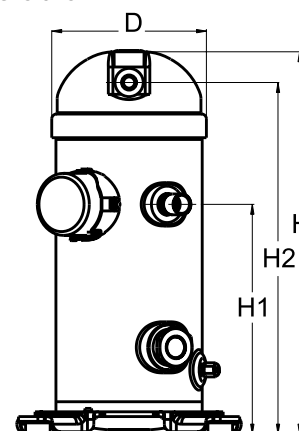


General Characteristics

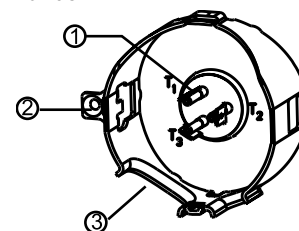
Model number (on compressor nameplate)	MLZ021T2LP9	MLZ021T2LP9
Code number for Singlepack*	121U8040	120U8040
Code number for Industrial pack**	121U8039	120U8039
Drawing number	0XC6300B-1	0XC6300B-1
Suction and discharge connections	Brazed	Brazed
Suction connection	3/4" ODF	3/4" ODF
Discharge connection	1/2" ODF	1/2" ODF
Oil sight glass	Threaded	Threaded
Oil equalisation connection	None	None
Oil drain connection	1/4" flare	1/4" flare
LP gauge port	None	None
IPR valve	32 bar	32 bar
Swept volume	46.21 cm ³ /rev	
Displacement @ Nominal speed	8.0 m ³ /h @ 2900 rpm - 9.7 m ³ /h @ 3500 rpm	
Net weight	31 kg	
Oil charge	1.06 litre, PVE --	
Maximum system test pressure Low Side / High side	- bar(g) / - bar(g)	
Maximum differential test pressure	- bar	
Maximum number of starts per hour	12	
Refrigerant charge limit	3.63 kg	
Approved refrigerants	R404A, R507, R134a, R407C, R22	

Dimensions


D=164.5 mm
H=412 mm
H1=250 mm
H2=379 mm
H3=- mm

Electrical Characteristics

Nominal voltage	208-230V/3/60Hz
Voltage range	188-253 V
Winding resistance between phases 1-2 +/- 7% at 25°C	1.182 Ω
Winding resistance between phases 1-3 +/- 7% at 25°C	0.87 Ω
Winding resistance between phases 2-3 +/- 7% at 25°C	1.182 Ω
Rated Load Amps (RLA)	11.2 A
Maximum Continuous Current (MCC)	17.5 A
Locked Rotor Amps (LRA)	95 A
Motor protection	Internal overload protector

Terminal box


IP22

- 1: Spade connectors 1/4"
- 2: Earth connection
- 3: Power cable passage

Recommended Installation torques

Suction Rotolock nut or valve	0 Nm
Discharge Rotolock nut or valve	0 Nm
Oil sight glass	52.5 Nm
Power connections / Earth connection	0 Nm / 0 Nm

Parts shipped with compressor

Mounting kit with grommets and sleeves
Initial oil charge
Installation instructions

Approvals : CE certified, UL certified (file SA11565), -

*Singlepack: Compressor in cardboard box. 121U... optimised for Danfoss pallet, 120U... optimised for US pallet

**Industrial pack: 121U...: 12 unboxed compressors on Danfoss pallet. 120U...: 16 unboxed compressors on US pallet

Rotolock accessories, suction side

Code no.

Solder sleeve, P04 (1-1/4" Rotolock, 3/4" ODF)	8153008
Rotolock valve, V04 (1-1/4" Rotolock, 3/4" ODF)	8168029
Gasket, 1-1/4"	8156131

Rotolock accessories, discharge side

Code no.

Solder sleeve, P06 (1" Rotolock, 1/2" ODF)	8153007
Rotolock valve, V06 (1" Rotolock, 1/2" ODF)	8168031
Gasket, 1"	8156130

Rotolock accessories, sets

Code no.

Solder sleeve adapter set (1-1/4" Rotolock, 3/4" ODF), (1" Rotolock, 1/2" ODF)	120Z0126
Gasket set, 1", 1-1/4", 1-3/4", OSG gaskets black & white	8156009

Oil / lubricants

Code no.

PVE lubricant, 320HV (FVC68D), 1 litre can	120Z5034
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Crankcase heaters

Code no.

Belt type crankcase heater, 70 W, 240 V, CE mark, UL	120Z5040
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Miscellaneous accessories

Code no.

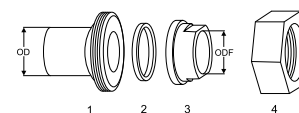
Acoustic hood	120Z5043
Discharge thermostat kit	7750009
IP54 upgrade kit	118U0056

Spare parts

Code no.

Mounting kit for 1 scroll compressor including 4 grommets, 4 sleeves, 4 bolts, 4 washers	120Z5005
Terminal box cover	120Z5015

Solder sleeve adapter set

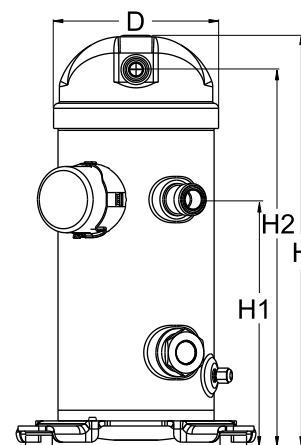


- 1: Rotolock adapter (Suc & Dis)
- 2: Gasket (Suc & Dis)
- 3: Solder sleeve (Suc & Dis)
- 4: Rotolock nut (Suc & Dis)

General Characteristics

Model number (on compressor nameplate)		MLZ021T2LT9
Code number for Singlepack*		121U8557
Code number for Industrial pack**		121U8556
Drawing number		0XC6290B-1
Suction and discharge connections		Rotolock
Suction connection		2-1/4 " Rotolock
Discharge connection		1-3/4 " Rotolock
Suction connection with supplied sleeve		1-5/8 " -
Discharge connection with supplied sleeve	- "	1-1/8 " -
Oil sight glass		Threaded
Oil equalisation connection		None
Oil drain connection		None
LP gauge port		None
IPR valve		None
Swept volume		46.21 cm ³ /rev
Displacement @ Nominal speed		8.0 m ³ /h @ 2900 rpm - 9.7 m ³ /h @ 3500 rpm
Net weight		31 kg
Oil charge		1.06 litre, PVE - -
Maximum system test pressure Low Side / High side		- bar(g) / - bar(g)
Maximum differential test pressure		- bar
Maximum number of starts per hour		12
Refrigerant charge limit		3.63 kg
Approved refrigerants		R404A, R507, R134a, R407C, R22

Dimensions

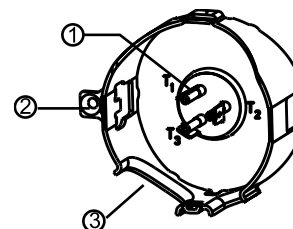


D=184 mm
H=412.1 mm
H1=249.8 mm
H2=379.4 mm
H3=- mm

Electrical Characteristics

Nominal voltage	208-230V/3/60Hz
Voltage range	188-253 V
Winding resistance between phases 1-2 +/- 7% at 25°C	1.182 Ω
Winding resistance between phases 1-3 +/- 7% at 25°C	0.87 Ω
Winding resistance between phases 2-3 +/- 7% at 25°C	1.182 Ω
Rated Load Amps (RLA)	11.2 A
Maximum Continuous Current (MCC)	17.5 A
Locked Rotor Amps (LRA)	95 A
Motor protection	Internal overload protector

Terminal box



IP22

- 1: Spade connectors 1/4"
- 2: Earth connection
- 3: Power cable passage

Recommended Installation torques

Oil sight glass	52.5 Nm
Power connections / Earth connection	0 Nm / 0 Nm

Parts shipped with compressor

Mounting kit with grommets and sleeves
Initial oil charge
Installation instructions

Approvals : CE certified, UL certified (file SA11565), -

*Singlepack: Compressor in cardboard box. 121U... optimised for Danfoss pallet, 120U... optimised for US pallet

**Industrial pack: 121U...: 12 unboxed compressors on Danfoss pallet. 120U...: 16 unboxed compressors on US pallet

Rotolock accessories, suction side

Code no.

Solder sleeve, P03 (2-1/4" Rotolock, 1-5/8" ODF)	8153006
Rotolock valve, V03 (2-1/4" Rotolock, 1-5/8" ODF)	8168026
Gasket, 2-1/4"	8156133

Rotolock accessories, discharge side

Code no.

Solder sleeve, P02 (1-3/4" Rotolock, 1-1/8" ODF)	8153004
Angle adapter, C02 (1-3/4" Rotolock, 1-1/8" ODF)	8168005
Rotolock valve, V02 (1-3/4" Rotolock, 1-1/8" ODF)	8168028
Gasket, 1-3/4"	8156132

Rotolock accessories, sets

Code no.

Valve set, V03 (2-1/4"~1-5/8"), V02 (1-3/4"~1-1/8")	7703383
Gasket set, 1-1/4", 1-3/4", 2-1/4", OSG gaskets black & white	8156013

Oil / lubricants

Code no.

PVE lubricant, 320HV (FVC68D), 1 litre can	120Z5034
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Crankcase heaters

Code no.

Belt type crankcase heater, 70 W, 240 V, CE mark, UL	120Z5040
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Miscellaneous accessories

Code no.

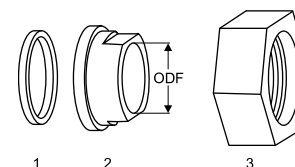
Acoustic hood	120Z5043
Discharge thermostat kit	7750009
IP54 upgrade kit	118U0056

Spare parts

Code no.

