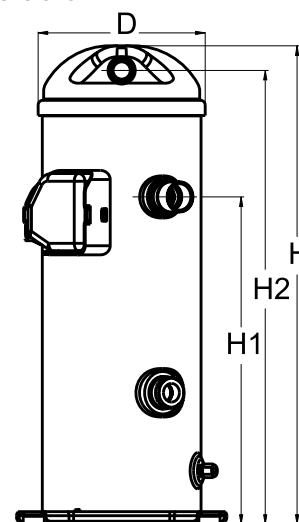


**General Characteristics**

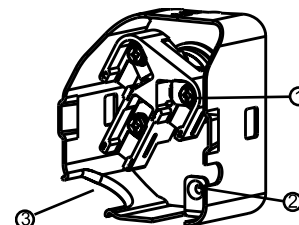
	<b>MLZ066T2LC9</b>	<b>MLZ066T2LC9</b>
Model number (on compressor nameplate)	121U8054	120U8054
Code number for Singlepack*	121U8053	120U8053
Code number for Industrial pack**	0SR6167B-3	0SR6167B-3
Drawing number	Brazed	Brazed
Suction and discharge connections	1-1/8" ODF	1-1/8" ODF
Suction connection	7/8" ODF	7/8" ODF
Discharge connection	Threaded	Threaded
Oil sight glass	None	None
Oil equalisation connection	1/4" flare	1/4" flare
Oil drain connection	None	None
LP gauge port	None	None
IPR valve	None	None
Swept volume	148.8 cm <sup>3</sup> /rev	
Displacement @ Nominal speed	25.9 m <sup>3</sup> /h @ 2900 rpm - 31.3 m <sup>3</sup> /h @ 3500 rpm	
Net weight	47 kg	
Oil charge	2.66 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	7.26 kg	
Approved refrigerants	R404A, R507, R134a, R407C, R22	

**Dimensions**


D=185 mm  
H=545 mm  
H1=369 mm  
H2=509 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	0.319 Ω
Winding resistance between phases 1-3 +/- 7% at 25°C	0.315 Ω
Winding resistance between phases 2-3 +/- 7% at 25°C	0.327 Ω
Rated Load Amps (RLA)	29.5 A
Maximum Continuous Current (MCC)	46 A
Locked Rotor Amps (LRA)	235 A
Motor protection	Internal overload protector

**Terminal box**


IP22

- 1: Screw connectors 10-32 UNF x 9.5
- 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	3 Nm / 2 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, P02 (1-3/4" Rotolock, 1-1/8" ODF)	8153004
Rotolock valve, V02 (1-3/4" Rotolock, 1-1/8" ODF)	8168028
Gasket, 1-3/4"	8156132

**Rotolock accessories, discharge side**

**Code no.**

Rotolock valve, V05 (1-1/4" Rotolock, 7/8" ODF)	8168030
Gasket, 1-3/4"	8156132

**Rotolock accessories, sets**

**Code no.**

Solder sleeve adapter set (1-3/4" Rotolock, 1-1/8" ODF), (1-1/4" Rotolock, 7/8" ODF)	120Z0125
Valve set, V02(1"3/4~1"1/8), V05(1"1/4~7/8")	120Z0403
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, 230 V, UL	120Z5011
Belt type crankcase heater, 65 W, 230 V, CE mark, UL	120Z0059

**Miscellaneous accessories**

**Code no.**

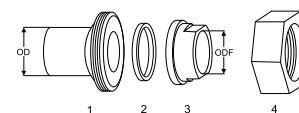
Acoustic hood	120Z5045
Discharge thermostat kit	7750009
IP54 upgrade kit	118U0057

**Spare parts**

**Code no.**

Mounting kit for 1 scroll compressor including 4 grommets, 4 sleeves, 4 bolts, 4 washers	120Z5005
Terminal box cover	120Z5018

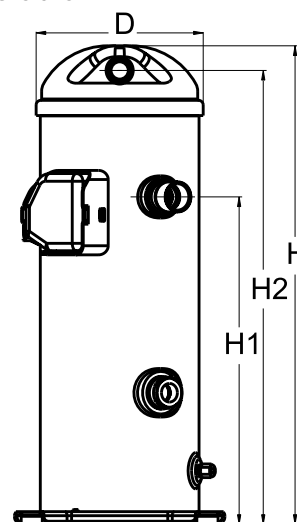
**Solder sleeve adapter set**



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

**General Characteristics**

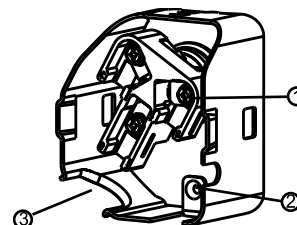
Model number (on compressor nameplate)	MLZ066T2LC9A	MLZ066T2LC9A
Code number for Singlepack*	121U8685	121L8685
Code number for Industrial pack**	121U8684	121L8684
Drawing number	0SR6167B-3	0SR6167B-3
Suction and discharge connections	Brazed	Brazed
Suction connection	1-1/8" ODF	1-1/8" ODF
Discharge connection	7/8" ODF	7/8" 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	None	None
Swept volume	148.8 cm <sup>3</sup> /rev	
Displacement @ Nominal speed	25.9 m <sup>3</sup> /h @ 2900 rpm - 31.3 m <sup>3</sup> /h @ 3500 rpm	
Net weight	47 kg	
Oil charge	2.66 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	7.26 kg	
Approved refrigerants	R404A,R507,R134a,R407A,R407F,R448A,R449A,R452A,R22	

**Dimensions**


D=185 mm  
H=545 mm  
H1=369 mm  
H2=509 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	0.319 Ω
Winding resistance between phases 1-3 +/- 7% at 25°C	0.315 Ω
Winding resistance between phases 2-3 +/- 7% at 25°C	0.327 Ω
Rated Load Amps (RLA)	29.5 A
Maximum Continuous Current (MCC)	46 A
Locked Rotor Amps (LRA)	235 A
Motor protection	Internal overload protector

**Terminal box**


IP22

- 1: Screw connectors 10-32 UNF x 9.5
- 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	3 Nm / 2 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, P02 (1-3/4" Rotolock, 1-1/8" ODF)	8153004
Rotolock valve, V02 (1-3/4" Rotolock, 1-1/8" ODF)	8168028
Gasket, 1-3/4"	8156132

**Rotolock accessories, discharge side**

**Code no.**

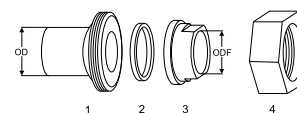
Rotolock valve, V05 (1-1/4" Rotolock, 7/8" ODF)	8168030
Gasket, 1-3/4"	8156132

**Rotolock accessories, sets**

**Code no.**

Solder sleeve adapter set (1-3/4" Rotolock, 1-1/8" ODF), (1-1/4" Rotolock, 7/8" ODF)	120Z0125
Valve set, V02(1"3/4~1"1/8), V05(1"1/4~7/8")	120Z0403
Gasket set, 1", 1-1/4", 1-3/4", OSG gaskets black & white	8156009

**Solder sleeve adapter set**



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

**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, 230 V, UL	120Z5011
Belt type crankcase heater, 65 W, 230 V, CE mark, UL	120Z0059

**Miscellaneous accessories**

**Code no.**

Acoustic hood	120Z5085
Discharge thermostat kit	7750009
IP54 upgrade kit	118U0057

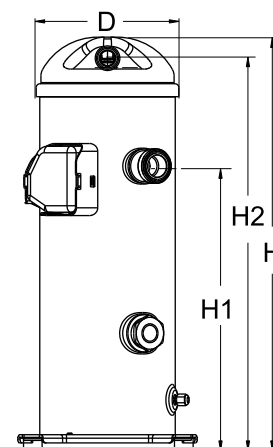
**Spare parts**

**Code no.**

Mounting kit for 1 scroll compressor including 4 grommets, 4 sleeves, 4 bolts, 4 washers	120Z5005
Terminal box cover	120Z5018

**General Characteristics**

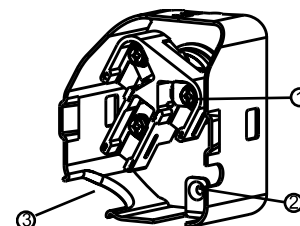
Model number (on compressor nameplate)		<b>MLZ066T2LQ9</b>
Code number for Singlepack*		121U8623
Code number for Industrial pack**		121U8622
Drawing number		0SR6307B-3
Suction and discharge connections		Rotolock
Suction connection		1-3/4 " Rotolock
Discharge connection		1-1/4 " Rotolock
Suction connection with supplied sleeve		1-1/8 " -
Discharge connection with supplied sleeve	- "	7/8 " -
Oil sight glass		Threaded
Oil equalisation connection		None
Oil drain connection		None
LP gauge port		None
IPR valve		None
Swept volume		148.8 cm <sup>3</sup> /rev
Displacement @ Nominal speed		25.9 m <sup>3</sup> /h @ 2900 rpm - 31.3 m <sup>3</sup> /h @ 3500 rpm
Net weight		47 kg
Oil charge		2.66 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		7.26 kg
Approved refrigerants		R404A, R507, R134a, R407C, R22

**Dimensions**


D=184 mm  
H=545.2 mm  
H1=369.2 mm  
H2=518 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	0.319 Ω
Winding resistance between phases 1-3 +/- 7% at 25°C	0.315 Ω
Winding resistance between phases 2-3 +/- 7% at 25°C	0.327 Ω
Rated Load Amps (RLA)	29.5 A
Maximum Continuous Current (MCC)	46 A
Locked Rotor Amps (LRA)	235 A
Motor protection	Internal overload protector

**Terminal box**


IP22

- 1: Screw connectors 10-32 UNF x 9.5
- 2: Earth connection
- 3: Power cable passage

**Recommended Installation torques**

Oil sight glass	52.5 Nm
Power connections / Earth connection	3 Nm / 2 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.**

Rotolock valve, V02 (1-3/4" Rotolock, 1-1/8" ODF)	8168028
Gasket, 1-3/4"	8156132

**Rotolock accessories, discharge side**
**Code no.**

Rotolock valve, V05 (1-1/4" Rotolock, 7/8" ODF)	8168030
Gasket, 1-1/4"	8156131

**Rotolock accessories, sets**
**Code no.**

Teflon seals, sleeves, nuts for discharge and suction (1"1/4 and 1"1/4)	120Z5076
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.**

