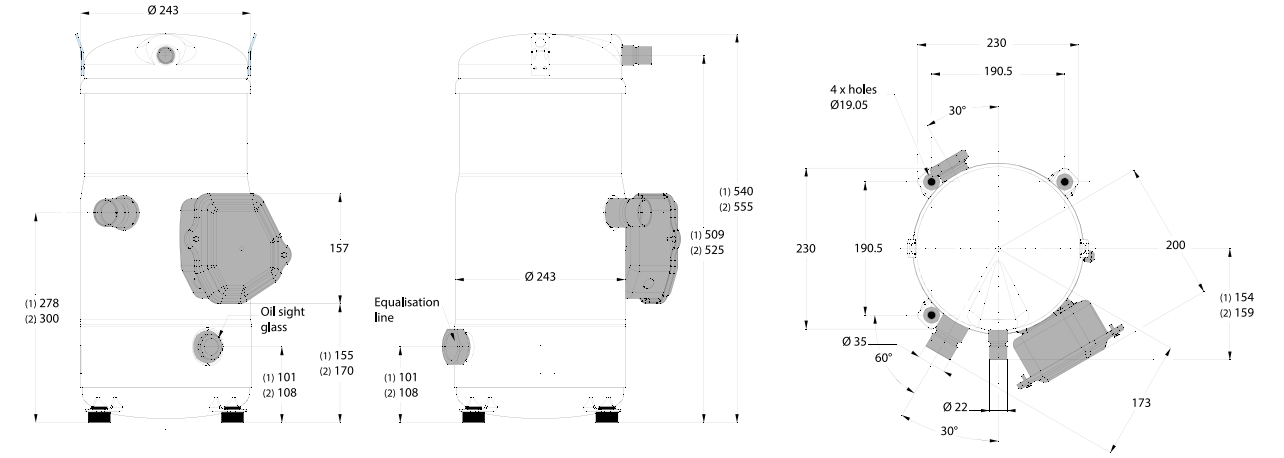
Dimensions

SH090/105/120/140 *)/161 *)



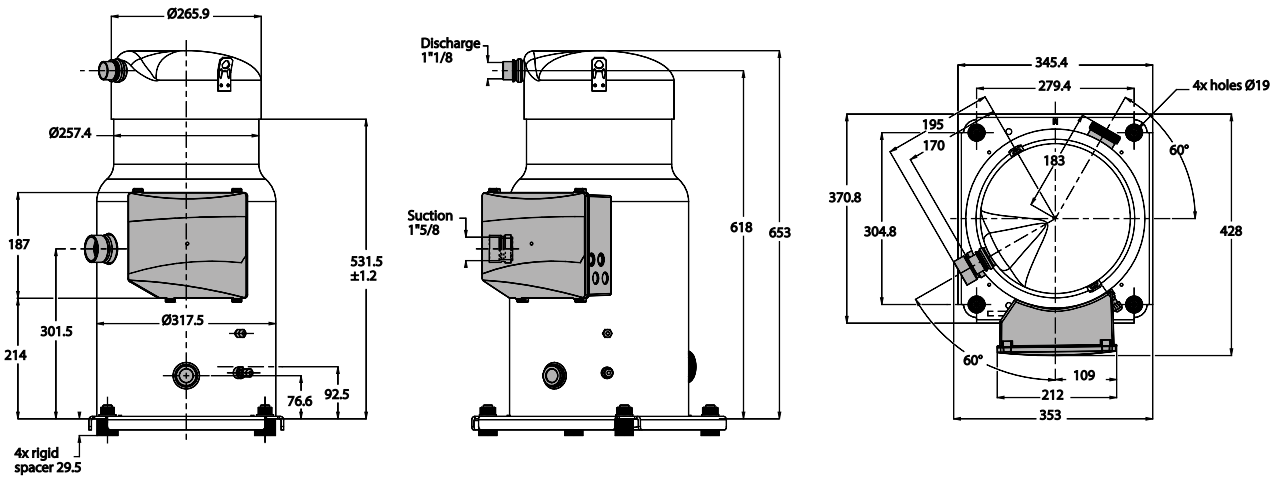
1) SH090.
2) SH105/120/140/161.
**) except code 3.*

SH 140/161 code 3 and SH184



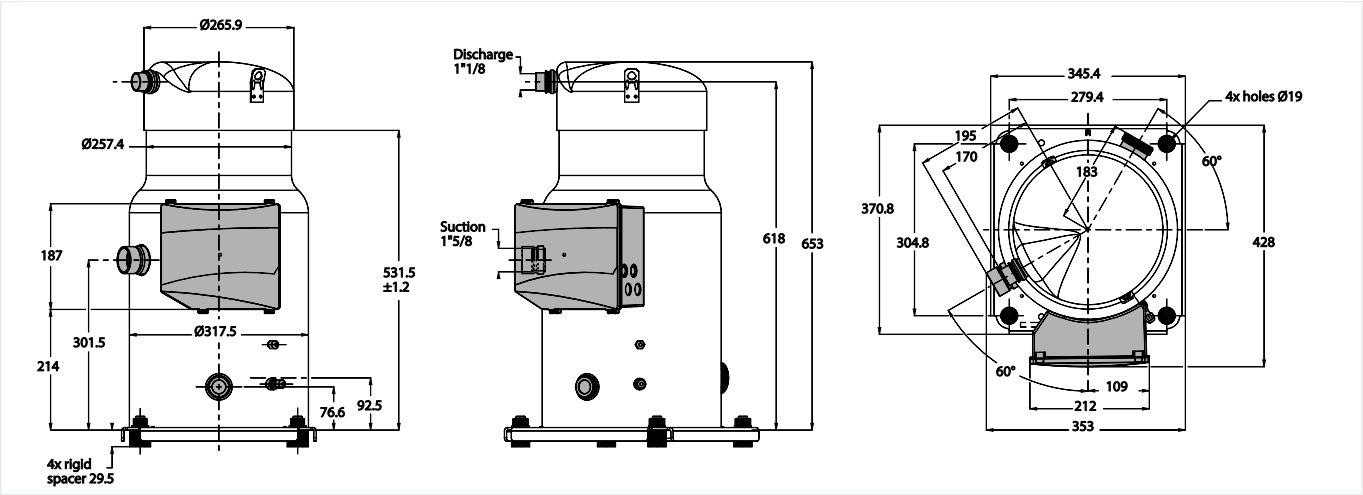
1) SH140/161 code 3.
2) SH184.

SH180-240-295

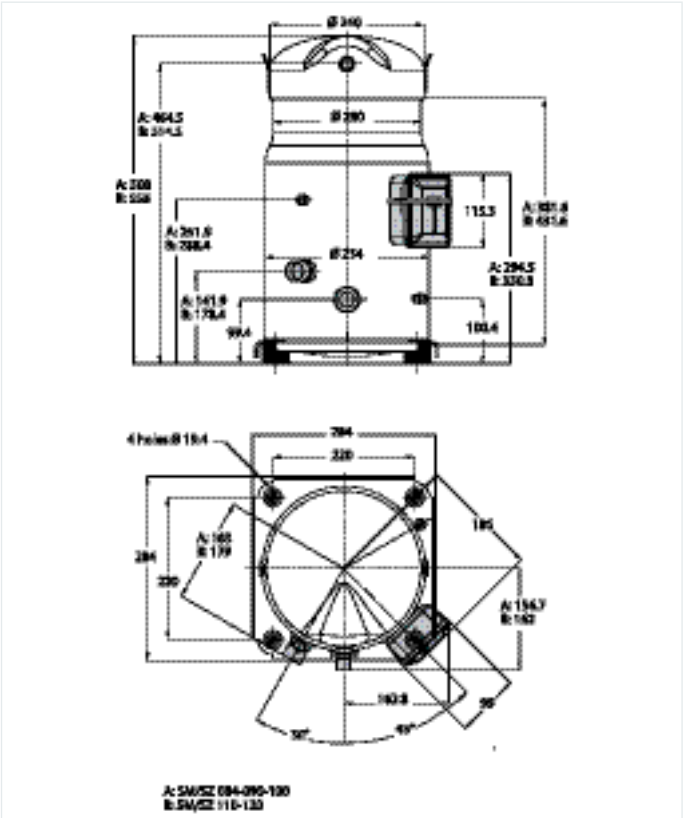


Dimensions

SH380-485

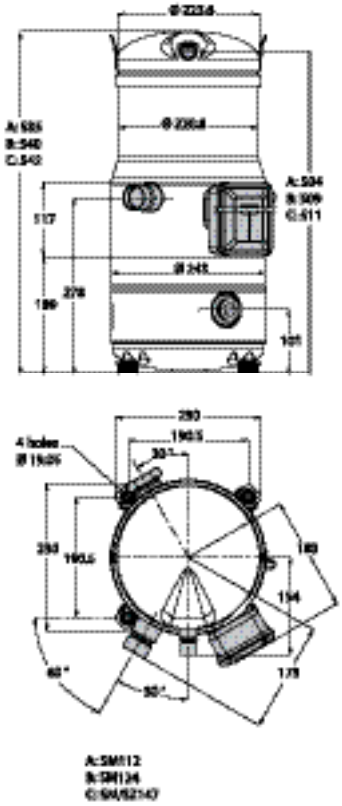


SM/SZ 084-090-100-110-120

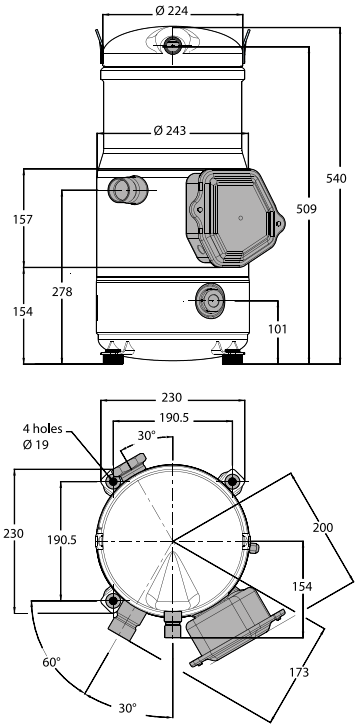


Dimensions

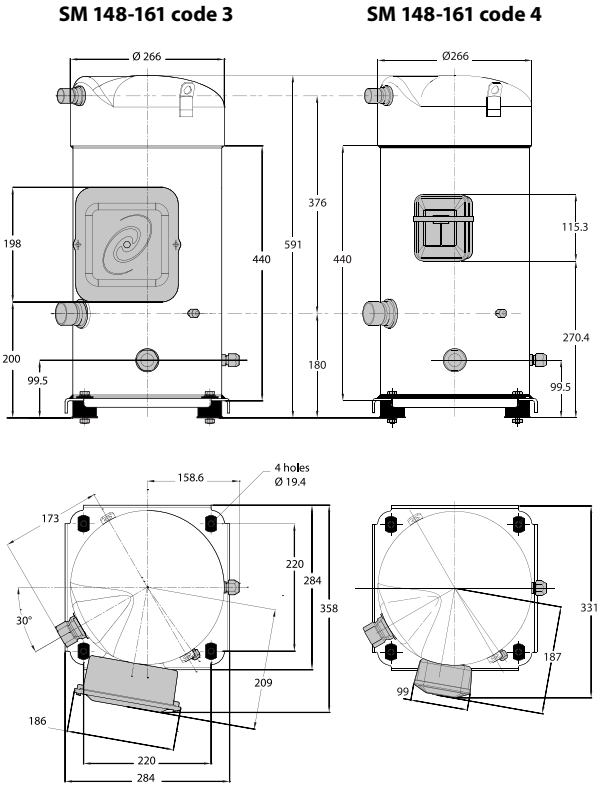
SM 112-124-SM/SZ147 (except code 3)



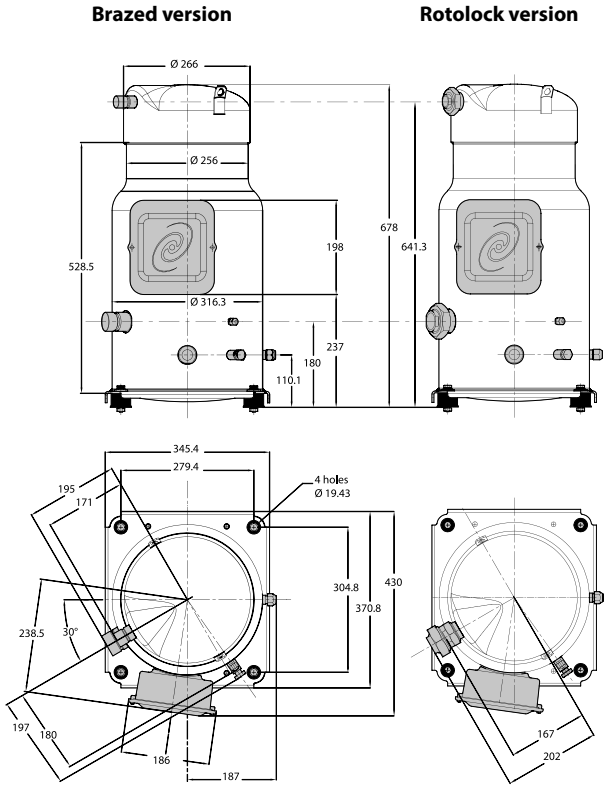
SM/SZ 147 code 3



SM/SZ148-161



SM/SZ 175-185 and SY185

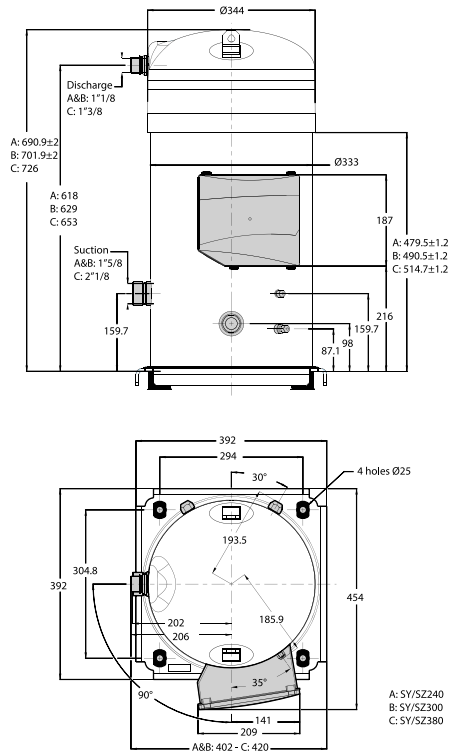


Dimensions

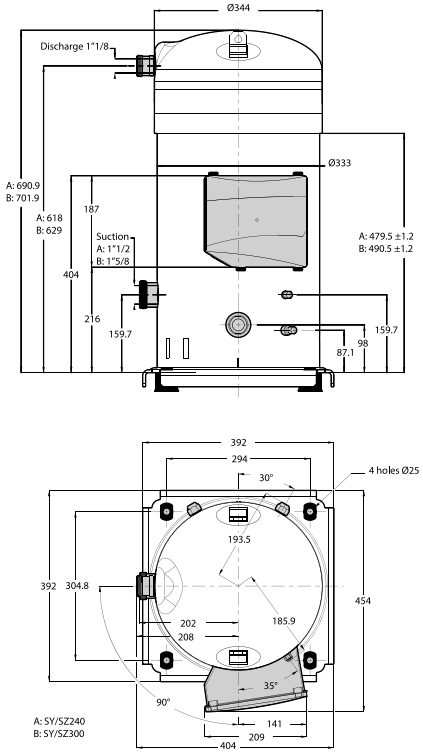
Dimensions

SY/SZ 240-300-380

Brazed version



Rotolock version



Technical data

Tandem models

Ordering

CP1		CP2		Tandem model	Suction from	Kit code no. to order	Washer reference	Washer Ø (mm)	Washer in suction of
SH090	+	SH090	=	SH182	Left	7777044	Not needed		
					Right				
SH090	+	SH105	=	SH195	Left	7777043	5312497P03	23	CP2
					Right		5312497P03	23	CP2
SH090	+	SH120	=	SH210	Left	7777043	5312497P01	25	CP2
					Right		5312497P02	24	CP1
SH105	+	SH105	=	SH212	Left	7777044	Not needed		
					Right				
SH090	+	SH140	=	SH230	Left	7777043	Not needed		
					Right				
SH120	+	SH120	=	SH242	Left	7777044	Not needed		
					Right				
SH120	+	SH140	=	SH260	Left	7777042	Not needed		
					Right		5312497P01	25	CP1
SH120	+	SH161	=	SH281	Left	7777042	5312497P01	25	CP1
					Right		5312497P03	23	CP1
SH140	+	SH140	=	SH282	Left	7777044	Not needed		
					Right				
SH140	+	SH161	=	SH301	Left	7777042	5312497P05	26	CP1
					Right				
SH120	+	SH184	=	SH304	Left	7777052	5312497P03	23	CP1
					Right				
SH161	+	SH161	=	SH322	Left	7777044	Not needed		
					Right				
SH140	+	SH184	=	SH324	Left	7777052	5312479P06	35	CP1
					Right				
SH161	+	SH184	=	SH345	Left	7777052	5312479P05	26	CP1
					Right				
SH180	+	SH180	=	SH360	Left	7777041	Not needed		
					Right				
SH184	+	SH184	=	SH368	Left	7777053	Not needed		
					Right				
SH180	+	SH240	=	SH420	Left	7777037	5311579P01	31	CP1
					Right		5311579P01	31	CP1
SH180	+	SH295	=	SH475	Left	7777038	5311579P04	26	CP1
					Right		5311579P04	26	CP1
SH240	+	SH240	=	SH482	Left	7777041	Not needed		
					Right				
SH240	+	SH295	=	SH535	Left	7777037	5311579P01	31	CP1
					Right		5311579P01	31	CP1
SH180	+	SH380	=	SH560	Left	7777038	5311579P04	26	CP1
					Right		5311579P04	26	CP1
SH295	+	SH295	=	SH590	Left	7777041	Not needed		
					Right				
SH240	+	SH380	=	SH620	Left	7777048	5311579P05	29	CP1
					Right		5311579P05	29	CP1
SH295	+	SH380	=	SH675	Left	7777037	5311579P01	31	CP1
					Right		5311579P01	31	CP1
SH240	+	SH485	=	SH725	Left	120Z0569	5311579P09	24	CP1
					Right				
SH380	+	SH380	=	SH760	Left	7777041	Not needed		
					Right				
SH295	+	SH485	=	SH780	Left	120Z0551	5311579P07	27	CP1
					Right				
SH380	+	SH485	=	SH865	Left	120Z0550	5311579P08	30	CP1
					Right				
SH485	+	SH485	=	SH970	Left	120Z0578	Not needed		
					Right				

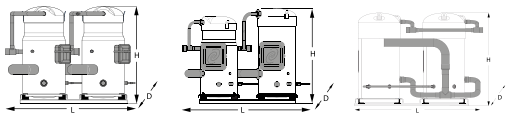
Technical data

Trio models

Ordering

CP1		CP2		CP3		Trio model	Suction from	Kit code no. to order	Washer reference	Washer Ø (mm)	Washer in suction of
SH180	+	SH180	+	SH180	=	SH550	Left	7777040	5311579P02	33	CP3
							Right	7777039	5311579P03	34.5	CP1 and CP3
SH240	+	SH240	+	SH240	=	SH720	Left	7777040	5311579P02	33	CP3
							Right	7777039	5311579P03	34.5	CP1 and CP3
SH295	+	SH295	+	SH295	=	SH885	Left	7777040	5311579P02	33	CP3
							Right	7777039	5311579P03	34.5	CP1 and CP3
SH380	+	SH380	+	SH380	=	SH1140	Left	7777040	5311579P02	33	CP3
							Right	7777049		Not needed	
SH485	+	SH485	+	SH485	=	SH1455	Left	7777040	5311579P02	33	CP2 and CP3
							Right				

