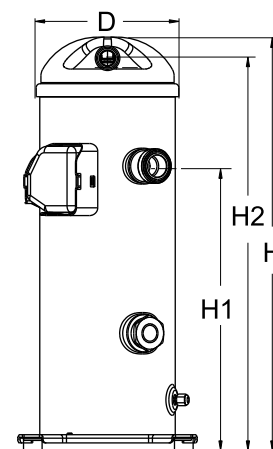


General Characteristics

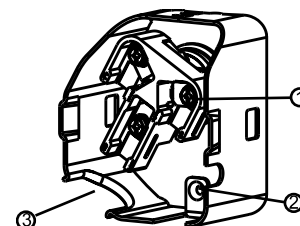
Model number (on compressor nameplate)		MLZ038T2LQ9
Code number for Singlepack*		121U8599
Code number for Industrial pack**		121U8598
Drawing number		0XR6298B-2
Suction and discharge connections		Rotolock
Suction connection		1-1/4 " Rotolock
Discharge connection		1 " Rotolock
Suction connection with supplied sleeve		7/8 " -
Discharge connection with supplied sleeve	- "	1/2 " -
Oil sight glass		Threaded
Oil equalisation connection		None
Oil drain connection		None
LP gauge port		None
IPR valve		None
Swept volume		80.95 cm ³ /rev
Displacement @ Nominal speed		14.1 m ³ /h @ 2900 rpm - 17.0 m ³ /h @ 3500 rpm
Net weight		41 kg
Oil charge		1.57 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		5.44 kg
Approved refrigerants		R404A, R507, R134a, R407C, R22

Dimensions


D=184 mm
H=454.9 mm
H1=280 mm
H2=422.2 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	0.599 Ω
Winding resistance between phases 1-3 +/- 7% at 25°C	0.603 Ω
Winding resistance between phases 2-3 +/- 7% at 25°C	0.611 Ω
Rated Load Amps (RLA)	16.7 A
Maximum Continuous Current (MCC)	26 A
Locked Rotor Amps (LRA)	123 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, V05 (1-1/4" Rotolock, 7/8" ODF)	8168030
Gasket, 1-1/4"	8156131

Rotolock accessories, discharge side

Code no.

Rotolock valve, V01 (1" Rotolock, 3/8" ODF)	8168027
Rotolock valve, V06 (1" Rotolock, 1/2" ODF)	8168031
Gasket, 1"	8156130

Rotolock accessories, sets

Code no.

Teflon seals, sleeves, nuts for discharge and suction (1" and 1 1/4")	120Z5074
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.

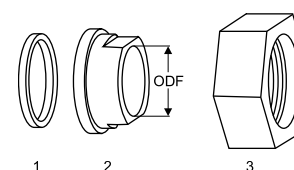
Acoustic hood	120Z5044
Discharge thermostat kit	7750009
IP54 upgrade kit	118U0057

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

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	6 507	8 303	10 418	12 824	-	-	-	-	-
20	6 334	8 054	10 086	12 404	14 978	-	-	-	-
30	5 913	7 462	9 306	11 421	13 778	16 348	19 097	-	-
40	5 421	6 826	8 509	10 446	12 613	14 981	17 520	-	-
50	-	6 040	7 587	9 373	11 376	13 568	15 923	-	-
60	-	-	-	8 095	9 958	12 000	14 198	-	-
68	-	-	-	-	-	10 563	12 653	-	-

Power input in W

16	1 600	1 694	1 809	1 937	-	-	-	-	-
20	1 843	1 930	2 036	2 152	2 271	-	-	-	-
30	2 400	2 478	2 569	2 664	2 757	2 840	2 905	-	-
40	2 956	3 039	3 127	3 215	3 294	3 358	3 399	-	-
50	-	3 702	3 802	3 896	3 975	4 034	4 063	-	-
60	-	-	-	4 797	4 890	4 956	4 987	-	-
68	-	-	-	-	-	5 933	5 975	-	-