Mounting kit for 1 scroll compressor including 4 grommets, 4 sleeves, 4 bolts, 4 washers	120Z5005
Terminal box cover	120Z5015

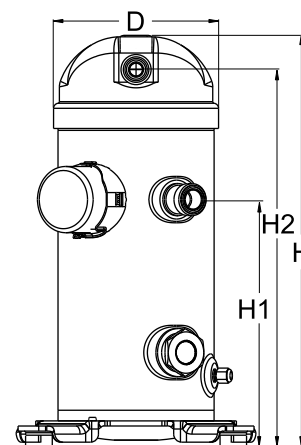
Gaskets, sleeves and nuts



- 1: Gasket
- 2: Solder sleeve
- 3: Rotolock nut

General Characteristics

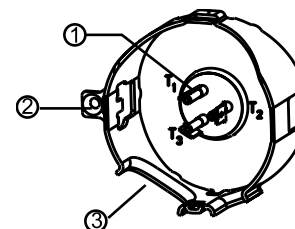
Model number (on compressor nameplate)	MLZ021T2LP9A	MLZ021T2LT9A
Code number for Singlepack*	120U8671	121U8739
Code number for Industrial pack**	120U8670	121U8738
Drawing number	0XC6300B-1	0XC6290B-1
Suction and discharge connections	Brazed	Rotolock
Suction connection	3/4" ODF	2-1/4" Rotolock
Discharge connection	1/2" ODF	1-3/4" Rotolock
Suction connection with supplied sleeve		1-5/8" -
Discharge connection with supplied sleeve	- "	1-1/8" -
Oil sight glass	Threaded	Threaded
Oil equalisation connection	None	None
Oil drain connection	1/4" flare	None
LP gauge port	None	None
IPR valve	32 bar	None
Swept volume	46.21 cm ³ /rev	
Displacement @ Nominal speed	8.0 m ³ /h @ 2900 rpm - 9.7 m ³ /h @ 3500 rpm	
Net weight	31 kg	
Oil charge	1.06 litre, POE - -	
Maximum system test pressure Low Side / High side	- bar(g) / - bar(g)	
Maximum differential test pressure	- bar	
Maximum number of starts per hour	12	
Refrigerant charge limit	3.63 kg	
Approved refrigerants	R404A,R507,R134a,R407A,R407F,R448A,R449A,R452A,R22	

Dimensions


D=184 mm
H=412.1 mm
H1=249.8 mm
H2=379.4 mm
H3=- mm

Electrical Characteristics

Nominal voltage	208-230V/3/60Hz
Voltage range	188-253 V
Winding resistance between phases 1-2 +/- 7% at 25°C	1.182 Ω
Winding resistance between phases 1-3 +/- 7% at 25°C	0.87 Ω
Winding resistance between phases 2-3 +/- 7% at 25°C	1.182 Ω
Rated Load Amps (RLA)	11.2 A
Maximum Continuous Current (MCC)	17.5 A
Locked Rotor Amps (LRA)	95 A
Motor protection	Internal overload protector

Terminal box


IP22

- 1: Spade connectors 1/4"
- 2: Earth connection
- 3: Power cable passage

Recommended Installation torques

Suction Rotolock nut or valve	0 Nm
Discharge Rotolock nut or valve	0 Nm
Oil sight glass	52.5 Nm
Power connections / Earth connection	0 Nm / 0 Nm

Parts shipped with compressor

Mounting kit with grommets and sleeves
Initial oil charge
Installation instructions

Approvals : CE certified, UL certified (file SA11565), -

*Singlepack: Compressor in cardboard box. 121U... optimised for Danfoss pallet, 120U... optimised for US pallet

**Industrial pack: 121U...: 12 unboxed compressors on Danfoss pallet. 120U...: 16 unboxed compressors on US pallet

Rotolock accessories, suction side

Code no.

Solder sleeve, P03 (2-1/4" Rotolock, 1-5/8" ODF)	8153006
Rotolock valve, V03 (2-1/4" Rotolock, 1-5/8" ODF)	8168026
Gasket, 2-1/4"	8156133

Rotolock accessories, discharge side

Code no.

Solder sleeve, P02 (1-3/4" Rotolock, 1-1/8" ODF)	8153004
Angle adapter, C02 (1-3/4" Rotolock, 1-1/8" ODF)	8168005
Rotolock valve, V02 (1-3/4" Rotolock, 1-1/8" ODF)	8168028
Gasket, 1-3/4"	8156132

Rotolock accessories, sets

Code no.

Valve set, V03 (2-1/4"~1-5/8"), V02 (1-3/4"~1-1/8")	7703383
Gasket set, 1-1/4", 1-3/4", 2-1/4", OSG gaskets black & white	8156013

Oil / lubricants

Code no.

POE lubricant, 215PZ(PL46HB), 1 litre can	120Z0648
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Crankcase heaters

Code no.

Belt type crankcase heater, 70 W, 240 V, CE mark, UL	120Z5040
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Miscellaneous accessories

Code no.

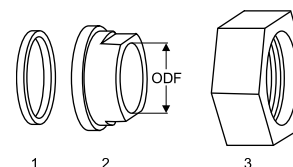
Acoustic hood	120Z5083
Discharge thermostat kit	7750009
IP54 upgrade kit	118U0056

Spare parts

Code no.

Mounting kit for 1 scroll compressor including 4 grommets, 4 sleeves, 4 bolts, 4 washers	120Z5005
Terminal box cover	120Z5015

Gaskets, sleeves and nuts



- 1: Gasket
- 2: Solder sleeve
- 3: Rotolock nut

Performance data at 50 Hz, EN 12900 rating conditions, Superheat = 10 K
R22

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)							
	-20	-15	-10	-5	0	5	10	

Cooling capacity in W

16	4 362	5 186	6 120	7 197	-	-	-	-	-
20	4 166	4 992	5 924	6 993	8 231	-	-	-	-
30	3 694	4 505	5 410	6 443	7 635	9 017	10 615	-	-
40	3 247	4 015	4 868	5 838	6 958	8 260	9 772	-	-
50	-	3 527	4 300	5 180	6 202	7 398	8 799	-	-
60	-	-	-	4 473	5 371	6 434	7 697	-	-
68	-	-	-	-	-	5 592	6 726	-	-

Power input in W

16	938	972	1 011	1 056	-	-	-	-	-
20	1 096	1 127	1 162	1 199	1 241	-	-	-	-
30	1 433	1 465	1 495	1 522	1 548	1 573	1 597	-	-
40	1 748	1 791	1 826	1 854	1 875	1 889	1 898	-	-
50	-	2 181	2 232	2 270	2 297	2 312	2 315	-	-
60	-	-	-	2 848	2 890	2 916	2 924	-	-
68	-	-	-	-	-	3 581	3 601	-	-

Current consumption in A

16	3.61	3.74	3.89	4.06	-	-	-	-	-
20	4.22	4.34	4.47	4.62	4.78	-	-	-	-
30	5.52	5.64	5.75	5.86	5.96	6.05	6.15	-	-
40	6.73	6.89	7.03	7.14	7.22	7.27	7.30	-	-
50	-	8.39	8.59	8.74	8.84	8.90	8.91	-	-
60	-	-	-	10.96	11.13	11.22	11.26	-	-
68	-	-	-	-	-	13.78	13.86	-	-

Mass flow in kg/h

16	91	106	121	140	-	-	-	-	-
20	87	102	119	137	159	-	-	-	-
30	80	96	114	133	156	182	211	-	-
40	75	91	110	130	153	180	210	-	-
50	-	86	105	125	149	175	206	-	-
60	-	-	-	118	141	168	198	-	-
68	-	-	-	-	-	159	189	-	-

Coefficient of performance (C.O.P.)

16	4.65	5.34	6.05	6.82	-	-	-	-	-
20	3.80	4.43	5.10	5.83	6.63	-	-	-	-
30	2.58	3.08	3.62	4.23	4.93	5.73	6.65	-	-
40	1.86	2.24	2.67	3.15	3.71	4.37	5.15	-	-
50	-	1.62	1.93	2.28	2.70	3.20	3.80	-	-
60	-	-	-	1.57	1.86	2.21	2.63	-	-
68	-	-	-	-	-	1.56	1.87	-	-

Nominal performance at to = -10 °C, tc = 45 °C

Cooling capacity	4 587	W
Power input	2 015	W
Current consumption	7.76	A
Mass flow	107	kg/h
C.O.P.	2.28	

Pressure switch settings

Maximum HP switch setting	29.8	bar(g)
Minimum LP switch setting	0.5	bar(g)
LP pump down setting	0.95	bar(g)

Sound power data

Sound power level	67	dB(A)
With acoustic hood	59	dB(A)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Superheat = 10 K , Subcooling = 0 K

Tolerance according EN12900

Performance data at 50 Hz, EN 12900 rating conditions, Suction temp. = 20 °C
R22

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)							
	-20	-15	-10	-5	0	5	10	

Cooling capacity in W

16	4 255	5 075	6 009	7 091	-	-	-	-	-
20	4 076	4 896	5 826	6 899	8 151	-	-	-	-
30	3 641	4 446	5 348	6 381	7 580	8 980	10 615	-	-
40	-	3 993	4 841	5 809	6 930	8 239	9 772	-	-
50	-	-	-	5 184	6 201	7 394	8 799	-	-
60	-	-	-	-	5 395	6 447	7 697	-	-
68	-	-	-	-	-	-	6 726	-	-

Power input in W

16	938	972	1 011	1 056	-	-	-	-	-
20	1 096	1 127	1 162	1 199	1 241	-	-	-	-
30	1 433	1 465	1 495	1 522	1 548	1 573	1 597	-	-
40	-	1 791	1 826	1 854	1 875	1 889	1 898	-	-
50	-	-	-	2 270	2 297	2 312	2 315	-	-
60	-	-	-	-	2 890	2 916	2 924	-	-
68	-	-	-	-	-	-	3 601	-	-

Current consumption in A

16	3.61	3.74	3.89	4.06	-	-	-	-	-
20	4.22	4.34	4.47	4.62	4.78	-	-	-	-
30	5.52	5.64	5.75	5.86	5.96	6.05	6.15	-	-
40	-	6.89	7.03	7.14	7.22	7.27	7.30	-	-
50	-	-	-	8.74	8.84	8.90	8.91	-	-
60	-	-	-	-	11.13	11.22	11.26	-	-
68	-	-	-	-	-	-	13.86	-	-

Mass flow in kg/h

16	80	95	111	130	-	-	-	-	-
20	77	92	109	128	152	-	-	-	-
30	70	86	104	125	149	177	211	-	-
40	-	82	100	121	146	175	210	-	-
50	-	-	-	117	142	171	206	-	-
60	-	-	-	-	135	164	198	-	-
68	-	-	-	-	-	-	189	-	-

Coefficient of performance (C.O.P.)

16	4.54	5.22	5.94	6.72	-	-	-	-	-
20	3.72	4.34	5.01	5.75	6.57	-	-	-	-
30	2.54	3.04	3.58	4.19	4.90	5.71	6.65	-	-
40	-	2.23	2.65	3.13	3.70	4.36	5.15	-	-
50	-	-	-	2.28	2.70	3.20	3.80	-	-
60	-	-	-	-	1.87	2.21	2.63	-	-
68	-	-	-	-	-	-	1.87	-	-

Nominal performance at to = -10 °C, tc = 45 °C

Cooling capacity	4 578	W
Power input	2 015	W
Current consumption	7.76	A
Mass flow	98	kg/h
C.O.P.	2.27	

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Suction gas temp. = 20 °C , Subcooling = 0 K

Pressure switch settings

Maximum HP switch setting	29.8	bar(g)
Minimum LP switch setting	0.5	bar(g)
LP pump down setting	0.95	bar(g)

Sound power data

Sound power level	67	dB(A)
With acoustic hood	59	dB(A)

Tolerance according EN12900

Performance data at 60 Hz, EN 12900 rating conditions, Superheat = 10 K
R22

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)							
	-20	-15	-10	-5	0	5	10	

Cooling capacity in W

16	4 505	5 695	7 081	8 660	-	-	-	-	-
20	4 450	5 601	6 944	8 475	10 190	-	-	-	-
30	4 198	5 255	6 492	7 909	9 500	11 261	13 182	-	-
40	3 813	4 778	5 914	7 219	8 690	10 324	12 112	-	-
50	-	4 207	5 244	6 440	7 793	9 303	10 962	-	-
60	-	-	-	5 604	6 843	8 230	9 764	-	-
68	-	-	-	-	-	7 357	8 793	-	-

Power input in W

16	1 100	1 158	1 218	1 287	-	-	-	-	-
20	1 284	1 334	1 385	1 442	1 510	-	-	-	-
30	1 691	1 730	1 765	1 801	1 844	1 899	1 970	-	-
40	2 075	2 115	2 147	2 175	2 204	2 241	2 290	-	-
50	-	2 556	2 597	2 629	2 658	2 689	2 728	-	-
60	-	-	-	3 231	3 272	3 310	3 351	-	-
68	-	-	-	-	-	3 977	4 028	-	-

Current consumption in A

16	3.45	3.63	3.82	4.04	-	-	-	-	-
20	4.03	4.19	4.35	4.52	4.74	-	-	-	-
30	5.31	5.43	5.54	5.65	5.79	5.96	6.18	-	-
40	6.51	6.64	6.74	6.82	6.92	7.03	7.19	-	-
50	-	8.02	8.15	8.25	8.34	8.44	8.56	-	-
60	-	-	-	10.14	10.27	10.39	10.51	-	-
68	-	-	-	-	-	12.48	12.64	-	-

Mass flow in kg/h

16	97	116	139	165	-	-	-	-	-
20	98	117	139	165	194	-	-	-	-
30	98	117	139	164	193	225	260	-	-
40	93	113	136	162	191	223	258	-	-
50	-	105	129	156	186	219	255	-	-
60	-	-	-	146	177	212	249	-	-
68	-	-	-	-	-	204	243	-	-

Coefficient of performance (C.O.P.)