Technical data



SM/SY/SZ - Tandem/Trio

Scroll compressors

	Type	Composition	R22	R404A/R507A	R407C	R134a	Oil management
Tandem	SM/SZ170	SM/SZ084 + SM/SZ084	•	•	•	•	Dynamic
	SM/SZ180	SM/SZ090 + SM/SZ090	•	•	•	•	Dynamic
	SM/SZ200	SM/SZ100 + SM/SZ100	•	•	•	•	Dynamic
	SM/SZ220	SM/SZ110 + SM/SZ110	•	•	•	•	Dynamic
	SM/SZ242	SM/SZ120 + SM/SZ120	•	•	•	•	Dynamic
	SM248	SM124 + SM124	•	–	–	–	Static
	SM/SZ268	SM/SZ120 + SM/SZ148	•	•	•	•	Dynamic
	SM/SZ271	SM/SZ110 + SM/SZ161	o	o	o	o	Dynamic
	SM272	SM124 + SM147	•	–	–	–	Static
	SM/SZ281	SM/SZ120 + SM/SZ161	•	•	•	•	Dynamic
	SM/SZ294	SM/SZ147 + SM/SZ147	•	–	o	–	Static
	SM/SZ296	SM/SZ148 + SM/SZ148	•	•	•	•	Dynamic
	SM/SZ322	SM/SZ161 + SM/SZ161	•	•	•	•	Dynamic
	SM/SZ350	SM/SZ175 + SM/SZ175	•	•	•	•	Dynamic
	SY/SZ370	SY/SZ185 + SY/SZ185	•	•	•	•	Dynamic
	SY/SZ425	SY/SZ240 + SY/SZ185	o	–	o	o	Dynamic
	SY/SZ482	SY/SZ240 + SY/SZ240	o	–	o	o	Static
	SY/SZ485	SY/SZ300 + SY/SZ185	o	–	o	o	Dynamic
	SY/SZ540	SY/SZ300 + SY/SZ240	o	–	o	o	Static
	SY/SZ600	SY/SZ300 + SY/SZ300	o	–	o	o	Static
	SY/SZ620	SY/SZ240 + SY/SZ380	o	–	o	o	Static
	SY/SZ680	SY/SZ300 + SY/SZ380	o	–	o	o	Static
	SY/SZ760	SY/SZ380 + SY/SZ380	o	–	o	o	Static
Trio	SM/SZ444	3 x SM/SZ148	o	o	o	o	Static
	SM/SZ483	3 x SM/SZ161	o	o	o	o	Static
	SY/SZ550	3 x SY/SZ185	o	o	o	o	Dynamic
	SY/SZ720	3 x SY/SZ240	o	–	o	o	Static
	SY/SZ900	3 x SY/SZ300	o	–	o	o	Static
	SY/SZ1140	3 x SY/SZ380	o	–	o	o	Static
Quadro	SM/SZ740	4 x SY/SZ185	o	o	o	o	Dynamic

• *Factory built or field assembly.*
o *Field assembly.*
– *Not available.*

Field assembly

Tandem Type	Connection	Configuration example	Tandem assembly kit code no		Oil equalisation fittings
			Kit ①	Kit ②	
SM/SZ170	Brazed	SZ084-4VI + SZ084-4VI	7703251	7765012	2 x 023U8014
SM/SZ180	Brazed	SZ090-4VI + SZ090-4VI	7703251	7765012	2 x 023U8014
SM/SZ200	Brazed	SZ100-4VI + SZ100-4VI	7703251	7765012	2 x 023U8014
SM/SZ220	Brazed	SZ110-4VI + SZ110-4VI	7703384	7765025	2 x 023U8014
SM/SZ242	Brazed	SZ120-4VI + SZ120-4VI	7703384	7765025	2 x 023U8014
SM/SZ268	Brazed	SZ148-4VAI + SZ120-4VI	7703390	7765025	2 x 023U8014
SM/SZ271	Brazed	SZ161-4VAI + SZ110-4VI	7703390	7765025	2 x 023U8014
SM/SZ281	Brazed	SZ161-4VAI + SZ120-4VI	7703390	7765025	2 x 023U8014
SM/SZ296	Brazed	SZ148-4VAI + SZ148-4VAI	7703390	7765025	2 x 023U8014
SM/SZ322	Brazed	SZ161-4VAI + SZ161-4VAI	7703390	7765025	2 x 023U8014
SM/SZ350	Rotolock	SZ175-4SCI + SZ175-4SCI	7703371	7765013	2 x 023U8014
SM/SZ350	Brazed	SZ175-4PCI + SZ175-4PCI	–	7765017	2 x 023U8014
SM/SZ370	Rotolock	SZ185-4SCI + SZ185-4SCI	7703371	7765013	2 x 023U8014
SM/SZ370	Brazed	SZ185-4PCI + SZ185-4PCI	–	7765017	2 x 023U8014
SY/SZ425	Brazed	SZ240A4AAI + SZ185-4PCI	–	7765027	023U8016 + 023U8014
SY/SZ485	Rotolock	SZ300A4AAI + SZ185-4PCI	–	7765027	023U8016 + 023U8014

Different tandem assembly kits are available:
Kit ① containing the suction and discharge Tees sleeves and the suction oil separator/gas restrictor.
Kit ② containing the suction oil separator/gas restrictor only.

Optyma™ Condensing Units

3 ranges to fit the different market needs of LBP, MBP refrigeration :

- Broad choice for various climates
- Fast installation and maintenance
- Low noise to fit in residential areas
- F-Gas: ready for refrigerants with lower GWP
- Eco Design compliance

Designed by Danfoss with 40 years of know-how in condensing units
Various options

Optyma™

The widest range of hermetic condensing units with reciprocating compressors

Optyma™ Slim Pack

The compact and cost effective packaged unit with Micro Channel Heat Exchanger technology

Optyma Plus™ New Generation

The premium condensing unit: energy optimized, low noise levels and quick installation/maintenance

Range span by refrigerant

Minimum / maximum Cooling capacity in kW	Optyma™	Optyma™ Slim Pack	Optyma Plus™ New Generation
MBP			
R134a	0.14/13.6	2.1/6.7	1.7/10.4
R404A	0.3/21.9	0.8/10.6	0.6/16.5
R407A*	1.8/19.5	3.3/10.1	3.3/14.9
R407C	1.7/20	–	–
R407F*	1.9/20.5	3.5/10.8	3.5/15.9
LBP			
R404A	0.2/10.3	0.6/5.6	0.7/9.6

Rating Conditions: *Ambient Temp. +32 °C, Superheat 10 K, Subcooling 0 K, Evap. Temp. MBP: -10 °C; LBP: -25 °C*
**preliminary data*

Quick Selection Notes:

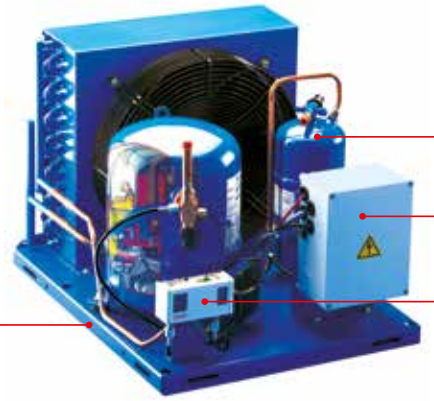
Optyma™ Condensing Units

Optyma™ is the widest range of hermetic condensing units on the market. Optyma™ condensing unit is available with reciprocating and scroll compressors to cover a large range of commercial refrigeration applications, reducing costs and complexity of the systems.
All Optyma™ condensing units are extremely efficient and reliable.

That means less energy consumption and less running costs, less cost for service and maintenance. In addition to the wide Optyma™ range, we also offer local support and guidance if needed.
A network of partner wholesalers and local Danfoss teams can offer you help and will do their outmost to fulfil your needs. At Danfoss we simply believe it is important to offer an "*Optimum service*".

*A01

*Version:
A00) without valves and receiver for capillary tubes.
A04) A01 + KP17WB + FSA-kit + power cord.



A02

Facts

Danfoss Optyma™ condensing units perfectly suit applications like:
- Cold stores and freezer rooms
- Milk cooling
- Beer and wine cellars
- Small food retail and mini markets
- Garage forecourt shops
- Display cabinets
- Ice cream freezers
- Bottle coolers

- HFC refrigerants R134a, R404A/R507, R407A, R407F, R407C and propane (R290)
- Capacity: from a few to 20000 Watt (R404A)
- High COP
- 100 % factory tested for leakage
- Low energy consumption
- Wide application range
- Powder coated steel parts
- Crankcase heater standard (optional for fractional units)
- Service valves standard with access ports
- Access valves/stubs for easy connection
- High-efficiency condensers allowing an extended application envelope in high ambient conditions
- Low electrical consumption and low running costs

- Reliable components for longer life and less warranty call out costs
- Fully pre-wired and factory tested, reducing commissioning time on site
- Built-in grab handles for easier handling on site
- Base plate designed to allow easy mounting on wall brackets
- Flexible add-on design options including: fan speed control, oil separator, pressure switches or weather proof housing
- Easy access to all components for higher serviceability and simplified maintenance
- Compact dimensions and minimum foot print for easy handling, shipping and installation

Quick Selection Notes:

Technical data and ordering

Optyma™ R404A/R507 LBP

Fans	Test conditions	Unit	Version	Code	Electrical code	Compressor	Amb. temp. [°C]	Cooling capacity range in [W] at evaporating temperature [°C]							Power consumption (W) at -25 °C evap. temp.
								-20 °C	-35 °C	-30 °C	-25 °C	-20 °C	-15 °C	-10 °C	
	CECOMAF	OP-LCHC004	A00	114X1208	G	TL4CLX	27	80	110	140	180	220	280	340	170
			A01	114X1209			32	70	90	120	160	200	250	310	
			A04	114X1211			38	60	80	100	130	170	220	270	
							43	–	–	–	–	–	–	–	
		OP-LCHC006	A00	114X1216	G	FR6CLX	27	130	170	230	290	370	460	570	270
			A01	114X1217			32	120	160	210	260	330	420	510	
			A04	114X1219			38	100	140	180	230	290	360	440	
							43	90	120	150	200	250	–	–	
		OP-LCHC008	A00	114X1324	G	FR8.5CLX	27	160	210	270	350	450	560	700	340
			A01	114X1325			32	140	190	250	320	410	510	630	
			A04	114X1327			38	110	150	200	270	350	–	–	
							43	–	–	–	–	–	–	–	
		OP-LCHC007	A01	114X1329	G	NL7CLX	27	170	230	310	400	500	620	760	300
							32	160	210	280	370	460	570	700	
			A04	114X1331			38	140	190	250	320	410	510	630	
							43	–	–	–	–	–	–	–	
		OP-LCHC010	A00	114X1332	G	SC10CLX	27	–	230	330	450	600	760	950	390
			A01	114X1333			32	–	190	290	400	530	690	860	
			A04	114X1335			38	–	–	240	340	460	600	760	
							43	–	–	–	290	400	530	670	
		OP-LCHC012	A00	114X1440	G	SC12CLX	27	230	330	460	620	800	1000	1240	500
			A01	114X1441			32	170	280	400	540	710	910	1130	
			A04	114X1443			38	110	200	320	450	600	780	990	
							43	–	140	250	370	510	680	880	
		OP-LCHC012	A00	114X1444	G	SC12CLX.2	27	270	370	480	620	790	970	1190	530
							32	230	320	430	560	720	890	1100	
							38	180	270	370	490	630	790	980	
							43	–	230	320	430	560	710	880	
		OP-LCHC015	A00	114X1548	G	SC15CLX	27	280	410	560	730	910	1130	1370	600
			A01	114X1549			32	200	350	500	660	850	1050	1280	
			A04	114X1551			38	–	250	410	580	760	950	1170	
							43	–	–	330	500	670	860	1070	
		OP-LCHC018	A01	114X1557	G	SC18CLX	27	360	500	670	870	1110	1380	1690	660
							32	310	440	590	780	1000	1250	1530	
			A04	114X1559			38	240	360	500	670	870	1090	1350	
							43	–	300	430	580	760	960	1200	
		OP-LCHC021	A00	114X1564	G	SC21CLX	27	420	590	780	1010	1270	1570	1910	740
			A01	114X1565			32	360	510	680	890	1140	1420	1730	
			A04	114X1567			38	300	420	570	760	980	1230	1520	
							43	–	350	490	650	860	1090	1360	
	RGT20	OP-LCHC026	A01	114X1673	G	GS26CLX	27	550	770	1030	1340	1700	2120	2600	980
							32	470	670	910	1200	1530	1920	2360	
							38	370	560	780	1030	1330	1680	2080	
							43	300	470	660	900	1170	1490	1850	
		OP-LCHC034	A01	114X1781	G	GS34CLX	27	800	1080	1430	1830	2310	2860	3490	1300
							32	700	970	1290	1670	2110	2630	3220	
			A04	114X1783			38	580	830	1120	1470	1870	2350	2890	
							43	480	710	980	1300	1670	2110	2610	

Test condition

	RGT20	CECOMAF
Ambient temperature	*32 °C*	*32 °C*
Suction gas temperature	*20 °C*	*32 °C*

Electrical code
G: compressor 220 V/1 phase/50 Hz, fan 220 V/1 phase/50 Hz.

Version
A00) without valves and receiver for capillary tubes.
A01) with receiver, 2 stop valves, brackets and copper pipes for KP.
A04) A01 + KP17WB + FSA-kit + power cord (except LCHC034).

Power consumption referred at 32 °C ambient temperature.
Subcooling within the limits of the condensing unit.

Technical data and ordering

Optyma™ R404A/R507 LBP

Unit	Condenser coil			Condenser fan	Receiver volume [L]	Dimensions [mm]						Weight [kg]	
	Type	Air flow [m³/h]	Int. volume [dm³]	Fan blade Ø [mm]		Fig.	Height H [mm]	Width W [mm]	Depth D [mm]	Suction line [in.]	Liquid line [in.]	Gross	Net
OP-LCHC004	BG2	231	0.25	1 × 200	0.8	1	226	304	446	¼	¼	16	14
OP-LCHC006	BG2	231	0.25	1 × 200	0.8	2	226	304	446	⅜	¼	22	17
OP-LCHC008	BG3	518	0.31	1 × 230	1.1	2	256	321	458	⅜	¼	23	18
OP-LCHC007	BG3	518	0.31	1 × 230	1.1	3	256	321	458	⅜	¼	23	18
OP-LCHC010	BG3	518	0.31	1 × 230	1.1	4	256	321	458	⅜	¼	23	18
OP-LCHC012	BG4	631	0.40	1 × 254	1.1	4	296	331	465	⅜	¼	25	22
OP-LCHC012	BG4	631	0.40	1 × 254	1.1	4	296	331	465	⅜	¼	25	22
OP-LCHC015	BG5	583	0.53	1 × 254	1.1	4	296	331	465	⅜	¼	26	23
OP-LCHC018	BG5	583	0.53	1 × 254	1.1	4	296	331	465	½	¼	26	23
OP-LCHC021	BG5	583	0.53	1 × 254	1.1	4	296	331	465	½	¼	26	23
OP-LCHC026	BG6	1150	0.63	1 × 300	2.4	7	340	430	480	½	⅜	45	39
OP-LCHC034	BG6	990	0.64	1 × 300	2.4	7	340	430	480	½	⅜	48	42

Technical data and ordering

Optyma™ R404A/R507 LBP

Fans	Test conditions	Unit	Version A02	Electrical code	Compressor	Amb. temp. [°C]	Cooling capacity range in [W] at evaporating temperature [°C]							Power consumption [W] at -25 °C evap. temp.
							-20 °C	-35 °C	-30 °C	-25 °C	-20 °C	-15 °C	-10 °C	
	SH = 10K	OP-LCHC048	114X5044	G	NTZ048	27	750	1050	1400	1800	2250	2700	3150	1450
						32	650	900	1250	1600	2000	2400	2800	
			114X5037	E		38	500	750	1050	1350	1700	2050	2450	
						43	400	650	900	1150	1450	–	–	
		OP-LCHC068	114X5045	G	NTZ068	27	1350	1850	2400	3050	3750	4500	5300	2250
						32	1200	1650	2150	2750	3350	4050	4800	
			114X5038	E		38	1000	1400	1850	2350	2950	3550	4200	
						43	850	1200	1600	2050	2600	–	–	
		OP-LCHC096	114X5039	E	NTZ096	27	1550	2150	2850	3650	4550	5600	6700	2700
						32	1350	1850	2500	3250	4050	5000	6000	
						38	1050	1550	2100	2750	3500	4300	5200	
						43	850	1250	1750	2350	3000	–	–	
		OP-LCHC108	114X5040	E	NTZ108	27	1900	2600	3450	4400	5400	6550	7750	3200
						32	1600	2250	3050	3900	4850	5900	6950	
						38	1300	1900	2550	3350	4200	5100	6050	
						43	1050	1600	2200	2850	3600	–	–	
		OP-LCHC136	114X5041	E	NTZ136	27	2450	3300	4350	5500	6750	8150	9650	4300
						32	2150	2950	3850	4900	6100	7350	8750	
						38	1750	2450	3300	4250	5250	6400	7650	
						43	1450	2100	2850	3650	4600	–	–	
		OP-LCHC215	114X5042	E	NTZ215	27	3750	5100	6650	8400	10300	12400	14550	6700
						32	3200	4450	5900	7500	9250	11150	13100	
						38	2550	3700	4950	6400	7950	9600	11400	
						43	2000	3050	4200	5450	6850	–	–	
		OP-LCHC271	114X5043	E	NTZ271	27	5100	6850	8850	11100	13500	16050	18700	8600
						32	4500	6100	7900	9950	12100	14450	16850	
						38	3750	5150	6800	8550	10450	12500	14600	
						43	3100	4400	5800	7400	9100	–	–	
		OP-LGHC048	114X5089	E	NTZ048	27	750	1100	1450	1900	2350	2850	3400	1650
						32	650	950	1300	1700	2100	2550	3050	
						38	500	800	1100	1450	1800	2200	2650	
						43	400	650	950	1250	1550	–	–	
		OP-LGHC068	114X5083	D	NTZ068	27	1350	1800	2350	2950	3650	4350	5100	2550
						32	1150	1600	2100	2650	3250	3900	4600	
			114X5090	E		38	950	1350	1800	2300	2850	3450	4050	
						43	800	1150	1550	2000	2500	–	–	
		OP-LGHC096	114X5084	D	NTZ096	27	1550	2150	2850	3650	4600	5650	6750	3050
						32	1350	1850	2500	3250	4100	5050	6100	
			114X5091	E		38	1050	1550	2100	2750	3500	4350	5300	
						43	850	1250	1750	2350	3050	–	–	
		OP-LGHC108	–	D	NTZ108	27	1900	2650	3500	4500	5650	6850	8100	3700
						32	1650	2350	3100	4050	5050	6150	7300	
						38	1350	1950	2650	3450	4350	5300	6350	
						43	1050	1600	2250	3000	3800	–	–	
		OP-LGHC136	114X5086	D	NTZ136	27	2550	3400	4500	5700	7100	8600	10250	4800
						32	2200	3000	4000	5100	6400	7800	9300	
			114X5093	E		38	1800	2550	3400	4400	5550	6800	8150	
						43	1500	2150	2950	3850	4850	–	–	
		OP-LGHC215	–	D	NTZ215	27	3950	5400	7100	9050	11250	13700	16350	7450
						32	3400	4750	6350	8150	10150	12400	14850	
						38	2750	3950	5400	7000	8800	10800	13000	
						43	2150	3250	4550	6000	7650	–	–	
		OP-LGHC271	–	D	NTZ271	27	5250	7050	9150	11500	14100	16850	19800	9400
						32	4600	6250	8200	10350	12700	15250	17900	
			114X5095	E		38	3850	5350	7050	8950	11000	13250	15600	
						43	3200	4550	6050	7750	9600	–	–	

Test condition
EN13215- Superheat 10 K.

Electrical code
D) Compressor 400 V/3 phase/50 Hz, fan 400 V/3 phase/50 Hz.
E) Compressor 400 V/3 phase/50 Hz, fan 230 V/1 phase/50 Hz.
G) Compressor 220 V/1 phase/50 Hz, fan 220 V/1 phase/50 Hz.

Version
A02) With receiver, stop valve, universal pressure switch, (KP17WB), flexible hoses and electrical box.

Power consumption referred at 32 °C ambient temperature.
Subcooling within the limits of the condensing unit.