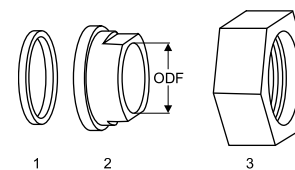
Belt type crankcase heater, 70 W, 230 V, UL	120Z5011
Belt type crankcase heater, 65 W, 230 V, CE mark, UL	120Z0059

**Miscellaneous accessories**
**Code no.**

Acoustic hood	120Z5045
Discharge thermostat kit	7750009
IP54 upgrade kit	118U0057

**Spare parts**
**Code no.**

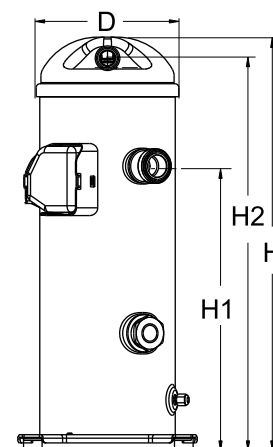
Mounting kit for 1 scroll compressor including 4 grommets, 4 sleeves, 4 bolts, 4 washers	120Z5005
Terminal box cover	120Z5018

**Gaskets, sleeves and nuts**


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

**General Characteristics**

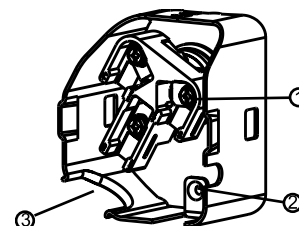
Model number (on compressor nameplate)	MLZ066T2LC9A	MLZ066T2LQ9A
Code number for Singlepack*	120U8685	121U8827
Code number for Industrial pack**	120U8684	121U8826
Drawing number	0SR6167B-3	0SR6307B-3
Suction and discharge connections	Brazed	Rotolock
Suction connection	1-1/8" ODF	1-3/4" Rotolock
Discharge connection	7/8" ODF	1-1/4" Rotolock
Suction connection with supplied sleeve		1-1/8" -
Discharge connection with supplied sleeve	- "	7/8" -
Oil sight glass	Threaded	Threaded
Oil equalisation connection	None	None
Oil drain connection	1/4" flare	None
LP gauge port	None	None
IPR valve	None	None
Swept volume	148.8 cm <sup>3</sup> /rev	
Displacement @ Nominal speed	25.9 m <sup>3</sup> /h @ 2900 rpm - 31.3 m <sup>3</sup> /h @ 3500 rpm	
Net weight	47 kg	
Oil charge	2.66 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	7.26 kg	
Approved refrigerants	R404A, R507, R134a, R407A, R407F, R448A, R449A, R452A, R22	

**Dimensions**


D=184 mm  
H=545.2 mm  
H1=369.2 mm  
H2=518 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	0.319 Ω
Winding resistance between phases 1-3 +/- 7% at 25°C	0.315 Ω
Winding resistance between phases 2-3 +/- 7% at 25°C	0.327 Ω
Rated Load Amps (RLA)	29.5 A
Maximum Continuous Current (MCC)	46 A
Locked Rotor Amps (LRA)	235 A
Motor protection	Internal overload protector

**Terminal box**


IP22

- 1: Screw connectors 10-32 UNF x 9.5
- 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	3 Nm / 2 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.**

Rotolock valve, V02 (1-3/4" Rotolock, 1-1/8" ODF)	8168028
Gasket, 1-3/4"	8156132

**Rotolock accessories, discharge side**
**Code no.**

Rotolock valve, V05 (1-1/4" Rotolock, 7/8" ODF)	8168030
Gasket, 1-1/4"	8156131

**Rotolock accessories, sets**
**Code no.**

Teflon seals, sleeves, nuts for discharge and suction (1"1/4 and 1"1/4)	120Z5076
Gasket set, 1", 1-1/4", 1-3/4", OSG gaskets black & white	8156009

**Oil / lubricants**
**Code no.**

POE lubricant, 215PZ(PL46HB), 1 litre can	120Z0648
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**Crankcase heaters**
**Code no.**

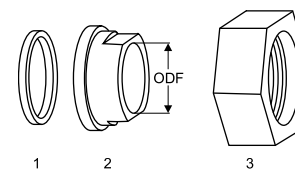
Belt type crankcase heater, 70 W, 230 V, UL	120Z5011
Belt type crankcase heater, 65 W, 230 V, CE mark, UL	120Z0059

**Miscellaneous accessories**
**Code no.**

Acoustic hood	120Z5085
Discharge thermostat kit	7750009
IP54 upgrade kit	118U0057

**Spare parts**
**Code no.**

Mounting kit for 1 scroll compressor including 4 grommets, 4 sleeves, 4 bolts, 4 washers	120Z5005
Terminal box cover	120Z5018

**Gaskets, sleeves and nuts**


1

2

3

- 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	11 943	14 987	18 626	22 834	-	-	-	-	-
20	11 417	14 368	17 902	21 991	26 607	-	-	-	-
30	10 367	13 088	16 357	20 151	24 444	29 203	34 389	-	-
40	9 438	11 930	14 935	18 436	22 407	26 823	31 646	-	-
50	-	10 580	13 324	16 532	20 184	24 258	28 723	-	-
60	-	-	-	14 132	17 465	21 198	25 307	-	-
68	-	-	-	-	-	18 187	22 010	-	-

**Power input in W**

16	2 967	2 953	2 933	2 927	-	-	-	-	-
20	3 409	3 416	3 410	3 413	3 448	-	-	-	-
30	4 342	4 398	4 425	4 448	4 488	4 568	4 711	-	-
40	5 236	5 336	5 394	5 433	5 475	5 542	5 658	-	-
50	-	6 486	6 572	6 624	6 664	6 716	6 800	-	-
60	-	-	-	8 276	8 312	8 344	8 395	-	-
68	-	-	-	-	-	10 147	10 169	-	-

**Current consumption in A**

16	11.42	11.37	11.29	11.27	-	-	-	-	-
20	13.12	13.15	13.12	13.14	13.27	-	-	-	-
30	16.71	16.93	17.03	17.12	17.28	17.58	18.13	-	-
40	20.15	20.54	20.76	20.91	21.07	21.33	21.78	-	-
50	-	24.97	25.30	25.50	25.65	25.85	26.17	-	-
60	-	-	-	31.86	31.99	32.12	32.31	-	-
68	-	-	-	-	-	39.06	39.14	-	-

**Mass flow in kg/h**

16	235	288	350	423	-	-	-	-	-
20	235	288	350	422	504	-	-	-	-
30	231	285	348	420	501	590	687	-	-
40	220	276	341	414	495	584	681	-	-
50	-	259	326	401	484	574	671	-	-
60	-	-	-	380	466	558	657	-	-
68	-	-	-	-	-	539	640	-	-

**Coefficient of performance (C.O.P.)**

16	4.03	5.07	6.35	7.80	-	-	-	-	-
20	3.35	4.21	5.25	6.44	7.72	-	-	-	-
30	2.39	2.98	3.70	4.53	5.45	6.39	7.30	-	-
40	1.80	2.24	2.77	3.39	4.09	4.84	5.59	-	-
50	-	1.63	2.03	2.50	3.03	3.61	4.22	-	-
60	-	-	-	1.71	2.10	2.54	3.01	-	-
68	-	-	-	-	-	1.79	2.16	-	-

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

Cooling capacity	14 173	W
Power input	5 941	W
Current consumption	22.87	A
Mass flow	335	kg/h
C.O.P.	2.39	

**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	74	dB(A)
With acoustic hood	66	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	11 652	14 666	18 286	22 498	-	-	-	-	-
20	11 168	14 092	17 607	21 698	26 348	-	-	-	-
30	10 217	12 917	16 169	19 959	24 269	29 085	34 389	-	-
40	-	11 863	14 854	18 344	22 317	26 757	31 646	-	-
50	-	-	-	16 543	20 180	24 245	28 723	-	-
60	-	-	-	-	17 546	21 239	25 307	-	-
68	-	-	-	-	-	-	22 010	-	-

**Power input in W**

16	2 967	2 953	2 933	2 927	-	-	-	-	-
20	3 409	3 416	3 410	3 413	3 448	-	-	-	-
30	4 342	4 398	4 425	4 448	4 488	4 568	4 711	-	-
40	-	5 336	5 394	5 433	5 475	5 542	5 658	-	-
50	-	-	-	6 624	6 664	6 716	6 800	-	-
60	-	-	-	-	8 312	8 344	8 395	-	-
68	-	-	-	-	-	-	10 169	-	-

**Current consumption in A**

16	11.42	11.37	11.29	11.27	-	-	-	-	-
20	13.12	13.15	13.12	13.14	13.27	-	-	-	-
30	16.71	16.93	17.03	17.12	17.28	17.58	18.13	-	-
40	-	20.54	20.76	20.91	21.07	21.33	21.78	-	-
50	-	-	-	25.50	25.65	25.85	26.17	-	-
60	-	-	-	-	31.99	32.12	32.31	-	-
68	-	-	-	-	-	-	39.14	-	-

**Mass flow in kg/h**

16	207	258	320	395	-	-	-	-	-
20	207	258	320	394	480	-	-	-	-
30	204	256	319	392	478	576	687	-	-
40	-	248	312	386	472	570	681	-	-
50	-	-	-	375	462	560	671	-	-
60	-	-	-	-	444	544	657	-	-
68	-	-	-	-	-	-	640	-	-

**Coefficient of performance (C.O.P.)**

16	3.93	4.97	6.24	7.69	-	-	-	-	-
20	3.28	4.13	5.16	6.36	7.64	-	-	-	-
30	2.35	2.94	3.65	4.49	5.41	6.37	7.30	-	-
40	-	2.22	2.75	3.38	4.08	4.83	5.59	-	-
50	-	-	-	2.50	3.03	3.61	4.22	-	-
60	-	-	-	-	2.11	2.55	3.01	-	-
68	-	-	-	-	-	-	2.16	-	-

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

Cooling capacity	14 145	W
Power input	5 941	W
Current consumption	22.87	A
Mass flow	306	kg/h
C.O.P.	2.38	

**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	74	dB(A)
With acoustic hood	66	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**
**R22**