16	4.10	4.92	5.81	6.73	-	-	-	-	-
20	3.46	4.20	5.01	5.88	6.75	-	-	-	-
30	2.48	3.04	3.68	4.39	5.15	5.93	6.69	-	-
40	1.84	2.26	2.76	3.32	3.94	4.61	5.29	-	-
50	-	1.65	2.02	2.45	2.93	3.46	4.02	-	-
60	-	-	-	1.73	2.09	2.49	2.91	-	-
68	-	-	-	-	-	1.85	2.18	-	-

Nominal performance at to = -10 °C, tc = 45 °C

Cooling capacity	5 589	W
Power input	2 359	W
Current consumption	7.40	A
Mass flow	133	kg/h
C.O.P.	2.37	

Pressure switch settings

Maximum HP switch setting	29.8	bar(g)
Minimum LP switch setting	0.5	bar(g)
LP pump down setting	0.95	bar(g)

Sound power data

Sound power level	71	dB(A)
With acoustic hood	63	dB(A)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Superheat = 10 K , Subcooling = 0 K

Tolerance according EN12900

Performance data at 60 Hz, EN 12900 rating conditions, Suction temp. = 20 °C
R22

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)							
	-20	-15	-10	-5	0	5	10	

Cooling capacity in W

16	4 395	5 573	6 952	8 532	-	-	-	-	-
20	4 353	5 493	6 830	8 362	10 091	-	-	-	-
30	4 137	5 186	6 418	7 833	9 432	11 215	13 182	-	-
40	-	4 752	5 882	7 183	8 655	10 298	12 112	-	-
50	-	-	-	6 444	7 792	9 298	10 962	-	-
60	-	-	-	-	6 874	8 246	9 764	-	-
68	-	-	-	-	-	-	8 793	-	-

Power input in W

16	1 100	1 158	1 218	1 287	-	-	-	-	-
20	1 284	1 334	1 385	1 442	1 510	-	-	-	-
30	1 691	1 730	1 765	1 801	1 844	1 899	1 970	-	-
40	-	2 115	2 147	2 175	2 204	2 241	2 290	-	-
50	-	-	-	2 629	2 658	2 689	2 728	-	-
60	-	-	-	-	3 272	3 310	3 351	-	-
68	-	-	-	-	-	-	4 028	-	-

Current consumption in A

16	3.45	3.63	3.82	4.04	-	-	-	-	-
20	4.03	4.19	4.35	4.52	4.74	-	-	-	-
30	5.31	5.43	5.54	5.65	5.79	5.96	6.18	-	-
40	-	6.64	6.74	6.82	6.92	7.03	7.19	-	-
50	-	-	-	8.25	8.34	8.44	8.56	-	-
60	-	-	-	-	10.27	10.39	10.51	-	-
68	-	-	-	-	-	-	12.64	-	-

Mass flow in kg/h

16	85	104	127	154	-	-	-	-	-
20	86	105	127	154	185	-	-	-	-
30	86	105	127	153	184	219	260	-	-
40	-	102	124	151	182	217	258	-	-
50	-	-	-	146	177	213	255	-	-
60	-	-	-	-	169	207	249	-	-
68	-	-	-	-	-	-	243	-	-

Coefficient of performance (C.O.P.)

16	4.00	4.81	5.71	6.63	-	-	-	-	-
20	3.39	4.12	4.93	5.80	6.68	-	-	-	-
30	2.45	3.00	3.64	4.35	5.11	5.91	6.69	-	-
40	-	2.25	2.74	3.30	3.93	4.60	5.29	-	-
50	-	-	-	2.45	2.93	3.46	4.02	-	-
60	-	-	-	-	2.10	2.49	2.91	-	-
68	-	-	-	-	-	-	2.18	-	-

Nominal performance at to = -10 °C, tc = 45 °C

Cooling capacity	5 578	W
Power input	2 359	W
Current consumption	7.40	A
Mass flow	122	kg/h
C.O.P.	2.36	

Pressure switch settings

Maximum HP switch setting	29.8	bar(g)
Minimum LP switch setting	0.5	bar(g)
LP pump down setting	0.95	bar(g)

Sound power data

Sound power level	71	dB(A)
With acoustic hood	63	dB(A)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Suction gas temp. = 20 °C , Subcooling = 0 K

Tolerance according EN12900

Performance data at 50 Hz, EN 12900 rating conditions, Superheat = 10 K
R134a

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)							
	-15	-10	-5	0	5	10	15	

Cooling capacity in W

22	2 767	3 475	4 332	5 348	6 532	-	-	-	-
30	2 556	3 221	4 027	4 983	6 101	7 389	-	-	-
40	2 275	2 881	3 617	4 493	5 521	6 709	8 069	-	-
50	-	2 521	3 181	3 971	4 901	5 983	7 225	-	-
60	-	-	2 725	3 421	4 248	5 216	6 335	-	-
70	-	-	-	2 851	3 568	4 415	5 404	-	-
73	-	-	-	2 677	3 359	4 169	5 117	-	-

Power input in W

22	818	824	831	841	855	-	-	-	-
30	971	983	993	1 002	1 014	1 030	-	-	-
40	1 180	1 203	1 220	1 234	1 246	1 259	1 275	-	-
50	-	1 461	1 489	1 511	1 528	1 542	1 556	-	-
60	-	-	1 815	1 849	1 875	1 895	1 911	-	-
70	-	-	-	2 264	2 303	2 333	2 355	-	-
73	-	-	-	2 406	2 450	2 483	2 508	-	-

Current consumption in A

22	3.15	3.17	3.20	3.24	3.29	-	-	-	-
30	3.74	3.78	3.82	3.86	3.90	3.96	-	-	-
40	4.54	4.63	4.70	4.75	4.79	4.85	4.91	-	-
50	-	5.62	5.73	5.81	5.88	5.94	5.99	-	-
60	-	-	6.99	7.12	7.22	7.29	7.36	-	-
70	-	-	-	8.72	8.86	8.98	9.07	-	-
73	-	-	-	9.26	9.43	9.56	9.65	-	-

Mass flow in kg/h

22	61	75	92	110	132	-	-	-	-
30	59	74	91	110	131	156	-	-	-
40	57	72	89	108	130	155	182	-	-
50	-	69	86	106	128	153	180	-	-
60	-	-	84	103	125	150	177	-	-
70	-	-	-	100	122	146	174	-	-
73	-	-	-	100	121	145	173	-	-

Coefficient of performance (C.O.P.)

22	3.38	4.22	5.21	6.36	7.64	-	-	-	-
30	2.63	3.28	4.06	4.97	6.02	7.18	-	-	-
40	1.93	2.39	2.96	3.64	4.43	5.33	6.33	-	-
50	-	1.73	2.14	2.63	3.21	3.88	4.64	-	-
60	-	-	1.50	1.85	2.27	2.75	3.31	-	-
70	-	-	-	1.26	1.55	1.89	2.29	-	-
73	-	-	-	1.11	1.37	1.68	2.04	-	-

Nominal performance at to = -10 °C, tc = 45 °C

Cooling capacity	2 703	W
Power input	1 326	W
Current consumption	5.10	A
Mass flow	71	kg/h
C.O.P.	2.04	

Pressure switch settings

Maximum HP switch setting	23.6	bar(g)
Minimum LP switch setting	0.45	bar(g)
LP pump down setting	0.85	bar(g)

Sound power data

Sound power level	67	dB(A)
With acoustic hood	59	dB(A)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Superheat = 10 K , Subcooling = 0 K

Tolerance according EN12900

Performance data at 50 Hz, EN 12900 rating conditions, Suction temp. = 20 °C

R134a

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)							
	-15	-10	-5	0	5	10	15	

Cooling capacity in W

22	2 811	3 516	4 366	5 371	6 543	-	-	-	-
30	-	3 281	4 079	5 022	6 121	7 389	-	-	-
40	-	-	3 691	4 551	5 554	6 709	8 031	-	-
50	-	-	3 278	4 048	4 946	5 983	7 168	-	-
60	-	-	-	3 517	4 305	5 216	-	-	-
70	-	-	-	-	3 637	4 415	-	-	-
73	-	-	-	-	3 432	4 169	-	-	-

Power input in W

22	818	824	831	841	855	-	-	-	-
30	-	983	993	1 002	1 014	1 030	-	-	-
40	-	-	1 220	1 234	1 246	1 259	1 275	-	-
50	-	-	1 489	1 511	1 528	1 542	1 556	-	-
60	-	-	-	1 849	1 875	1 895	-	-	-
70	-	-	-	-	2 303	2 333	-	-	-
73	-	-	-	-	2 450	2 483	-	-	-

Current consumption in A

22	3.15	3.17	3.20	3.24	3.29	-	-	-	-
30	-	3.78	3.82	3.86	3.90	3.96	-	-	-
40	-	-	4.70	4.75	4.79	4.85	4.91	-	-
50	-	-	5.73	5.81	5.88	5.94	5.99	-	-
60	-	-	-	7.12	7.22	7.29	-	-	-
70	-	-	-	-	8.86	8.98	-	-	-
73	-	-	-	-	9.43	9.56	-	-	-

Mass flow in kg/h

22	55	69	86	105	129	-	-	-	-
30	-	68	85	105	128	156	-	-	-
40	-	-	83	103	127	155	187	-	-
50	-	-	81	101	125	153	185	-	-
60	-	-	-	99	122	150	-	-	-
70	-	-	-	-	119	146	-	-	-
73	-	-	-	-	118	145	-	-	-

Coefficient of performance (C.O.P.)