Technical data and ordering

Optyma™ R404A/R507 LBP

Unit	Condenser coil			Condenser fan	Receiver volume [L]	Dimensions [mm]						Weight [kg]	
	Type	Air flow [m³/h]	Int. volume [dm³]	Fan blade Ø [mm]		Fig.	Height H [mm]	Width W [mm]	Depth D [mm]	Suction line [in.]	Liquid line [in.]	Gross	Net
OP-LCHC048	A4	1.200	1.2	1 × 300	3	5	402	500	600	5/8	3/8	54	45
OP-LCHC068	C4	2.150	2.3	1 × 350	6	5	555	630	650	5/8	½	64	57
OP-LCHC096	D4	2.000	3.1	1 × 350	6	5	555	630	650	7/8	½	78	71
OP-LCHC108	E4	3.150	2.5	1 × 400	6	5	605	630	650	7/8	½	92	80
OP-LCHC136	G4	3.150	4.1	1 × 400	8	5	656	755	700	7/8	½	95	83
OP-LCHC215	J4	6.000	4.4	1 × 500	14	5	708	900	900	1 1/8	5/8	151	136
OP-LCHC271	L4	5.850	6.3	1 × 500	14	5	759	900	900	1 1/8	5/8	166	151
OP-LGHC048	C3	1.450	1.6	2 × 254	3	6	392	700	500	5/8	3/8	55	45
OP-LGHC068	D3	2.800	1.5	2 × 300	6	6	442	800	600	5/8	½	62	55
OP-LGHC096	E3	2.100	2.2	2 × 300	6	6	442	800	600	7/8	½	78	71
OP-LGHC108	G3	4.600	2.3	2 × 355	8	6	555	1000	700	7/8	½	102	89
OP-LGHC136	H3	3.600	4.7	2 × 355	8	6	555	1000	700	7/8	½	107	94
OP-LGHC215	L3	9.000	5.1	2 × 450	14	6	671	1200	800	1 1/8	5/8	152	138
OP-LGHC271	L3	8600	5.1	2 × 450	14	6	671	1200	800	1 1/8	5/8	158	144

Technical data and ordering

Optyma™ R404A/R507 MBP

Fans	Test conditions	Unit	Version	Code	Electric. code	Compr.	Amb. temp. [°C]	Cooling capacity range in [W] at evaporating temperature [°C]							Power consumption [W] at -25 °C evap. temp.	
								-40 °C	-15 °C	-10 °C	-5 °C	0 °C	+5°C	+10°C	-10 °C	+5 °C
	CECOMAF	OP-MCHC004	A00	114X2208	G	TL4DLX	27	250	280	340	410	510	620	740	230	280
			A01	114X2209			32	220	250	300	380	460	570	680		
			A04	114X2211			38	180	210	260	330	410	500	–		
							43	–	–	–	–	–	–	–		
		OP-MCHC006	A00	114X2316	G	FR6DLX	27	380	460	560	690	830	1000	1190	380	480
			A01	114X2317			32	340	420	510	620	750	910	1080		
			A04	114X2319			38	300	360	440	540	660	790	–		
							43	–	–	–	–	–	–	–		
		OP-MCHC007	A00	114X2424	G	NF7MLX	27	–	600	740	910	1090	1300	–	450	530
			A01	114X2425			32	–	550	680	830	1000	1200	–		
			A04	114X2427			38	–	490	600	740	900	1080	–		
							43	–	430	540	670	810	970	–		
		OP-MCHC010	A00	114X2532	A	SC10MLX	27	650	810	1010	1240	1500	1810	–	560	670
			A01	114X2533			32	590	740	920	1130	1370	1650	–		
			A04	114X2535			38	510	650	810	1000	1210	1460	–		
							43	–	570	720	890	1080	1300	–		
		OP-MCHC012	A00	114X2540	G	SC12MLX	27	790	990	1220	1490	1810	2170	–	660	800
			A01	114X2541			32	720	900	1120	1370	1660	1990	–		
			A04	114X2543			38	630	790	990	1210	1470	1760	–		
							43	–	700	870	1080	1310	1570	–		
		OP-MCHC015	A01	114X2649	G	SC15MLX	27	980	1220	1510	1840	2220	2650	–	840	1030
							32	890	1120	1380	1690	2040	2450	–		
			A04	114X2651			38	790	990	1220	1500	1820	2200	–		
							43	–	880	1090	1350	1640	1980	–		
		OP-MCHC018	A00	114X2756	G	SC18MLX	27	1150	1430	1750	2140	2580	3080	–	920	1130
			A01	114X2757			32	1040	1300	1610	1960	2370	2840	–		
			A04	114X2759			38	920	1150	1430	1750	2120	2550	–		
							43	–	1030	1280	1570	1910	2300	–		
		OP-MCHC021	A01	114X2765	G	GS21MLX	27	1370	1730	2160	2670	3260	3950	–	1030	1260
							32	1230	1560	1960	2420	2960	3590	–		
			A04	114X2767			38	1080	1370	1720	2130	2610	3170	–		
							43	950	1220	1530	1900	2330	2820	–		
		OP-MCHC026	A01	114X2773	G	GS26MLX	27	1760	2220	2750	3360	4060	4870	–	1270	1570
							32	1600	2020	2510	3080	3730	4470	–		
							38	1400	1790	2230	2740	3320	3990	–		
							43	1240	1600	2000	2460	2990	3590	–		
		OP-MCHC034	A01	114X2881	G	GS34MLX	27	2360	2920	3560	4300	5140	6090	–	1830	2320
							32	2160	2680	3280	3970	4750	5640	–		
			A04	114X2883			38	1900	2380	2930	3550	4250	5060	–		
							43	1690	2130	2620	3180	3820	4550	–		

Test condition

EN13215 ***CECOMAF***
Ambient temperature *32 °C*
Suction gas temperature *32 °C*

Electrical code

G: compressor 220 V/1 phase/50 Hz, fan 220 V/1 phase/50 Hz.
A) Compressor 220 V/1 phase/50+60 Hz, fan 220 V/1 phase/50+60 Hz.

Version

A00) without valves and receiver for capillary tubes.
A01) with receiver, 2 stop valves, brackets and copper pipes for KP.
A04) A01 + KP17WB + FSA-kit + power cord (except LCHC034).

Power consumption referred at 32 °C ambient temperature.
Subcooling within the limits of the condensing unit.

Technical data and ordering

Optyma™ R404A/R507 MBP

Unit	Condenser coil			Condenser fan	Receiver volume [L]	Dimensions [mm]						Weight [kg]	
	Type	Air flow [m³/h]	Int. volume [dm³]	Fan blade Ø [mm]		Fig.	Height H [mm]	Width W [mm]	Depth D [mm]	Suction line [in.]	Liquid line [in.]	Gross	Net
OP-MCHC004	BG2	231	0.25	1 × 200	0.8	1	226	304	446	3/8	1/4	16	14
OP-MCHC006	BG3	518	0.31	1 × 230	1.1	2	256	321	458	3/8	1/4	20	18
OP-MCHC007	BG4	631	0.40	1 × 254	1.1	3	296	331	478	3/8	1/4	24	22
OP-MCHC010	BG5	583	0.53	1 × 254	1.1	4	296	331	478	3/8	1/4	25	23
OP-MCHC012	BG5	583	0.53	1 × 254	1.1	4	296	331	478	3/8	1/4	25	23
OP-MCHC015	BG6	1132	1.1	1 × 300	1.1	4	350	442	610	1/2	1/4	35	28
OP-MCHC018	BG7	827	1.8	1 × 300	1.1	4	350	442	610	1/2	1/4	50	44
OP-MCHC021	BG7	990	0.84	1 × 300	1.6	7	340	430	480	5/8	3/8	39	33
OP-MCHC026	BG7	990	0.84	1 × 300	1.6	7	340	430	480	5/8	3/8	50	44
OP-MCHC034	BG8	2300	1.36	1 × 350	2.4	8	450	500	600	5/8	3/8	51	43

Technical data and ordering

Optyma™ R404A/R507 MBP

Fans	Test conditions	Unit	Version A02	Electric. code	Compr.	Amb. temp. [°C]	Cooling capacity range in [W] at evaporating temperature [°C]							Power consumption [W] at -25 °C evap. temp.	
							-40 °C	-15 °C	-10 °C	-5 °C	0 °C	+5 °C	+10 °C	-10 °C	+5 °C
	SH =10K	OP-MCZC030	114X5024	G	MTZ018	27	1300	1700	2200	2700	3250	3850	4450	1350	1750
						32	1150	1550	2000	2450	2950	3500	4050		
			114X5012	E		38	1000	1350	1700	2150	2600	3050	3550		
						43	850	1150	1500	1900	2300	–	–		
		OP-MCZC038	114X5025	G	MTZ022	27	1850	2400	3000	3700	4400	5150	5950	1700	2250
						32	1650	2150	2700	3300	4000	4650	5400		
			114X5013	E		38	1400	1850	2350	2900	3450	4100	4750		
						43	1200	1600	2050	2550	3050	–	–		
		OP-MCZC048	114X5026	G	MTZ028	27	2500	3250	4050	4900	5850	6850	7900	2150	2850
						32	2250	2900	3650	4450	5300	6250	7200		
			114X5014	E		38	1900	2500	3150	3900	4700	5500	6400		
						43	1650	2150	2800	3450	4150	–	–		
		OP-MCZC054	114X5027	G	MTZ032	27	2900	3650	4500	5400	6350	7400	8450	2350	3200
						32	2600	3300	4050	4900	5800	6700	7700		
			114X5015	E		38	2200	2850	3550	4300	5100	5900	6800		
						43	1900	2500	3100	3800	4500	–	–		
		OP-MCZC060	114X5028	G	MTZ036	27	3350	4200	5150	6150	7200	8300	9400	2800	3800
						32	3050	3800	4650	5600	6550	7550	8550		
			114X5028	E		38	2650	3350	4100	4900	5750	6600	7500		
						43	2300	2950	3600	4350	5100	–	–		
		OP-MCZC068	114X5017	E	MTZ040	27	3950	4900	5950	7050	8250	9450	10700	3250	4350
						32	3550	4450	5400	6400	7500	8600	9750		
						38	3100	3900	4750	5650	6600	7600	8600		
						43	2750	3450	4200	5000	5850	–	–		
		OP-MCZC086	114X5018	E	MTZ050	27	4450	5650	6950	8350	9850	11450	13100	3500	4600
						32	4000	5050	6250	7550	8950	10400	11900		
						38	3450	4400	5450	6600	7850	9150	10550		
						43	3000	3850	4800	5850	6950	–	–		
		OP-MCZC096	114X5019	E	MTZ056	27	4800	6100	7550	9150	10900	12700	14600	3800	5100
						32	4300	5500	6850	8300	9900	11600	13350		
						38	3700	4800	6000	7300	8750	10300	11900		
						43	3250	4200	5300	6500	7800	–	–		
		OP-MCZC108	114X5020	E	MTZ064	27	5800	7350	9050	10950	13050	15200	17500	5000	6550
						32	5200	6600	8200	9950	11850	13900	16000		
						38	4500	5750	7150	8750	10450	12300	14250		
						43	3900	5050	6300	7750	9300	–	–		
		OP-MCZC121	114X5021	E	MTZ072	27	6600	8350	10250	12400	14700	17150	19750	5450	7100
						32	5900	7500	9300	11250	13400	15700	18100		
						38	5150	6550	8150	9950	11850	13950	16150		
						43	4500	5800	7250	8850	10600	–	–		
		OP-MCZC136	114X5022	E	MTZ080	27	7700	9550	11600	13850	16200	18700	21300	6450	8450
						32	6950	8650	10550	12600	14800	17100	19500		
						38	6050	7600	9300	11150	13100	15200	17350		
						43	5350	6750	8250	9950	11700	–	–		
		OP-MCZC171	114X5023	E	MTZ100	27	8650	11000	13500	16200	19050	22000	25050	7650	9850
						32	7800	9950	12250	14700	17300	20000	22800		
						38	6750	8650	10700	12900	15200	17600	20100		
						43	5900	7600	9450	11400	13500	–	–		

Test condition
EN13215 - Superheat10 K.

Electrical code
G: compressor 220 V/1 phase/50 Hz, fan 220 V/1 phase/50 Hz.
E) Compressor 400 V/3 phase/50 Hz, fan 230 V/1 phase/50 Hz.

Version

A02) with receiver, stop valves, universal pressure switch, (KP17WB), flexible hoses and electrical box.

Power consumption referred at 32 °C ambient temperature.
Subcooling within the limits of the condensing unit.

Technical data and ordering

Optyma™ R404A/R507 MBP

Unit	Condenser coil			Condenser fan	Receiver volume [L]	Dimensions [mm]						Weight [kg]	
	Type	Air flow [m³/h]	Int. volume [dm³]	Fan blade Ø [mm]		Fig.	Height H [mm]	Width W [mm]	Depth D [mm]	Suction line [in.]	Liquid line [in.]	Gross	Net
OP-MCZC030	A4	1200	1.2	1 × 300	3	5	408	500	600	½	⅜	54	45
OP-MCZC038	B4	1750	1.3	1 × 350	3	5	451	500	620	½	⅜	56	47
OP-MCZC048	C4	2150	2.3	1 × 350	6	5	555	630	650	½	½	64	57
OP-MCZC054	C4	2150	2.3	1 × 350	6	5	555	630	650	⅝	½	65	58
OP-MCZC060	D4	2000	3.1	1 × 350	6	5	555	630	650	⅝	½	68	61
OP-MCZC068	E4	3150	2.5	1 × 400	6	5	605	630	650	⅝	½	72	65
OP-MCZC086	F4	3300	3.1	1 × 400	8	5	656	755	700	⅞	½	95	83
OP-MCZC096	G4	3150	4.1	1 × 400	8	5	656	755	700	⅞	½	100	88
OP-MCZC108	H4	4300	4.1	1 × 500	8	5	656	755	700	⅞	½	113	101
OP-MCZC121	J4	6000	4.4	1 × 500	10	5	708	900	900	1⅛	½	127	113
OP-MCZC136	K4	6200	4.7	1 × 500	10	5	759	900	900	1⅛	½	140	126
OP-MCZC171	L4	5850	6.3	1 × 500	14	5	759	900	900	1⅛	⅝	162	147

Technical data and ordering

Optyma™ R404A/R507 MBP

Fans	Test conditions	Unit	Version A02	Electric. code	Compr.	Amb. temp. [°C]	Cooling capacity range in [W] at evaporating temperature [°C]							Power consumption [W] at evap. temp.	
							-20 °C	-15°C	-10 °C	-5 °C	0 °C	+5 °C	+10 °C	-10 °C	+5 °C
	SH = 10K	OP-MGZC215	114X5073	E	MTZ125	27	11750	14750	18100	21800	25800	30050	34500	11450	14400
						32	10550	13300	16400	19800	23500	27400	31550		
						38	9150	11600	14350	17450	20750	24300	28100		
						43	8000	10250	12750	15500	18500	–	–		
		OP-MGZC242	114X5074	E	MTZ144	27	13550	16750	20350	24200	28250	32550	36950	12950	16450
						32	12200	15150	18450	21950	25700	29650	33700		
						38	10600	13250	16200	19300	22650	26200	29850		
						43	9300	11700	14300	17150	20150	–	–		
		OP- MGZC271	114X5075	E	MTZ160	27	15050	18700	22750	27150	31800	36750	41800	14200	18300
						32	13600	16950	20700	24700	29050	33550	38250		
						38	11850	14900	18200	21800	25700	29750	34000		
						43	10450	13150	16150	19400	22900	–	–		
		OP-MGZD030	114X5061	E	MTZ018	32	1200	1600	2100	2600	3150	3750	4350	1500	1850
						38	1050	1400	1800	2250	2750	3300	3850		
						43	900	1200	1600	2000	2450	–	–		
						46	800	1100	1450	1850	2250	–	–		
		OP-MGZD038	114X5047	D	MTZ022	32	1750	2300	2900	3600	4350	5150	6050	1950	2450
						38	1500	1950	2500	3150	3800	4550	5350		
			114X5062	E		43	1300	1700	2200	2750	3350	–	–		
						46	1150	1550	2000	2550	3100	–	–		
		OP-MGZD048	114X5048	D	MTZ028	32	2300	2950	3750	4600	5550	6550	7600	2450	3100
						38	1950	2550	3250	4050	4900	5800	6750		
			114X5063	E		43	1650	2250	2900	3600	4350	–	–		
						46	1500	2050	2650	3300	4050	–	–		
		OP-MGZD054	114X5049	D	MTZ032	32	2650	3400	4200	5100	6050	7100	8150	2650	3450
						38	2300	2950	3650	4450	5350	6250	7200		
			114X5064	E		43	2000	2550	3250	3950	4750	–	–		
						46	1800	2350	2950	3650	4400	–	–		
		OP-MGZD060	114X5050	D	MTZ036	32	3200	4100	5050	6100	7250	8450	9700	3300	4200
						38	2800	3600	4450	5400	6400	7500	8600		
			114X5065	E		43	2450	3150	3950	4800	5700	–	–		
						46	2250	2900	3650	4450	5300	–	–		
		OP-MGZD068	114X5051	D	MTZ040	32	3800	4800	5950	7150	8500	9900	11450	3650	4550
						38	3350	4250	5250	6350	7550	8850	10200		
			114X5066	E		43	2950	3800	4700	5650	6750	–	–		
						46	2700	3500	4350	5250	6250	–	–		
		OP-MGUD057	114X5510	G	MLZ026	32	4000	4800	5750	6800	7950	9200	10550	3600	4000
						38	3500	4250	5100	6050	7050	8200	9450		
						43	–	3750	4500	5400	6350	7400	8550		
						46	–	3450	4150	4950	5850	–	–		

Test condition
EN13215 - Superheat 10 K.

Electrical code
D) Compressor 400 V/3 phase/50 Hz, fan 400 V/3 phase/50 Hz.
E) Compressor 400 V/3 phase/50 Hz, fan 230 V/1 phase/50 Hz.
G) Compressor 220 V/1 phase/50 Hz, fan 220 V/1 phase/50 Hz.

Version
A02) With receiver, stop valve, universal pressure switch, (KP17WB), flexible hoses and electrical box.

Power consumption referred at 32 °C ambient temperature.
Subcooling within the limits of the condensing unit.

Technical data and ordering

Optyma™ R404A/R507 MBP

Unit	Condenser coil			Condenser fan	Receiver volume [L]	Dimensions [mm]						Weight [kg]	
	Type	Air flow [m³/h]	Int. volume [dm³]	Fan blade Ø [mm]		Fig.	Height H [mm]	Width W [mm]	Depth D [mm]	Suction line [in.]	Liquid line [in.]	Gross	Net
OP-MGZC215	M4	11000	7.4	2 × 500	14	6	759	1350	820	1 1/8	5/8	191	176
OP-MGZC242	M4	11000	7.4	2 × 500	14	6	759	1350	820	1 1/8	5/8	194	179
OP- MGZC271	N4	9200	12.3	2 × 500	14	6	759	1350	820	1 1/8	5/8	199	184
OP-MGZD030	C3	1300	1.7	2 × 254	3	6	392	700	500	½	3/8	56	46
OP-MGZD038	D3	2800	1.5	2 × 300	6	6	442	800	600	½	½	60	53
OP-MGZD048	E3	2600	2.2	2 × 300	6	6	442	800	600	½	½	64	57
OP-MGZD054	E3	2600	2.2	2 × 300	6	6	442	800	600	5/8	½	65	58
OP-MGZD060	G3	4600	2.3	2 × 355	8	6	555	1000	700	5/8	½	88	75
OP-MGZD068	H3	3600	4.7	2 × 355	8	6	555	1000	700	5/8	½	96	82
OP-MGUD057	G3	4600	2.3	2 × 355	8	9	555	1000	700	¾	½	72	63

Technical data and ordering

Optyma™ R404A/R507 MBP

Fans	Test conditions	Unit	Version A02	Electric. code	Compr.	Amb. temp. [°C]	Cooling capacity range in [W] at evaporating temperature [°C]							Power consumption [W] at evap. temp.	
							-20 °C	-15°C	-10 °C	-5 °C	0 °C	+5 °C	+10 °C	-10 °C	+5 °C
	SH = 10K	OP-MGZD086	114X5052	D	MTZ050	32	4250	5450	6800	8300	9900	11700	13550	3950	4950
						38	3650	4700	5950	7300	8750	10350	12050		
			114X5067	E		43	3200	4150	5250	6450	7800	–	–		
						46	2900	3800	4850	5950	7200	–	–		
		OP-MGUD068	114X5511	G	MLZ030	32	4850	5900	7050	8350	9800	11400	13100	4050	4450
						38	4300	5250	6300	7450	8750	10200	11800		
						43	–	4650	5600	6650	7850	9200	10700		
						46	–	4300	5200	6200	7300				
		OP-MGZD096	–	D	MTZ056	27	4400	5700	7150	8750	10450	12350	14300	4250	5500
						38	3800	4950	6250	7700	9250	10950	12750		
			114X5068	E		43	3350	4400	5550	6850	8300	–	–		
						46	3050	4050	5150	6350	7700	–	–		
		OP-MGZD108	114X5054	D	MTZ064	32	5450	6950	8700	10650	12800	15100	17600	5100	6550
						38	4700	6050	7650	9400	11300	13400	15700		
			114X5069	E		43	4100	5350	6750	8350	10100	–	–		
						46	3750	4900	6200	7700	9350	–	–		
		OP-MGZD121	114X5055	D	MTZ072	32	6000	7600	9450	11500	13700	16050	18550	5600	7250
						38	5200	6650	8300	10150	12100	14300	16600		
			114X5070	E		43	4550	5850	7350	9000	10850	–	–		
						46	4200	5400	6800	8350	10100	–	–		
		OP-MGZD136	114X5056	D	MTZ080	32	7300	9200	11300	13650	16200	18900	21800	7150	9000
						38	6400	8100	10000	12100	14400	16850	19500		
			114X5071	E		43	5650	7200	8900	10850	12900	–	–		
						46	5200	6650	8250	10050	12050	–	–		
		OP-MGZD171	114X5057	D	MTZ100	32	8250	10600	13200	16050	19150	22450	25850	8300	10250
						38	7200	9300	11650	14200	16950	19850	22950		
			114X5072	E		43	6300	8200	10300	12600	15100	–	–		
						46	5750	7550	9500	11650	13950	–	–		
		OP-MGZD215	114X5115	D	MTZ125	32	10900	13800	17150	20800	24850	29200	33850	11350	14100
						38	9450	12050	15050	18350	22000	25950	30200		
			114X5118	E		43	8300	10650	13350	16350	19700	–	–		
						46	7650	9850	12350	15200	18300	–	–		
		OP-MGZD242	114X5119	E	MTZ144	32	12650	15850	19400	23250	27400	31850	36500	12800	16100
						38	11050	13900	17050	20500	24250	28250	32450		
						43	9700	12250	15100	18250	21650	–	–		
						46	8900	11300	13950	16900	20050	–	–		
		OP-MGZD271	114X5117	D	MTZ160	32	14200	17850	21900	26400	31250	36500	42000	13800	17600
						38	12400	15700	19350	23400	27750	32500	37500		
			114X5120	E		43	10950	13900	17200	20900	24850	–	–		
						46	10100	12850	15950	19400	23150	–	–		

Test condition
EN13215 - Superheat 10 K.