Current consumption in A

16	6.16	6.52	6.96	7.46	-	-	-	-	-
20	7.09	7.43	7.83	8.28	8.74	-	-	-	-
30	9.24	9.54	9.89	10.25	10.61	10.93	11.18	-	-
40	11.38	11.70	12.04	12.37	12.68	12.93	13.08	-	-
50	-	14.25	14.64	15.00	15.30	15.53	15.64	-	-
60	-	-	-	18.47	18.82	19.08	19.20	-	-
68	-	-	-	-	-	22.84	23.00	-	-

Mass flow in kg/h

16	107	146	191	240	-	-	-	-	-
20	112	149	193	241	291	-	-	-	-
30	121	155	196	242	290	339	387	-	-
40	123	155	194	238	286	336	384	-	-
50	-	145	184	228	277	327	377	-	-
60	-	-	-	208	259	311	364	-	-
68	-	-	-	-	-	291	347	-	-

Coefficient of performance (C.O.P.)

16	4.07	4.90	5.76	6.62	-	-	-	-	-
20	3.44	4.17	4.96	5.77	6.60	-	-	-	-
30	2.46	3.01	3.62	4.29	5.00	5.76	6.57	-	-
40	1.83	2.25	2.72	3.25	3.83	4.46	5.15	-	-
50	-	1.63	2.00	2.41	2.86	3.36	3.92	-	-
60	-	-	-	1.69	2.04	2.42	2.85	-	-
68	-	-	-	-	-	1.78	2.12	-	-

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

Cooling capacity	8 070	W
Power input	3 445	W
Current consumption	13.26	A
Mass flow	190	kg/h
C.O.P.	2.34	

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	70	dB(A)
With acoustic hood	62	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	6 348	8 125	10 228	12 636	-	-	-	-	-
20	6 196	7 899	9 920	12 238	14 832	-	-	-	-
30	5 827	7 364	9 200	11 312	13 679	16 282	19 097	-	-
40	-	6 788	8 463	10 395	12 562	14 944	17 520	-	-
50	-	-	-	9 380	11 373	13 561	15 923	-	-
60	-	-	-	-	10 004	12 024	14 198	-	-
68	-	-	-	-	-	-	12 653	-	-

Power input in W

16	1 600	1 694	1 809	1 937	-	-	-	-	-
20	1 843	1 930	2 036	2 152	2 271	-	-	-	-
30	2 400	2 478	2 569	2 664	2 757	2 840	2 905	-	-
40	-	3 039	3 127	3 215	3 294	3 358	3 399	-	-
50	-	-	-	3 896	3 975	4 034	4 063	-	-
60	-	-	-	-	4 890	4 956	4 987	-	-
68	-	-	-	-	-	-	5 975	-	-

Current consumption in A

16	6.16	6.52	6.96	7.46	-	-	-	-	-
20	7.09	7.43	7.83	8.28	8.74	-	-	-	-
30	9.24	9.54	9.89	10.25	10.61	10.93	11.18	-	-
40	-	11.70	12.04	12.37	12.68	12.93	13.08	-	-
50	-	-	-	15.00	15.30	15.53	15.64	-	-
60	-	-	-	-	18.82	19.08	19.20	-	-
68	-	-	-	-	-	-	23.00	-	-

Mass flow in kg/h

16	94	131	175	224	-	-	-	-	-
20	99	134	177	225	277	-	-	-	-
30	107	139	179	226	277	331	387	-	-
40	-	139	177	223	273	327	384	-	-
50	-	-	-	213	264	319	377	-	-
60	-	-	-	-	247	304	364	-	-
68	-	-	-	-	-	-	347	-	-

Coefficient of performance (C.O.P.)