22	3.44	4.27	5.25	6.39	7.66	-	-	-	-
30	-	3.34	4.11	5.01	6.04	7.18	-	-	-
40	-	-	3.03	3.69	4.46	5.33	6.30	-	-
50	-	-	2.20	2.68	3.24	3.88	4.61	-	-
60	-	-	-	1.90	2.30	2.75	-	-	-
70	-	-	-	-	1.58	1.89	-	-	-
73	-	-	-	-	1.40	1.68	-	-	-

Nominal performance at to = -10 °C, tc = 45 °C

Cooling capacity	-	W
Power input	-	W
Current consumption	-	A
Mass flow	-	kg/h
C.O.P.	-	

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Suction gas temp. = 20 °C , Subcooling = 0 K

Pressure switch settings

Maximum HP switch setting	23.6	bar(g)
Minimum LP switch setting	0.45	bar(g)
LP pump down setting	0.85	bar(g)

Sound power data

Sound power level	67	dB(A)
With acoustic hood	59	dB(A)

Tolerance according EN12900

Performance data at 60 Hz, EN 12900 rating conditions, Superheat = 10 K
R134a

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)							
	-15	-10	-5	0	5	10	15	

Cooling capacity in W

22	3 408	4 323	5 386	6 615	8 030	-	-	-	-
30	3 093	3 983	5 006	6 181	7 526	9 063	-	-	-
40	2 690	3 547	4 518	5 622	6 878	8 307	9 927	-	-
50	-	3 073	3 989	5 020	6 185	7 503	8 994	-	-
60	-	-	3 392	4 347	5 418	6 623	7 982	-	-
70	-	-	-	3 577	4 550	5 640	6 865	-	-
73	-	-	-	3 322	4 266	5 320	6 505	-	-

Power input in W

22	978	1 008	1 029	1 051	1 083	-	-	-	-
30	1 146	1 186	1 210	1 227	1 247	1 282	-	-	-
40	1 378	1 442	1 479	1 501	1 517	1 538	1 574	-	-
50	-	1 726	1 790	1 828	1 852	1 871	1 896	-	-
60	-	-	2 134	2 201	2 244	2 273	2 299	-	-
70	-	-	-	2 612	2 686	2 738	2 776	-	-
73	-	-	-	2 741	2 828	2 888	2 933	-	-

Current consumption in A

22	3.07	3.16	3.23	3.30	3.40	-	-	-	-
30	3.60	3.72	3.80	3.85	3.91	4.02	-	-	-
40	4.32	4.52	4.64	4.71	4.76	4.83	4.94	-	-
50	-	5.42	5.62	5.74	5.81	5.87	5.95	-	-
60	-	-	6.69	6.91	7.04	7.13	7.21	-	-
70	-	-	-	8.19	8.43	8.59	8.71	-	-
73	-	-	-	8.60	8.87	9.06	9.20	-	-

Mass flow in kg/h

22	78	94	115	140	169	-	-	-	-
30	77	94	115	139	167	198	-	-	-
40	74	91	113	137	165	195	228	-	-
50	-	86	109	134	162	192	224	-	-
60	-	-	103	130	159	189	222	-	-
70	-	-	-	125	155	187	220	-	-
73	-	-	-	123	154	186	220	-	-

Coefficient of performance (C.O.P.)

22	3.49	4.29	5.23	6.30	7.41	-	-	-	-
30	2.70	3.36	4.14	5.04	6.03	7.07	-	-	-
40	1.95	2.46	3.05	3.75	4.53	5.40	6.31	-	-
50	-	1.78	2.23	2.75	3.34	4.01	4.74	-	-
60	-	-	1.59	1.98	2.41	2.91	3.47	-	-
70	-	-	-	1.37	1.69	2.06	2.47	-	-
73	-	-	-	1.21	1.51	1.84	2.22	-	-

Nominal performance at to = -10 °C, tc = 45 °C

Cooling capacity	3 317	W
Power input	1 581	W
Current consumption	4.96	A
Mass flow	89	kg/h
C.O.P.	2.10	

Pressure switch settings

Maximum HP switch setting	23.6	bar(g)
Minimum LP switch setting	0.45	bar(g)
LP pump down setting	0.85	bar(g)

Sound power data

Sound power level	71	dB(A)
With acoustic hood	63	dB(A)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Superheat = 10 K , Subcooling = 0 K

Tolerance according EN12900

Performance data at 60 Hz, EN 12900 rating conditions, Suction temp. = 20 °C

R134a

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)							
	-15	-10	-5	0	5	10	15	

Cooling capacity in W

22	3 463	4 374	5 427	6 644	8 044	-	-	-	-
30	-	4 057	5 070	6 228	7 552	9 063	-	-	-
40	-	-	4 611	5 694	6 919	8 307	9 881	-	-
50	-	-	4 111	5 117	6 242	7 503	8 922	-	-
60	-	-	-	4 469	5 491	6 623	-	-	-
70	-	-	-	-	4 638	5 640	-	-	-
73	-	-	-	-	4 358	5 320	-	-	-

Power input in W

22	978	1 008	1 029	1 051	1 083	-	-	-	-
30	-	1 186	1 210	1 227	1 247	1 282	-	-	-
40	-	-	1 479	1 501	1 517	1 538	1 574	-	-
50	-	-	1 790	1 828	1 852	1 871	1 896	-	-
60	-	-	-	2 201	2 244	2 273	-	-	-
70	-	-	-	-	2 686	2 738	-	-	-
73	-	-	-	-	2 828	2 888	-	-	-

Current consumption in A

22	3.07	3.16	3.23	3.30	3.40	-	-	-	-
30	-	3.72	3.80	3.85	3.91	4.02	-	-	-
40	-	-	4.64	4.71	4.76	4.83	4.94	-	-
50	-	-	5.62	5.74	5.81	5.87	5.95	-	-
60	-	-	-	6.91	7.04	7.13	-	-	-
70	-	-	-	-	8.43	8.59	-	-	-
73	-	-	-	-	8.87	9.06	-	-	-

Mass flow in kg/h

22	70	87	108	134	165	-	-	-	-
30	-	86	107	133	163	198	-	-	-
40	-	-	105	131	161	195	234	-	-
50	-	-	102	128	158	192	230	-	-
60	-	-	-	124	155	189	-	-	-
70	-	-	-	-	152	187	-	-	-
73	-	-	-	-	151	186	-	-	-

Coefficient of performance (C.O.P.)

22	3.54	4.34	5.27	6.32	7.43	-	-	-	-
30	-	3.42	4.19	5.08	6.05	7.07	-	-	-
40	-	-	3.12	3.79	4.56	5.40	6.28	-	-
50	-	-	2.30	2.80	3.37	4.01	4.71	-	-
60	-	-	-	2.03	2.45	2.91	-	-	-
70	-	-	-	-	1.73	2.06	-	-	-
73	-	-	-	-	1.54	1.84	-	-	-

Nominal performance at to = -10 °C, tc = 45 °C

Cooling capacity	-	W
Power input	-	W
Current consumption	-	A
Mass flow	-	kg/h
C.O.P.	-	

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Suction gas temp. = 20 °C , Subcooling = 0 K

Pressure switch settings

Maximum HP switch setting	23.6	bar(g)
Minimum LP switch setting	0.45	bar(g)
LP pump down setting	0.85	bar(g)

Sound power data

Sound power level	71	dB(A)
With acoustic hood	63	dB(A)

Tolerance according EN12900

Performance data at 50 Hz, EN 12900 rating conditions, Suction temp. = 20 °C
R404A

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)								
	-30	-25	-20	-15	-10	-5	0	5	10

Cooling capacity in W

10	3 186	3 958	4 879	5 970	7 252	-	-	-	-
20	2 899	3 622	4 468	5 457	6 613	7 955	9 506	-	-
30	2 569	3 238	4 004	4 889	5 913	7 098	8 467	10 039	11 835
40	-	2 795	3 477	4 251	5 139	6 163	7 345	8 704	10 264
50	-	-	2 872	3 532	4 280	5 138	6 127	7 270	8 588
60	-	-	-	-	3 321	4 008	4 802	5 725	6 798

Power input in W

10	1 088	1 043	1 019	1 016	1 033	-	-	-	-
20	1 320	1 295	1 283	1 283	1 294	1 317	1 352	-	-
30	1 602	1 601	1 604	1 609	1 617	1 628	1 642	1 658	1 676
40	-	1 986	2 006	2 020	2 028	2 030	2 025	2 014	1 996
50	-	-	2 517	2 542	2 552	2 548	2 528	2 492	2 442
60	-	-	-	-	3 217	3 208	3 175	3 119	3 038

Current consumption in A

10	4.49	4.30	4.20	4.19	4.26	-	-	-	-
20	5.44	5.34	5.29	5.29	5.34	5.43	5.57	-	-
30	6.61	6.60	6.61	6.64	6.67	6.71	6.77	6.84	6.91
40	-	8.19	8.27	8.33	8.36	8.37	8.35	8.31	8.23
50	-	-	10.38	10.48	10.53	10.51	10.42	10.28	10.07
60	-	-	-	-	13.26	13.23	13.10	12.86	12.53

Mass flow in kg/h

10	58	77	98	122	149	-	-	-	-
20	61	79	99	122	150	181	218	-	-
30	62	79	98	121	148	179	216	259	309
40	-	77	96	118	144	175	212	255	304
50	-	-	91	113	138	169	206	248	298
60	-	-	-	-	131	161	197	240	290

Coefficient of performance (C.O.P.)

10	2.93	3.79	4.79	5.88	7.02	-	-	-	-
20	2.20	2.80	3.48	4.25	5.11	6.04	7.03	-	-
30	1.60	2.02	2.50	3.04	3.66	4.36	5.16	6.06	7.06
40	-	1.41	1.73	2.10	2.53	3.04	3.63	4.32	5.14
50	-	-	1.14	1.39	1.68	2.02	2.42	2.92	3.52
60	-	-	-	-	1.03	1.25	1.51	1.84	2.24

Nominal performance at to = -10 °C, tc = 45 °C

Cooling capacity	4 721	W
Power input	2 274	W
Current consumption	9.38	A
Mass flow	141	kg/h
C.O.P.	2.08	

Pressure switch settings

Maximum HP switch setting	29.7	bar(g)
Minimum LP switch setting	1.4	bar(g)
LP pump down setting	2	bar(g)

Sound power data

Sound power level	67	dB(A)
With acoustic hood	59	dB(A)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Suction gas temp. = 20 °C , Subcooling = 0 K

Tolerance according EN12900

Performance data at 50 Hz, EN 12900 rating conditions, Superheat = 10 K

R404A

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)								
	-30	-25	-20	-15	-10	-5	0	5	10

Cooling capacity in W

10	3 061	3 831	4 754	5 855	7 155	-	-	-	-
20	2 726	3 439	4 283	5 280	6 453	7 825	9 416	-	-
30	2 350	3 002	3 760	4 649	5 690	6 909	8 326	9 963	11 835
40	1 924	2 508	3 175	3 950	4 855	5 915	7 154	8 597	10 264
50	-	-	2 519	3 173	3 936	4 832	5 887	7 131	8 588
60	-	-	-	-	2 922	3 647	4 513	5 551	6 798

Power input in W

10	1 088	1 043	1 019	1 016	1 033	-	-	-	-
20	1 320	1 295	1 283	1 283	1 294	1 317	1 352	-	-
30	1 602	1 601	1 604	1 609	1 617	1 628	1 642	1 658	1 676
40	1 961	1 986	2 006	2 020	2 028	2 030	2 025	2 014	1 996
50	-	-	2 517	2 542	2 552	2 548	2 528	2 492	2 442
60	-	-	-	-	3 217	3 208	3 175	3 119	3 038

Current consumption in A

10	4.49	4.30	4.20	4.19	4.26	-	-	-	-
20	5.44	5.34	5.29	5.29	5.34	5.43	5.57	-	-
30	6.61	6.60	6.61	6.64	6.67	6.71	6.77	6.84	6.91
40	8.09	8.19	8.27	8.33	8.36	8.37	8.35	8.31	8.23
50	-	-	10.38	10.48	10.53	10.51	10.42	10.28	10.07
60	-	-	-	-	13.26	13.23	13.10	12.86	12.53

Mass flow in kg/h

10	69	90	112	137	165	-	-	-	-
20	73	92	114	138	165	196	231	-	-
30	74	92	113	136	163	194	229	267	309
40	73	90	110	133	159	189	224	262	304
50	-	-	105	127	153	183	217	256	298
60	-	-	-	-	145	174	208	247	290

Coefficient of performance (C.O.P.)