Electrical code
D) Compressor 400 V/3 phase/50 Hz, fan 400 V/3 phase/50 Hz.
E) Compressor 400 V/3 phase/50 Hz, fan 230 V/1 phase/50 Hz.
G) Compressor 220 V/1 phase/50 Hz, fan 220 V/1 phase/50 Hz.

Version
A02) With receiver, stop valve, universal pressure switch, (KP17WB), flexible hoses and electrical box.

Power consumption referred at 32 °C ambient temperature.
Subcooling within the limits of the condensing unit.

Technical data and ordering

Optyma™ R404A/R507 MBP

Unit	Condenser coil			Condenser fan	Receiver volume [L]	Dimensions [mm]						Weight [kg]	
	Type	Air flow [m³/h]	Int. volume [dm³]	Fan blade Ø [mm]		Fig.	Height H [mm]	Width W [mm]	Depth D [mm]	Suction line [in.]	Liquid line [in.]	Gross	Net
OP-MGZD086	H3	3600	4.7	2 × 355	8	6	555	1000	700	7/8	½	107	93
OP-MGUD068	H3	3600	4.7	2 × 355	8	9	555	1000	700	7/8	½	107	93
OP-MGZD096	H3	3600	4.7	2 × 355	8	6	555	1000	700	7/8	½	109	95
OP-MGZD108	J3	5400	4.7	2 × 400	10	6	555	1000	700	7/8	½	113	99
OP-MGZD121	J3	5400	4.7	2 × 400	10	6	555	1000	700	7/8	½	115	101
OP-MGZD136	L3	8600	5.1	2 × 450	10	6	671	1200	800	1 1/8	½	133	118
OP-MGZD171	M3	8200	6.8	2 × 450	14	6	671	1200	800	1 1/8	5/8	158	144
OP-MGZD215	N4	9200	12.25	2 × 500	14	6	759	1350	820	1 1/8	5/8	196	180
OP-MGZD242	N4	9200	12.25	2 × 500	14	6	759	1350	820	1 1/8	5/8	199	183
OP-MGZD271	U	14000	14.2	2 × 600	14	6	975	1500	870	1 1/8	5/8	230	212

Technical data and ordering

Optyma™ R134a LBP/MBP/HBP

Fans	Test conditions	Unit	Version	Code	Electric. code	Compressor	Amb. temp. [°C]	Cooling capacity range in [W] at evaporating temperature [°C]							Power consumption [W] at -10 °C evap temp
								-30 °C	-25 °C	-20 °C	-10 °C	0 °C	+5 °C	+10 °C	
	CECOMAF	OP-UCGC003	A00	114X0104	G	TL3GX	27	50	70	90	150	240	290	350	120
			A01	114X0105			32	40	60	80	140	220	270	330	
			A04	114X0107			38	40	50	70	130	200	250	300	
							43	30	40	60	110	180	220	270	
		OP-UCGC004	A00	114X0108	G	TL4GX	27	70	90	120	190	300	360	430	140
			A01	114X0109			32	60	80	110	180	280	340	410	
			A04	114X0111			38	50	70	90	160	250	310	–	
							43	40	60	80	150	240	–	–	
		OP-UCGC005	A00	114X0112	G	TL5GX	27	80	110	140	230	360	440	530	170
			A01	114X0113			32	70	100	130	220	340	410	500	
			A04	114X0115			38	70	90	120	200	310	380	460	
							43	60	80	110	190	290	360	430	
		OP-UCGC006	A00	114X0200	G	FR6GX	27	100	140	190	310	470	580	700	190
			A01	114X0201			32	90	120	170	290	440	540	660	
			A04	114X0203			38	70	110	150	260	410	500	610	
							43	50	90	130	240	380	470	570	
		OP-MCGC006	A00	114X0228	A	NL6.1MF	27	–	–	200	330	520	640	770	200
							32	–	–	180	310	490	600	720	
			A01	114X0229			38	–	–	170	280	440	550	660	
							43	–	–	150	260	410	500	610	
		OP-MCGC007	A00	114X0244	A	NL7.3MF	27	–	–	250	410	640	780	940	240
							32	–	–	230	380	590	730	880	
							38	–	–	210	350	540	670	810	
							43	–	–	190	320	500	620	750	
		OP-UCGC007	A00	114X0216	G	FR7.5GX	27	110	150	200	340	530	640	780	210
			A01	114X0217			32	100	140	190	320	490	610	740	
			A04	114X0219			38	80	120	170	290	460	560	690	
							43	70	110	150	270	430	530	640	
		OP-UCGC008	A00	114X0224	G	FR8.5GX	27	140	190	250	400	620	750	910	250
			A01	114X0225			32	130	170	230	380	590	720	860	
			A04	114X0227			38	110	150	200	340	540	660	800	
							43	90	130	180	310	500	620	750	
		OP-MCGC008	A00	114X0352	A	NL8.4MF	27	–	–	290	470	730	890	1080	270
							32	–	–	270	440	680	830	1010	
							38	–	–	240	400	620	760	930	
							43	–	–	220	370	580	710	860	
		OP-UCGC010	A00	114X0232	G	FR10GX	27	150	200	270	430	670	820	990	280
							32	130	180	240	400	630	770	930	
			A01	114X0233			38	110	160	220	370	580	710	860	
							43	100	140	200	340	540	660	–	
		OP-UCGC011	A00	114X0336	G	FR11GX	27	170	250	330	550	830	1000	–	330
			A01	114X0337			32	150	230	310	500	770	940	–	
			A04	114X0339			38	130	200	270	450	710	870	–	
							43	120	180	250	410	650	810	–	
		OP-UCGC012	A00	114X0340	G	SC12GX	27	210	290	390	660	1030	1260	1520	370
			A01	114X0341			32	180	260	350	610	960	1180	1430	
			A04	114X0343			38	150	220	310	540	870	1080	1320	
							43	120	190	270	490	800	1000	1230	
		OP-UCGC015	A00	114X0448	G	SC15GX	27	–	320	440	750	1170	1440	1740	460
			A01	114X0449			32	–	290	410	710	1110	1360	1640	
			A04	114X0451			38	–	240	360	650	1020	1250	1510	
							43	–	190	310	600	950	1160	1400	
		OP-UCGC018	A00	114X0556	G	SC18GX	27	–	–	550	910	1390	1670	2000	520
			A01	114X0557			32	–	–	500	840	1300	1570	1890	
			A04	114X0559			38	–	–	440	760	1190	1460	1760	
							43	–	–	410	710	1120	1380	1670	
		OP-MCGC021	A00	114X0568	G	SC21MF	27	–	–	680	1090	1670	2030	2440	630
							32	–	–	640	1030	1570	1910	2310	
							38	–	–	580	940	1450	1780	2150	
							43	–	–	540	880	1360	1660	2010	
		OP-UCGC021	A00	114X0564	G	SC21GX	27	–	–	660	1100	1670	2010	2390	600
			A01	114X0565			32	–	–	610	1020	1570	1900	2270	
			A04	114X0567			38	–	–	540	930	1450	1760	2110	
							43	–	–	480	840	1330	1630	1970	
	RGT20	OP-UCGC026	A01	114X0773	G	GS26MFX	27	–	–	860	1440	2240	2750	–	770
							32	–	–	800	1340	2080	2550	–	
							38	–	–	730	1220	1900	2320	–	
							43	–	–	660	1120	1750	2140	–	
		OP-UCGC034	A01	114X0781	G	GS34MFX	27	–	–	1150	1870	2860	3480	–	980
							32	–	–	1060	1740	2680	3270	–	
			A04	–			38	–	–	950	1590	2470	3020	–	
							43	–	–	860	1460	2290	2810	–	

Test condition

	RGT20	*CECOMAF*
Ambient temperature	*32 °C*	*32 °C*
Suction gas temperature	*20 °C*	*32 °C*

Electrical code

A) Compressor 220 V/1 phase/50+60 Hz, fan 220 V/1 phase/50+60 Hz.
G) Compressor 220 V/1 phase/50 Hz, fan 220 V/1 phase/50 Hz.

Version

A00) without valves and receiver for capillary tubes.
A01) with receiver, 2 stop valves, brackets and copper pipes for KP.
A04) A01 + KP17WB + FSA-kit + power cord (except LCHC034).

Power consumption referred at 32 °C ambient temperature.
Subcooling within the limits of the condensing unit.

Technical data and ordering

Optyma™ R134a LBP/MBP/HBP

Unit	Condenser coil			Condenser fan	Receiver volume [L]	Dimensions [mm]						Weight [kg]	
	Type	Air flow [m³/h]	Int. volume [dm³]	Fan blade Ø [mm]		Fig.	Height H [mm]	Width W [mm]	Depth D [mm]	Suction line [in.]	Liquid line [in.]	Gross	Net
OP-UCGC003	BG1	243	0.13	1 × 172	0.8	1	197	289	410	¼	¼	16	14
OP-UCGC004	BG1	243	0.13	1 × 172	0.8	1	197	289	410	¼	¼	16	14
OP-UCGC005	BG1	243	0.13	1 × 172	0.8	1	197	289	410	¼	¼	16	14
OP-UCGC006	BG2	231	0.25	1 × 200	0.8	2	226	304	432	⅜	¼	19	17
OP-MCGC006	BG2	231	0.25	1 × 200	0.8	2	226	304	432	⅜	¼	19	17
OP-MCGC007	BG2	231	0.25	1 × 200	0.8	2	226	304	432	⅜	¼	19	17
OP-UCGC007	BG2	231	0.25	1 × 200	0.8	2	226	304	432	⅜	¼	19	17
OP-UCGC008	BG2	231	0.25	1 × 200	0.8	2	226	304	432	⅜	¼	19	17
OP-MCGC008	BG2	231	0.25	1 × 200	0.8	2	226	304	432	⅜	¼	20	18
OP-UCGC010	BG2	231	0.25	1 × 200	0.8	4	226	304	432	⅜	¼	19	17
OP-UCGC011	BG3	518	0.31	1 × 230	1.1	4	256	321	444	⅜	¼	20	18
OP-UCGC012	BG3	518	0.31	1 × 230	1.1	4	256	321	444	⅜	¼	22	20
OP-UCGC015	BG4	631	0.40	1 × 254	1.1	4	296	331	451	⅜	¼	24	22
OP-UCGC018	BG5	583	0.53	1 × 254	1.1	4	296	331	473	⅜	¼	25	23
OP-MCGC021	BG5	583	0.53	1 × 254	1.1	4	296	331	513	⅜	¼	25	23
OP-UCGC021	BG5	583	0.53	1 × 254	1.1	4	296	331	513	⅜	¼	25	23
OP-UCGC026	BG7	990	0.84	1 × 300	2.4	7	340	430	480	⅜	¼	39	33
OP-UCGC034	BG7	990	0.84	1 × 300	2.4	7	340	430	480	½	⅜	39	34

Technical data and ordering

Optyma™ R134a MBP

Fans	Test conditions	Unit	Version A02	Electric. code	Compressor	Amb. temp. [°C]	Cooling capacity range in [W] at evaporating temperature [°C]							Power consumption [W] at evap. temp.	
							-15 °C	-10 °C	-5 °C	0 °C	+5 °C	+10 °C	+15 °C	-10 °C	+5 °C
	SH =10K	OP-MCZC030	114X5024	G	MTZ018	27	1000	1350	1800	2250	2800	3350	4000	800	1000
						32	900	1250	1600	2050	2550	3100	3650		
			114X5012	E		38	750	1050	1450	1850	2300	2800	3300		
						43	650	950	1300	1650	2050	2500	–		
		OP-MCZC038	114X5025	G	MTZ022	27	1300	1750	2300	2900	3600	4400	5200	1000	1250
						32	1150	1600	2100	2700	3350	4050	4850		
			114X5013	E		38	1000	1400	1900	2400	3000	3650	4400		
						43	900	1250	1700	2200	2750	3350	–		
		OP-MCZC048	114X5026	G	MTZ028	27	1600	2200	2850	3650	4550	5600	6750	1150	1500
						32	1500	2000	2650	3400	4250	5200	6300		
			114X5014	E		38	1350	1800	2400	3050	3850	4750	5750		
						43	1200	1650	2150	2800	3550	4350	–		
		OP-MCZC054	114X5027	G	MTZ032	27	1900	2550	3300	4150	5200	6300	7550	1400	1900
						32	1700	2300	3050	3850	4800	5900	7050		
			114X5015	E		38	1500	2050	2700	3500	4350	5350	6400		
						43	1350	1850	2500	3200	4000	4900	–		
		OP-MCZC060	114X5028	G	MTZ036	27	2600	3250	4100	5050	6100	7300	8550	1600	2100
						32	2350	3000	3800	4700	5700	6850	8000		
			114X5016	E		38	2100	2750	3500	4300	5250	6250	7350		
						43	1950	2550	3200	4000	4850	5800	–		
		OP-MCZC068	114X5017	E	MTZ040	27	3000	3700	4550	5500	6550	7700	8950	1800	2300
						32	2750	3450	4300	5200	6200	7300	8500		
						38	2550	3200	3950	4800	5750	6750	7850		
						43	2350	2950	3700	4450	5350	6300	–		
		OP-MCZC086	114X5018	E	MTZ050	27	3200	4200	5400	6750	8300	10000	11850	2000	2600
						32	2850	3800	4950	6200	7700	9300	11050		
						38	2500	3350	4400	5600	6950	8450	10100		
						43	2200	3050	4000	5150	6400	7800	–		
		OP-MCZC096	114X5019	E	MTZ056	27	3150	4300	5650	7250	9050	11000	13200	2100	2800
						32	2850	3900	5200	6700	8400	10250	12350		
						38	2450	3450	4650	6050	7600	9400	11350		
						43	2150	3100	4200	5550	7000	8650	–		
		OP-MCZC108	114X5020	E	MTZ064	27	3650	5200	6700	8550	10600	12850	15350	2850	3650
						32	3350	4650	6150	7900	9850	12050	14350		
						38	2900	4150	5550	7200	9000	11050	13200		
						43	2550	3750	5100	6600	8300	10200	–		
		OP-MCZC121	114X5021	E	MTZ072	27	4250	5900	7600	9650	12050	14650	17500	3200	4100
						32	3900	5350	7050	9050	11300	13750	16500		
						38	3450	4800	6400	8300	10350	12700	15250		
						43	3050	4350	5900	7650	9600	11800	–		
		OP-MCZC136	114X5022	E	MTZ080	27	5350	6900	8850	11050	13600	16400	19450	3600	4650
						32	4850	6400	8250	10350	12700	15350	18250		
						38	4350	5800	7500	9450	11650	14150	16850		
						43	3900	5250	6850	8700	10800	13100	–		
		OP-MCZC171	114X5023	E	MTZ100	27	6250	8050	10350	13000	15950	19250	22850	4300	5500
						32	5550	7400	9550	12050	14850	17950	21350		
						38	4900	6600	8650	10950	13550	16400	19500		
						43	4400	6000	7900	10050	12450	15100	–		
		OP-MGZC215	114X5073	E	MTZ125	27	8000	10750	13400	16750	20500	24750	29400	7050	8600
						32	7250	9600	12350	15550	19100	23100	27500		
						38	6350	8550	11100	14100	17400	21150	25200		
						43	5600	7700	10100	12850	16000	19450	–		
		OP-MGZC242	114X5074	E	MTZ144	27	10250	12850	16150	19900	24100	28700	33700	8250	10100
						32	9150	11850	15000	18550	22550	26900	31600		
						38	8150	10700	13650	16950	20650	24650	29000		
						43	7350	9750	12500	15600	19000	22750	–		
		OP- MGZC271	114X5075	E	MTZ160	27	11300	14250	17950	22200	26950	32200	37850	8650	10750
						32	10200	13200	16700	20700	25200	30100	35450		
						38	9150	11950	15200	18900	23050	27550	32450		
						43	8350	10950	13950	17400	21200	25400	–		

Test condition
EN13215 - Superheat 10 K.

Electrical code
E) Compressor 400 V/3 phase/50 Hz, fan 230 V/1 phase/50 Hz.
G) Compressor 220 V/1 phase/50 Hz, fan 220 V/1 phase/50 Hz.

Version
A02) With receiver, stop valve, universal pressure switch, (KP17WB), flexible hoses and electrical box.

Power consumption referred at 32 °C ambient temperature.
Subcooling within the limits of the condensing unit.