16	3.97	4.80	5.65	6.52	-	-	-	-	-
20	3.36	4.09	4.87	5.69	6.53	-	-	-	-
30	2.43	2.97	3.58	4.25	4.96	5.73	6.57	-	-
40	-	2.23	2.71	3.23	3.81	4.45	5.15	-	-
50	-	-	-	2.41	2.86	3.36	3.92	-	-
60	-	-	-	-	2.05	2.43	2.85	-	-
68	-	-	-	-	-	-	2.12	-	-

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

Cooling capacity	8 055	W
Power input	3 445	W
Current consumption	13.26	A
Mass flow	174	kg/h
C.O.P.	2.34	

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	70	dB(A)
With acoustic hood	62	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	7 852	9 993	12 499	15 334	-	-	-	-	-
20	7 607	9 665	12 085	14 830	17 863	-	-	-	-
30	7 035	8 896	11 109	13 639	16 450	19 502	22 752	-	-
40	6 423	8 103	10 122	12 451	15 054	17 895	20 932	-	-
50	-	7 166	9 007	11 147	13 556	16 200	19 040	-	-
60	-	-	-	9 613	11 840	14 300	16 958	-	-
68	-	-	-	-	-	12 554	15 075	-	-

Power input in W

16	1 884	1 995	2 131	2 282	-	-	-	-	-
20	2 171	2 274	2 398	2 534	2 675	-	-	-	-
30	2 827	2 919	3 025	3 138	3 247	3 345	3 422	-	-
40	3 482	3 579	3 683	3 787	3 880	3 956	4 004	-	-
50	-	4 360	4 479	4 589	4 683	4 751	4 785	-	-
60	-	-	-	5 651	5 760	5 837	5 874	-	-
68	-	-	-	-	-	6 988	7 038	-	-

Current consumption in A

16	5.91	6.26	6.69	7.16	-	-	-	-	-
20	6.81	7.13	7.52	7.95	8.39	-	-	-	-
30	8.87	9.16	9.49	9.84	10.19	10.49	10.74	-	-
40	10.93	11.23	11.56	11.88	12.18	12.41	12.56	-	-
50	-	13.68	14.05	14.40	14.69	14.91	15.02	-	-
60	-	-	-	17.73	18.07	18.32	18.43	-	-
68	-	-	-	-	-	21.93	22.08	-	-

Mass flow in kg/h

16	149	187	235	290	-	-	-	-	-
20	151	188	236	290	348	-	-	-	-
30	153	190	236	290	347	406	464	-	-
40	149	186	232	286	343	403	461	-	-
50	-	172	219	274	333	394	453	-	-
60	-	-	-	251	312	375	437	-	-
68	-	-	-	-	-	351	416	-	-

Coefficient of performance (C.O.P.)

16	4.17	5.01	5.87	6.72	-	-	-	-	-
20	3.50	4.25	5.04	5.85	6.68	-	-	-	-
30	2.49	3.05	3.67	4.35	5.07	5.83	6.65	-	-
40	1.84	2.26	2.75	3.29	3.88	4.52	5.23	-	-
50	-	1.64	2.01	2.43	2.90	3.41	3.98	-	-
60	-	-	-	1.70	2.06	2.45	2.89	-	-
68	-	-	-	-	-	1.80	2.14	-	-

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

Cooling capacity	9 588	W
Power input	4 057	W
Current consumption	12.73	A
Mass flow	227	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	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
R22

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

Cooling capacity in W

16	7 660	9 779	12 271	15 109	-	-	-	-	-
20	7 441	9 479	11 886	14 632	17 689	-	-	-	-
30	6 933	8 780	10 982	13 509	16 332	19 423	22 752	-	-
40	-	8 057	10 067	12 389	14 993	17 850	20 932	-	-
50	-	-	-	11 155	13 553	16 192	19 040	-	-
60	-	-	-	-	11 895	14 328	16 958	-	-
68	-	-	-	-	-	-	15 075	-	-

Power input in W

16	1 884	1 995	2 131	2 282	-	-	-	-	-
20	2 171	2 274	2 398	2 534	2 675	-	-	-	-
30	2 827	2 919	3 025	3 138	3 247	3 345	3 422	-	-
40	-	3 579	3 683	3 787	3 880	3 956	4 004	-	-
50	-	-	-	4 589	4 683	4 751	4 785	-	-
60	-	-	-	-	5 760	5 837	5 874	-	-
68	-	-	-	-	-	-	7 038	-	-