10	2.81	3.67	4.66	5.76	6.93	-	-	-	-
20	2.07	2.66	3.34	4.12	4.99	5.94	6.97	-	-
30	1.47	1.87	2.34	2.89	3.52	4.24	5.07	6.01	7.06
40	0.98	1.26	1.58	1.96	2.39	2.91	3.53	4.27	5.14
50	-	-	1.00	1.25	1.54	1.90	2.33	2.86	3.52
60	-	-	-	-	0.91	1.14	1.42	1.78	2.24

Nominal performance at to = -10 °C, tc = 45 °C

Cooling capacity	4 406	W
Power input	2 274	W
Current consumption	9.38	A
Mass flow	156	kg/h
C.O.P.	1.94	

Pressure switch settings

Maximum HP switch setting	29.7	bar(g)
Minimum LP switch setting	1.4	bar(g)
LP pump down setting	2	bar(g)

Sound power data

Sound power level	67	dB(A)
With acoustic hood	59	dB(A)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Superheat = 10 K , Subcooling = 0 K

Tolerance according EN12900

Performance data at 60 Hz, EN 12900 rating conditions, Suction temp. = 20 °C
R404A

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)								
	-30	-25	-20	-15	-10	-5	0	5	10

Cooling capacity in W

10	3 935	4 935	6 115	7 489	9 072	-	-	-	-
20	3 570	4 478	5 543	6 778	8 199	9 819	11 653	-	-
30	3 169	3 987	4 937	6 035	7 294	8 729	10 355	12 185	14 234
40	-	3 444	4 281	5 241	6 339	7 590	9 009	10 610	12 406
50	-	-	3 556	4 379	5 318	6 386	7 598	8 969	10 514
60	-	-	-	-	4 213	5 098	6 105	7 249	8 544

Power input in W

10	1 097	1 210	1 260	1 266	1 249	-	-	-	-
20	1 351	1 494	1 568	1 592	1 588	1 576	1 577	-	-
30	1 674	1 842	1 935	1 973	1 977	1 967	1 964	1 988	2 061
40	-	2 294	2 402	2 449	2 457	2 444	2 433	2 443	2 495
50	-	-	3 008	3 061	3 067	3 048	3 024	3 015	3 043
60	-	-	-	-	3 848	3 817	3 776	3 745	3 744

Current consumption in A

10	3.44	3.80	3.95	3.97	3.92	-	-	-	-
20	4.24	4.69	4.92	5.00	4.98	4.95	4.95	-	-
30	5.25	5.78	6.07	6.19	6.20	6.17	6.16	6.24	6.47
40	-	7.20	7.54	7.69	7.71	7.67	7.63	7.67	7.83
50	-	-	9.44	9.60	9.62	9.56	9.49	9.46	9.55
60	-	-	-	-	12.07	11.98	11.85	11.75	11.75

Mass flow in kg/h

10	67	94	122	153	188	-	-	-	-
20	72	97	123	152	185	224	270	-	-
30	73	97	123	150	182	219	263	316	379
40	-	94	119	146	178	214	257	309	371
50	-	-	113	140	172	208	251	303	365
60	-	-	-	-	164	201	245	298	360

Coefficient of performance (C.O.P.)

10	3.59	4.08	4.86	5.92	7.26	-	-	-	-
20	2.64	3.00	3.54	4.26	5.16	6.23	7.39	-	-
30	1.89	2.16	2.55	3.06	3.69	4.44	5.27	6.13	6.91
40	-	1.50	1.78	2.14	2.58	3.11	3.70	4.34	4.97
50	-	-	1.18	1.43	1.73	2.10	2.51	2.97	3.46
60	-	-	-	-	1.09	1.34	1.62	1.94	2.28

Nominal performance at to = -10 °C, tc = 45 °C

Cooling capacity	5 838	W
Power input	2 743	W
Current consumption	8.61	A
Mass flow	175	kg/h
C.O.P.	2.13	

Pressure switch settings

Maximum HP switch setting	29.7	bar(g)
Minimum LP switch setting	1.4	bar(g)
LP pump down setting	2	bar(g)

Sound power data

Sound power level	71	dB(A)
With acoustic hood	63	dB(A)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Suction gas temp. = 20 °C , Subcooling = 0 K

Tolerance according EN12900

Performance data at 60 Hz, EN 12900 rating conditions, Superheat = 10 K
R404A

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)								
	-30	-25	-20	-15	-10	-5	0	5	10

Cooling capacity in W

10	3 781	4 776	5 959	7 345	8 950	-	-	-	-
20	3 357	4 253	5 314	6 558	8 001	9 658	11 542	-	-
30	2 899	3 696	4 636	5 738	7 019	8 496	10 183	12 094	14 234
40	2 394	3 090	3 909	4 869	5 988	7 284	8 775	10 479	12 406
50	-	-	3 120	3 935	4 890	6 005	7 301	8 797	10 514
60	-	-	-	-	3 707	4 638	5 737	7 029	8 544

Power input in W

10	1 097	1 210	1 260	1 266	1 249	-	-	-	-
20	1 351	1 494	1 568	1 592	1 588	1 576	1 577	-	-
30	1 674	1 842	1 935	1 973	1 977	1 967	1 964	1 988	2 061
40	2 104	2 294	2 402	2 449	2 457	2 444	2 433	2 443	2 495
50	-	-	3 008	3 061	3 067	3 048	3 024	3 015	3 043
60	-	-	-	-	3 848	3 817	3 776	3 745	3 744

Current consumption in A

10	3.44	3.80	3.95	3.97	3.92	-	-	-	-
20	4.24	4.69	4.92	5.00	4.98	4.95	4.95	-	-
30	5.25	5.78	6.07	6.19	6.20	6.17	6.16	6.24	6.47
40	6.60	7.20	7.54	7.69	7.71	7.67	7.63	7.67	7.83
50	-	-	9.44	9.60	9.62	9.56	9.49	9.46	9.55
60	-	-	-	-	12.07	11.98	11.85	11.75	11.75

Mass flow in kg/h

10	79	110	140	172	207	-	-	-	-
20	85	114	142	172	204	242	285	-	-
30	87	114	141	169	201	237	278	325	379
40	83	110	137	165	196	231	272	318	371
50	-	-	129	158	189	225	266	312	365
60	-	-	-	-	181	217	259	306	360

Coefficient of performance (C.O.P.)

10	3.45	3.95	4.73	5.80	7.17	-	-	-	-
20	2.48	2.85	3.39	4.12	5.04	6.13	7.32	-	-
30	1.73	2.01	2.40	2.91	3.55	4.32	5.18	6.08	6.91
40	1.14	1.35	1.63	1.99	2.44	2.98	3.61	4.29	4.97
50	-	-	1.04	1.29	1.59	1.97	2.41	2.92	3.46
60	-	-	-	-	0.96	1.22	1.52	1.88	2.28

Nominal performance at to = -10 °C, tc = 45 °C

Cooling capacity	5 448	W
Power input	2 743	W
Current consumption	8.61	A
Mass flow	193	kg/h
C.O.P.	1.99	

Pressure switch settings

Maximum HP switch setting	29.7	bar(g)
Minimum LP switch setting	1.4	bar(g)
LP pump down setting	2	bar(g)

Sound power data

Sound power level	71	dB(A)
With acoustic hood	63	dB(A)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Superheat = 10 K , Subcooling = 0 K

Tolerance according EN12900

Performance data at 50 Hz, EN 12900 rating conditions, Suction temp. = 20 °C

R448A

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)								
	-30	-25	-20	-15	-10	-5	0	5	10

Cooling capacity in W

10	2 705	3 415	4 269	5 286	6 489	-	-	-	-
20	2 413	3 094	3 902	4 856	5 978	7 290	8 811	-	-
30	-	-	3 485	4 363	5 393	6 594	7 989	9 598	11 441
40	-	-	-	3 823	4 746	5 824	7 078	8 530	10 200
50	-	-	-	-	4 051	4 993	6 094	7 376	8 859
60	-	-	-	-	-	-	5 051	6 149	7 431

Power input in W

10	950	969	987	1 003	1 015	-	-	-	-
20	1 189	1 204	1 222	1 242	1 262	1 280	1 296	-	-
30	-	-	1 534	1 545	1 562	1 581	1 601	1 622	1 641
40	-	-	-	1 969	1 970	1 978	1 991	2 009	2 029
50	-	-	-	-	2 541	2 526	2 520	2 523	2 533
60	-	-	-	-	-	-	3 244	3 220	3 208

Current consumption in A

10	6.18	6.21	6.22	6.24	6.25	-	-	-	-
20	6.53	6.59	6.63	6.66	6.68	6.71	6.75	-	-
30	-	-	7.26	7.30	7.33	7.36	7.40	7.45	7.51
40	-	-	-	8.30	8.33	8.36	8.39	8.42	8.46
50	-	-	-	-	9.81	9.82	9.84	9.85	9.87
60	-	-	-	-	-	-	11.88	11.86	11.85

Mass flow in kg/h

10	44	56	70	87	108	-	-	-	-
20	42	55	69	86	107	131	160	-	-
30	-	-	67	84	104	128	157	191	230
40	-	-	-	80	100	124	153	186	226
50	-	-	-	-	95	119	147	180	219
60	-	-	-	-	-	-	140	172	210

Coefficient of performance (C.O.P.)