Technical data and ordering

Optyma™ R134a MBP

Unit	Condenser coil			Condenser fan	Receiver volume [L]	Dimensions [mm]						Weight [kg]	
	Type	Air flow [m³/h]	Int. volume [dm³]	Fan blade Ø [mm]		Fig.	Height H [mm]	Width W [mm]	Depth D [mm]	Suction line [in.]	Liquid line [in.]	Gross	Net
OP-MCZC030	A4	1200	1.2	1 × 300	3	5	408	500	600	½	3/8	54	45
OP-MCZC038	B4	1750	1.3	1 × 350	3	5	451	500	620	½	3/8	56	47
OP-MCZC048	C4	2150	2.3	1 × 350	6	5	555	630	650	½	½	64	57
OP-MCZC054	C4	2150	2.3	1 × 350	6	5	555	630	650	5/8	½	65	58
OP-MCZC060	D4	2000	3.1	1 × 350	6	5	555	630	650	5/8	½	68	61
OP-MCZC068	E4	3150	2.5	1 × 400	6	5	605	630	650	5/8	½	72	65
OP-MCZC086	F4	3300	3.1	1 × 400	8	5	656	755	700	7/8	½	95	83
OP-MCZC096	G4	3150	4.1	1 × 400	8	5	656	755	700	7/8	½	100	88
OP-MCZC108	H4	4300	4.1	1 × 500	8	5	656	755	700	7/8	½	113	101
OP-MCZC121	J4	6000	4.4	1 × 500	10	5	708	900	900	1 1/8	½	127	113
OP-MCZC136	K4	6200	4.7	1 × 500	10	5	759	900	900	1 1/8	½	140	126
OP-MCZC171	L4	5850	6.3	1 × 500	14	5	759	900	900	1 1/8	5/8	162	147
OP-MGZC215	M4	11000	7.4	2 × 500	14	6	759	1350	820	1 1/8	5/8	191	176
OP-MGZC242	M4	11000	7.4	2 × 500	14	6	759	1350	820	1 1/8	5/8	194	179
OP- MGZC271	N4	9200	12.3	2 × 500	14	6	759	1350	820	1 1/8	5/8	199	184

Technical data and ordering

Optyma™ R134a MBP

Fans	Test conditions	Unit	Version A02	Electric. code	Compressor	Amb. temp. [°C]	Cooling capacity range in [W] at evaporating temperature [°C]							Power consumption [W] at evap. temp.	
							-15 °C	-10 °C	-5 °C	0 °C	+5 °C	+10 °C	+15 °C	-10 °C	+5 °C
	SH= 10K	OP-MGZD030	114X5061	E	MTZ018	32	900	1250	1700	2150	2700	3250	3900	950	1150
						38	750	1100	1500	1900	2400	2900	3500		
						43	650	1000	1350	1750	2150	2650	3150		
						46	600	900	1250	1600	2050	2500	–		
		OP-MGZD038	114X5047	D	MTZ022	32	1200	1650	2200	2800	3500	4300	5200	1300	1550
						38	1050	1450	1950	2550	3200	3900	4700		
			114X5062	E		43	900	1300	1750	2300	2900	3550	4300		
						46	850	1200	1650	2150	2750	3350	–		
		OP-MGZD048	114X5048	D	MTZ028	32	1500	2050	2650	3450	4350	5350	6500	1450	1800
						38	1350	1850	2400	3100	3950	4900	5950		
			114X5063	E		43	1200	1650	2200	2850	3650	4500	5450		
						46	1150	1600	2100	2700	3450	4250	–		
		OP-MGZD054	114X5049	D	MTZ032	32	1750	2350	3100	3950	4950	6050	7300	1700	2150
						38	1550	2100	2800	3600	4500	5500	6650		
			114X5064	E		43	1400	1900	2550	3250	4100	5050	6150		
						46	1300	1800	2400	3100	3900	4800	–		
		OP-MGZD060	114X5050	D	MTZ036	32	2400	3100	3950	4950	6050	7250	8600	2150	2600
						38	2200	2850	3650	4550	5550	6700	7950		
			114X5065	E		43	2000	2600	3350	4200	5150	6200	7400		
						46	1900	2500	3200	4000	4900	5900	–		
		OP-MGZD068	114X5051	D	MTZ040	32	2850	3600	4450	5450	6550	7750	9100	2250	2700
						38	2600	3350	4150	5050	6100	7250	8500		
			114X5066	E		43	2400	3100	3850	4750	5700	6800	7950		
						46	2300	2950	3700	4500	5450	6500	–		
		OP-MGUD057	114X5510	G	MLZ026	32	2900	3650	4550	5550	6650	7900	9300	2200	2450
						38	2700	3400	4250	5150	6250	7400	8700		
						43	2500	3200	3950	4850	5850	7000	8200		
						46	–	3050	3800	4650	5600	6700	7900		
		OP-MGZD086	114X5052	D	MTZ050	32	2950	3950	5150	6550	8200	9950	11950	2500	3050
						38	2550	3500	4650	5900	7400	9100	10900		
			114X5067	E		43	2300	3150	4200	5400	6800	8350	10100		
						46	2100	2950	3950	5100	6450	7950	–		
		OP-MGUD068	114X5511	G	MLZ030	32	3550	4450	5500	6750	8100	9650	11400	2500	2700
						38	3300	4150	5150	6300	7600	9050	10700		
						43	3100	3900	4850	5900	7150	8550	10100		
						46	–	3750	4650	5650	6850	8200	9700		
		OP-MGZD096	–	D	MTZ056	32	2900	4000	5350	6900	8650	10650	12850	2600	3250
						38	2500	3550	4800	6200	7900	9750	11800		
			114X5068	E		43	2200	3200	4350	5700	7250	9000	10950		
						46	2050	2950	4100	5400	6900	8600	–		
		OP-MGZD108	114X5054	D	MTZ064	32	3400	4750	6350	8200	10300	12600	15150	3050	3750
						38	3000	4250	5750	7450	9400	11600	13950		
			114X5069	E		43	2650	3850	5250	6850	8700	10700	12950		
						46	2450	3600	4950	6500	8250	10200	–		
		OP-MGZD121	114X5055	D	MTZ072	32	3900	5400	7100	9150	11400	13950	16750	3350	4250
						38	3450	4850	6500	8350	10500	12850	15450		
			114X5070	E		43	3100	4400	5950	7700	9700	11950	14400		
						46	2850	4150	5600	7300	9250	11400	–		
		OP-MGZD136	114X5056	D	MTZ080	32	5000	6600	8550	10750	13350	16250	19500	4400	5350
						38	4450	6000	7800	9850	12300	15000	18000		
			114X5071	E		43	4000	5450	7150	9100	11400	13950	16750		
						46	3750	5150	6750	8650	10850	13300	–		
		OP-MGZD171	114X5057	D	MTZ100	32	5750	7650	9950	12650	15750	19200	23000	5100	6200
						38	5050	6850	9000	11500	14350	17550	21100		
			114X5072	E		43	4550	6250	8250	10550	13200	16200	19500		
						46	4250	5900	7800	10000	12550	15400	–		
		OP-MGZD215	114X5115	D	MTZ125	32	7400	9800	12650	15950	19700	23950	28600	7050	8450
						38	6450	8750	11400	14500	18000	21950	26300		
			114X5118	E		43	5750	7850	10350	13250	16550	20250	24300		
						46	5300	7350	9750	12500	15650	19200	–		
		OP-MGZD242	114X5119	E	MTZ144	32	9350	12150	15400	19150	23350	28000	33100	8200	9950
						38	8350	10950	14000	17500	21400	25750	30450		
						43	7550	10000	12850	16100	19750	23800	28200		
						46	7050	9450	12150	15300	18800	22650	–		
		OP-MGZD271	114X5117	D	MTZ160	32	10450	13550	17200	21450	26250	31600	37450	8400	10400
						38	9400	12300	15700	19650	24050	29000	34450		
			114X5120	E		43	8550	11250	14450	18100	22200	26800	31850		
						46	8050	10650	13700	17150	21100	25450	–		

Test condition
EN13215 - Superheat 10 K.

Electrical code
D) Compressor 400 V/3 phase/50 Hz, fan 400 V/3 phase/50 Hz.
E) Compressor 400 V/3 phase/50 Hz, fan 230 V/1 phase/50 Hz.
G) Compressor 220 V/1 phase/50 Hz, fan 220 V/1 phase/50 Hz.

Version
A02) With receiver, stop valve, universal pressure switch, (KP17WB), flexible hoses and electrical box.

Power consumption referred at 32 °C ambient temperature.
Subcooling within the limits of the condensing unit.

Technical data and ordering

Optyma™ R134a MBP

Unit	Condenser coil			Condenser fan	Receiver volume [L]	Dimensions [mm]						Weight [kg]	
	Type	Air flow [m³/h]	Int. volume [dm³]	Fan blade Ø [mm]		Fig.	Height H [mm]	Width W [mm]	Depth D [mm]	Suction line [in.]	Liquid line [in.]	Gross	Net
OP-MGZD030	C3	1300	1.7	2 × 254	3	6	392	700	500	½	⅜	56	46
OP-MGZD038	D3	2800	1.5	2 × 300	6	6	442	800	600	½	½	60	53
OP-MGZD048	E3	2600	2.2	2 × 300	6	6	442	800	600	½	½	64	57
OP-MGZD054	E3	2600	2.2	2 × 300	6	6	442	800	600	⅝	½	65	58
OP-MGZD060	G3	4600	2.3	2 × 355	8	6	555	1000	700	⅝	½	88	75
OP-MGZD068	H3	3600	4.7	2 × 355	8	6	555	1000	700	⅝	½	96	82
OP-MGUD057	G3	4600	2.3	2 × 355	8	9	555	1000	700	¾	½	72	63
OP-MGZD086	H3	3600	4.7	2 × 355	8	6	555	1000	700	⅞	½	107	93
OP-MGUD068	H3	3600	4.7	2 × 355	8	9	555	1000	700	⅞	½	107	93
OP-MGZD096	H3	3600	4.7	2 × 355	8	6	555	1000	700	⅞	½	109	95
OP-MGZD108	J3	5400	4.7	2 × 400	10	6	555	1000	700	⅞	½	113	99
OP-MGZD121	J3	5400	4.7	2 × 400	10	6	555	1000	700	⅞	½	115	101
OP-MGZD136	L3	8600	5.1	2 × 450	10	6	671	1200	800	1⅛	½	133	118
OP-MGZD171	M3	8200	6.8	2 × 450	14	6	671	1200	800	1⅛	⅝	158	144
OP-MGZD215	N4	9200	12.25	2 × 500	14	6	759	1350	820	1⅛	⅝	196	180
OP-MGZD242	N4	9200	12.25	2 × 500	14	6	759	1350	820	1⅛	⅝	199	183
OP-MGZD271	U	14000	14.2	2 × 600	14	6	975	1500	870	1⅛	⅝	230	212

Technical data and ordering

Optyma™ R407C MBP

Fans	Test conditions	Unit	Version A02	Electric. code	Compressor	Amb. temp. [°C]	Cooling capacity range in [W] at evaporating temperature [°C]						Power consumption [W] at evap. temp.	
							-15 °C	-10 °C	-5 °C	0 °C	+5 °C	+10 °C	-10 °C	+5 °C
	SH=10K	OP-MCZC030	114X5024	G	MTZ018	27	1450	1950	2500	3100	3750	4400	1050	1400
						32	1250	1750	2250	2850	3450	4050		
			114X5012	E		38	–	1500	2000	2500	3100	3650		
						43	–	–	1800	2300	–	–		
		OP-MCZC038	114X5025	G	MTZ022	27	2050	2650	3350	4100	4900	5700	1450	1950
						32	1850	2400	3050	3750	4500	5250		
			114X5013	E		38	–	2150	2700	3350	4050	4750		
						43	–	–	2450	3050	–	–		
		OP-MCZC048	114X5026	G	MTZ028	27	2550	3400	4350	5400	6500	7650	1700	2350
						32	2300	3100	4000	4950	6000	7100		
			114X5014	E		38	–	2750	3550	4450	5400	6400		
						43	–	–	3200	4050	–	–		
		OP-MCZC054	114X5027	G	MTZ032	27	3050	3950	4900	5950	7050	8200	1950	2700
						32	2800	3600	4500	5500	6500	7600		
			114X5015	E		38	–	3200	4050	4950	5850	6850		
						43	–	–	3650	4450	–	–		
		OP-MCZC060	114X5028	G	MTZ036	27	3600	4550	5550	6700	7850	9100	2300	3250
						32	3250	4150	5150	6200	7300	8400		
			114X5016	E		38	–	3750	4650	5600	6600	7600		
						43	–	–	4200	5100	–	–		
		OP-MCZC068	114X5017	E	MTZ040	27	4200	5300	6450	7750	9150	10550	2700	3750
						32	3850	4900	6000	7200	8500	9800		
						38	–	4400	5450	6550	7700	8900		
						43	–	–	4950	6000	–	–		
		OP-MCZC086	114X5018	E	MTZ050	27	4700	6000	7500	9100	10850	12650	2950	4100
						32	4250	5500	6900	8400	10000	11700		
						38	–	4850	6150	7500	9000	10550		
						43	–	–	5550	6800	–	–		
		OP-MCZC096	114X5019	E	MTZ056	27	5100	6650	8350	10200	12250	14400	3100	4400
						32	4650	6050	7650	9450	11300	13300		
						38	–	5400	6850	8500	10200	12050		
						43	–	–	6200	7700	–	–		
		OP-MCZC108	114X5020	E	MTZ064	27	6200	7900	9850	12000	14300	16850	4100	5500
						32	5650	7250	9050	11050	13250	15600		
						38	–	6500	8150	10000	12000	14150		
						43	–	–	7400	9100	–	–		
		OP-MCZC121	114X5021	E	MTZ072	27	7050	9050	11300	13800	16500	19400	4700	6300
						32	6450	8300	10400	12750	15300	18050		
						38	–	7450	9400	11550	13850	16350		
						43	–	–	8500	10500	–	–		
		OP-MCZC136	114X5022	E	MTZ080	27	7950	10150	12600	15300	18200	21250	5400	7300
						32	7300	9350	11700	14200	16900	19750		
						38	–	8450	10550	12850	15350	17950		
						43	–	–	9600	11750	–	–		
		OP-MCZC171	114X5023	E	MTZ100	27	8900	11550	14550	17800	21250	24950	6200	8450
						32	8000	10500	13300	16350	19600	23000		
						38	–	9300	11850	14650	17600	20700		
						43	–	–	10650	13200	–	–		
		OP-MGZC215	114X5073	E	MTZ125	27	12900	16350	20200	24450	29050	33950	9900	12650
						32	11750	15000	18650	22650	26950	31550		
						38	–	13450	16800	20450	24450	28650		
						43	–	–	15250	18650	–	–		
		OP-MGZC242	114X5074	E	MTZ144	27	13850	17550	21700	26250	31150	36300	10900	14100
						32	12650	16150	20050	24300	28900	33700		
						38	–	14450	18050	22000	26200	30600		
						43	–	–	16400	20050	–	–		
		OP- MGZC271	114X5075	E	MTZ160	27	16600	20750	25400	30500	36000	41900	12200	15800
						32	15250	19150	23550	28350	33500	38950		
						38	–	17300	21300	25700	30450	35450		
						43	–	–	19450	23550	–	–		

Test condition
EN13215 - Superheat 10 K.

Electrical code
E) Compressor 400 V/3 phase/50 Hz, fan 230 V/1 phase/50 Hz.
G) Compressor 220 V/1 phase/50 Hz, fan 220 V/1 phase/50 Hz.

Version
A02) With receiver, stop valve, universal pressure switch, (KP17WB), flexible hoses and electrical box.

Power consumption referred at 32 °C ambient temperature.
Subcooling within the limits of the condensing unit.

Technical data and ordering

Optyma™ R407C MBP

Unit	Condenser coil			Condenser fan	Receiver volume [L]	Dimensions [mm]						Weight [kg]	
	Type	Air flow [m³/h]	Int. volume [dm³]	Fan blade Ø [mm]		Fig.	Height H [mm]	Width W [mm]	Depth D [mm]	Suction line [in.]	Liquid line [in.]	Gross	Net
OP-MCZC030	A4	1200	1.2	1 × 300	3	5	408	500	600	½	3/8	54	45
OP-MCZC038	B4	1750	1.3	1 × 350	3	5	451	500	620	½	3/8	56	47
OP-MCZC048	C4	2150	2.3	1 × 350	6	5	555	630	650	½	½	64	57
OP-MCZC054	C4	2150	2.3	1 × 350	6	5	555	630	650	5/8	½	65	58
OP-MCZC060	D4	2000	3.1	1 × 350	6	5	555	630	650	5/8	½	68	61
OP-MCZC068	E4	3150	2.5	1 × 400	6	5	605	630	650	5/8	½	72	65
OP-MCZC086	F4	3300	3.1	1 × 400	8	5	656	755	700	7/8	½	95	83
OP-MCZC096	G4	3150	4.1	1 × 400	8	5	656	755	700	7/8	½	100	88
OP-MCZC108	H4	4300	4.1	1 × 500	8	5	656	755	700	7/8	½	113	101
OP-MCZC121	J4	6000	4.4	1 × 500	10	5	708	900	900	1 1/8	½	127	113
OP-MCZC136	K4	6200	4.7	1 × 500	10	5	759	900	900	1 1/8	½	140	126
OP-MCZC171	L4	5850	6.3	1 × 500	14	5	759	900	900	1 1/8	5/8	162	147
OP-MGZC215	M4	11000	7.4	2 × 500	14	6	759	1350	820	1 1/8	5/8	191	176
OP-MGZC242	M4	11000	7.4	2 × 500	14	6	759	1350	820	1 1/8	5/8	194	179
OP- MGZC271	N4	9200	12.3	2 × 500	14	6	759	1350	820	1 1/8	5/8	199	184

Technical data and ordering

Optyma™ R407C MBP

Fans	Test conditions	Unit	Version A02	Electric. code	Compressor	Amb. temp. °C	Cooling capacity range in [W] at evaporating temperature [°C]						Power consumption [W] at evap. temp.	
							-15 °C	-10 °C	-5 °C	0 °C	+5 °C	+10 °C	-10 °C	+5 °C
	SH=10K	OP-MGZD030	114X5061	E	MTZ018	32	1300	1800	2350	2950	3650	4350	1200	1550
						38	1100	1550	2100	2650	3250	3900		
						43	950	1400	1900	2400	–	–		
						46	850	1300	1750	2250	–	–		
		OP-MGZD038	114X5047	D	MTZ022	32	1950	2550	3250	4000	4850	5750	1700	2150
						38	1650	2250	2900	3600	4350	5200		
			114X5062	E		43	1450	2000	2600	3250	–	–		
						46	1350	1850	2450	3050	–	–		
		OP-MGZD048	114X5048	D	MTZ028	32	2350	3200	4100	5100	6200	7400	2000	2650
						38	2050	2800	3650	4600	5600	6700		
			114X5063	E		43	1800	2500	3300	4200	–	–		
						46	1650	2350	3100	3950	–	–		
		OP-MGZD054	114X5049	D	MTZ032	32	2850	3700	4650	5700	6800	7950	2250	2950
						38	2500	3300	4150	5100	6150	7200		
			114X5064	E		43	2200	2950	3750	4650	–	–		
						46	2000	2750	3550	4350	–	–		
		OP-MGZD060	114X5050	D	MTZ036	32	3450	4400	5500	6650	7950	9300	2800	3650
						38	3050	3950	4950	6050	7200	8450		
			114X5065	E		43	2700	3600	4500	5500	–	–		
						46	2500	3350	4250	5200	–	–		
		OP-MGZD068	114X5051	D	MTZ040	32	4100	5200	6500	7900	9400	11050	3150	4000
						38	3700	4750	5900	7200	8600	10100		
			114X5066	E		43	3300	4300	5400	6600	–	–		
						46	3100	4050	5100	6250	–	–		
		OP-MGZD086	114X5052	D	MTZ050	32	4500	5850	7350	9100	10950	12950	3400	4400
						38	3950	5200	6600	8150	9900	11750		
			114X5067	E		43	3500	4650	5950	7400	–	–		
						46	3200	4350	5600	6950	–	–		
		OP-MGZD096	–	D	MTZ056	32	4750	6250	7950	9850	11900	14100	3600	4800
						38	4200	5600	7150	8850	10750	12800		
			114X5068	E		43	3700	5000	6450	8050	–	–		
						46	3450	4650	6050	7600	–	–		
		OP-MGZD108	114X5054	D	MTZ064	32	5850	7550	9500	11700	14150	16800	4200	5500
						38	5200	6750	8550	10600	12800	15250		
			114X5069	E		43	4700	6100	7800	9650	–	–		
						46	4400	5750	7300	9100	–	–		
		OP-MGZD121	114X5055	D	MTZ072	32	6500	8400	10550	12950	15600	18400	4850	6400
						38	5800	7550	9500	11700	14150	16700		
			114X5070	E		43	5200	6800	8650	10700	–	–		
						46	4850	6400	8150	10050	–	–		
		OP-MGZD136	114X5056	D	MTZ080	32	7600	9850	12400	15200	18250	21550	6150	7800
						38	6800	8900	11200	13800	16650	19650		
			114X5071	E		43	6100	8050	10250	12650	–	–		
						46	5700	7600	9650	11950	–	–		
		OP-MGZD171	114X5057	D	MTZ100	32	8450	11150	14250	17700	21450	25500	6950	8900
						38	7350	9900	12750	15900	19350	23050		
			114X5072	E		43	6500	8850	11500	14400	–	–		
						46	6000	8250	10750	13500	–	–		
		OP-MGZD215	114X5115	D	MTZ125	32	12100	15500	19350	23650	28300	33350	9800	12350
						38	10700	13900	17450	21400	25700	30350		
			114X5118	E		43	9550	12550	15850	19550	–	–		
						46	8850	11700	14900	18400	–	–		
		OP-MGZD242	114X5119	E	MTZ144	32	13050	16750	20900	25450	30450	35800	10800	13750
						38	11550	15000	18850	23100	27700	32600		
						43	10350	13600	17150	21100	–	–		
						46	9650	12750	16150	19900	–	–		
		OP-MGZD271	114X5117	D	MTZ160	32	15850	20000	24700	29950	35650	41850	11800	15100
						38	14200	18050	22400	27250	32500	38200		
			114X5120	E		43	12800	16450	20500	25000	–	–		
						46	12000	15450	19350	23650	–	–		

Test condition
EN13215 - Superheat 10 K.

Electrical code
D) Compressor 400 V/3 phase/50 Hz, fan 400 V/3 phase/50 Hz.
E) Compressor 400 V/3 phase/50 Hz, fan 230 V/1 phase/50 Hz.

Version
A02) With receiver, stop valve, universal pressure switch, (KP17WB), flexible hoses and electrical box.