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

**Cooling capacity in W**

16	14 347	17 897	22 203	27 216	-	-	-	-	-
20	13 709	17 185	21 395	26 294	31 829	-	-	-	-
30	12 382	15 656	19 614	24 213	29 405	35 138	41 346	-	-
40	11 199	14 252	17 939	22 219	27 050	32 384	38 164	-	-
50	-	12 684	16 079	20 022	24 475	29 394	34 728	-	-
60	-	-	-	17 340	21 395	25 880	30 754	-	-
68	-	-	-	-	-	22 502	26 992	-	-

**Power input in W**

16	3 692	3 816	3 964	4 129	-	-	-	-	-
20	4 067	4 198	4 349	4 514	4 686	-	-	-	-
30	5 031	5 183	5 345	5 511	5 676	5 831	5 972	-	-
40	6 125	6 303	6 481	6 654	6 815	6 958	7 077	-	-
50	-	7 676	7 875	8 059	8 221	8 357	8 458	-	-
60	-	-	-	9 844	10 013	10 145	10 233	-	-
68	-	-	-	-	-	11 935	12 017	-	-

**Current consumption in A**

16	11.58	11.97	12.44	12.96	-	-	-	-	-
20	12.76	13.17	13.65	14.16	14.70	-	-	-	-
30	15.79	16.26	16.77	17.29	17.81	18.30	18.74	-	-
40	19.22	19.78	20.34	20.88	21.38	21.83	22.21	-	-
50	-	24.08	24.71	25.29	25.80	26.22	26.54	-	-
60	-	-	-	30.89	31.42	31.83	32.11	-	-
68	-	-	-	-	-	37.45	37.71	-	-

**Mass flow in kg/h**

16	274	338	416	505	-	-	-	-	-
20	275	340	417	506	606	-	-	-	-
30	273	339	416	506	605	713	829	-	-
40	261	329	409	499	599	707	822	-	-
50	-	311	393	485	587	696	812	-	-
60	-	-	-	463	567	679	796	-	-
68	-	-	-	-	-	660	779	-	-

**Coefficient of performance (C.O.P.)**

16	3.89	4.69	5.60	6.59	-	-	-	-	-
20	3.37	4.09	4.92	5.83	6.79	-	-	-	-
30	2.46	3.02	3.67	4.39	5.18	6.03	6.92	-	-
40	1.83	2.26	2.77	3.34	3.97	4.65	5.39	-	-
50	-	1.65	2.04	2.48	2.98	3.52	4.11	-	-
60	-	-	-	1.76	2.14	2.55	3.01	-	-
68	-	-	-	-	-	1.89	2.25	-	-

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

Cooling capacity	17 050	W
Power input	7 138	W
Current consumption	22.40	A
Mass flow	402	kg/h
C.O.P.	2.39	

**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	78	dB(A)
With acoustic hood	70	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	13 997	17 514	21 798	26 816	-	-	-	-	-
20	13 410	16 855	21 043	25 943	31 519	-	-	-	-
30	12 203	15 452	19 390	23 982	29 195	34 995	41 346	-	-
40	-	14 172	17 841	22 108	26 941	32 304	38 164	-	-
50	-	-	-	20 035	24 469	29 378	34 728	-	-
60	-	-	-	-	21 493	25 931	30 754	-	-
68	-	-	-	-	-	-	26 992	-	-

**Power input in W**

16	3 692	3 816	3 964	4 129	-	-	-	-	-
20	4 067	4 198	4 349	4 514	4 686	-	-	-	-
30	5 031	5 183	5 345	5 511	5 676	5 831	5 972	-	-
40	-	6 303	6 481	6 654	6 815	6 958	7 077	-	-
50	-	-	-	8 059	8 221	8 357	8 458	-	-
60	-	-	-	-	10 013	10 145	10 233	-	-
68	-	-	-	-	-	-	12 017	-	-

**Current consumption in A**

16	11.58	11.97	12.44	12.96	-	-	-	-	-
20	12.76	13.17	13.65	14.16	14.70	-	-	-	-
30	15.79	16.26	16.77	17.29	17.81	18.30	18.74	-	-
40	-	19.78	20.34	20.88	21.38	21.83	22.21	-	-
50	-	-	-	25.29	25.80	26.22	26.54	-	-
60	-	-	-	-	31.42	31.83	32.11	-	-
68	-	-	-	-	-	-	37.71	-	-

**Mass flow in kg/h**

16	241	303	380	471	-	-	-	-	-
20	242	305	382	473	578	-	-	-	-
30	240	304	381	472	577	696	829	-	-
40	-	295	374	466	571	690	822	-	-
50	-	-	-	453	560	679	812	-	-
60	-	-	-	-	541	662	796	-	-
68	-	-	-	-	-	-	779	-	-

**Coefficient of performance (C.O.P.)**

16	3.79	4.59	5.50	6.49	-	-	-	-	-
20	3.30	4.01	4.84	5.75	6.73	-	-	-	-
30	2.43	2.98	3.63	4.35	5.14	6.00	6.92	-	-
40	-	2.25	2.75	3.32	3.95	4.64	5.39	-	-
50	-	-	-	2.49	2.98	3.52	4.11	-	-
60	-	-	-	-	2.15	2.56	3.01	-	-
68	-	-	-	-	-	-	2.25	-	-

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

Cooling capacity	17 016	W
Power input	7 138	W
Current consumption	22.40	A
Mass flow	368	kg/h
C.O.P.	2.38	

**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	78	dB(A)
With acoustic hood	70	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	8 949	11 199	13 879	17 015	20 638	-	-	-	-
30	8 219	10 350	12 884	15 850	19 275	23 190	-	-	-
40	7 244	9 206	11 539	14 272	17 433	21 051	25 153	-	-
50	-	7 999	10 109	12 588	15 463	18 762	22 515	-	-
60	-	-	8 621	10 824	13 391	16 351	19 732	-	-
70	-	-	-	9 008	11 246	13 845	16 833	-	-
73	-	-	-	8 457	10 593	13 079	15 944	-	-

**Power input in W**

22	2 470	2 521	2 597	2 688	2 784	-	-	-	-
30	2 956	3 006	3 070	3 137	3 198	3 241	-	-	-
40	3 640	3 714	3 787	3 849	3 889	3 898	3 864	-	-
50	-	4 510	4 619	4 702	4 750	4 750	4 694	-	-
60	-	-	5 539	5 671	5 752	5 772	5 721	-	-
70	-	-	-	6 729	6 871	6 937	6 917	-	-
73	-	-	-	7 060	7 225	7 311	7 305	-	-

**Current consumption in A**

22	9.51	9.70	9.99	10.35	10.72	-	-	-	-
30	11.38	11.57	11.82	12.08	12.31	12.48	-	-	-
40	14.01	14.29	14.57	14.81	14.97	15.00	14.87	-	-
50	-	17.36	17.78	18.10	18.28	18.28	18.07	-	-
60	-	-	21.32	21.83	22.14	22.22	22.02	-	-
70	-	-	-	25.90	26.45	26.70	26.62	-	-
73	-	-	-	27.18	27.81	28.14	28.12	-	-

**Mass flow in kg/h**

22	192	237	289	347	413	-	-	-	-
30	190	235	287	346	413	487	-	-	-
40	187	231	282	342	409	485	569	-	-
50	-	225	276	335	403	479	564	-	-
60	-	-	268	327	394	471	556	-	-
70	-	-	-	316	383	460	546	-	-
73	-	-	-	313	380	456	542	-	-

**Coefficient of performance (C.O.P.)**

22	3.62	4.44	5.34	6.33	7.41	-	-	-	-
30	2.78	3.44	4.20	5.05	6.03	7.15	-	-	-
40	1.99	2.48	3.05	3.71	4.48	5.40	6.51	-	-
50	-	1.77	2.19	2.68	3.26	3.95	4.80	-	-
60	-	-	1.56	1.91	2.33	2.83	3.45	-	-
70	-	-	-	1.34	1.64	2.00	2.43	-	-
73	-	-	-	1.20	1.47	1.79	2.18	-	-

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

Cooling capacity	8 609	W
Power input	4 102	W
Current consumption	15.79	A
Mass flow	228	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	74	dB(A)
With acoustic hood	66	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	9 092	11 330	13 986	17 089	20 672	-	-	-	-
30	-	10 541	13 049	15 972	19 340	23 190	-	-	-
40	-	-	11 777	14 456	17 537	21 051	25 036	-	-
50	-	-	10 417	12 832	15 605	18 762	22 335	-	-
60	-	-	-	11 126	13 571	16 351	-	-	-
70	-	-	-	-	11 463	13 845	-	-	-
73	-	-	-	-	10 821	13 079	-	-	-

**Power input in W**

22	2 470	2 521	2 597	2 688	2 784	-	-	-	-
30	-	3 006	3 070	3 137	3 198	3 241	-	-	-
40	-	-	3 787	3 849	3 889	3 898	3 864	-	-
50	-	-	4 619	4 702	4 750	4 750	4 694	-	-
60	-	-	-	5 671	5 752	5 772	-	-	-
70	-	-	-	-	6 871	6 937	-	-	-
73	-	-	-	-	7 225	7 311	-	-	-

**Current consumption in A**

22	9.51	9.70	9.99	10.35	10.72	-	-	-	-
30	-	11.57	11.82	12.08	12.31	12.48	-	-	-
40	-	-	14.57	14.81	14.97	15.00	14.87	-	-
50	-	-	17.78	18.10	18.28	18.28	18.07	-	-
60	-	-	-	21.83	22.14	22.22	-	-	-
70	-	-	-	-	26.45	26.70	-	-	-
73	-	-	-	-	27.81	28.14	-	-	-

**Mass flow in kg/h**

22	173	217	270	332	404	-	-	-	-
30	-	216	269	331	403	487	-	-	-
40	-	-	264	327	400	485	584	-	-
50	-	-	258	320	394	479	579	-	-
60	-	-	-	312	385	471	-	-	-
70	-	-	-	-	374	460	-	-	-
73	-	-	-	-	371	456	-	-	-