Current consumption in A

16	5.91	6.26	6.69	7.16	-	-	-	-	-
20	6.81	7.13	7.52	7.95	8.39	-	-	-	-
30	8.87	9.16	9.49	9.84	10.19	10.49	10.74	-	-
40	-	11.23	11.56	11.88	12.18	12.41	12.56	-	-
50	-	-	-	14.40	14.69	14.91	15.02	-	-
60	-	-	-	-	18.07	18.32	18.43	-	-
68	-	-	-	-	-	-	22.08	-	-

Mass flow in kg/h

16	131	168	215	271	-	-	-	-	-
20	133	169	216	271	332	-	-	-	-
30	135	170	216	270	331	396	464	-	-
40	-	167	212	267	327	393	461	-	-
50	-	-	-	256	317	384	453	-	-
60	-	-	-	-	298	366	437	-	-
68	-	-	-	-	-	-	416	-	-

Coefficient of performance (C.O.P.)

16	4.07	4.90	5.76	6.62	-	-	-	-	-
20	3.43	4.17	4.96	5.77	6.61	-	-	-	-
30	2.45	3.01	3.63	4.31	5.03	5.81	6.65	-	-
40	-	2.25	2.73	3.27	3.86	4.51	5.23	-	-
50	-	-	-	2.43	2.89	3.41	3.98	-	-
60	-	-	-	-	2.07	2.45	2.89	-	-
68	-	-	-	-	-	-	2.14	-	-

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

Cooling capacity	9 569	W
Power input	4 057	W
Current consumption	12.73	A
Mass flow	208	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	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
R134a

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

Cooling capacity in W

22	4 835	6 110	7 620	9 390	11 447	-	-	-	-
30	4 440	5 646	7 072	8 744	10 687	12 928	-	-	-
40	3 925	5 034	6 344	7 881	9 671	11 740	14 113	-	-
50	-	4 394	5 575	6 965	8 589	10 473	12 643	-	-
60	-	-	4 774	6 003	7 448	9 135	11 088	-	-
70	-	-	-	5 004	6 257	7 733	9 458	-	-
73	-	-	-	4 698	5 891	7 302	8 955	-	-

Power input in W

22	1 439	1 456	1 470	1 487	1 512	-	-	-	-
30	1 698	1 726	1 748	1 766	1 786	1 811	-	-	-
40	2 066	2 117	2 154	2 180	2 200	2 220	2 242	-	-
50	-	2 579	2 638	2 680	2 709	2 729	2 746	-	-
60	-	-	3 215	3 280	3 325	3 354	3 372	-	-
70	-	-	-	3 994	4 063	4 108	4 135	-	-
73	-	-	-	4 233	4 310	4 362	4 393	-	-

Current consumption in A

22	5.54	5.60	5.66	5.72	5.82	-	-	-	-
30	6.53	6.65	6.73	6.80	6.87	6.97	-	-	-
40	7.95	8.15	8.29	8.39	8.47	8.54	8.63	-	-
50	-	9.93	10.15	10.32	10.43	10.51	10.57	-	-
60	-	-	12.37	12.63	12.80	12.91	12.98	-	-
70	-	-	-	15.37	15.64	15.81	15.92	-	-
73	-	-	-	16.29	16.59	16.79	16.91	-	-

Mass flow in kg/h

22	104	128	157	191	228	-	-	-	-
30	103	127	156	190	228	271	-	-	-
40	102	126	155	188	227	270	319	-	-
50	-	124	152	185	224	268	317	-	-
60	-	-	148	181	220	263	312	-	-
70	-	-	-	176	214	257	306	-	-
73	-	-	-	174	211	255	303	-	-

Coefficient of performance (C.O.P.)