Power consumption referred at 32 °C ambient temperature.
Subcooling within the limits of the condensing unit.

Technical data and ordering

Optyma™ R407C MBP

Unit	Condenser coil			Condenser fan	Receiver volume [L]	Dimensions [mm]						Weight [kg]	
	Type	Air flow [m³/h]	Int. volume [dm³]	Fan blade Ø [mm]		Fig.	Height H [mm]	Width W [mm]	Depth D [mm]	Suction line [in.]	Liquid line [in.]	Gross	Net
OP-MGZD030	C3	1300	1.7	2 × 254	3	6	392	700	500	½	3/8	56	46
OP-MGZD038	D3	2800	1.5	2 × 300	6	6	442	800	600	½	½	60	53
OP-MGZD048	E3	2600	2.2	2 × 300	6	6	442	800	600	½	½	64	57
OP-MGZD054	E3	2600	2.2	2 × 300	6	6	442	800	600	5/8	½	65	58
OP-MGZD060	G3	4600	2.3	2 × 355	8	6	555	1000	700	5/8	½	88	75
OP-MGZD068	H3	3600	4.7	2 × 355	8	6	555	1000	700	5/8	½	96	82
OP-MGZD086	H3	3600	4.7	2 × 355	8	6	555	1000	700	7/8	½	107	93
OP-MGZD096	H3	3600	4.7	2 × 355	8	6	555	1000	700	7/8	½	109	95
OP-MGZD108	J3	5400	4.7	2 × 400	10	6	555	1000	700	7/8	½	113	99
OP-MGZD121	J3	5400	4.7	2 × 400	10	6	555	1000	700	7/8	½	115	101
OP-MGZD136	L3	8600	5.1	2 × 450	10	6	671	1200	800	1 1/8	½	133	118
OP-MGZD171	M3	8200	6.8	2 × 450	14	6	671	1200	800	1 1/8	5/8	158	144
OP-MGZD215	N4	9200	12.25	2 × 500	14	6	759	1350	820	1 1/8	5/8	196	180
OP-MGZD242	N4	9200	12.25	2 × 500	14	6	759	1350	820	1 1/8	5/8	199	183
OP-MGZD271	U	14000	14.2	2 × 600	14	6	975	1500	870	1 1/8	5/8	230	212

Technical data and ordering

Optyma™ - R290 LBP

Code no.	Type	Electric. code	Compressor	Amb. Temp. [°C]	Capacity range [W] at evaporating temperature [°C]								
					-35 °C	-30 °C	-25 °C	-20 °C	-15 °C	-10 °C	-5 °C	0 °C	+5 °C
114F 1504	TL5CNK NO	G	TL5CNK	32	120	152	188	229	273	320	370	421	474
114F2507	NL7CNX NO	G	NL7CNX	32	188	243	305	373	449	531	619	712	808
114F2509	NL9CNX NO	G	NL9CNX	32	214	275	343	419	500	588	680	775	–
114F3500	SC10CNX NO	G	SC10CNX	32	217	282	358	445	545	656	778	913	1058
114F4501	SC12CNX NO	G	SC12CNX	32	292	369	462	571	698	846	1014	1202	1410
114F3502	SC15CNX NO	G	SC15CNX	32	340	440	554	680	818	968	1127	–	–
114F3503	SC18CNX NO	G	SC18CNX	32	374	491	621	766	924	1096	–	–	–
114F4503	SC18CNX NO	G	SC18CNX	32	395	519	658	814	986	1173	1376	1594	–

Test condition

	CECOMAF
Ambient temperature	*32 °C*
Suction gas temperature	*32 °C*

Optyma™ - R290 LBP

Code no.	Condenser coil			Condenser fan	Receiver volume [L]	Dimensions						Weight [kg]	
	Type	Air flow [m³/h]	Int. Volume [dm³]	Fan blade Ø [mm]		Fig.	Height [mm]	Width [mm]	Length [mm]	Suction line	Liquid line	Gross	Net
114F1504	BG1	243	0.13	172	No receiver	8441	198	271	410	6 mm/¼ in.	6 mm/¼ in.	13.5	11.4
114F2507	BG2	231	0.25	200	No receiver	8441	226	305	432	8 mm/$^{3}/_{8}$ in.	6 mm/¼ in.	19.1	15.1
114F2509	BG2	231	0.25	200	No receiver	8441	225	298	432	8 mm/$^{3}/_{8}$ in.	6 mm/¼ in.	19.1	15.1
114F3500	BG3	518	0.31	230	No receiver	8441	257	314	487	8 mm/$^{3}/_{8}$ in.	6 mm/¼ in.	21.6	15.3
114F4501	BG4	631	0.40	254	No receiver	8441	296	314	494	8 mm/$^{3}/_{8}$ in.	6 mm/¼ in.	22	19.8
114F3502	BG3	518	0.31	230	No receiver	8441	257	314	487	8 mm/$^{3}/_{8}$ in.	6 mm/¼ in.	21.6	15.3
114F3503	BG3	518	0.31	230	No receiver	8441	257	314	487	8 mm/$^{3}/_{8}$ in.	6 mm/¼ in.	21.6	15.3
114F4503	BG4	631	0.40	254	No receiver	8441	296	314	494	8 mm/$^{3}/_{8}$ in.	6 mm/¼ in.	22	19.8

Technical data and ordering

Optyma™ - R290 LBP

Electrical characteristics – 230 V/1 phase

Type	Code no.	LRA [A]	MCC Fan [A]
		230 V/1 phase	230 V/1 phase
TL5CNK NO	114F1504	5.7	0.19
NL7CNX NO	114F2507	10.4	0.19
NL9CNX NO	114F2509	10.4	0.19
SC10CNX NO	114F3500	13.2	0.25
SC12CNX NO	114F4501	13.2	0.39
SC15CNX NO	114F3502	14.8	0.25
SC18CNX NO	114F3503	19.5	0.25
SC18CNX NO	114F4503	19.5	0.39

Optyma™ - R290 LBP

Automatic controls

Code no.	Sight glass type	Pressure control type	Thermostat type
114F1504	SGI 6	KP1 / KP7W	RT
114F2507	SGI 6	KP1 / KP7W	RT
114F2509	SGI 6	KP1 / KP7W	RT
114F3500	SGI 6	KP1 / KP7W	RT
114F4501	SGI 6	KP1 / KP7W	RT
114F3502	SGI 6	KP1 / KP7W	RT
114F3503	SGI 6	KP1 / KP7W	RT
114F4503	SGI 6	KP1 / KP7W	RT

Technical data and ordering

Optyma™ - LBP

Electrical characteristics – 230V/1phase - 50 Hz

Type	Wiring diagram	LRA compressor [A] 230 V/1 phase	MCC compressor [A] 230 V/1 phase	MCC Fan [A] 230 V/1 phase
OP-LCHC004	–	5.7	–	0.19
OP-LCHC006	–	8.2	–	0.19
OP-LCHC008 (FR)	–	10	–	0.25
OP-LCHC007	–	10.4	–	0.25
OP-LCHC010	–	14.8	–	0.39
OP-LCHC012 (SC12CLX)	–	14.8	–	0.39
OP-LCHC012 (SC12CLX.2)	–	19.6	–	0.39
OP-LCHC015 (SC15CLX)	–	18.6	–	0.39
OP-LCHC018 (SC18CLX)	–	20	–	0.39
OP-LCHC021	–	23.4	–	0.39
OP-LCHC026	–	25.7	–	0.75
OP-LCHC034	–	40	–	0.75
OP-LCHC048	6002113P02	37	11	0.85
OP-LCHC068	6002113P02	53	17	1.2

Optyma™ - LBP

Electrical characteristics – 400 V/3phase - 50 Hz

Type	Wiring diagram	LRA compressor [A] 400 V/3phase	MCC compressor [A] 400 V/3phase	MCC Fan [A] 230 V/1 phase	MCC Fan [A] 400 V/3 phase
OP-LCHC048	6002113P06	16	4.8	0.85	–
OP-LCHC068	6002113P06	25	8.4	1.2	–
OP-LCHC096	6002113P06	32	10.1	1.2	–
OP-LCHC108	6002113P06	45	12.1	1.3	–
OP-LCHC136	6002113P06	51	14.3	1.3	–
OP-LCHC215	6002113P06	74	22.3	3.4	–
OP-LCHC271	6002113P06	96	27	3.4	–
OP-LGHC048	6002113P06	16	4.8	2 × 0.32	–
OP-LGHC068	6002113P06	25	8.4	2 × 0.85	2 × 0.35
OP-LGHC096	6002113P06	32	10.1	2 × 0.85	2 × 0.35
OP-LGHC108	6002113P06	45	12.1	2 × 1.2	2 × 0.5
OP-LGHC136	6002113P06	51	14.3	2 × 1.2	2 × 0.5
OP-LGHC215	6002113P06	74	22.3	2 × 1.7	2 × 1.2
OP-LGHC271	6002113P06	96	27	2 × 1.7	2 × 1.2

Technical data and ordering

Optyma™ - LBP

Spare parts + automatic controls

Type	Condenser	Receiver	Rotalock valve		Fan motor		Weather-proof housing	Filter drier Type	Sight glass type	Pressure control type	Solenoid valve type
			Suction	Discharge	230 Volts	400 Volts					
OP-LCHC004	118U0029	118U0517	–	–	118U0032	–	118U4620	DML/DCL 032	SGP 6	KP 1/KP 7/KP 17	EVR 2
OP-LCHC006	118U0029	118U0517	–	–	118U0032	–	118U4620	DML/DCL 032	SGP 6	KP 1/KP 7/KP 17	EVR 2
OP-LCHC008	118U0030	118U0523	–	–	118U0033	–	118U4620	DML/DCL 032	SGP 6	KP 1/KP 7/KP 17	EVR 2
OP-LCHC007	118U0030	118U0523	–	–	118U0033	–	118U4620	DML/DCL 032	SGP 6	KP 1/KP 7/KP 17	EVR 2
OP-LCHC010	118U0030	118U0523	–	–	118U0033	–	118U4620	DML/DCL 032	SGP 6	KP 1/KP 7/KP 17	EVR 2
OP-LCHC012	118U0031	118U0523	–	–	118U0034	–	118U4620	DML/DCL 032	SGP 6	KP 1/KP 7/KP 17	EVR 3
OP-LCHC015	118U0031	118U0523	–	–	118U0034	–	118U4620	DML/DCL 032	SGP 6	KP 1/KP 7/KP 17	EVR 3
OP-LCHC018	118U0031	118U0523	–	–	118U0034	–	118U4620	DML/DCL 032	SGP 6	KP 1/KP 7/KP 17	EVR 3
OP-LCHC021	118U0031	118U0523	–	–	118U0034	–	118U4620	DML/DCL 032	SGP 6	KP 1/KP 7/KP 17	EVR 3
OP-LCHC026	118U0054	118U0078	–	–	118U0058	–	118U4621	DML/DCL 032	SGP 10	KP 1/KP 7/KP 17	EVR 3
OP-LCHC034	118U0069	118U0078	–	–	118U0058	–	118U4621	DML/DCL 032	SGP 10	KP 1/KP 7/KP 17	EVR 3
OP-LCHC048	118U8000	8168179	7968014	7968012	8176043	–	–	DML/DCL 053	SGP 10	KP 1/KP 7/KP 17	EVR 3
OP-LCHC068	118U8002	8168180	7968014	7968013	8176045	–	–	DML/DCL 084	SGP 12	KP 1/KP 7/KP 17	EVR 3
OP-LCHC096	118U8003	8168180	7968017	7968014	8176045	–	–	DML/DCL 084	SGP 12	KP 1/KP 7/KP 17	EVR 3
OP-LCHC108	118U8004	8168180	7968017	7968014	8176047	–	–	DML/DCL 084	SGP 12	KP 1/KP 7/KP 17	EVR 3
OP-LCHC136	118U8006	8168181	7968017	7968014	8176047	–	–	DML/DCL 084	SGP 12	KP 1/KP 7/KP 17	EVR 6
OP-LCHC215	118U8008	8168183	7968018	7968015	118U8023	–	–	DML/DCL 165	SGP 16	KP 1/KP 7/KP 17	EVR 6
OP-LCHC271	118U8010	8168183	7968018	7968015	118U8023	–	–	DML/DCL 165	SGP 16	KP 1/KP 7/KP 17	EVR 6
OP-LGHC048	8174036	8168179	7968014	7968012	8176018	–	–	DML/DCL 053	SGP 10	KP 1/KP 7/KP 17	EVR 3
OP-LGHC068	8174037	8168180	7968014	7968013	8176043	8176044	–	DML/DCL 084	SGP 12	KP 1/KP 7/KP 17	EVR 3
OP-LGHC096	8174038	8168180	7968017	7968014	8176043	8176044	–	DML/DCL 084	SGP 12	KP 1/KP 7/KP 17	EVR 3
OP-LGHC108	8174041	8168181	7968017	7968014	8176045	8176046	–	DML/DCL 084	SGP 12	KP 1/KP 7/KP 17	EVR 3
OP-LGHC136	8174041	8168181	7968017	7968014	8176045	8176046	–	DML/DCL 084	SGP 12	KP 1/KP 7/KP 17	EVR 6
OP-LGHC215	8174044	8168183	7968018	7968015	8176070	8176069	–	DML/DCL 165	SGP 16	KP 1/KP 7/KP 17	EVR 6
OP-LGHC271	8174044	8168183	7968018	7968015	8176070	8176069	–	DML/DCL 165	SGP 16	KP 1/KP 7/KP 17	EVR 6

LRA) *Locked Rotor Amps.*
MCC) *Maximum Continuous Current.*

Technical data and ordering

Optyma™ - MBP

Electrical characteristics - 230 V/1phase - 50 Hz

Type	Wiring diagram	LRA compressor [A] 230 V/1 phase	MCC compressor [A] 230 V/1 phase	MCC Fan [A] 230 V/1 phase
OP-MCHC004	–	7.5	–	0.19
OP-MCHC006	–	10.0	–	0.25
OP-MCHC007	–	20.0	–	0.39
OP-MCHC010	–	18.4	–	0.39
OP-MCHC012	–	23.4	–	0.39
OP-MCHC015	–	23.5	–	0.48
OP-MCHC018	–	23.4	–	0.48
OP-MCHC021	–	24.4	–	0.75
OP-MCHC026	–	34.6	–	0.75
OP-MCHC034	–	45.7	–	0.62
OP-MCZC030	6002113P02	40	10	0.85
OP-MCZC038	6002113P02	41	15	1.2
OP-MCZC048	6002113P02	55	16	1.2
OP-MCZC054	6002113P02	70	20	1.2
OP-MCZC060	6002113P02	70	20	1.2
OP-MGUD057	6002235P01	97	27	2 × 1.2
OP-MGUD068	6002235P01	127	32	2 × 1.3

Optyma™ - MBP

Electrical characteristics - 400 V/3phase - 50 Hz

Type	Wiring diagram	LRA compressor [A] 400 V/3 phase	MCC compressor [A] 400 V/3 phase	MCC Fan [A] 230 V/1 phase	MCC Fan [A] 400 V/3 phase
OP-MCZC030	6002113P06	20	5	0.85	–
OP-MCZC038	6002113P06	16	6	1.2	–
OP-MCZC048	6002113P06	23	7.5	1.2	–
OP-MCZC054	6002113P06	25	8	1.2	–
OP-MCZC060	6002113P06	30	9	1.2	–
OP-MCZC068	6002113P06	38	10	1.3	–
OP-MCZC086	6002113P06	48.5	11.5	1.3	–
OP-MCZC096	6002113P06	64	12	1.3	–
OP-MCZC108	6002113P06	64	14	3.4	–
OP-MCZC121	6002113P06	80	17	3.4	–
OP-MCZC136	6002113P06	80	19	3.4	–
OP-MCZC171	6002113P06	90	22	3.4	–
OP-MGZC215	6002113P06	105	27	2 × 3.4	2 × 1.2
OP-MGZC242	6002113P06	115	30	2 × 3.4	2 × 1.2
OP- MGZC271	6002113P06	140	36	2 × 3.4	2 × 1.2
OP-MGZD030	6002113P06	20	5	2 × 0.32	–
OP-MGZD038	6002113P06	16	6	2 × 0.85	2 × 0.35
OP-MGZD048	6002113P06	23	7.5	2 × 0.85	2 × 0.35
OP-MGZD054	6002113P06	25	8	2 × 0.85	2 × 0.35
OP-MGZD060	6002113P06	30	9	2 × 1.2	2 × 0.5
OP-MGZD068	6002113P06	38	10	2 × 1.2	2 × 0.5
OP-MGZD086	6002113P06	48.5	11.5	2 × 1.2	2 × 0.5
OP-MGZD096	6002113P06	64	12	2 × 1.2	2 × 0.5
OP-MGZD108	6002113P06	64	14	2 × 1.3	2 × 0.7
OP-MGZD121	6002113P06	80	17	2 × 1.3	2 × 0.7
OP-MGZD136	6002113P06	80	19	2 × 1.7	2 × 1.2
OP-MGZD171	6002113P06	90	22	2 × 1.7	2 × 1.2
OP-MGZD215	6002113P06	105	27	2 × 3.4	2 × 1.2
OP-MGZD242	6002113P06	115	30	2 × 3.4	2 × 1.2
OP-MGZD271	6002113P06	140	36	2 × 3	2 × 1.6