**Coefficient of performance (C.O.P.)**

22	3.68	4.49	5.39	6.36	7.42	-	-	-	-
30	-	3.51	4.25	5.09	6.05	7.15	-	-	-
40	-	-	3.11	3.76	4.51	5.40	6.48	-	-
50	-	-	2.26	2.73	3.29	3.95	4.76	-	-
60	-	-	-	1.96	2.36	2.83	-	-	-
70	-	-	-	-	1.67	2.00	-	-	-
73	-	-	-	-	1.50	1.79	-	-	-

**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	74	dB(A)
With acoustic hood	66	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	10 825	13 492	16 668	20 369	24 616	-	-	-	-
30	9 964	12 508	15 529	19 047	23 081	27 648	-	-	-
40	8 776	11 141	13 946	17 210	20 952	25 190	29 944	-	-
50	-	9 656	12 218	15 201	18 624	22 507	26 867	-	-
60	-	-	10 380	13 056	16 134	19 633	23 573	-	-
70	-	-	-	10 810	13 515	16 605	20 097	-	-
73	-	-	-	10 121	12 710	15 671	19 024	-	-

**Power input in W**

22	3 005	3 058	3 164	3 313	3 492	-	-	-	-
30	3 527	3 599	3 704	3 829	3 965	4 100	-	-	-
40	4 274	4 400	4 531	4 658	4 768	4 851	4 895	-	-
50	-	5 326	5 517	5 676	5 793	5 856	5 854	-	-
60	-	-	6 646	6 870	7 026	7 101	7 086	-	-
70	-	-	-	8 226	8 453	8 573	8 576	-	-
73	-	-	-	8 662	8 917	9 056	9 071	-	-

**Current consumption in A**

22	9.43	9.60	9.93	10.40	10.96	-	-	-	-
30	11.07	11.29	11.62	12.02	12.44	12.86	-	-	-
40	13.41	13.81	14.22	14.62	14.96	15.22	15.36	-	-
50	-	16.71	17.31	17.81	18.18	18.37	18.37	-	-
60	-	-	20.85	21.56	22.05	22.28	22.23	-	-
70	-	-	-	25.81	26.52	26.90	26.91	-	-
73	-	-	-	27.18	27.98	28.42	28.46	-	-

**Mass flow in kg/h**

22	234	285	346	416	493	-	-	-	-
30	232	284	346	417	496	582	-	-	-
40	225	279	342	413	493	581	676	-	-
50	-	269	333	405	486	574	670	-	-
60	-	-	321	394	475	564	660	-	-
70	-	-	-	381	462	551	647	-	-
73	-	-	-	377	458	547	643	-	-

**Coefficient of performance (C.O.P.)**

22	3.60	4.41	5.27	6.15	7.05	-	-	-	-
30	2.83	3.48	4.19	4.97	5.82	6.74	-	-	-
40	2.05	2.53	3.08	3.69	4.39	5.19	6.12	-	-
50	-	1.81	2.21	2.68	3.21	3.84	4.59	-	-
60	-	-	1.56	1.90	2.30	2.76	3.33	-	-
70	-	-	-	1.31	1.60	1.94	2.34	-	-
73	-	-	-	1.17	1.43	1.73	2.10	-	-

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

Cooling capacity	10 411	W
Power input	4 848	W
Current consumption	15.21	A
Mass flow	274	kg/h
C.O.P.	2.15	

**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	78	dB(A)
With acoustic hood	70	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	10 998	13 650	16 796	20 457	24 657	-	-	-	-
30	-	12 740	15 729	19 195	23 158	27 648	-	-	-
40	-	-	14 233	17 432	21 077	25 190	29 804	-	-
50	-	-	12 590	15 496	18 796	22 507	26 653	-	-
60	-	-	-	13 420	16 350	19 633	-	-	-
70	-	-	-	-	13 776	16 605	-	-	-
73	-	-	-	-	12 984	15 671	-	-	-

**Power input in W**

22	3 005	3 058	3 164	3 313	3 492	-	-	-	-
30	-	3 599	3 704	3 829	3 965	4 100	-	-	-
40	-	-	4 531	4 658	4 768	4 851	4 895	-	-
50	-	-	5 517	5 676	5 793	5 856	5 854	-	-
60	-	-	-	6 870	7 026	7 101	-	-	-
70	-	-	-	-	8 453	8 573	-	-	-
73	-	-	-	-	8 917	9 056	-	-	-

**Current consumption in A**

22	9.43	9.60	9.93	10.40	10.96	-	-	-	-
30	-	11.29	11.62	12.02	12.44	12.86	-	-	-
40	-	-	14.22	14.62	14.96	15.22	15.36	-	-
50	-	-	17.31	17.81	18.18	18.37	18.37	-	-
60	-	-	-	21.56	22.05	22.28	-	-	-
70	-	-	-	-	26.52	26.90	-	-	-
73	-	-	-	-	27.98	28.42	-	-	-

**Mass flow in kg/h**

22	210	262	324	397	482	-	-	-	-
30	-	261	324	398	484	582	-	-	-
40	-	-	320	395	482	581	694	-	-
50	-	-	312	387	475	574	688	-	-
60	-	-	-	377	464	564	-	-	-
70	-	-	-	-	452	551	-	-	-
73	-	-	-	-	447	547	-	-	-

**Coefficient of performance (C.O.P.)**

22	3.66	4.46	5.31	6.18	7.06	-	-	-	-
30	-	3.54	4.25	5.01	5.84	6.74	-	-	-
40	-	-	3.14	3.74	4.42	5.19	6.09	-	-
50	-	-	2.28	2.73	3.24	3.84	4.55	-	-
60	-	-	-	1.95	2.33	2.76	-	-	-
70	-	-	-	-	1.63	1.94	-	-	-
73	-	-	-	-	1.46	1.73	-	-	-

**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	78	dB(A)
With acoustic hood	70	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	10 506	12 886	15 805	19 327	23 517	-	-	-	-
20	9 496	11 728	14 397	17 567	21 301	25 666	30 723	-	-
30	8 342	10 437	12 865	15 691	18 980	22 797	27 205	32 268	38 049
40	-	8 958	11 156	13 649	16 502	19 780	23 549	27 871	32 811
50	-	-	9 216	11 386	13 813	16 563	19 702	23 294	27 404
60	-	-	-	-	10 861	13 094	15 613	18 486	21 778

**Power input in W**

10	3 233	3 273	3 326	3 405	3 528	-	-	-	-
20	3 945	4 004	4 060	4 127	4 222	4 360	4 555	-	-
30	4 826	4 905	4 965	5 020	5 088	5 183	5 320	5 515	5 783
40	-	6 074	6 137	6 182	6 223	6 275	6 354	6 475	6 654
50	-	-	7 675	7 709	7 723	7 733	7 754	7 802	7 892
60	-	-	-	-	9 685	9 653	9 617	9 593	9 594

**Current consumption in A**

10	13.33	13.50	13.71	14.04	14.55	-	-	-	-
20	16.27	16.51	16.74	17.02	17.41	17.98	18.78	-	-
30	19.90	20.23	20.47	20.70	20.98	21.37	21.94	22.74	23.85
40	-	25.05	25.31	25.49	25.66	25.88	26.20	26.70	27.44
50	-	-	31.65	31.79	31.85	31.89	31.98	32.18	32.55
60	-	-	-	-	39.94	39.81	39.66	39.56	39.56

**Mass flow in kg/h**

10	187	249	316	393	483	-	-	-	-
20	195	255	320	394	480	583	704	-	-
30	194	253	317	389	472	571	689	829	995
40	-	243	307	378	460	557	672	808	969
50	-	-	291	362	444	540	653	787	945
60	-	-	-	-	425	521	634	767	923

**Coefficient of performance (C.O.P.)**

10	3.25	3.94	4.75	5.68	6.67	-	-	-	-
20	2.41	2.93	3.55	4.26	5.05	5.89	6.74	-	-
30	1.73	2.13	2.59	3.13	3.73	4.40	5.11	5.85	6.58
40	-	1.47	1.82	2.21	2.65	3.15	3.71	4.30	4.93
50	-	-	1.20	1.48	1.79	2.14	2.54	2.99	3.47
60	-	-	-	-	1.12	1.36	1.62	1.93	2.27

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

Cooling capacity	15 187	W
Power input	6 921	W
Current consumption	28.54	A
Mass flow	453	kg/h
C.O.P.	2.19	

**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	74	dB(A)
With acoustic hood	66	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	10 095	12 471	15 400	18 955	23 203	-	-	-	-
20	8 930	11 138	13 803	16 996	20 788	25 245	30 431	-	-
30	7 629	9 674	12 081	14 921	18 266	22 188	26 754	32 026	38 049
40	6 158	8 037	10 188	12 681	15 587	18 982	22 938	27 527	32 811
50	-	-	8 085	10 231	12 703	15 577	18 931	22 846	27 404
60	-	-	-	-	9 558	11 913	14 671	17 926	21 778

**Power input in W**

10	3 233	3 273	3 326	3 405	3 528	-	-	-	-
20	3 945	4 004	4 060	4 127	4 222	4 360	4 555	-	-
30	4 826	4 905	4 965	5 020	5 088	5 183	5 320	5 515	5 783
40	5 975	6 074	6 137	6 182	6 223	6 275	6 354	6 475	6 654
50	-	-	7 675	7 709	7 723	7 733	7 754	7 802	7 892
60	-	-	-	-	9 685	9 653	9 617	9 593	9 594

**Current consumption in A**

10	13.33	13.50	13.71	14.04	14.55	-	-	-	-
20	16.27	16.51	16.74	17.02	17.41	17.98	18.78	-	-
30	19.90	20.23	20.47	20.70	20.98	21.37	21.94	22.74	23.85
40	24.64	25.05	25.31	25.49	25.66	25.88	26.20	26.70	27.44
50	-	-	31.65	31.79	31.85	31.89	31.98	32.18	32.55
60	-	-	-	-	39.94	39.81	39.66	39.56	39.56

**Mass flow in kg/h**

10	223	291	363	443	534	-	-	-	-
20	232	298	367	444	530	630	744	-	-
30	231	296	364	438	522	617	728	853	995
40	218	284	352	426	508	602	709	832	969
50	-	-	334	408	491	584	690	810	945
60	-	-	-	-	470	563	669	789	923