22	3.36	4.20	5.18	6.31	7.57	-	-	-	-
30	2.62	3.27	4.05	4.95	5.99	7.14	-	-	-
40	1.90	2.38	2.95	3.61	4.39	5.29	6.29	-	-
50	-	1.70	2.11	2.60	3.17	3.84	4.60	-	-
60	-	-	1.48	1.83	2.24	2.72	3.29	-	-
70	-	-	-	1.25	1.54	1.88	2.29	-	-
73	-	-	-	1.11	1.37	1.67	2.04	-	-

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

Cooling capacity	4 717	W
Power input	2 338	W
Current consumption	9.00	A
Mass flow	125	kg/h
C.O.P.	2.02	

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	70	dB(A)
With acoustic hood	62	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	4 912	6 181	7 679	9 431	11 466	-	-	-	-
30	-	5 750	7 163	8 811	10 723	12 928	-	-	-
40	-	-	6 474	7 982	9 728	11 740	14 047	-	-
50	-	-	5 744	7 100	8 668	10 473	12 542	-	-
60	-	-	-	6 171	7 548	9 135	-	-	-
70	-	-	-	-	6 378	7 733	-	-	-
73	-	-	-	-	6 018	7 302	-	-	-

Power input in W

22	1 439	1 456	1 470	1 487	1 512	-	-	-	-
30	-	1 726	1 748	1 766	1 786	1 811	-	-	-
40	-	-	2 154	2 180	2 200	2 220	2 242	-	-
50	-	-	2 638	2 680	2 709	2 729	2 746	-	-
60	-	-	-	3 280	3 325	3 354	-	-	-
70	-	-	-	-	4 063	4 108	-	-	-
73	-	-	-	-	4 310	4 362	-	-	-

Current consumption in A

22	5.54	5.60	5.66	5.72	5.82	-	-	-	-
30	-	6.65	6.73	6.80	6.87	6.97	-	-	-
40	-	-	8.29	8.39	8.47	8.54	8.63	-	-
50	-	-	10.15	10.32	10.43	10.51	10.57	-	-
60	-	-	-	12.63	12.80	12.91	-	-	-
70	-	-	-	-	15.64	15.81	-	-	-
73	-	-	-	-	16.59	16.79	-	-	-

Mass flow in kg/h

22	94	118	147	182	223	-	-	-	-
30	-	117	146	181	223	271	-	-	-
40	-	-	145	180	221	270	327	-	-
50	-	-	142	177	219	268	325	-	-
60	-	-	-	173	215	263	-	-	-
70	-	-	-	-	209	257	-	-	-
73	-	-	-	-	206	255	-	-	-

Coefficient of performance (C.O.P.)

22	3.41	4.25	5.22	6.34	7.59	-	-	-	-
30	-	3.33	4.10	4.99	6.01	7.14	-	-	-
40	-	-	3.01	3.66	4.42	5.29	6.27	-	-
50	-	-	2.18	2.65	3.20	3.84	4.57	-	-
60	-	-	-	1.88	2.27	2.72	-	-	-
70	-	-	-	-	1.57	1.88	-	-	-
73	-	-	-	-	1.40	1.67	-	-	-

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	70	dB(A)
With acoustic hood	62	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	5 990	7 541	9 410	11 585	14 052	-	-	-	-
30	5 466	6 939	8 727	10 817	13 197	15 856	-	-	-
40	4 849	6 199	7 859	9 818	12 064	14 584	17 367	-	-
50	-	5 442	6 946	8 745	10 827	13 180	15 792	-	-
60	-	-	5 954	7 564	9 454	11 611	14 024	-	-
70	-	-	-	6 244	7 912	9 845	12 028	-	-
73	-	-	-	5 815	7 412	9 271	11 380	-	-

Power input in W

22	1 725	1 755	1 799	1 853	1 913	-	-	-	-
30	2 033	2 062	2 102	2 152	2 207	2 264	-	-	-
40	2 497	2 527	2 568	2 616	2 668	2 721	2 771	-	-
50	-	3 090	3 135	3 186	3 240	3 292	3 341	-	-
60	-	-	3 809	3 867	3 926	3 983	4 034	-	-
70	-	-	-	4 664	4 733	4 798	4 857	-	-
73	-	-	-	4 927	5 000	5 068	5 129	-	-