10	2.85	3.52	4.32	5.27	6.39	-	-	-	-
20	2.03	2.57	3.19	3.91	4.74	5.69	6.80	-	-
30	-	-	2.27	2.82	3.45	4.17	4.99	5.92	6.97
40	-	-	-	1.94	2.41	2.95	3.56	4.25	5.03
50	-	-	-	-	1.59	1.98	2.42	2.92	3.50
60	-	-	-	-	-	-	1.56	1.91	2.32

Nominal performance at to = -10 °C, tc = 45 °C

Cooling capacity	4 403	W
Power input	2 232	W
Current consumption	9.00	A
Mass flow	98	kg/h
C.O.P.	1.97	

Pressure switch settings

Maximum HP switch setting	29.7	bar(g)
Minimum LP switch setting	1.4	bar(g)
LP pump down setting	2	bar(g)

Sound power data

Sound power level		dB(A)
With acoustic hood		dB(A)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Suction gas temp. = 20 °C , Subcooling = 0 K

Tolerance according EN12900

Performance data at 50 Hz, EN 12900 rating conditions, Superheat = 10 K
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Cond. temp. in °C (tc)	Evaporating temperature in °C (to)								
	-30	-25	-20	-15	-10	-5	0	5	10

Cooling capacity in W

10	2 716	3 432	4 293	5 319	6 530	-	-	-	-
20	2 392	3 074	3 885	4 846	5 977	7 298	8 828	-	-
30	2 047	2 682	3 429	4 311	5 348	6 561	7 970	9 592	11 441
40	-	-	2 940	3 729	4 658	5 750	7 024	8 502	10 200
50	-	-	-	3 115	3 923	4 879	6 006	7 326	8 859
60	-	-	-	-	3 157	3 963	4 928	6 076	7 431

Power input in W

10	950	969	987	1 003	1 015	-	-	-	-
20	1 189	1 204	1 222	1 242	1 262	1 280	1 296	-	-
30	1 529	1 528	1 534	1 545	1 562	1 581	1 601	1 622	1 641
40	-	-	1 977	1 969	1 970	1 978	1 991	2 009	2 029
50	-	-	-	2 568	2 541	2 526	2 520	2 523	2 533
60	-	-	-	-	3 332	3 281	3 244	3 220	3 208

Current consumption in A

10	6.18	6.21	6.22	6.24	6.25	-	-	-	-
20	6.53	6.59	6.63	6.66	6.68	6.71	6.75	-	-
30	7.14	7.21	7.26	7.30	7.33	7.36	7.40	7.45	7.51
40	-	-	8.26	8.30	8.33	8.36	8.39	8.42	8.46
50	-	-	-	9.78	9.81	9.82	9.84	9.85	9.87
60	-	-	-	-	11.89	11.89	11.88	11.86	11.85

Mass flow in kg/h

10	52	65	80	98	118	-	-	-	-
20	50	63	79	96	117	141	168	-	-
30	47	61	76	94	114	138	165	196	230
40	-	-	72	90	110	134	161	191	226
50	-	-	-	85	105	128	155	185	219
60	-	-	-	-	98	120	147	177	210

Coefficient of performance (C.O.P.)

10	2.86	3.54	4.35	5.30	6.44	-	-	-	-
20	2.01	2.55	3.18	3.90	4.74	5.70	6.81	-	-
30	1.34	1.76	2.24	2.79	3.42	4.15	4.98	5.91	6.97
40	-	-	1.49	1.89	2.36	2.91	3.53	4.23	5.03
50	-	-	-	1.21	1.54	1.93	2.38	2.90	3.50
60	-	-	-	-	0.95	1.21	1.52	1.89	2.32

Nominal performance at to = -10 °C, tc = 45 °C

Cooling capacity	4 295	W
Power input	2 232	W
Current consumption	9.00	A
Mass flow	108	kg/h
C.O.P.	1.92	

Pressure switch settings

Maximum HP switch setting	29.7	bar(g)
Minimum LP switch setting	1.4	bar(g)
LP pump down setting	2	bar(g)

Sound power data

Sound power level		dB(A)
With acoustic hood		dB(A)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Superheat = 10 K , Subcooling = 0 K

Tolerance according EN12900

Performance data at 60 Hz, EN 12900 rating conditions, Suction temp. = 20 °C
R448A

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)								
	-30	-25	-20	-15	-10	-5	0	5	10

Cooling capacity in W

10	3 140	3 983	5 004	6 227	7 678	-	-	-	-
20	2 851	3 660	4 624	5 770	7 122	8 707	10 549	-	-
30	-	-	4 196	5 247	6 484	7 930	9 613	11 558	13 790
40	-	-	-	4 676	5 779	7 071	8 578	10 325	12 338
50	-	-	-	-	5 025	6 145	7 459	8 992	10 768
60	-	-	-	-	-	-	6 274	7 575	9 098

Power input in W

10	1 107	1 137	1 166	1 196	1 229	-	-	-	-
20	1 386	1 421	1 452	1 480	1 509	1 540	1 577	-	-
30	-	-	1 819	1 846	1 871	1 895	1 922	1 954	1 992
40	-	-	-	2 319	2 340	2 358	2 376	2 395	2 417
50	-	-	-	-	2 943	2 955	2 963	2 970	2 978
60	-	-	-	-	-	-	3 709	3 705	3 698

Current consumption in A

10	5.54	5.56	5.63	5.71	5.80	-	-	-	-
20	6.28	6.25	6.27	6.33	6.42	6.51	6.58	-	-
30	-	-	7.06	7.08	7.13	7.21	7.30	7.37	7.42
40	-	-	-	8.14	8.14	8.18	8.25	8.33	8.40
50	-	-	-	-	9.63	9.60	9.62	9.68	9.74
60	-	-	-	-	-	-	11.62	11.62	11.65

Mass flow in kg/h

10	51	65	83	103	128	-	-	-	-
20	50	64	82	102	127	156	191	-	-
30	-	-	80	101	125	154	189	230	278
40	-	-	-	98	122	151	185	226	273
50	-	-	-	-	118	146	180	220	266
60	-	-	-	-	-	-	173	212	258

Coefficient of performance (C.O.P.)

10	2.84	3.50	4.29	5.21	6.25	-	-	-	-
20	2.06	2.57	3.19	3.90	4.72	5.65	6.69	-	-
30	-	-	2.31	2.84	3.47	4.18	5.00	5.92	6.92
40	-	-	-	2.02	2.47	3.00	3.61	4.31	5.10
50	-	-	-	-	1.71	2.08	2.52	3.03	3.62
60	-	-	-	-	-	-	1.69	2.04	2.46

Nominal performance at to = -10 °C, tc = 45 °C

Cooling capacity	5 407	W
Power input	2 623	W
Current consumption	8.81	A
Mass flow	120	kg/h
C.O.P.	2.06	

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Suction gas temp. = 20 °C , Subcooling = 0 K

Pressure switch settings

Maximum HP switch setting	29.7	bar(g)
Minimum LP switch setting	1.4	bar(g)
LP pump down setting	2	bar(g)

Sound power data

Sound power level		dB(A)
With acoustic hood		dB(A)

Tolerance according EN12900

Performance data at 60 Hz, EN 12900 rating conditions, Superheat = 10 K
R448A

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)								
	-30	-25	-20	-15	-10	-5	0	5	10

Cooling capacity in W

10	3 153	4 003	5 032	6 265	7 728	-	-	-	-
20	2 826	3 636	4 605	5 758	7 121	8 717	10 569	-	-
30	2 485	3 238	4 129	5 184	6 429	7 890	9 591	11 552	13 790
40	-	-	3 621	4 561	5 672	6 981	8 512	10 291	12 338
50	-	-	-	3 905	4 865	6 005	7 351	8 930	10 768
60	-	-	-	-	4 025	4 979	6 122	7 485	9 098

Power input in W

10	1 107	1 137	1 166	1 196	1 229	-	-	-	-
20	1 386	1 421	1 452	1 480	1 509	1 540	1 577	-	-
30	1 746	1 786	1 819	1 846	1 871	1 895	1 922	1 954	1 992
40	-	-	2 292	2 319	2 340	2 358	2 376	2 395	2 417
50	-	-	-	2 924	2 943	2 955	2 963	2 970	2 978
60	-	-	-	-	3 703	3 710	3 709	3 705	3 698

Current consumption in A

10	5.54	5.56	5.63	5.71	5.80	-	-	-	-
20	6.28	6.25	6.27	6.33	6.42	6.51	6.58	-	-
30	7.24	7.11	7.06	7.08	7.13	7.21	7.30	7.37	7.42
40	-	-	8.21	8.14	8.14	8.18	8.25	8.33	8.40
50	-	-	-	9.72	9.63	9.60	9.62	9.68	9.74
60	-	-	-	-	11.80	11.68	11.62	11.62	11.65

Mass flow in kg/h

10	60	76	94	115	140	-	-	-	-
20	59	75	93	114	139	168	201	-	-
30	58	73	91	113	137	166	199	236	278
40	-	-	89	110	134	162	195	232	273
50	-	-	-	106	130	157	189	226	266
60	-	-	-	-	124	151	182	218	258

Coefficient of performance (C.O.P.)

10	2.85	3.52	4.32	5.24	6.29	-	-	-	-
20	2.04	2.56	3.17	3.89	4.72	5.66	6.70	-	-
30	1.42	1.81	2.27	2.81	3.44	4.16	4.99	5.91	6.92
40	-	-	1.58	1.97	2.42	2.96	3.58	4.30	5.10
50	-	-	-	1.34	1.65	2.03	2.48	3.01	3.62
60	-	-	-	-	1.09	1.34	1.65	2.02	2.46

Nominal performance at to = -10 °C, tc = 45 °C

Cooling capacity	5 274	W
Power input	2 623	W
Current consumption	8.81	A
Mass flow	132	kg/h
C.O.P.	2.01	

Pressure switch settings

Maximum HP switch setting	29.7	bar(g)
Minimum LP switch setting	1.4	bar(g)
LP pump down setting	2	bar(g)

Sound power data

Sound power level		dB(A)
With acoustic hood		dB(A)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Superheat = 10 K , Subcooling = 0 K

Tolerance according EN12900

Performance data at 50 Hz, EN 12900 rating conditions, Suction temp. = 20 °C
R449A

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)								
	-30	-25	-20	-15	-10	-5	0	5	10

Cooling capacity in W

10	2 705	3 415	4 269	5 286	6 489	-	-	-	-
20	2 413	3 094	3 902	4 856	5 978	7 290	8 811	-	-
30	-	-	3 485	4 363	5 393	6 594	7 989	9 598	11 441
40	-	-	-	3 823	4 746	5 824	7 078	8 530	10 200
50	-	-	-	-	4 051	4 993	6 094	7 376	8 859
60	-	-	-	-	-	-	5 051	6 149	7 431

Power input in W

10	950	969	987	1 003	1 015	-	-	-	-
20	1 189	1 204	1 222	1 242	1 262	1 280	1 296	-	-
30	-	-	1 534	1 545	1 562	1 581	1 601	1 622	1 641
40	-	-	-	1 969	1 970	1 978	1 991	2 009	2 029
50	-	-	-	-	2 541	2 526	2 520	2 523	2 533
60	-	-	-	-	-	-	3 244	3 220	3 208

Current consumption in A

10	6.18	6.21	6.22	6.24	6.25	-	-	-	-
20	6.53	6.59	6.63	6.66	6.68	6.71	6.75	-	-
30	-	-	7.26	7.30	7.33	7.36	7.40	7.45	7.51
40	-	-	-	8.30	8.33	8.36	8.39	8.42	8.46
50	-	-	-	-	9.81	9.82	9.84	9.85	9.87
60	-	-	-	-	-	-	11.88	11.86	11.85

Mass flow in kg/h

10	44	56	70	87	108	-	-	-	-
20	42	55	69	86	107	131	160	-	-
30	-	-	67	84	104	128	157	191	230
40	-	-	-	80	100	124	153	186	226
50	-	-	-	-	95	119	147	180	219
60	-	-	-	-	-	-	140	172	210

Coefficient of performance (C.O.P.)