**Coefficient of performance (C.O.P.)**

10	3.12	3.81	4.63	5.57	6.58	-	-	-	-
20	2.26	2.78	3.40	4.12	4.92	5.79	6.68	-	-
30	1.58	1.97	2.43	2.97	3.59	4.28	5.03	5.81	6.58
40	1.03	1.32	1.66	2.05	2.50	3.03	3.61	4.25	4.93
50	-	-	1.05	1.33	1.64	2.01	2.44	2.93	3.47
60	-	-	-	-	0.99	1.23	1.53	1.87	2.27

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

Cooling capacity	14 174	W
Power input	6 921	W
Current consumption	28.54	A
Mass flow	500	kg/h
C.O.P.	2.05	

**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	74	dB(A)
With acoustic hood	66	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	12 775	15 593	19 110	23 365	28 395	-	-	-	-
20	11 541	14 159	17 377	21 232	25 761	31 001	36 990	-	-
30	10 197	12 600	15 501	18 938	22 950	27 573	32 845	38 801	45 478
40	-	10 892	13 460	16 463	19 941	23 930	28 468	33 593	39 340
50	-	-	11 233	13 786	16 712	20 051	23 839	28 116	32 918
60	-	-	-	-	13 244	15 916	18 938	22 351	26 194

**Power input in W**

10	3 895	3 971	4 090	4 238	4 401	-	-	-	-
20	4 796	4 865	4 981	5 130	5 297	5 469	5 631	-	-
30	5 903	5 953	6 053	6 190	6 350	6 517	6 678	6 819	6 925
40	-	7 316	7 388	7 501	7 640	7 791	7 939	8 071	8 171
50	-	-	9 069	9 146	9 252	9 374	9 497	9 607	9 689
60	-	-	-	-	11 267	11 347	11 432	11 508	11 561

**Current consumption in A**

10	12.22	12.46	12.83	13.30	13.81	-	-	-	-
20	15.05	15.27	15.63	16.10	16.62	17.16	17.67	-	-
30	18.52	18.68	18.99	19.42	19.92	20.45	20.95	21.40	21.73
40	-	22.95	23.18	23.54	23.97	24.45	24.91	25.32	25.64
50	-	-	28.46	28.70	29.03	29.41	29.80	30.14	30.40
60	-	-	-	-	35.35	35.60	35.87	36.11	36.28

**Mass flow in kg/h**

10	232	304	384	476	586	-	-	-	-
20	238	308	386	475	580	705	853	-	-
30	237	307	383	470	572	693	837	1 006	1 206
40	-	299	374	460	561	679	818	984	1 179
50	-	-	360	446	545	661	798	960	1 151
60	-	-	-	-	524	640	775	935	1 123

**Coefficient of performance (C.O.P.)**

10	3.28	3.93	4.67	5.51	6.45	-	-	-	-
20	2.41	2.91	3.49	4.14	4.86	5.67	6.57	-	-
30	1.73	2.12	2.56	3.06	3.61	4.23	4.92	5.69	6.57
40	-	1.49	1.82	2.19	2.61	3.07	3.59	4.16	4.81
50	-	-	1.24	1.51	1.81	2.14	2.51	2.93	3.40
60	-	-	-	-	1.18	1.40	1.66	1.94	2.27

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

Cooling capacity	18 355	W
Power input	8 401	W
Current consumption	26.36	A
Mass flow	553	kg/h
C.O.P.	2.18	

**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	78	dB(A)
With acoustic hood	70	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	12 276	15 090	18 621	22 915	28 015	-	-	-	-
20	10 853	13 447	16 660	20 542	25 139	30 493	36 638	-	-
30	9 326	11 679	14 556	18 008	22 086	26 836	32 300	38 510	45 478
40	7 683	9 772	12 293	15 296	18 836	22 964	27 730	33 178	39 340
50	-	-	9 854	12 388	15 370	18 857	22 906	27 576	32 918
60	-	-	-	-	11 655	14 480	17 795	21 674	26 194

**Power input in W**

10	3 895	3 971	4 090	4 238	4 401	-	-	-	-
20	4 796	4 865	4 981	5 130	5 297	5 469	5 631	-	-
30	5 903	5 953	6 053	6 190	6 350	6 517	6 678	6 819	6 925
40	7 297	7 316	7 388	7 501	7 640	7 791	7 939	8 071	8 171
50	-	-	9 069	9 146	9 252	9 374	9 497	9 607	9 689
60	-	-	-	-	11 267	11 347	11 432	11 508	11 561

**Current consumption in A**

10	12.22	12.46	12.83	13.30	13.81	-	-	-	-
20	15.05	15.27	15.63	16.10	16.62	17.16	17.67	-	-
30	18.52	18.68	18.99	19.42	19.92	20.45	20.95	21.40	21.73
40	22.90	22.95	23.18	23.54	23.97	24.45	24.91	25.32	25.64
50	-	-	28.46	28.70	29.03	29.41	29.80	30.14	30.40
60	-	-	-	-	35.35	35.60	35.87	36.11	36.28

**Mass flow in kg/h**

10	277	355	441	537	646	-	-	-	-
20	284	360	443	535	641	762	901	-	-
30	283	359	440	530	632	749	883	1 036	1 206
40	273	349	430	519	619	733	864	1 013	1 179
50	-	-	413	502	601	714	843	989	1 151
60	-	-	-	-	579	691	819	963	1 123

**Coefficient of performance (C.O.P.)**

10	3.15	3.80	4.55	5.41	6.37	-	-	-	-
20	2.26	2.76	3.34	4.00	4.75	5.58	6.51	-	-
30	1.58	1.96	2.40	2.91	3.48	4.12	4.84	5.65	6.57
40	1.05	1.34	1.66	2.04	2.47	2.95	3.49	4.11	4.81
50	-	-	1.09	1.35	1.66	2.01	2.41	2.87	3.40
60	-	-	-	-	1.03	1.28	1.56	1.88	2.27

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

Cooling capacity	17 131	W
Power input	8 401	W
Current consumption	26.36	A
Mass flow	611	kg/h
C.O.P.	2.04	

**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	78	dB(A)
With acoustic hood	70	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, Superheat = 10 K**
**R407C**

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

**Cooling capacity in W**

30	-	7 897	10 117	12 893	16 181	19 936	24 114	28 670	33 558
35	-	7 508	9 489	12 073	15 216	18 875	23 004	27 559	32 495
40	-	7 253	8 948	11 291	14 239	17 749	21 777	26 278	31 208
45	-	-	8 507	10 559	13 262	16 573	20 447	24 842	29 714
50	-	-	-	9 892	12 301	15 362	19 032	23 268	28 026
55	-	-	-	-	11 368	14 130	17 544	21 568	26 161
60	-	-	-	-	-	12 889	15 997	19 758	24 130
65	-	-	-	-	-	-	14 403	17 848	21 946

**Power input in W**

30	-	4 338	4 423	4 496	4 562	4 630	4 707	4 802	4 922
35	-	4 800	4 925	5 021	5 094	5 153	5 206	5 259	5 322
40	-	5 271	5 447	5 578	5 671	5 733	5 772	5 797	5 814
45	-	-	6 008	6 186	6 309	6 386	6 424	6 431	6 414
50	-	-	-	6 860	7 027	7 131	7 179	7 180	7 142
55	-	-	-	-	7 841	7 983	8 054	8 062	8 013
60	-	-	-	-	-	8 962	9 067	9 093	9 047
65	-	-	-	-	-	-	10 236	10 291	10 259

**Current consumption in A**

30	-	20.03	20.23	20.41	20.55	20.67	20.76	20.82	20.86
35	-	21.25	21.43	21.58	21.70	21.80	21.87	21.91	21.92
40	-	22.52	22.69	22.83	22.94	23.03	23.08	23.11	23.12
45	-	-	24.11	24.25	24.36	24.45	24.51	24.54	24.55
50	-	-	-	25.94	26.07	26.17	26.24	26.28	26.30
55	-	-	-	-	28.15	28.28	28.38	28.45	28.49
60	-	-	-	-	-	30.88	31.02	31.13	31.21
65	-	-	-	-	-	-	34.27	34.43	34.57

**Mass flow in kg/h**

30	-	179	224	278	342	416	501	596	704
35	-	177	222	276	339	413	497	592	698
40	-	173	218	272	336	409	493	588	694
45	-	-	212	267	331	404	488	583	689
50	-	-	-	258	323	397	482	577	683
55	-	-	-	-	312	388	473	569	676
60	-	-	-	-	-	374	461	558	666
65	-	-	-	-	-	-	446	545	654

**Coefficient of performance (C.O.P.)**

30	-	1.82	2.29	2.87	3.55	4.31	5.12	5.97	6.82
35	-	1.56	1.93	2.40	2.99	3.66	4.42	5.24	6.11
40	-	1.38	1.64	2.02	2.51	3.10	3.77	4.53	5.37
45	-	-	1.42	1.71	2.10	2.60	3.18	3.86	4.63
50	-	-	-	1.44	1.75	2.15	2.65	3.24	3.92
55	-	-	-	-	1.45	1.77	2.18	2.68	3.26
60	-	-	-	-	-	1.44	1.76	2.17	2.67
65	-	-	-	-	-	-	1.41	1.73	2.14

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

Cooling capacity	13 262	W
Power input	6 309	W
Current consumption	24.36	A
Mass flow	331	kg/h
C.O.P.	2.10	

**Pressure switch settings**

Maximum HP switch setting	30	bar(g)
Minimum LP switch setting	0.5	bar(g)
LP pump down setting	1	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

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Performance data at 50 Hz,

R407C

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

Cooling capacity in W

30	-	-	-	-	-	-	-	-	-
35	-	-	-	-	-	-	-	-	-
40	-	-	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-
55	-	-	-	-	-	-	-	-	-
60	-	-	-	-	-	-	-	-	-
65	-	-	-	-	-	-	-	-	-

Power input in W

30	-	-	-	-	-	-	-	-	-
35	-	-	-	-	-	-	-	-	-
40	-	-	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-
55	-	-	-	-	-	-	-	-	-
60	-	-	-	-	-	-	-	-	-
65	-	-	-	-	-	-	-	-	-

Current consumption in A

30	-	-	-	-	-	-	-	-	-
35	-	-	-	-	-	-	-	-	-
40	-	-	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-
55	-	-	-	-	-	-	-	-	-
60	-	-	-	-	-	-	-	-	-
65	-	-	-	-	-	-	-	-	-

Mass flow in kg/h

30	-	-	-	-	-	-	-	-	-
35	-	-	-	-	-	-	-	-	-
40	-	-	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-
55	-	-	-	-	-	-	-	-	-
60	-	-	-	-	-	-	-	-	-
65	-	-	-	-	-	-	-	-	-

Coefficient of performance (C.O.P.)