Current consumption in A

22	5.41	5.51	5.65	5.81	6.00	-	-	-	-
30	6.38	6.47	6.60	6.75	6.93	7.10	-	-	-
40	7.84	7.93	8.06	8.21	8.37	8.54	8.70	-	-
50	-	9.70	9.84	10.00	10.16	10.33	10.48	-	-
60	-	-	11.95	12.13	12.32	12.50	12.66	-	-
70	-	-	-	14.64	14.85	15.06	15.24	-	-
73	-	-	-	15.46	15.69	15.90	16.09	-	-

Mass flow in kg/h

22	132	165	202	243	289	-	-	-	-
30	127	163	201	243	289	342	-	-	-
40	122	159	198	241	289	342	402	-	-
50	-	153	194	239	287	341	401	-	-
60	-	-	189	234	283	338	398	-	-
70	-	-	-	226	276	331	392	-	-
73	-	-	-	223	273	328	389	-	-

Coefficient of performance (C.O.P.)

22	3.47	4.30	5.23	6.25	7.34	-	-	-	-
30	2.69	3.37	4.15	5.03	5.98	7.00	-	-	-
40	1.94	2.45	3.06	3.75	4.52	5.36	6.27	-	-
50	-	1.76	2.22	2.74	3.34	4.00	4.73	-	-
60	-	-	1.56	1.96	2.41	2.92	3.48	-	-
70	-	-	-	1.34	1.67	2.05	2.48	-	-
73	-	-	-	1.18	1.48	1.83	2.22	-	-

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

Cooling capacity	5 824	W
Power input	2 796	W
Current consumption	8.77	A
Mass flow	156	kg/h
C.O.P.	2.08	

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 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	6 085	7 629	9 483	11 635	14 076	-	-	-	-
30	-	7 067	8 839	10 900	13 242	15 856	-	-	-
40	-	-	8 021	9 945	12 136	14 584	17 286	-	-
50	-	-	7 157	8 914	10 927	13 180	15 667	-	-
60	-	-	-	7 776	9 581	11 611	-	-	-
70	-	-	-	-	8 065	9 845	-	-	-
73	-	-	-	-	7 572	9 271	-	-	-

Power input in W

22	1 725	1 755	1 799	1 853	1 913	-	-	-	-
30	-	2 062	2 102	2 152	2 207	2 264	-	-	-
40	-	-	2 568	2 616	2 668	2 721	2 771	-	-
50	-	-	3 135	3 186	3 240	3 292	3 341	-	-
60	-	-	-	3 867	3 926	3 983	-	-	-
70	-	-	-	-	4 733	4 798	-	-	-
73	-	-	-	-	5 000	5 068	-	-	-

Current consumption in A

22	5.41	5.51	5.65	5.81	6.00	-	-	-	-
30	-	6.47	6.60	6.75	6.93	7.10	-	-	-
40	-	-	8.06	8.21	8.37	8.54	8.70	-	-
50	-	-	9.84	10.00	10.16	10.33	10.48	-	-
60	-	-	-	12.13	12.32	12.50	-	-	-
70	-	-	-	-	14.85	15.06	-	-	-
73	-	-	-	-	15.69	15.90	-	-	-

Mass flow in kg/h

22	119	152	189	232	282	-	-	-	-
30	-	149	188	232	283	342	-	-	-
40	-	-	186	231	282	342	413	-	-
50	-	-	182	228	281	341	412	-	-
60	-	-	-	224	277	338	-	-	-
70	-	-	-	-	270	331	-	-	-
73	-	-	-	-	267	328	-	-	-

Coefficient of performance (C.O.P.)

22	3.53	4.35	5.27	6.28	7.36	-	-	-	-
30	-	3.43	4.20	5.07	6.00	7.00	-	-	-
40	-	-	3.12	3.80	4.55	5.36	6.24	-	-
50	-	-	2.28	2.80	3.37	4.00	4.69	-	-
60	-	-	-	2.01	2.44	2.92	-	-	-
70	-	-	-	-	1.70	2.05	-	-	-
73	-	-	-	-	1.51	1.83	-	-	-