10	2.85	3.52	4.32	5.27	6.39	-	-	-	-
20	2.03	2.57	3.19	3.91	4.74	5.69	6.80	-	-
30	-	-	2.27	2.82	3.45	4.17	4.99	5.92	6.97
40	-	-	-	1.94	2.41	2.95	3.56	4.25	5.03
50	-	-	-	-	1.59	1.98	2.42	2.92	3.50
60	-	-	-	-	-	-	1.56	1.91	2.32

Nominal performance at to = -10 °C, tc = 45 °C

Cooling capacity	4 403	W
Power input	2 232	W
Current consumption	9.00	A
Mass flow	98	kg/h
C.O.P.	1.97	

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Suction gas temp. = 20 °C , Subcooling = 0 K

Pressure switch settings

Maximum HP switch setting	29.7	bar(g)
Minimum LP switch setting	1.4	bar(g)
LP pump down setting	2	bar(g)

Sound power data

Sound power level		dB(A)
With acoustic hood		dB(A)

Tolerance according EN12900

Performance data at 50 Hz, EN 12900 rating conditions, Superheat = 10 K
R449A

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)								
	-30	-25	-20	-15	-10	-5	0	5	10

Cooling capacity in W

10	2 710	3 426	4 286	5 312	6 524	-	-	-	-
20	2 386	3 068	3 878	4 839	5 970	7 292	8 823	-	-
30	2 041	2 675	3 422	4 303	5 341	6 555	7 965	9 589	11 441
40	-	-	2 932	3 721	4 650	5 743	7 019	8 499	10 200
50	-	-	-	3 107	3 915	4 872	6 000	7 322	8 859
60	-	-	-	-	3 149	3 956	4 922	6 073	7 431

Power input in W

10	950	969	987	1 003	1 015	-	-	-	-
20	1 189	1 204	1 222	1 242	1 262	1 280	1 296	-	-
30	1 529	1 528	1 534	1 545	1 562	1 581	1 601	1 622	1 641
40	-	-	1 977	1 969	1 970	1 978	1 991	2 009	2 029
50	-	-	-	2 568	2 541	2 526	2 520	2 523	2 533
60	-	-	-	-	3 332	3 281	3 244	3 220	3 208

Current consumption in A

10	6.18	6.21	6.22	6.24	6.25	-	-	-	-
20	6.53	6.59	6.63	6.66	6.68	6.71	6.75	-	-
30	7.14	7.21	7.26	7.30	7.33	7.36	7.40	7.45	7.51
40	-	-	8.26	8.30	8.33	8.36	8.39	8.42	8.46
50	-	-	-	9.78	9.81	9.82	9.84	9.85	9.87
60	-	-	-	-	11.89	11.89	11.88	11.86	11.85

Mass flow in kg/h

10	52	65	80	98	118	-	-	-	-
20	50	63	79	96	117	141	168	-	-
30	47	61	76	94	114	138	165	196	230
40	-	-	72	90	110	134	161	191	226
50	-	-	-	85	105	128	155	185	219
60	-	-	-	-	98	120	147	177	210

Coefficient of performance (C.O.P.)

10	2.85	3.53	4.34	5.30	6.43	-	-	-	-
20	2.01	2.55	3.17	3.90	4.73	5.70	6.81	-	-
30	1.33	1.75	2.23	2.78	3.42	4.15	4.97	5.91	6.97
40	-	-	1.48	1.89	2.36	2.90	3.53	4.23	5.03
50	-	-	-	1.21	1.54	1.93	2.38	2.90	3.50
60	-	-	-	-	0.95	1.21	1.52	1.89	2.32

Nominal performance at to = -10 °C, tc = 45 °C

Cooling capacity	4 287	W
Power input	2 232	W
Current consumption	9.00	A
Mass flow	108	kg/h
C.O.P.	1.92	

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Superheat = 10 K , Subcooling = 0 K

Pressure switch settings

Maximum HP switch setting	29.7	bar(g)
Minimum LP switch setting	1.4	bar(g)
LP pump down setting	2	bar(g)

Sound power data

Sound power level		dB(A)
With acoustic hood		dB(A)

Tolerance according EN12900

Performance data at 60 Hz, EN 12900 rating conditions, Suction temp. = 20 °C
R449A

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)								
	-30	-25	-20	-15	-10	-5	0	5	10

Cooling capacity in W

10	3 140	3 983	5 004	6 227	7 678	-	-	-	-
20	2 851	3 660	4 624	5 770	7 122	8 707	10 549	-	-
30	-	-	4 196	5 247	6 484	7 930	9 613	11 558	13 790
40	-	-	-	4 676	5 779	7 071	8 578	10 325	12 338
50	-	-	-	-	5 025	6 145	7 459	8 992	10 768
60	-	-	-	-	-	-	6 274	7 575	9 098

Power input in W

10	1 107	1 137	1 166	1 196	1 229	-	-	-	-
20	1 386	1 421	1 452	1 480	1 509	1 540	1 577	-	-
30	-	-	1 819	1 846	1 871	1 895	1 922	1 954	1 992
40	-	-	-	2 319	2 340	2 358	2 376	2 395	2 417
50	-	-	-	-	2 943	2 955	2 963	2 970	2 978
60	-	-	-	-	-	-	3 709	3 705	3 698

Current consumption in A

10	5.54	5.56	5.63	5.71	5.80	-	-	-	-
20	6.28	6.25	6.27	6.33	6.42	6.51	6.58	-	-
30	-	-	7.06	7.08	7.13	7.21	7.30	7.37	7.42
40	-	-	-	8.14	8.14	8.18	8.25	8.33	8.40
50	-	-	-	-	9.63	9.60	9.62	9.68	9.74
60	-	-	-	-	-	-	11.62	11.62	11.65

Mass flow in kg/h

10	52	67	84	105	130	-	-	-	-
20	51	66	83	104	129	159	194	-	-
30	-	-	82	102	127	157	193	234	283
40	-	-	-	100	125	154	189	230	278
50	-	-	-	-	121	149	184	224	272
60	-	-	-	-	-	-	177	217	263

Coefficient of performance (C.O.P.)

10	2.84	3.50	4.29	5.21	6.25	-	-	-	-
20	2.06	2.57	3.19	3.90	4.72	5.65	6.69	-	-
30	-	-	2.31	2.84	3.47	4.18	5.00	5.92	6.92
40	-	-	-	2.02	2.47	3.00	3.61	4.31	5.10
50	-	-	-	-	1.71	2.08	2.52	3.03	3.62
60	-	-	-	-	-	-	1.69	2.04	2.46

Nominal performance at to = -10 °C, tc = 45 °C

Cooling capacity	5 407	W
Power input	2 623	W
Current consumption	8.81	A
Mass flow	123	kg/h
C.O.P.	2.06	

Pressure switch settings

Maximum HP switch setting	29.7	bar(g)
Minimum LP switch setting	1.4	bar(g)
LP pump down setting	2	bar(g)

Sound power data

Sound power level		dB(A)
With acoustic hood		dB(A)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Suction gas temp. = 20 °C , Subcooling = 0 K

Tolerance according EN12900

Performance data at 60 Hz, EN 12900 rating conditions, Superheat = 10 K
R449A

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)								
	-30	-25	-20	-15	-10	-5	0	5	10

Cooling capacity in W

10	3 146	3 995	5 024	6 258	7 721	-	-	-	-
20	2 819	3 628	4 597	5 750	7 113	8 710	10 563	-	-
30	2 477	3 230	4 120	5 175	6 421	7 883	9 585	11 548	13 790
40	-	-	3 611	4 551	5 663	6 972	8 506	10 287	12 338
50	-	-	-	3 895	4 856	5 996	7 344	8 926	10 768
60	-	-	-	-	4 015	4 970	6 115	7 481	9 098

Power input in W

10	1 107	1 137	1 166	1 196	1 229	-	-	-	-
20	1 386	1 421	1 452	1 480	1 509	1 540	1 577	-	-
30	1 746	1 786	1 819	1 846	1 871	1 895	1 922	1 954	1 992
40	-	-	2 292	2 319	2 340	2 358	2 376	2 395	2 417
50	-	-	-	2 924	2 943	2 955	2 963	2 970	2 978
60	-	-	-	-	3 703	3 710	3 709	3 705	3 698

Current consumption in A

10	5.54	5.56	5.63	5.71	5.80	-	-	-	-
20	6.28	6.25	6.27	6.33	6.42	6.51	6.58	-	-
30	7.24	7.11	7.06	7.08	7.13	7.21	7.30	7.37	7.42
40	-	-	8.21	8.14	8.14	8.18	8.25	8.33	8.40
50	-	-	-	9.72	9.63	9.60	9.62	9.68	9.74
60	-	-	-	-	11.80	11.68	11.62	11.62	11.65

Mass flow in kg/h

10	61	77	96	117	142	-	-	-	-
20	60	76	95	116	142	171	205	-	-
30	59	75	93	115	140	169	202	240	283
40	-	-	91	112	137	166	199	236	278
50	-	-	-	108	132	161	193	230	272
60	-	-	-	-	127	154	186	223	263

Coefficient of performance (C.O.P.)

10	2.84	3.51	4.31	5.23	6.28	-	-	-	-
20	2.03	2.55	3.17	3.88	4.71	5.65	6.70	-	-
30	1.42	1.81	2.27	2.80	3.43	4.16	4.99	5.91	6.92
40	-	-	1.58	1.96	2.42	2.96	3.58	4.30	5.10
50	-	-	-	1.33	1.65	2.03	2.48	3.01	3.62
60	-	-	-	-	1.08	1.34	1.65	2.02	2.46

Nominal performance at to = -10 °C, tc = 45 °C

Cooling capacity	5 264	W
Power input	2 623	W
Current consumption	8.81	A
Mass flow	135	kg/h
C.O.P.	2.01	

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Superheat = 10 K , Subcooling = 0 K

Pressure switch settings

Maximum HP switch setting	29.7	bar(g)
Minimum LP switch setting	1.4	bar(g)
LP pump down setting	2	bar(g)

Sound power data

Sound power level		dB(A)
With acoustic hood		dB(A)

Tolerance according EN12900

Performance data at 50 Hz, EN 12900 rating conditions, Suction temp. = 20 °C
R452A

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)								
	-30	-25	-20	-15	-10	-5	0	5	10

Cooling capacity in W

10	2 999	3 746	4 648	5 726	6 995	-	-	-	-
20	2 661	3 365	4 206	5 200	6 366	7 722	9 286	-	-
30	-	2 976	3 741	4 640	5 690	6 909	8 316	9 928	11 765
40	-	-	3 255	4 045	4 966	6 036	7 273	8 695	10 321
50	-	-	-	-	4 194	5 103	6 157	7 376	8 778
60	-	-	-	-	-	4 108	4 967	5 971	7 137

Power input in W

10	1 030	1 044	1 052	1 059	1 068	-	-	-	-
20	1 257	1 282	1 296	1 304	1 309	1 314	1 321	-	-
30	-	1 578	1 604	1 618	1 625	1 626	1 626	1 627	1 634
40	-	-	1 991	2 017	2 030	2 033	2 031	2 025	2 019
50	-	-	-	-	2 540	2 551	2 551	2 543	2 531
60	-	-	-	-	-	3 193	3 202	3 197	3 183

Current consumption in A

10	6.54	6.57	6.59	6.61	6.63	-	-	-	-
20	6.97	7.03	7.06	7.07	7.08	7.10	7.12	-	-
30	-	7.64	7.70	7.73	7.74	7.75	7.74	7.75	7.76
40	-	-	8.58	8.65	8.68	8.69	8.69	8.68	8.66
50	-	-	-	-	9.97	10.01	10.02	10.01	9.99
60	-	-	-	-	-	11.77	11.82	11.83	11.81

Mass flow in kg/h

10	60	76	95	118	145	-	-	-	-
20	58	75	94	116	143	175	212	-	-
30	-	72	91	113	140	172	209	253	304
40	-	-	88	110	136	168	205	248	299
50	-	-	-	-	132	163	199	242	293
60	-	-	-	-	-	156	193	235	285

Coefficient of performance (C.O.P.)