30	-	-	-	-	-	-	-	-	-
35	-	-	-	-	-	-	-	-	-
40	-	-	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-
55	-	-	-	-	-	-	-	-	-
60	-	-	-	-	-	-	-	-	-
65	-	-	-	-	-	-	-	-	-

Nominal performance at to = °C, tc = °C

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

Pressure switch settings

Maximum HP switch setting	30	bar(g)
Minimum LP switch setting	0.5	bar(g)
LP pump down setting	1	bar(g)

Sound power data

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

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Tolerance according EN12900

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**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	8 652	10 902	13 602	16 818	20 618	-	-	-	-
20	7 752	9 926	12 502	15 544	19 122	23 300	28 146	-	-
30	-	-	11 211	14 028	17 331	21 186	25 660	30 820	36 732
40	-	-	-	12 324	15 301	18 781	22 832	27 519	32 909
50	-	-	-	-	13 084	16 138	19 713	23 876	28 694
60	-	-	-	-	-	-	16 360	19 947	24 140

**Power input in W**

10	2 794	2 863	2 930	2 998	3 071	-	-	-	-
20	3 526	3 593	3 661	3 733	3 813	3 905	4 012	-	-
30	-	-	4 611	4 666	4 731	4 811	4 909	5 028	5 172
40	-	-	-	5 938	5 967	6 013	6 080	6 171	6 291
50	-	-	-	-	7 663	7 653	7 667	7 709	7 782
60	-	-	-	-	-	-	9 814	9 784	9 788

**Current consumption in A**

10	18.95	18.90	18.93	19.05	19.21	-	-	-	-
20	20.07	20.05	20.13	20.28	20.48	20.71	20.96	-	-
30	-	-	21.84	21.98	22.18	22.40	22.64	22.87	23.07
40	-	-	-	24.65	24.78	24.96	25.14	25.32	25.47
50	-	-	-	-	28.78	28.86	28.94	29.02	29.07
60	-	-	-	-	-	-	34.52	34.45	34.36

**Mass flow in kg/h**

10	141	179	224	278	343	-	-	-	-
20	136	175	221	275	341	418	510	-	-
30	-	-	214	269	334	412	504	613	739
40	-	-	-	259	323	401	493	602	728
50	-	-	-	-	308	384	476	583	709
60	-	-	-	-	-	-	452	558	683

**Coefficient of performance (C.O.P.)**

10	3.10	3.81	4.64	5.61	6.71	-	-	-	-
20	2.20	2.76	3.42	4.16	5.01	5.97	7.02	-	-
30	-	-	2.43	3.01	3.66	4.40	5.23	6.13	7.10
40	-	-	-	2.08	2.56	3.12	3.76	4.46	5.23
50	-	-	-	-	1.71	2.11	2.57	3.10	3.69
60	-	-	-	-	-	-	1.67	2.04	2.47

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

Cooling capacity	14 212	W
Power input	6 748	W
Current consumption	26.58	A
Mass flow	316	kg/h
C.O.P.	2.11	

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**
**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	8 687	10 955	13 678	16 922	20 751	-	-	-	-
20	7 684	9 862	12 449	15 512	19 117	23 327	28 198	-	-
30	6 600	8 634	11 031	13 859	17 187	21 080	25 600	30 803	36 732
40	-	-	9 481	12 021	15 018	18 541	22 657	27 429	32 909
50	-	-	-	10 057	12 670	15 769	19 427	23 714	28 694
60	-	-	-	-	10 199	12 820	15 964	19 711	24 140

**Power input in W**

10	2 794	2 863	2 930	2 998	3 071	-	-	-	-
20	3 526	3 593	3 661	3 733	3 813	3 905	4 012	-	-
30	4 523	4 565	4 611	4 666	4 731	4 811	4 909	5 028	5 172
40	-	-	5 924	5 938	5 967	6 013	6 080	6 171	6 291
50	-	-	-	7 694	7 663	7 653	7 667	7 709	7 782
60	-	-	-	-	9 963	9 875	9 814	9 784	9 788

**Current consumption in A**

10	18.95	18.90	18.93	19.05	19.21	-	-	-	-
20	20.07	20.05	20.13	20.28	20.48	20.71	20.96	-	-
30	21.81	21.78	21.84	21.98	22.18	22.40	22.64	22.87	23.07
40	-	-	24.56	24.65	24.78	24.96	25.14	25.32	25.47
50	-	-	-	28.74	28.78	28.86	28.94	29.02	29.07
60	-	-	-	-	34.65	34.58	34.52	34.45	34.36

**Mass flow in kg/h**

10	166	208	256	312	376	-	-	-	-
20	161	203	252	308	374	450	536	-	-
30	153	196	244	301	367	443	531	629	739
40	-	-	233	289	355	431	519	618	728
50	-	-	-	273	338	413	500	599	709
60	-	-	-	-	315	389	475	573	683

**Coefficient of performance (C.O.P.)**

10	3.11	3.83	4.67	5.64	6.76	-	-	-	-
20	2.18	2.74	3.40	4.16	5.01	5.97	7.03	-	-
30	1.46	1.89	2.39	2.97	3.63	4.38	5.22	6.13	7.10
40	-	-	1.60	2.02	2.52	3.08	3.73	4.44	5.23
50	-	-	-	1.31	1.65	2.06	2.53	3.08	3.69
60	-	-	-	-	1.02	1.30	1.63	2.01	2.47

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

Cooling capacity	13 863	W
Power input	6 748	W
Current consumption	26.58	A
Mass flow	347	kg/h
C.O.P.	2.05	

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**
**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	10 593	13 340	16 632	20 549	25 172	-	-	-	-
20	9 456	12 103	15 237	18 941	23 293	28 377	34 271	-	-
30	-	-	13 650	17 085	21 112	25 813	31 268	37 559	44 766
40	-	-	-	15 027	18 674	22 937	27 898	33 638	40 238
50	-	-	-	-	16 025	19 796	24 208	29 342	35 279
60	-	-	-	-	-	-	20 244	24 717	29 937

**Power input in W**

10	3 386	3 498	3 611	3 738	3 890	-	-	-	-
20	4 200	4 314	4 423	4 539	4 674	4 839	5 049	-	-
30	-	-	5 514	5 606	5 710	5 839	6 005	6 219	6 495
40	-	-	-	7 081	7 142	7 221	7 331	7 482	7 689
50	-	-	-	-	9 112	9 129	9 169	9 245	9 369
60	-	-	-	-	-	-	11 663	11 651	11 680

**Current consumption in A**

10	15.55	15.50	15.67	15.96	16.24	-	-	-	-
20	18.15	17.89	17.96	18.26	18.67	19.09	19.40	-	-
30	-	-	20.26	20.37	20.71	21.17	21.63	21.98	22.12
40	-	-	-	23.34	23.40	23.69	24.10	24.52	24.84
50	-	-	-	-	27.81	27.73	27.89	28.16	28.45
60	-	-	-	-	-	-	34.02	33.96	34.02

**Mass flow in kg/h**

10	172	219	275	340	419	-	-	-	-
20	166	213	269	336	415	509	621	-	-
30	-	-	261	328	407	502	615	747	901
40	-	-	-	315	395	490	603	735	890
50	-	-	-	-	377	472	584	717	872
60	-	-	-	-	-	-	559	692	847

**Coefficient of performance (C.O.P.)**

10	3.13	3.81	4.61	5.50	6.47	-	-	-	-
20	2.25	2.81	3.44	4.17	4.98	5.86	6.79	-	-
30	-	-	2.48	3.05	3.70	4.42	5.21	6.04	6.89
40	-	-	-	2.12	2.61	3.18	3.81	4.50	5.23
50	-	-	-	-	1.76	2.17	2.64	3.17	3.77
60	-	-	-	-	-	-	1.74	2.12	2.56

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

Cooling capacity	17 373	W
Power input	8 051	W
Current consumption	25.33	A
Mass flow	387	kg/h
C.O.P.	2.16	

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	10 637	13 405	16 725	20 676	25 335	-	-	-	-
20	9 373	12 025	15 174	18 901	23 288	28 409	34 335	-	-
30	8 035	10 511	13 431	16 878	20 936	25 682	31 194	37 538	44 766
40	-	-	11 549	14 658	18 329	22 644	27 686	33 529	40 238
50	-	-	-	12 291	15 517	19 343	23 856	29 142	35 279
60	-	-	-	-	12 550	15 827	19 754	24 425	29 937

**Power input in W**

10	3 386	3 498	3 611	3 738	3 890	-	-	-	-
20	4 200	4 314	4 423	4 539	4 674	4 839	5 049	-	-
30	5 318	5 422	5 514	5 606	5 710	5 839	6 005	6 219	6 495
40	-	-	7 025	7 081	7 142	7 221	7 331	7 482	7 689
50	-	-	-	9 107	9 112	9 129	9 169	9 245	9 369
60	-	-	-	-	11 763	11 705	11 663	11 651	11 680

**Current consumption in A**

10	15.55	15.50	15.67	15.96	16.24	-	-	-	-
20	18.15	17.89	17.96	18.26	18.67	19.09	19.40	-	-
30	21.17	20.49	20.26	20.37	20.71	21.17	21.63	21.98	22.12
40	-	-	23.63	23.34	23.40	23.69	24.10	24.52	24.84
50	-	-	-	28.23	27.81	27.73	27.89	28.16	28.45
60	-	-	-	-	34.98	34.33	34.02	33.96	34.02

**Mass flow in kg/h**

10	204	255	313	381	459	-	-	-	-
20	196	248	307	376	455	548	653	-	-
30	186	238	298	367	447	540	646	767	901
40	-	-	284	353	433	527	634	755	890
50	-	-	-	333	414	507	615	737	872
60	-	-	-	-	388	481	588	710	847