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 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	5 731	7 099	8 755	10 726	13 037	-	-	-	-
20	5 244	6 510	8 023	9 811	11 901	14 318	17 089	-	-
30	4 669	5 820	7 179	8 771	10 625	12 767	15 224	18 021	21 184
40	-	5 030	6 221	7 605	9 211	11 065	13 194	15 624	18 382
50	-	-	5 149	6 313	7 658	9 211	11 000	13 051	15 391
60	-	-	-	-	5 964	7 204	8 640	10 301	12 212

Power input in W

10	1 783	1 789	1 806	1 819	1 816	-	-	-	-
20	2 247	2 242	2 259	2 284	2 302	2 301	2 265	-	-
30	2 845	2 814	2 816	2 837	2 863	2 879	2 873	2 829	2 735
40	-	3 561	3 534	3 536	3 555	3 575	3 583	3 565	3 507
50	-	-	4 470	4 439	4 436	4 445	4 452	4 445	4 409
60	-	-	-	-	5 562	5 546	5 538	5 527	5 498

Current consumption in A

10	7.35	7.38	7.45	7.50	7.49	-	-	-	-
20	9.27	9.25	9.32	9.42	9.49	9.49	9.34	-	-
30	11.73	11.60	11.61	11.70	11.81	11.87	11.85	11.67	11.28
40	-	14.69	14.57	14.58	14.66	14.74	14.78	14.70	14.46
50	-	-	18.43	18.31	18.29	18.33	18.36	18.33	18.18
60	-	-	-	-	22.94	22.87	22.84	22.79	22.68

Mass flow in kg/h

10	102	137	175	218	268	-	-	-	-
20	109	141	178	220	269	326	392	-	-
30	111	142	177	218	265	322	388	465	554
40	-	139	172	212	259	314	380	457	547
50	-	-	164	202	248	304	369	446	537
60	-	-	-	-	235	290	355	433	523

Coefficient of performance (C.O.P.)

10	3.21	3.97	4.85	5.90	7.18	-	-	-	-
20	2.33	2.90	3.55	4.30	5.17	6.22	7.55	-	-
30	1.64	2.07	2.55	3.09	3.71	4.43	5.30	6.37	7.75
40	-	1.41	1.76	2.15	2.59	3.10	3.68	4.38	5.24
50	-	-	1.15	1.42	1.73	2.07	2.47	2.94	3.49
60	-	-	-	-	1.07	1.30	1.56	1.86	2.22

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

Cooling capacity	8 452	W
Power input	3 968	W
Current consumption	16.36	A
Mass flow	254	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	70	dB(A)
With acoustic hood	62	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	5 507	6 871	8 531	10 519	12 863	-	-	-	-
20	4 931	6 182	7 692	9 493	11 614	14 083	16 926	-	-
30	4 270	5 395	6 741	8 341	10 225	12 426	14 971	17 885	21 184
40	3 529	4 513	5 681	7 066	8 701	10 619	12 852	15 431	18 382
50	-	-	4 517	5 672	7 042	8 662	10 569	12 800	15 391
60	-	-	-	-	5 248	6 554	8 119	9 988	12 212

Power input in W

10	1 783	1 789	1 806	1 819	1 816	-	-	-	-
20	2 247	2 242	2 259	2 284	2 302	2 301	2 265	-	-
30	2 845	2 814	2 816	2 837	2 863	2 879	2 873	2 829	2 735
40	3 632	3 561	3 534	3 536	3 555	3 575	3 583	3 565	3 507
50	-	-	4 470	4 439	4 436	4 445	4 452	4 445	4 409
60	-	-	-	-	5 562	5 546	5 538	5 527	5 498

Current consumption in A

10	7.35	7.38	7.45	7.50	7.49	-	-	-	-
20	9.27	9.25	9.32	9.42	9.49	9.49	9.34	-	-
30	11.73	11.60	11.61	11.70	11.81	11.87	11.85	11.67	11.28
40	14.98	14.69	14.57	14.58	14.66	14.74	14.78	14.70	14.46
50	-	-	18.43	18.31	18.29	18.33	18.36	18.33	18.18
60	-	-	-	-	22.94	22.87	22.84	22.79	22.68

Mass flow in kg/h

10	122	160	201	246	296	-	-	-	-
20	130	165	204	248	297	352	414	-	-
30	133	166	203	245	293	348	410	478	554
40	131	162	198	238	285	340	401	471	547
50	-	-	188	228	274	328	390	460	537
60	-	-	-	-	260	313	375	445	523

Coefficient of performance (C.O.P.)