10	2.91	3.59	4.42	5.40	6.55	-	-	-	-
20	2.12	2.63	3.24	3.99	4.86	5.88	7.03	-	-
30	-	1.89	2.33	2.87	3.50	4.25	5.11	6.10	7.20
40	-	-	1.63	2.01	2.45	2.97	3.58	4.29	5.11
50	-	-	-	-	1.65	2.00	2.41	2.90	3.47
60	-	-	-	-	-	1.29	1.55	1.87	2.24

Nominal performance at to = -10 °C, tc = 45 °C

Cooling capacity	4 586	W
Power input	2 271	W
Current consumption	9.28	A
Mass flow	134	kg/h
C.O.P.	2.02	

Pressure switch settings

Maximum HP switch setting	29.7	bar(g)
Minimum LP switch setting	1.4	bar(g)
LP pump down setting	2	bar(g)

Sound power data

Sound power level		dB(A)
With acoustic hood		dB(A)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Suction gas temp. = 20 °C , Subcooling = 0 K

Tolerance according EN12900

Performance data at 50 Hz, EN 12900 rating conditions, Superheat = 10 K
R452A

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)								
	-30	-25	-20	-15	-10	-5	0	5	10

Cooling capacity in W

10	2 902	3 646	4 551	5 637	6 921	-	-	-	-
20	2 525	3 221	4 059	5 057	6 237	7 617	9 214	-	-
30	2 154	2 788	3 545	4 445	5 507	6 753	8 200	9 867	11 765
40	1 787	2 347	3 011	3 798	4 730	5 828	7 114	8 605	10 321
50	-	-	2 454	3 117	3 906	4 844	5 954	7 258	8 778
60	-	-	-	-	3 031	3 796	4 717	5 821	7 137

Power input in W

10	1 030	1 044	1 052	1 059	1 068	-	-	-	-
20	1 257	1 282	1 296	1 304	1 309	1 314	1 321	-	-
30	1 538	1 578	1 604	1 618	1 625	1 626	1 626	1 627	1 634
40	1 886	1 948	1 991	2 017	2 030	2 033	2 031	2 025	2 019
50	-	-	2 471	2 514	2 540	2 551	2 551	2 543	2 531
60	-	-	-	-	3 169	3 193	3 202	3 197	3 183

Current consumption in A

10	6.54	6.57	6.59	6.61	6.63	-	-	-	-
20	6.97	7.03	7.06	7.07	7.08	7.10	7.12	-	-
30	7.54	7.64	7.70	7.73	7.74	7.75	7.74	7.75	7.76
40	8.32	8.47	8.58	8.65	8.68	8.69	8.69	8.68	8.66
50	-	-	9.77	9.90	9.97	10.01	10.02	10.01	9.99
60	-	-	-	-	11.69	11.77	11.82	11.83	11.81

Mass flow in kg/h

10	72	89	109	132	159	-	-	-	-
20	69	87	107	130	157	188	224	-	-
30	67	84	104	127	154	185	220	260	304
40	64	81	101	124	150	181	216	255	299
50	-	-	96	119	145	175	210	249	293
60	-	-	-	-	139	169	203	242	285

Coefficient of performance (C.O.P.)

10	2.82	3.49	4.32	5.32	6.48	-	-	-	-
20	2.01	2.51	3.13	3.88	4.77	5.80	6.97	-	-
30	1.40	1.77	2.21	2.75	3.39	4.15	5.04	6.06	7.20
40	0.95	1.20	1.51	1.88	2.33	2.87	3.50	4.25	5.11
50	-	-	0.99	1.24	1.54	1.90	2.33	2.85	3.47
60	-	-	-	-	0.96	1.19	1.47	1.82	2.24

Nominal performance at to = -10 °C, tc = 45 °C

Cooling capacity	4 324	W
Power input	2 271	W
Current consumption	9.28	A
Mass flow	148	kg/h
C.O.P.	1.90	

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Superheat = 10 K , Subcooling = 0 K

Pressure switch settings

Maximum HP switch setting	29.7	bar(g)
Minimum LP switch setting	1.4	bar(g)
LP pump down setting	2	bar(g)

Sound power data

Sound power level		dB(A)
With acoustic hood		dB(A)

Tolerance according EN12900

Performance data at 60 Hz, EN 12900 rating conditions, Suction temp. = 20 °C
R452A

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)								
	-30	-25	-20	-15	-10	-5	0	5	10

Cooling capacity in W

10	3 645	4 525	5 585	6 847	8 333	-	-	-	-
20	3 246	4 087	5 087	6 267	7 650	9 255	11 103	-	-
30	-	3 617	4 536	5 614	6 872	8 331	10 013	11 937	14 125
40	-	-	3 939	4 893	6 006	7 298	8 792	10 507	12 466
50	-	-	-	-	5 059	6 164	7 448	8 934	10 641
60	-	-	-	-	-	4 934	5 989	7 223	8 660

Power input in W

10	1 269	1 303	1 332	1 356	1 371	-	-	-	-
20	1 518	1 555	1 589	1 619	1 643	1 661	1 670	-	-
30	-	1 892	1 925	1 955	1 983	2 005	2 021	2 028	2 027
40	-	-	2 376	2 401	2 425	2 446	2 463	2 473	2 476
50	-	-	-	-	3 007	3 021	3 032	3 039	3 041
60	-	-	-	-	-	3 766	3 765	3 763	3 758

Current consumption in A

10	6.08	6.11	6.15	6.20	6.27	-	-	-	-
20	6.71	6.74	6.78	6.83	6.88	6.93	6.98	-	-
30	-	7.46	7.52	7.58	7.63	7.68	7.71	7.72	7.71
40	-	-	8.46	8.55	8.62	8.68	8.71	8.71	8.69
50	-	-	-	-	9.95	10.03	10.08	10.10	10.07
60	-	-	-	-	-	11.85	11.93	11.97	11.96

Mass flow in kg/h

10	73	92	115	141	172	-	-	-	-
20	71	91	113	140	171	209	254	-	-
30	-	88	111	137	169	207	252	304	365
40	-	-	107	133	165	203	248	300	361
50	-	-	-	-	159	197	241	294	355
60	-	-	-	-	-	188	232	284	345

Coefficient of performance (C.O.P.)

10	2.87	3.47	4.19	5.05	6.08	-	-	-	-
20	2.14	2.63	3.20	3.87	4.65	5.57	6.65	-	-
30	-	1.91	2.36	2.87	3.47	4.16	4.96	5.89	6.97
40	-	-	1.66	2.04	2.48	2.98	3.57	4.25	5.03
50	-	-	-	-	1.68	2.04	2.46	2.94	3.50
60	-	-	-	-	-	1.31	1.59	1.92	2.30

Nominal performance at to = -10 °C, tc = 45 °C

Cooling capacity	5 542	W
Power input	2 697	W
Current consumption	9.24	A
Mass flow	162	kg/h
C.O.P.	2.06	

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Suction gas temp. = 20 °C , Subcooling = 0 K

Pressure switch settings

Maximum HP switch setting	29.7	bar(g)
Minimum LP switch setting	1.4	bar(g)
LP pump down setting	2	bar(g)

Sound power data

Sound power level		dB(A)
With acoustic hood		dB(A)

Tolerance according EN12900

Performance data at 60 Hz, EN 12900 rating conditions, Superheat = 10 K
R452A

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)								
	-30	-25	-20	-15	-10	-5	0	5	10

Cooling capacity in W

10	3 528	4 405	5 468	6 741	8 245	-	-	-	-
20	3 081	3 911	4 909	6 096	7 495	9 129	11 018	-	-
30	2 626	3 389	4 298	5 377	6 651	8 143	9 873	11 863	14 125
40	2 172	2 845	3 644	4 595	5 721	7 047	8 599	10 399	12 466
50	-	-	2 955	3 755	4 712	5 852	7 202	8 790	10 641
60	-	-	-	-	3 628	4 560	5 687	7 042	8 660

Power input in W

10	1 269	1 303	1 332	1 356	1 371	-	-	-	-
20	1 518	1 555	1 589	1 619	1 643	1 661	1 670	-	-
30	1 858	1 892	1 925	1 955	1 983	2 005	2 021	2 028	2 027
40	2 326	2 350	2 376	2 401	2 425	2 446	2 463	2 473	2 476
50	-	-	2 978	2 993	3 007	3 021	3 032	3 039	3 041
60	-	-	-	-	3 765	3 766	3 765	3 763	3 758

Current consumption in A

10	6.08	6.11	6.15	6.20	6.27	-	-	-	-
20	6.71	6.74	6.78	6.83	6.88	6.93	6.98	-	-
30	7.40	7.46	7.52	7.58	7.63	7.68	7.71	7.72	7.71
40	8.27	8.37	8.46	8.55	8.62	8.68	8.71	8.71	8.69
50	-	-	9.72	9.85	9.95	10.03	10.08	10.10	10.07
60	-	-	-	-	11.73	11.85	11.93	11.97	11.96

Mass flow in kg/h

10	87	108	131	158	190	-	-	-	-
20	85	106	129	157	189	225	267	-	-
30	81	103	126	154	186	223	265	313	365
40	77	98	122	150	182	219	261	309	361
50	-	-	116	143	175	212	254	302	355
60	-	-	-	-	166	203	245	292	345

Coefficient of performance (C.O.P.)

10	2.78	3.38	4.10	4.97	6.01	-	-	-	-
20	2.03	2.52	3.09	3.77	4.56	5.50	6.60	-	-
30	1.41	1.79	2.23	2.75	3.35	4.06	4.89	5.85	6.97
40	0.93	1.21	1.53	1.91	2.36	2.88	3.49	4.20	5.03
50	-	-	0.99	1.25	1.57	1.94	2.38	2.89	3.50
60	-	-	-	-	0.96	1.21	1.51	1.87	2.30

Nominal performance at to = -10 °C, tc = 45 °C

Cooling capacity	5 226	W
Power input	2 697	W
Current consumption	9.24	A
Mass flow	179	kg/h
C.O.P.	1.94	

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Superheat = 10 K , Subcooling = 0 K

Pressure switch settings

Maximum HP switch setting	29.7	bar(g)
Minimum LP switch setting	1.4	bar(g)
LP pump down setting	2	bar(g)

Sound power data

Sound power level		dB(A)
With acoustic hood		dB(A)

Tolerance according EN12900