Technical data and ordering

Optyma™ - MBP

Spare parts + automatic controls

Type	Condenser	Receiver	Rotolock valve		Fan motor		Watherproof housing	Filter drier type	Sight glass type	Pressure control type	Solenoid valve type
			Suction	Discharge	230 Volts	400 Volts					
OP-MCHC004	118U0029	118U0517	–	–	118U0032	–	118U4620	DML/DCL 052	SGP 6	KP1/KP7/KP17	EVR 2
OP-MCHC006	118U0030	118U0523	–	–	118U0033	–	118U4620	DML/DCL 052	SGP 6	KP1/KP7/KP17	EVR 2
OP-MCHC007	118U0031	118U0523	–	–	118U0034	–	118U4620	DML/DCL 052	SGP 6	KP1/KP7/KP17	EVR 2
OP-MCHC010	118U0031	118U0523	–	–	118U0034	–	118U4620	DML/DCL 052	SGP 6	KP1/KP7/KP17	EVR 2
OP-MCHC012	118U0031	118U0523	–	–	118U0034	–	118U4620	DML/DCL 052	SGP 6	KP1/KP7/KP17	EVR 3
OP-MCHC015	118U0068	118U0523	–	–	118U0035	–	118U4621	DML/DCL 052	SGP 6	KP1/KP7/KP17	EVR 3
OP-MCHC018	118U0055	118U0523	–	–	118U0035	–	118U4621	DML/DCL 052	SGP 6	KP1/KP7/KP17	EVR 3
OP-MCHC021	118U0069	118U0529	–	–	118U0058	–	118U4621	DML/DCL 052	SGP 6	KP1/KP7/KP17	EVR 3
OP-MCHC026	118U0069	118U0529	–	–	118U0058	–	118U4621	DML/DCL 052	SGP 10	KP1/KP7/KP17	EVR 3
OP-MCHC034	118U0070	118U0078	–	–	118U0059	–		DML/DCL 052	SGP 10	KP1/KP7/KP17	EVR 3
OP-MCZC030	118U8000	8168179	7968013	7968012	8176043	–	–	DML/DCL053	SGP 10	KP1/KP7/KP17	EVR 3
OP-MCZC038	118U8001	8168179	7968013	7968012	8176045	–	–	DML/DCL053	SGP 10	KP1/KP7/KP17	EVR 3
OP-MCZC048	118U8002	8168180	7968013	7968013	8176045	–	–	DML/DCL084	SGP 12	KP1/KP7/KP17	EVR 3
OP-MCZC054	118U8002	8168180	7968014	7968013	8176045	–	–	DML/DCL084	SGP 12	KP1/KP7/KP17	EVR 3
OP-MCZC060	118U8003	8168180	7968014	7968013	8176045	–	–	DML/DCL084	SGP 12	KP1/KP7/KP17	EVR 3
OP-MCZC068	118U8004	8168180	7968014	7968013	8176047	–	–	DML/DCL084	SGP 12	KP1/KP7/KP17	EVR 3
OP-MCZC086	118U8005	8168181	7968017	7968014	8176047	–	–	DML/DCL084	SGP 12	KP1/KP7/KP17	EVR 3
OP-MCZC096	118U8006	8168181	7968017	7968014	8176047	–	–	DML/DCL084	SGP 12	KP1/KP7/KP17	EVR 3
OP-MCZC108	118U8007	8168181	7968017	7968014	118U8023	–	–	DML/DCL084	SGP 12	KP1/KP7/KP17	EVR 3
OP-MCZC121	118U8008	8168182	7968018	7968015	118U8023	–	–	DML/DCL084	SGP 12	KP1/KP7/KP17	EVR 3
OP-MCZC136	118U8010	8168182	7968018	7968015	118U8023	–	–	DML/DCL084	SGP 12	KP1/KP7/KP17	EVR 3
OP-MCZC171	118U8010	8168183	7968018	7968015	118U8023	–	–	DML/DCL165	SGP 16	KP1/KP7/KP17	EVR 6
OP-MGZC215	118U8012	8168183	7968018	7968016	118U8023	118U8017	–	DML/DCL165	SGP 16	KP1/KP7/KP17	EVR 6
OP-MGZC242	118U8012	8168183	7968018	7968016	118U8023	118U8017	–	DML/DCL165	SGP 16	KP1/KP7/KP17	EVR 6
OP- MGZC271	118U8012	8168183	7968018	7968016	118U8023	118U8017	–	DML/DCL165	SGP 16	KP1/KP7/KP17	EVR 6
OP-MGZD030	8174036	8168179	7968013	7968012	8176018	8176039	–	DML/DCL053	SGP 10	KP1/KP7/KP17	EVR 3
OP-MGZD038	8174037	8168180	7968013	7968013	8176043	8176044	–	DML/DCL053	SGP 10	KP1/KP7/KP17	EVR 3
OP-MGZD048	8174038	8168180	7968013	7968013	8176043	8176044	–	DML/DCL084	SGP 12	KP1/KP7/KP17	EVR 3
OP-MGZD054	8174038	8168180	7968014	7968013	8176043	8176044	–	DML/DCL084	SGP 12	KP1/KP7/KP17	EVR 3
OP-MGZD060	8174041	8168181	7968014	7968013	8176045	8176046	–	DML/DCL084	SGP 12	KP1/KP7/KP17	EVR 3
OP-MGZD068	8174041	8168181	7968014	7968013	8176045	8176046	–	DML/DCL084	SGP 12	KP1/KP7/KP17	EVR 3
OP-MGUD057	8174041	8168181	7968015	7968013	8176045	8176046	–	DML/DCL084	SGP 12	KP1/KP5/KP17	EVR6
OP-MGZD086	8174041	8168181	7968017	7968014	8176045	8176046	–	DML/DCL084	SGP 12	KP1/KP7/KP17	EVR 3
OP-MGUD068	8174041	8168181	7968016	7968013	8176045	8176046	–	DML/DCL084	SGP 12	KP1/KP5/KP17	EVR6
OP-MGZD096	8174041	8168181	7968017	7968014	8176045	8176046	–	DML/DCL084	SGP 12	KP1/KP7/KP17	EVR 3
OP-MGZD108	8174042	8168182	7968017	7968014	8176047	8176048	–	DML/DCL084	SGP 12	KP1/KP7/KP17	EVR 3
OP-MGZD121	8174042	8168182	7968017	7968014	8176047	8176048	–	DML/DCL084	SGP 12	KP1/KP7/KP17	EVR 3
OP-MGZD136	8174044	8168182	7968018	7968015	8176070	8176069	–	DML/DCL084	SGP 12	KP1/KP7/KP17	EVR 3
OP-MGZD171	8174045	8168183	7968018	7968015	8176070	8176069	–	DML/DCL165	SGP 16	KP1/KP7/KP17	EVR 6
OP-MGZD215	118U8012	8168183	7968018	7968016	118U8023	118U8017	–	DML/DCL165	SGP 16	KP1/KP7/KP17	EVR 6
OP-MGZD242	118U8012	8168183	7968018	7968016	118U8023	118U8017	–	DML/DCL165	SGP 16	KP1/KP7/KP17	EVR 6
OP-MGZD271	8174048	8168183	7968018	7968016	8176098	8176099	–	DML/DCL165	SGP 16	KP1/KP7/KP17	EVR 6

LRA) *Locked Rotor Amps.*
MCC) *Maximum Continuous Current.*

Technical data and ordering

Optyma™ - MBP/HBP/LBP

Electrical characteristics – 230 V/1 phase - 50 Hz

Type	LRA compressor [A] 230 V/1 phase	MCC Fan [A] 230 V/1 phase
OP-UCGC003	4.9	0.19
OP-UCGC004	5.1	0.19
OP-UCGC005	5.7	0.19
OP-UCGC006	7.5	0.19
OP-UCGC007	8.1	0.19
OP-UCGC008	8.2	0.19
OP-UCGC010	10	0.19
OP-UCGC011	10	0.25
OP-UCGC012	12.6	0.25
OP-UCGC015	14.8	0.39
OP-UCGC018	18.6	0.39
O P-UCGC021	21.8	0.39
OP-UCGC026	20.2	0.75
OP-UCGC034	25.7	0.75

Optyma™ - MBP/HBP/LBP

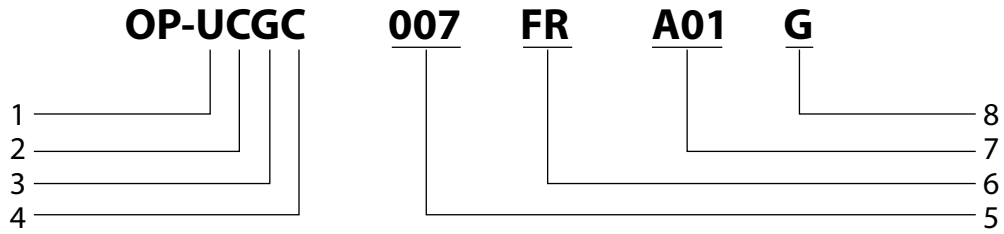
Spare parts + automatic controls

Type	Condenser	Receiver	Fan motor 230 Volts	Weatherproof housing	Filter drier Type	Sight glass type	Pressure control type	Solenoid valve type (excl coil)
OP-UCGC003	118U0028	118U0517	118U0032	118U4620	DML/DCL032	SGP 6	KP1/KP5/KP17	EVR2
OP-UCGC004	118U0028	118U0517	118U0032	118U4620	DML/DCL032	SGP 6	KP1/KP5/KP17	EVR2
OP-UCGC005	118U0028	118U0517	118U0032	118U4620	DML/DCL032	SGP 6	KP1/KP5/KP17	EVR2
OP-UCGC006	118U0029	118U0517	118U0032	118U4620	DML/DCL032	SGP 6	KP1/KP5/KP17	EVR2
OP-UCGC007	118U0029	118U0517	118U0032	118U4620	DML/DCL032	SGP 6	KP1/KP5/KP17	EVR2
OP-UCGC008	118U0029	118U0517	118U0032	118U4620	DML/DCL032	SGP 6	KP1/KP5/KP17	EVR2
OP-UCGC010	118U0029	118U0517	118U0032	118U4620	DML/DCL032	SGP 6	KP1/KP5/KP17	EVR2
OP-UCGC011	118U0030	118U0523	118U0033	118U4620	DML/DCL032	SGP 6	KP1/KP5/KP17	EVR2
OP-UCGC012	118U0030	118U0523	118U0033	118U4620	DML/DCL052	SGP 6	KP1/KP5/KP17	EVR3
OP-UCGC015	118U0031	118U0523	118U0034	118U4620	DML/DCL052	SGP 6	KP1/KP5/KP17	EVR3
OP-UCGC018	118U0031	118U0523	118U0034	118U4620	DML/DCL052	SGP 6	KP1/KP5/KP17	EVR3
OP-UCGC021	118U0031	118U0523	118U0034	118U4620	DML/DCL052	SGP 6	KP1/KP5/KP17	EVR3
OP-UCGC026	118U0069	118U0078	118U0058	118U4621	DML/DCL052	SGP 6	KP1/KP5/KP17	EVR3
OP-UCGC034	118U0069	118U0078	118U0058	118U4621	DML/DCL052	SGP 6	KP1/KP5/KP17	EVR3

LRA) *Locked Rotor Amps.*
MCC) *Maximum Continuous Current.*

Nomenclature

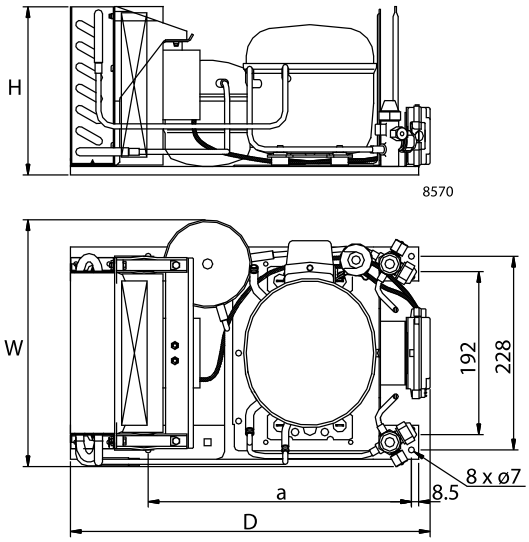
Designation system for the OptymaTM standard programme



Number	Title	Description
1	Application	L) Low M) Medium U) Low/Medium/High
2	Platform or design	C) Air cooled condensing unit with 1 fan and hermetic compressor G) Air cooled condensing unit with 2 fan and hermetic compressor
3	Refrigerant	G) R134a M) R22 H) R404A/R507 Z) R404A/R134a/R507/R407C C) R407C U) R404A/R134a/R507/R407C/R22
4	Condenser option	C) Standard D) With oversized condenser (for higher ambient temperature and/or higher efficiency)
5	Displacement	012) 12 cm^3 007) 7.5 cm^3
6	Compressor platform	TL) TL FR) FR NL) NL SC) SC GS) GS NT) NTZ MT) MTZ ML) MLZ
7	Version	A00) Without valves and receiver for capillary tubes A01) Basic with bracket and copper pipes for KP A02) With receiver, stop valves, universal pressure switch (KP17WB) flexible hoses and electrical box A04) A01 + KP17WB + FSA-kit + power cord
8	Electrical code	A) Compressor 220 V/1~/50+60 Hz, fan 220 V/1~/50+60 Hz G) Compressor 220 V/1~/50 Hz, fan 220 V/1~/50 Hz D) Compressor 400 V/3~/50 Hz, fan 400 V/3~/50 Hz E) Compressor 400 V/3~/50 Hz, fan 230 V/1~/50 Hz

Dimensions

1



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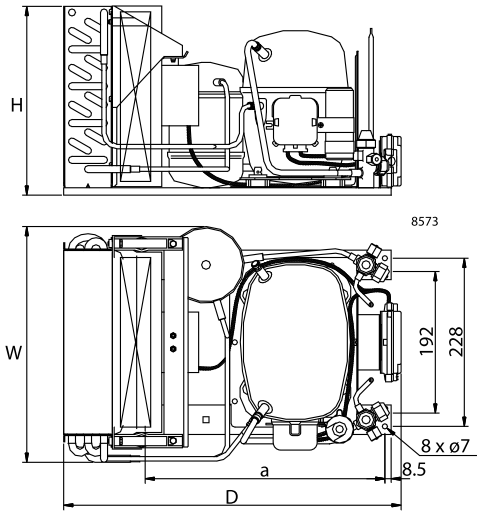

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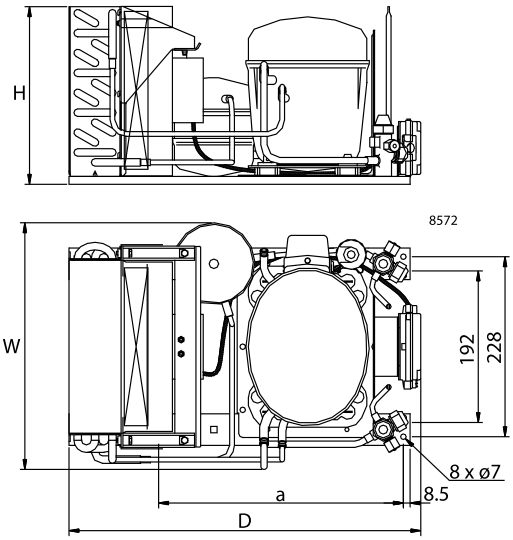

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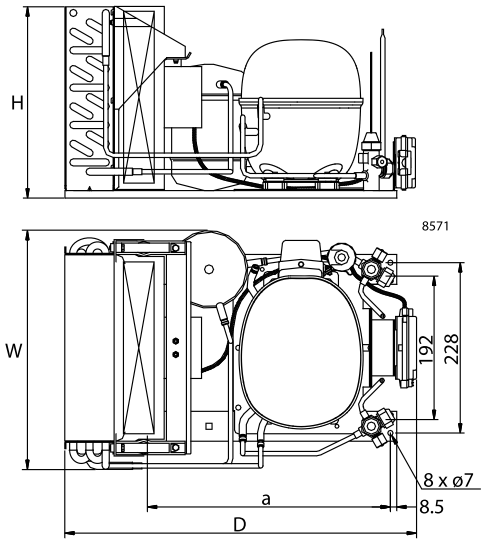

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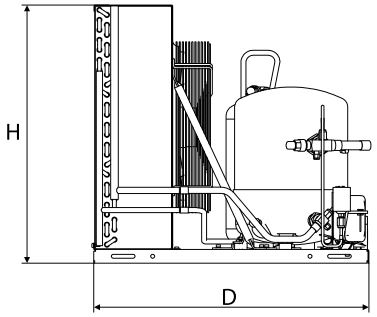
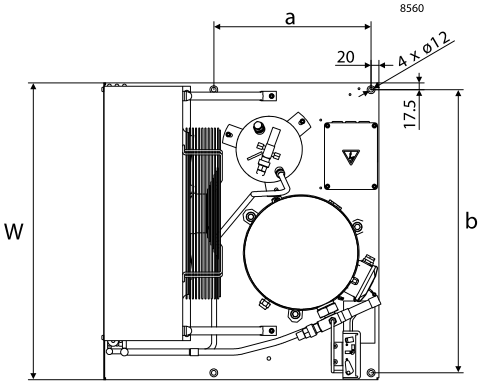
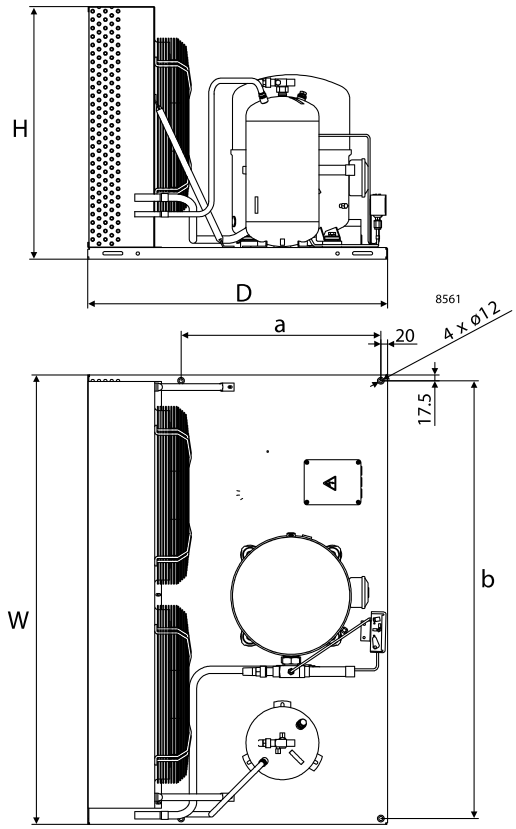




Dimensions

6



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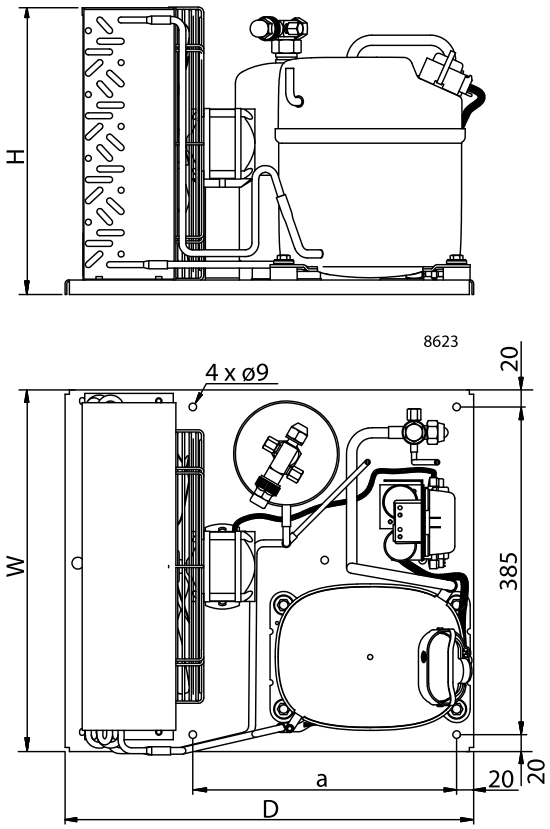

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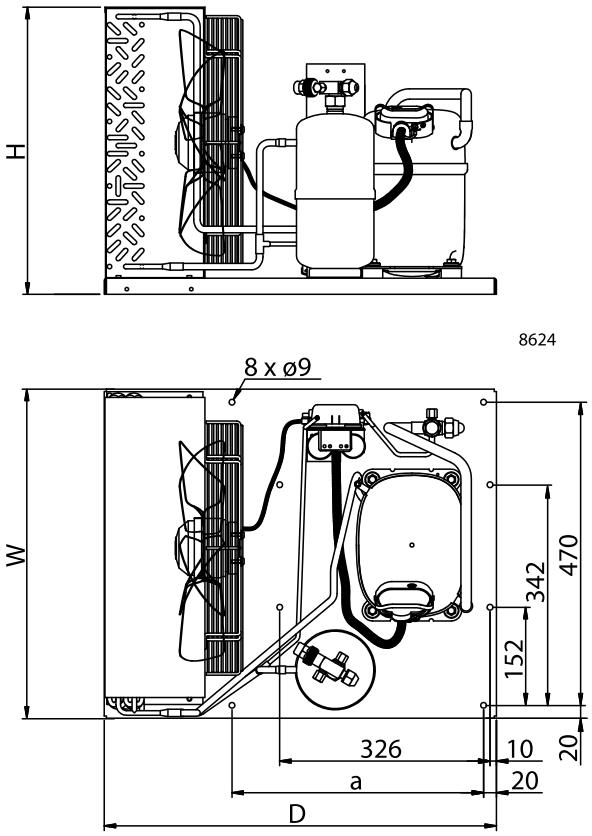

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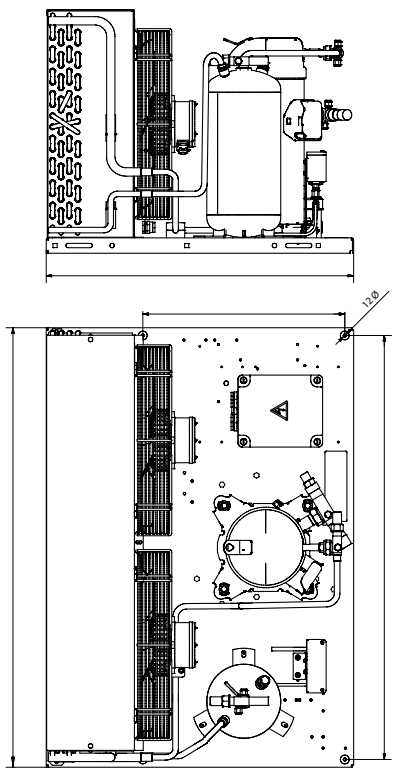
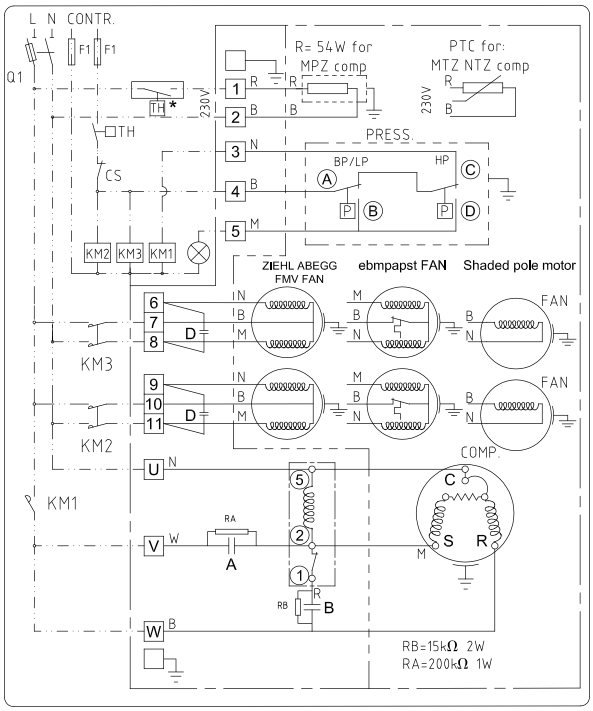