**Coefficient of performance (C.O.P.)**

10	3.14	3.83	4.63	5.53	6.51	-	-	-	-
20	2.23	2.79	3.43	4.16	4.98	5.87	6.80	-	-
30	1.51	1.94	2.44	3.01	3.67	4.40	5.20	6.04	6.89
40	-	-	1.64	2.07	2.57	3.14	3.78	4.48	5.23
50	-	-	-	1.35	1.70	2.12	2.60	3.15	3.77
60	-	-	-	-	1.07	1.35	1.69	2.10	2.56

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

Cooling capacity	16 945	W
Power input	8 051	W
Current consumption	25.33	A
Mass flow	424	kg/h
C.O.P.	2.10	

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**
**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	8 652	10 902	13 602	16 818	20 618	-	-	-	-
20	7 752	9 926	12 502	15 544	19 122	23 300	28 146	-	-
30	-	-	11 211	14 028	17 331	21 186	25 660	30 820	36 732
40	-	-	-	12 324	15 301	18 781	22 832	27 519	32 909
50	-	-	-	-	13 084	16 138	19 713	23 876	28 694
60	-	-	-	-	-	-	16 360	19 947	24 140

**Power input in W**

10	2 794	2 863	2 930	2 998	3 071	-	-	-	-
20	3 526	3 593	3 661	3 733	3 813	3 905	4 012	-	-
30	-	-	4 611	4 666	4 731	4 811	4 909	5 028	5 172
40	-	-	-	5 938	5 967	6 013	6 080	6 171	6 291
50	-	-	-	-	7 663	7 653	7 667	7 709	7 782
60	-	-	-	-	-	-	9 814	9 784	9 788

**Current consumption in A**

10	18.95	18.90	18.93	19.05	19.21	-	-	-	-
20	20.07	20.05	20.13	20.28	20.48	20.71	20.96	-	-
30	-	-	21.84	21.98	22.18	22.40	22.64	22.87	23.07
40	-	-	-	24.65	24.78	24.96	25.14	25.32	25.47
50	-	-	-	-	28.78	28.86	28.94	29.02	29.07
60	-	-	-	-	-	-	34.52	34.45	34.36

**Mass flow in kg/h**

10	141	179	224	278	343	-	-	-	-
20	136	175	221	275	341	418	510	-	-
30	-	-	214	269	334	412	504	613	739
40	-	-	-	259	323	401	493	602	728
50	-	-	-	-	308	384	476	583	709
60	-	-	-	-	-	-	452	558	683

**Coefficient of performance (C.O.P.)**

10	3.10	3.81	4.64	5.61	6.71	-	-	-	-
20	2.20	2.76	3.42	4.16	5.01	5.97	7.02	-	-
30	-	-	2.43	3.01	3.66	4.40	5.23	6.13	7.10
40	-	-	-	2.08	2.56	3.12	3.76	4.46	5.23
50	-	-	-	-	1.71	2.11	2.57	3.10	3.69
60	-	-	-	-	-	-	1.67	2.04	2.47

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

Cooling capacity	14 212	W
Power input	6 748	W
Current consumption	26.58	A
Mass flow	316	kg/h
C.O.P.	2.11	

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	8 668	10 935	13 657	16 901	20 731	-	-	-	-
20	7 664	9 841	12 427	15 490	19 096	23 308	28 183	-	-
30	6 580	8 612	11 007	13 835	17 164	21 059	25 584	30 794	36 732
40	-	-	9 457	11 996	14 994	18 519	22 640	27 419	32 909
50	-	-	-	10 031	12 644	15 746	19 408	23 703	28 694
60	-	-	-	-	10 173	12 796	15 945	19 700	24 140

**Power input in W**

10	2 794	2 863	2 930	2 998	3 071	-	-	-	-
20	3 526	3 593	3 661	3 733	3 813	3 905	4 012	-	-
30	4 523	4 565	4 611	4 666	4 731	4 811	4 909	5 028	5 172
40	-	-	5 924	5 938	5 967	6 013	6 080	6 171	6 291
50	-	-	-	7 694	7 663	7 653	7 667	7 709	7 782
60	-	-	-	-	9 963	9 875	9 814	9 784	9 788

**Current consumption in A**

10	18.95	18.90	18.93	19.05	19.21	-	-	-	-
20	20.07	20.05	20.13	20.28	20.48	20.71	20.96	-	-
30	21.81	21.78	21.84	21.98	22.18	22.40	22.64	22.87	23.07
40	-	-	24.56	24.65	24.78	24.96	25.14	25.32	25.47
50	-	-	-	28.74	28.78	28.86	28.94	29.02	29.07
60	-	-	-	-	34.65	34.58	34.52	34.45	34.36

**Mass flow in kg/h**

10	166	208	256	312	376	-	-	-	-
20	161	203	252	308	374	450	536	-	-
30	153	196	244	301	367	443	531	629	739
40	-	-	233	289	355	431	519	618	728
50	-	-	-	273	338	413	500	599	709
60	-	-	-	-	315	389	475	573	683

**Coefficient of performance (C.O.P.)**

10	3.10	3.82	4.66	5.64	6.75	-	-	-	-
20	2.17	2.74	3.39	4.15	5.01	5.97	7.03	-	-
30	1.45	1.89	2.39	2.97	3.63	4.38	5.21	6.12	7.10
40	-	-	1.60	2.02	2.51	3.08	3.72	4.44	5.23
50	-	-	-	1.30	1.65	2.06	2.53	3.07	3.69
60	-	-	-	-	1.02	1.30	1.62	2.01	2.47

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

Cooling capacity	13 838	W
Power input	6 748	W
Current consumption	26.58	A
Mass flow	347	kg/h
C.O.P.	2.05	

**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**
**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	10 593	13 340	16 632	20 549	25 172	-	-	-	-
20	9 456	12 103	15 237	18 941	23 293	28 377	34 271	-	-
30	-	-	13 650	17 085	21 112	25 813	31 268	37 559	44 766
40	-	-	-	15 027	18 674	22 937	27 898	33 638	40 238
50	-	-	-	-	16 025	19 796	24 208	29 342	35 279
60	-	-	-	-	-	-	20 244	24 717	29 937

**Power input in W**

10	3 386	3 498	3 611	3 738	3 890	-	-	-	-
20	4 200	4 314	4 423	4 539	4 674	4 839	5 049	-	-
30	-	-	5 514	5 606	5 710	5 839	6 005	6 219	6 495
40	-	-	-	7 081	7 142	7 221	7 331	7 482	7 689
50	-	-	-	-	9 112	9 129	9 169	9 245	9 369
60	-	-	-	-	-	-	11 663	11 651	11 680

**Current consumption in A**

10	15.55	15.50	15.67	15.96	16.24	-	-	-	-
20	18.15	17.89	17.96	18.26	18.67	19.09	19.40	-	-
30	-	-	20.26	20.37	20.71	21.17	21.63	21.98	22.12
40	-	-	-	23.34	23.40	23.69	24.10	24.52	24.84
50	-	-	-	-	27.81	27.73	27.89	28.16	28.45
60	-	-	-	-	-	-	34.02	33.96	34.02

**Mass flow in kg/h**

10	175	223	279	346	425	-	-	-	-
20	169	217	274	341	422	518	632	-	-
30	-	-	265	333	415	511	626	761	918
40	-	-	-	321	403	500	615	750	908
50	-	-	-	-	385	482	597	732	891
60	-	-	-	-	-	-	572	707	865

**Coefficient of performance (C.O.P.)**

10	3.13	3.81	4.61	5.50	6.47	-	-	-	-
20	2.25	2.81	3.44	4.17	4.98	5.86	6.79	-	-
30	-	-	2.48	3.05	3.70	4.42	5.21	6.04	6.89
40	-	-	-	2.12	2.61	3.18	3.81	4.50	5.23
50	-	-	-	-	1.76	2.17	2.64	3.17	3.77
60	-	-	-	-	-	-	1.74	2.12	2.56

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

Cooling capacity	17 373	W
Power input	8 051	W
Current consumption	25.33	A
Mass flow	394	kg/h
C.O.P.	2.16	

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**
**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	10 613	13 381	16 700	20 651	25 311	-	-	-	-
20	9 349	11 998	15 146	18 874	23 262	28 386	34 317	-	-
30	8 011	10 484	13 402	16 849	20 908	25 658	31 175	37 527	44 766
40	-	-	11 518	14 627	18 299	22 617	27 664	33 516	40 238
50	-	-	-	12 259	15 486	19 315	23 834	29 129	35 279
60	-	-	-	-	12 518	15 798	19 730	24 411	29 937

**Power input in W**

10	3 386	3 498	3 611	3 738	3 890	-	-	-	-
20	4 200	4 314	4 423	4 539	4 674	4 839	5 049	-	-
30	5 318	5 422	5 514	5 606	5 710	5 839	6 005	6 219	6 495
40	-	-	7 025	7 081	7 142	7 221	7 331	7 482	7 689
50	-	-	-	9 107	9 112	9 129	9 169	9 245	9 369
60	-	-	-	-	11 763	11 705	11 663	11 651	11 680

**Current consumption in A**

10	15.55	15.50	15.67	15.96	16.24	-	-	-	-
20	18.15	17.89	17.96	18.26	18.67	19.09	19.40	-	-
30	21.17	20.49	20.26	20.37	20.71	21.17	21.63	21.98	22.12
40	-	-	23.63	23.34	23.40	23.69	24.10	24.52	24.84
50	-	-	-	28.23	27.81	27.73	27.89	28.16	28.45
60	-	-	-	-	34.98	34.33	34.02	33.96	34.02

**Mass flow in kg/h**

10	207	259	318	387	467	-	-	-	-
20	200	252	312	382	463	557	664	-	-
30	190	242	303	373	455	550	658	781	918
40	-	-	289	360	442	537	647	770	908
50	-	-	-	340	422	518	628	752	891
60	-	-	-	-	396	491	601	726	865

**Coefficient of performance (C.O.P.)**

10	3.13	3.83	4.62	5.52	6.51	-	-	-	-
20	2.23	2.78	3.42	4.16	4.98	5.87	6.80	-	-
30	1.51	1.93	2.43	3.01	3.66	4.39	5.19	6.03	6.89
40	-	-	1.64	2.07	2.56	3.13	3.77	4.48	5.23
50	-	-	-	1.35	1.70	2.12	2.60	3.15	3.77
60	-	-	-	-	1.06	1.35	1.69	2.10	2.56

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

Cooling capacity	16 915	W
Power input	8 051	W
Current consumption	25.33	A
Mass flow	433	kg/h
C.O.P.	2.10	

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	9 911	12 329	15 211	18 610	22 577	-	-	-	-
20	8 787	11 134	13 892	17 112	20 847	25 148	30 066	-	-
30	-	9 792	12 359	15 334	18 769	22 717	27 228	32 354	38 149
40	-	-	10 647	13 311	16 381	19 909	23 946	28 544	33 756
50	-	-	-	-	13 718	16 760	20 257	24 261	28 824
60	-	-	-	-	-	13 306	16 197	19 540	23 389

**Power input in W**

10	3 070	3 128	3 174	3 225	3 300	-	-	-	-
20	3 831	3 926	3 987	4 032	4 078	4 145	4 248	-	-
30	-	4 901	4 994	5 049	5 085	5 119	5 169	5 254	5 389
40	-	-	6 255	6 337	6 379	6 398	6 411	6 438	6 494
50	-	-	-	-	8 019	8 039	8 033	8 018	8 013
60	-	-	-	-	-	10 105	10 095	10 056	10 004

**Current consumption in A**

10	19.01	18.96	18.99	19.10	19.29	-	-	-	-
20	20.39	20.44	20.53	20.65	20.81	21.00	21.23	-	-
30	-	22.03	22.20	22.37	22.53	22.68	22.82	22.96	23.09
40	-	-	24.44	24.69	24.88	25.02	25.11	25.15	25.14
50	-	-	-	-	28.30	28.47	28.54	28.51	28.39
60	-	-	-	-	-	33.45	33.53	33.48	33.28

**Mass flow in kg/h**

10	199	252	312	383	467	-	-	-	-
20	193	247	309	382	467	568	687	-	-
30	-	238	301	375	462	564	684	824	987
40	-	-	288	363	450	553	674	815	979
50	-	-	-	-	431	534	656	797	961
60	-	-	-	-	-	507	628	769	933

**Coefficient of performance (C.O.P.)**

10	3.23	3.94	4.79	5.77	6.84	-	-	-	-
20	2.29	2.84	3.48	4.24	5.11	6.07	7.08	-	-
30	-	2.00	2.47	3.04	3.69	4.44	5.27	6.16	7.08
40	-	-	1.70	2.10	2.57	3.11	3.73	4.43	5.20
50	-	-	-	-	1.71	2.08	2.52	3.03	3.60
60	-	-	-	-	-	1.32	1.60	1.94	2.34

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

Cooling capacity	15 081	W
Power input	7 152	W
Current consumption	26.43	A
Mass flow	442	kg/h
C.O.P.	2.11	

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**
**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	9 591	12 002	14 893	18 321	22 339	-	-	-	-
20	8 340	10 657	13 406	16 644	20 427	24 807	29 834	-	-
30	7 021	9 174	11 711	14 689	18 167	22 203	26 849	32 153	38 149
40	5 674	7 594	9 849	12 499	15 603	19 224	23 421	28 249	33 756
50	-	-	7 863	10 115	12 776	15 912	19 588	23 871	28 824
60	-	-	-	-	9 717	12 296	15 380	19 050	23 389

**Power input in W**

10	3 070	3 128	3 174	3 225	3 300	-	-	-	-
20	3 831	3 926	3 987	4 032	4 078	4 145	4 248	-	-
30	4 754	4 901	4 994	5 049	5 085	5 119	5 169	5 254	5 389
40	5 898	6 114	6 255	6 337	6 379	6 398	6 411	6 438	6 494
50	-	-	7 830	7 955	8 019	8 039	8 033	8 018	8 013
60	-	-	-	-	10 067	10 105	10 095	10 056	10 004

**Current consumption in A**

10	19.01	18.96	18.99	19.10	19.29	-	-	-	-
20	20.39	20.44	20.53	20.65	20.81	21.00	21.23	-	-
30	21.85	22.03	22.20	22.37	22.53	22.68	22.82	22.96	23.09
40	23.80	24.15	24.44	24.69	24.88	25.02	25.11	25.15	25.14
50	-	-	27.69	28.04	28.30	28.47	28.54	28.51	28.39
60	-	-	-	-	33.23	33.45	33.53	33.48	33.28

**Mass flow in kg/h**

10	237	293	357	430	514	-	-	-	-
20	229	288	354	428	514	612	724	-	-
30	218	278	345	421	508	608	721	848	987
40	201	262	330	407	495	596	710	838	979
50	-	-	308	385	474	576	691	819	961
60	-	-	-	-	445	546	662	791	933

**Coefficient of performance (C.O.P.)**

10	3.12	3.84	4.69	5.68	6.77	-	-	-	-
20	2.18	2.71	3.36	4.13	5.01	5.99	7.02	-	-
30	1.48	1.87	2.35	2.91	3.57	4.34	5.19	6.12	7.08
40	0.96	1.24	1.57	1.97	2.45	3.00	3.65	4.39	5.20
50	-	-	1.00	1.27	1.59	1.98	2.44	2.98	3.60
60	-	-	-	-	0.97	1.22	1.52	1.89	2.34

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

Cooling capacity	14 220	W
Power input	7 152	W
Current consumption	26.43	A
Mass flow	486	kg/h
C.O.P.	1.99	

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	11 899	14 827	18 364	22 581	27 547	-	-	-	-
20	10 694	13 487	16 811	20 735	25 329	30 665	36 811	-	-
30	-	12 064	15 106	18 669	22 823	27 641	33 190	39 541	46 761
40	-	-	13 274	16 408	20 055	24 285	29 170	34 779	41 181
50	-	-	-	-	17 049	20 625	24 777	29 576	35 092
60	-	-	-	-	-	16 686	20 038	23 960	28 525

**Power input in W**

10	3 529	3 600	3 686	3 810	3 997	-	-	-	-
20	4 475	4 570	4 647	4 731	4 845	5 013	5 259	-	-
30	-	5 754	5 857	5 934	6 010	6 107	6 251	6 464	6 771
40	-	-	7 350	7 454	7 525	7 586	7 661	7 774	7 949
50	-	-	-	-	9 424	9 482	9 523	9 569	9 645
60	-	-	-	-	-	11 832	11 871	11 884	11 896

**Current consumption in A**

10	18.79	18.16	17.80	17.72	17.94	-	-	-	-
20	19.59	19.34	19.22	19.25	19.43	19.77	20.28	-	-
30	-	20.76	21.01	21.27	21.53	21.80	22.11	22.45	22.84
40	-	-	23.31	23.91	24.38	24.72	24.94	25.06	25.09
50	-	-	-	-	28.12	28.65	28.92	28.94	28.73
60	-	-	-	-	-	33.74	34.18	34.23	33.90

**Mass flow in kg/h**

10	239	303	377	465	570	-	-	-	-
20	235	299	374	463	568	693	841	-	-
30	-	293	368	457	562	687	834	1 008	1 209
40	-	-	359	447	551	675	821	993	1 193
50	-	-	-	-	536	658	802	972	1 170
60	-	-	-	-	-	635	777	944	1 139

**Coefficient of performance (C.O.P.)**

10	3.37	4.12	4.98	5.93	6.89	-	-	-	-
20	2.39	2.95	3.62	4.38	5.23	6.12	7.00	-	-
30	-	2.10	2.58	3.15	3.80	4.53	5.31	6.12	6.91
40	-	-	1.81	2.20	2.67	3.20	3.81	4.47	5.18
50	-	-	-	-	1.81	2.18	2.60	3.09	3.64
60	-	-	-	-	-	1.41	1.69	2.02	2.40

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

Cooling capacity	18 580	W
Power input	8 424	W
Current consumption	26.13	A
Mass flow	544	kg/h
C.O.P.	2.21	

**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**
**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	11 514	14 434	17 981	22 230	27 256	-	-	-	-
20	10 149	12 909	16 223	20 167	24 819	30 250	36 527	-	-
30	8 773	11 303	14 313	17 883	22 091	27 015	32 728	39 295	46 761
40	7 407	9 640	12 279	15 407	19 103	23 450	28 530	34 419	41 181
50	-	-	10 143	12 762	15 879	19 582	23 959	29 101	35 092
60	-	-	-	-	12 427	15 419	19 028	23 359	28 525

**Power input in W**

10	3 529	3 600	3 686	3 810	3 997	-	-	-	-
20	4 475	4 570	4 647	4 731	4 845	5 013	5 259	-	-
30	5 603	5 754	5 857	5 934	6 010	6 107	6 251	6 464	6 771
40	6 946	7 188	7 350	7 454	7 525	7 586	7 661	7 774	7 949
50	-	-	9 160	9 325	9 424	9 482	9 523	9 569	9 645
60	-	-	-	-	11 743	11 832	11 871	11 884	11 896

**Current consumption in A**

10	18.79	18.16	17.80	17.72	17.94	-	-	-	-
20	19.59	19.34	19.22	19.25	19.43	19.77	20.28	-	-
30	20.50	20.76	21.01	21.27	21.53	21.80	22.11	22.45	22.84
40	21.66	22.56	23.31	23.91	24.38	24.72	24.94	25.06	25.09
50	-	-	26.24	27.32	28.12	28.65	28.92	28.94	28.73
60	-	-	-	-	32.89	33.74	34.18	34.23	33.90

**Mass flow in kg/h**

10	284	353	431	522	627	-	-	-	-
20	279	349	428	519	625	747	886	-	-
30	272	342	421	512	618	740	879	1 036	1 209
40	264	333	411	502	606	727	865	1 021	1 193
50	-	-	398	487	590	709	845	999	1 170
60	-	-	-	-	568	685	818	970	1 139

**Coefficient of performance (C.O.P.)**

10	3.26	4.01	4.88	5.83	6.82	-	-	-	-
20	2.27	2.82	3.49	4.26	5.12	6.03	6.95	-	-
30	1.57	1.96	2.44	3.01	3.68	4.42	5.24	6.08	6.91
40	1.07	1.34	1.67	2.07	2.54	3.09	3.72	4.43	5.18
50	-	-	1.11	1.37	1.68	2.07	2.52	3.04	3.64
60	-	-	-	-	1.06	1.30	1.60	1.97	2.40

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

Cooling capacity	17 519	W
Power input	8 424	W
Current consumption	26.13	A
Mass flow	598	kg/h
C.O.P.	2.08	

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