Wiring diagram

1



50 Hz

COMPRESSOR MODEL	DISPLACEMENT cm³	A µF/450VAC	B µF/450VAC
NTZ048	048	30	100
NTZ068	068	30	100
MT-MTZ18	030	30	100
MT-MTZ22	038	30	100
MT-MTZ28	048	30	100
MT-MTZ32	054	35	135
MT-MTZ36	061	35	135

60 Hz

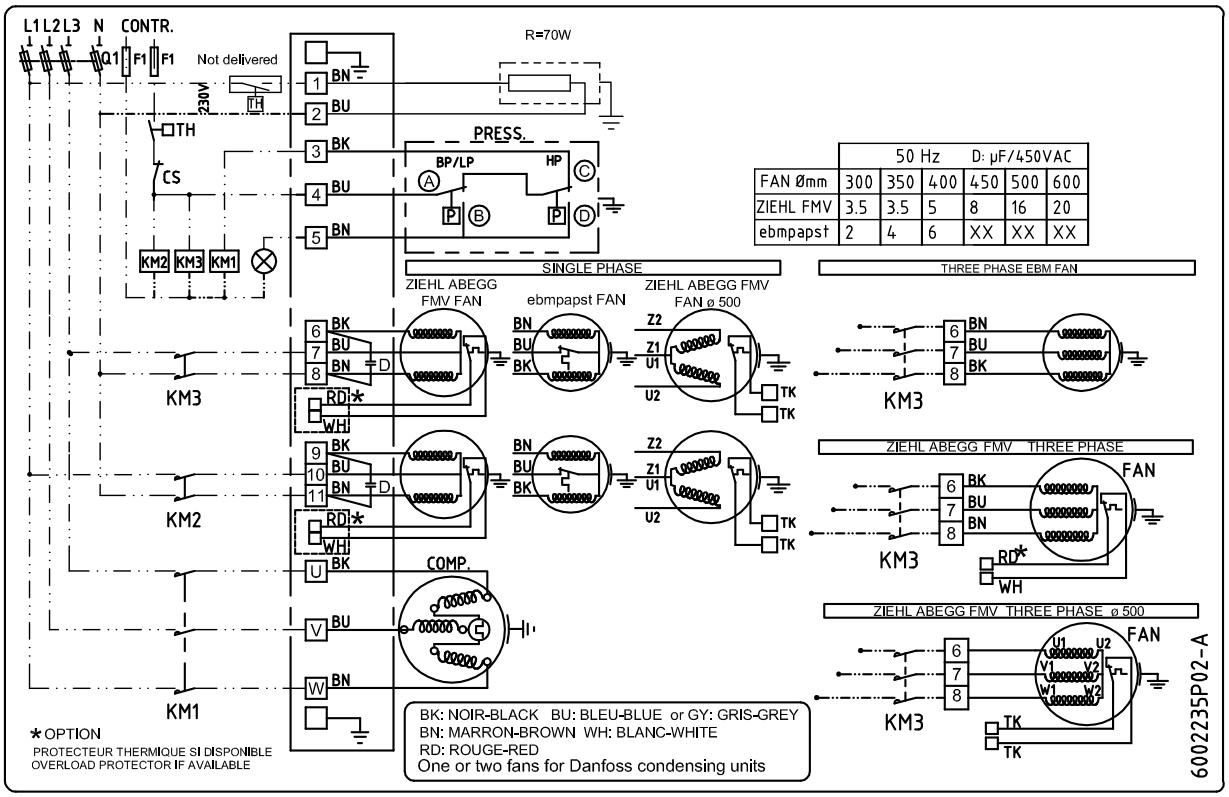
NTZ048	048	25	100
NTZ068	068	50	135
MT-MTZ18	030	25	100
MT-MTZ22	038	45	100
MT-MTZ28	048	50	135
MT-MTZ32	054	45	100
MT-MTZ36	061	45	100
MT-MTZ40	086	55	100
MT-MTZ51	086	45	135
MT-MTZ57	096	55	200
MT-MTZ65	108	55	235

FAN DIAMETER	D (Capacitor Fan) ZIEHL FMV µF/450VAC 50 Hz	ZIEHL FMV µF/450VAC 60 Hz	ebmpapst µF/450VAC 50 Hz	ebmpapst µF/450VAC 60 Hz
300	3.5	5	2	2
350	3.5	5	4	5
400	5	5	6	X
450	12	12	X	X

One or two fans for Danfoss condensing units

6002113P02-W

2



FAN Ømm	50 Hz D: µF/450VAC 300	350	400	450	500	600
ZIEHL FMV	3.5	3.5	5	8	16	20
ebmpapst	2	4	6	XX	XX	XX

6002235P02-A

Overview of refrigerant trends

Refrigerant	Application/ Region	Refrigeration										Air Conditioning			
		Domestic – household refrigerators		Mobile – containers, trucks		Light Commercial		Commercial		Industrial		Air Conditioning		Heat pumps	
		50-300 W		100-10,000 W		150-5,000 W		> 5,000 W		> 100,000 W		All		All	
		Today	2020	Today	2020	Today	2020	Today	2020	Today	2020	Today	2020	Today	2020
CO_2	Europe														
	North America														
	Rest of the world														
NH_3	Europe														
	North America														
	Rest of the world														
HC	Europe														
	North America														
	Rest of the world														
HFC	Europe														
	North America														
	Rest of the world														
Mildly flammable HFC and HFO	Europe														
	North America														
	Rest of the world														

Main refrigerant
Some use
Limited use and only niche applications
Not applicable or unclear situation

Refrigerant benefits in your application

The refrigeration and air conditioning industry has made tremendous progress over the past two decades in reducing the use of ozone-depleting refrigerants. Seen from a global perspective, the tendency is that the industry is moving more and more toward natural refrigerants where this is technologically feasible. Synthetic refrigerants are still likely to play a large role in the refrigeration and air conditioning industry, but this will be in minimal charge systems and with new low-GWP substances. Parameters such as efficiency, safety, environmental impact, relatively short atmospheric lifetimes, chemical properties and economy all influence the choice of future refrigerant options. Below is a brief overview of the refrigerant benefits in various applications.

CO_2 (R744)

- The low-GWP nature of CO_2 lends itself well to **food retail applications**, where there is a minimal impact in case of leaks and where the thermodynamic properties make it the ideal media for heat recovery
- Transcritical CO_2 cycles reject a large proportion of the cycle heat at high temperatures which makes it suitable for **heat pumps**
- In **industrial refrigeration**, CO_2 provides a means to reduce the charge of Ammonia, increase efficiency and decrease the footprint of freezing equipment
- In **transport refrigeration, light commercial applications** and **electronics cooling**, CO_2 provides a non-flammable, environmentally benign solution

Ammonia (NH_3)

- Ammonia is one of the most **energy efficient** refrigerants in applications ranging from high to low temperatures. With the increasing focus on energy consumption, ammonia is a safe and sustainable choice for the future
- Ammonia has better **heat transfer properties** than most of chemical refrigerants and therefore plant construction cost will be lower. These properties also benefit the thermodynamic efficiency in the system, hence it reduces the operating costs
- With a GWP and ODP (Ozone Depletion Potential) equal to zero ammonia is a very **environmentally friendly refrigerant**
- In many countries the cost of ammonia (per kg) is considerably lower than the cost of HFCs

Hydrocarbons (R290, R600)

- Provides high energy-efficiency and capacities compared to HFCs
- The flammability limits the use to **small systems** and **chillers** (e.g. **chillers for food retail systems** or for **air conditioning** for a whole building)
- Allows for very low evaporating temperatures without overheating the compressor when used in **heat pumps** (with HFCs you need to supplement with an electrical heating element for the really cold days)

HFC

- A transitional solution that can be used in retrofitting high-GWP HFC systems. Typically R407A/F replacing R404A

Mildly flammable HFC & HFO

- The low GWP and low flammability makes it suitable for **relatively large systems**
- Especially interesting for **air conditioning** where there is a lack of ultra low-GWP natural alternatives
- Also suitable for **refrigeration** systems where traditional HFC system design can be used with minor modifications (often with a minor performance decrease)

Products for low GWP refrigerants

Danfoss' approval process

Danfoss uses a thorough approval process when releasing products for flammable refrigerants. The major steps includes:

- Ensure compliance with the EU Pressure Equipment Regulation 97/23/EC (PED) for fluid group I.
  Attain 3rd party approval if needed
- Evaluate ignition sources for compliance with ATEX zone 2.
  Attain 3rd party approval if needed
- Evaluate or test chemical compatibility between elastomers and the specific flammable refrigerants in question
- Update internal documentation to ensure future product changes will take flammability into account
- Update literature, capacity tables and other relevant documentation for Danfoss customers

The approval process is one part of the continuous risk evaluation process that guides our approach to flammable refrigerants. This process continuously evaluates the legislation, safety standards and the industry's experience with flammable refrigerants. The outcome is a continuously updated internal framework for sales and product design matching the market needs while prioritising safety.

Products for low-GWP refrigerants

Product grouping	Product	Product description	Refrigerants					
			CO_2	NH_3	R290, R600	R32	R407A	R407F
Electronic controllers	AK-PC 7XX	Advanced pack controllers	•	•	•	•	•	•
	AK-PC 351/ 5XX	Standard pack controllers		•	•	•	•	•
	AK-CC 550/750	Case controller for electronic expansion valves	•	•	•	•	•	•
	AK-CC 250/350/450	Case controller for thermostatic expansion valves	•	•	•	•	•	•
	EKC 326a	CO_2 gas pressure controllers	•					
	MCX	Programmable controllers	•	•	•	•	•	•
	EIM 336, EKD 316, EXD 316	Electronic superheat controllers [1]	•		•	•	•	•
	EKC 316A, EKC 312	Electronic superheat controllers [1]	•		•	•	•	
	EKC 313	Cascade injection with CO_2	•	•	•	•	•	•
	EKC 315a	Superheat controllers	•	•	•	•	•	•
	EKC 361	Liquid level controllers	•	•	•	•	•	•
	EKE 347	Temperature controllers	•	•	•	•	•	•
Compressors	MTZ	Reciprocating compressor for medium temperature refrigeration					•	•
	MLZ	Scroll compressor for medium temperature refrigeration					•	•
	ASL	Scroll compressor for air conditioning [2]				•		
	P/T/D/N/SC	AC reciprocating compressor for LBP/MBP refrigeration			•			
	SLV	Variable speed reciprocating compressor for LBP/MBP refrigeration			•			
	BD	AC/DC compressors for mobile cooling			•			
Condensing units	Optyma™	Condensing Units for low and medium refrigeration [2]			•		•	•
	Optyma™ Slim Pack	Packaged Condensing Units for low and medium refrigeration [2]					•	•
	Optyma™ Plus	Premium packaged Condensing Units for low and medium refrigeration [2]					•	•
Electronic expansion valves	AKV	Pulse width modulating expansion valves	46 bar				•	•
	AKVA	Pulse width modulating expansion valves	42 bar	•			•	•
	AKVH	Pulse width modulating expansion valves	90 bar				•	•
	CCM	High pressure standstill capable motorized expansion valves	90 bar					
	CCMT	High pressure standstill capable motorized expansion valves	140 bar					
	ETS	Electronically operated expansion valves					•	•
	ICM	Industrial motorized expansion valves	65 bar	•			•	•
	ICMTS	High pressure industrial motorized expansion valves	140 bar					
Electronic pressure & temperature regulating valves	CCM	Standstill capable electronic backpressure regulators	90 bar					
	CCMT	Standstill capable electronic backpressure regulators	140 bar					
	KVS	Electronic suction modulating valves					•	•
	ICM	Industrial motorized regulating valves	65 bar	•			•	•
	ICMTS	High pressure industrial motorized regulating valves	140 bar					
Sensors & transmitters	AKS 32	1-5/0-10/0-5/1-6 Vdc, high accuracy	100 bar	•	•	•	•	•
	AKS 32 R	0.5 – 4.5 Vdc@5 V supply, ratiometric, compact	55 bar	•	•	•	•	•
	AKS 33	4-20 mA, high accuracy	55 bar	•	•	•	•	•
	AKS 3000	4-20 mA, compact	100 bar	•	•	•	•	•
	AKS 11	Temperature sensors, Pt 1000	•	•	•	•	•	•
	AKS 12	Temperature sensors, Pt 1000	•	•	•	•	•	•
	AKS 21	Temperature sensors, Pt 1000	•	•	•	•	•	•
	GD	Gas detecting sensors	•	•	•			
Heat exchangers	MPHE	MicroPlate heat exchangers			•	•	•	•
	MCHE	MicroChannel heat exchangers			•	•		

[1] *Parameters for other refrigerants can be entered manually.*
[2] *Qualification in progress.*

Refrigerant

Product grouping	Product	Product description	Refrigerants					
			CO_2	NH_3	R290, R600	R32	R407A	R407F
Thermostatic expansion valves	TUB/TCB	Stainless steel thermostatic expansion valves	42 bar			•	•	•
	TUC/TCC	Stainless steel thermostatic expansion valves	42 bar		•	•	•	•
	T2	Small thermostatic expansion valves					•	•
	TD1	Thermostatic expansion valves			•		•	•
	TGE	Large thermostatic expansion valves			•	•	•	•
	TEA	Industrial thermostatic expansion valves		•				
Solenoid valves	EVR	Allround solenoid valves			•	•	•	•
	EVRA	Solenoid valves	42 bar	•			•	•
	EVRH	High pressure solenoid valves	46 bar					
	EVU	Semi-hermetic solenoid valves	70 bar				•	•
	EVUL	Fully-hermetic solenoid valves	90 bar			•	•	•
	ICLX	Flexline™ solenoid valves	52 bar	•	•	•	•	•
Valve stations	ICF	Flexline™ valve stations	52 bar	•			•	•
Mechanical pressure and temperature regulating valves	KVD	Receiver pressure regulators			•		•	•
	KVC	Capacity regulators			•		•	•
	KVL	Crankcase pressure regulators			•		•	•
	KVP	Evaporating pressure regulators			•		•	•
	KVR	Condensing pressure regulators			•		•	•
	CPCE	Hot gas bypass regulating valves			•		•	•
	ICS	Mechanical backpressure regulators	52 bar	•	•	•	•	•
	REG-S	Flexline™ regulating valves	52 bar	•		•	•	•
Switches	AKS 38	Electro-mechanical float switches	28 bar	•		•	•	•
	KP	Pressure switches	46 bar	•	•		•	•
	RT	Pressure switches		•	•		•	•
	MP	Differential pressure switches		•	•		•	•
	RT	Differential pressure switches		•	•		•	•
	CCB	Cartridge pressure controls	165 bar					
Water regulating valves	WVFX	Pressure operated water valves			•		•	•
	WVO	Pressure operated water valves			•		•	•
	WVS	Pressure operated water valves		•	•		•	•
Filters and driers	DCR	Receiver filter driers	46 bar		•	•	•	•
	DMC	Receiver filter driers				•	•	•
	DCC	Receiver filter driers				•	•	•
	DML	Liquid line filter driers	46 bar		•	•	•	•
	DCL	Liquid line filter driers			•	•	•	•
	DMB	Bi-flow filter driers	46 bar		•	•	•	•
	DCB	Bi-flow filter driers			•	•	•	•
	DAS	Burn-out filter driers				•	•	•
	DMT	Filter driers for transcritical applications	140 bar					
	FIA	Flexline™ filters	65 bar	•		•	•	•
Check valves	NRV	Piston check valves	90 bar		•	•	•	•
	NRVA	Piston check valves		•	•	•	•	•
	CHV-X	Flexline™ check valves	65 bar	•			•	•
	SCA-X	Flexline™ check and stop valves	65 bar	•			•	•
Shut-off valves	GBC	Shut-off ball valves	90 bar			•	•	•
	BML	Shut-off diaphragm valves			•		•	•
	SVA	Flexline™ stop valves	65 bar	•	•	•	•	•
Sight glasses	SG	Sight glasses for low pressures					•	•
	SGP	Sight glasses for high pressures	52 bar		•	•	•	•
	MLI	Sight glasses		•			•	•

Our portfolio is constantly being updated – to see an updated list of our low-GWP products go to www.danfoss.com/lowGWP.

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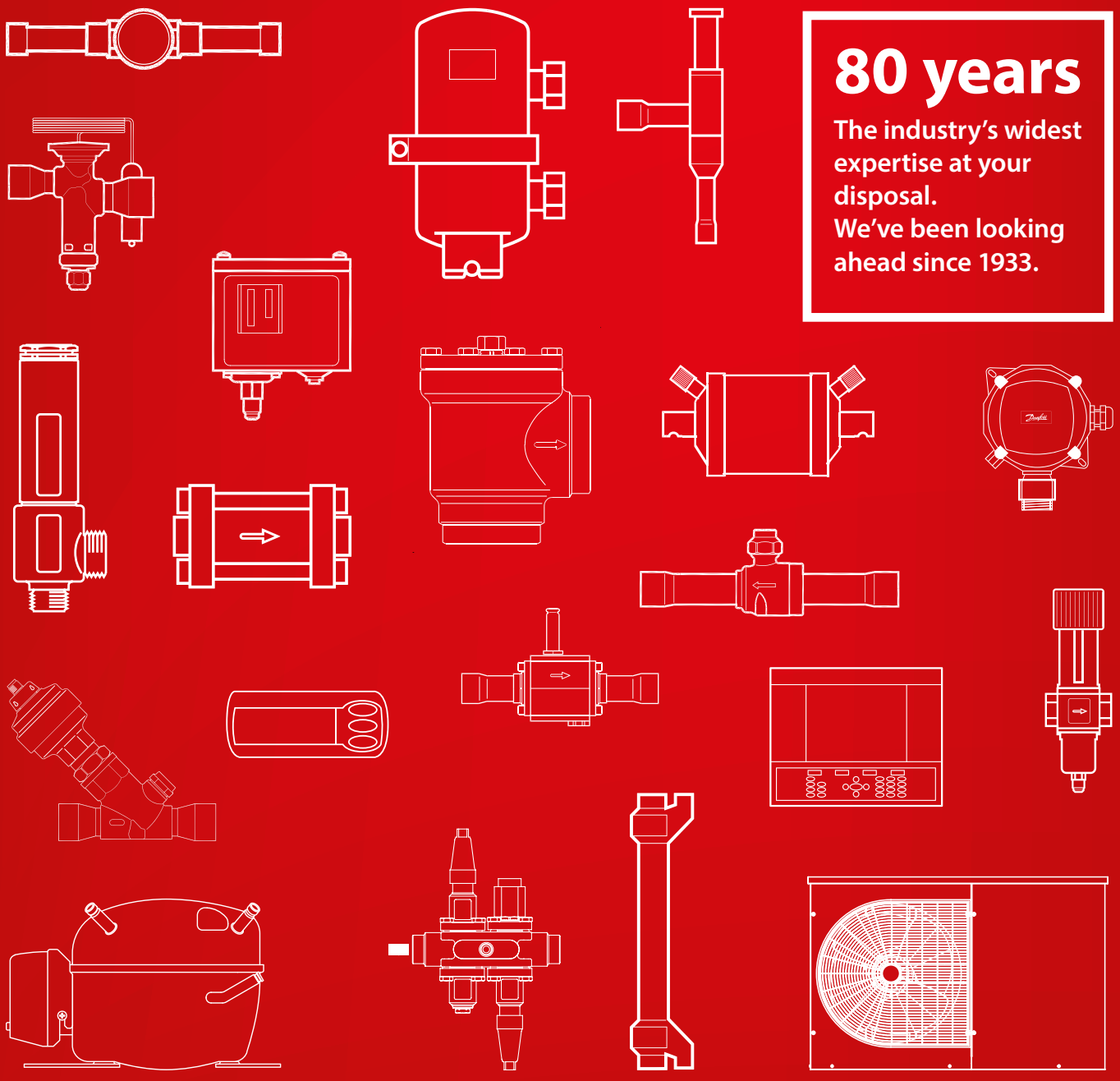
ENGINEERING
TOMORROW

REFRIGERATION & AIR CONDITIONING

Automatic Controls | Electronic Controllers | Compressors and Condensing Units



80 years

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We've been looking ahead since 1933.

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