10	3.09	3.84	4.72	5.78	7.08	-	-	-	-
20	2.19	2.76	3.40	4.16	5.04	6.12	7.47	-	-
30	1.50	1.92	2.39	2.94	3.57	4.32	5.21	6.32	7.75
40	0.97	1.27	1.61	2.00	2.45	2.97	3.59	4.33	5.24
50	-	-	1.01	1.28	1.59	1.95	2.37	2.88	3.49
60	-	-	-	-	0.94	1.18	1.47	1.81	2.22

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

Cooling capacity	7 888	W
Power input	3 968	W
Current consumption	16.36	A
Mass flow	280	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	70	dB(A)
With acoustic hood	62	dB(A)

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	6 947	8 678	10 730	13 140	15 943	-	-	-	-
20	6 226	7 814	9 667	11 823	14 316	17 185	20 463	-	-
30	5 505	6 960	8 627	10 540	12 737	15 254	18 126	21 390	25 079
40	-	6 018	7 509	9 193	11 105	13 282	15 761	18 576	21 765
50	-	-	6 215	7 681	9 320	11 170	13 266	15 647	18 346
60	-	-	-	-	7 282	8 817	10 545	12 502	14 728

Power input in W

10	2 201	2 148	2 143	2 167	2 204	-	-	-	-
20	2 751	2 688	2 675	2 693	2 724	2 752	2 760	-	-
30	3 436	3 366	3 347	3 360	3 388	3 415	3 423	3 394	3 311
40	-	4 201	4 178	4 189	4 217	4 244	4 254	4 229	4 151
50	-	-	5 190	5 201	5 230	5 260	5 274	5 254	5 184
60	-	-	-	-	6 448	6 483	6 503	6 491	6 430

Current consumption in A

10	6.91	6.74	6.72	6.80	6.91	-	-	-	-
20	8.63	8.44	8.39	8.45	8.55	8.64	8.66	-	-
30	10.78	10.56	10.50	10.54	10.63	10.72	10.74	10.65	10.39
40	-	13.18	13.11	13.14	13.23	13.32	13.35	13.27	13.02
50	-	-	16.29	16.32	16.41	16.50	16.55	16.49	16.27
60	-	-	-	-	20.23	20.34	20.41	20.37	20.18

Mass flow in kg/h

10	122	166	214	267	327	-	-	-	-
20	128	170	215	265	323	391	470	-	-
30	130	170	213	262	318	384	461	552	658
40	-	165	208	256	311	376	452	542	648
50	-	-	197	245	301	366	442	532	638
60	-	-	-	-	287	352	430	521	627

Coefficient of performance (C.O.P.)

10	3.16	4.04	5.01	6.06	7.23	-	-	-	-
20	2.26	2.91	3.61	4.39	5.26	6.24	7.41	-	-
30	1.60	2.07	2.58	3.14	3.76	4.47	5.30	6.30	7.57
40	-	1.43	1.80	2.19	2.63	3.13	3.71	4.39	5.24
50	-	-	1.20	1.48	1.78	2.12	2.52	2.98	3.54
60	-	-	-	-	1.13	1.36	1.62	1.93	2.29

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

Cooling capacity	10 238	W
Power input	4 699	W
Current consumption	14.74	A
Mass flow	306	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	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
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	6 676	8 399	10 456	12 887	15 729	-	-	-	-
20	5 855	7 420	9 268	11 439	13 971	16 903	20 269	-	-
30	5 034	6 452	8 101	10 023	12 258	14 846	17 826	21 229	25 079
40	4 124	5 399	6 858	8 541	10 490	12 746	15 352	18 347	21 765
50	-	-	5 452	6 901	8 571	10 504	12 747	15 346	18 346
60	-	-	-	-	6 408	8 021	9 908	12 124	14 728

Power input in W

10	2 201	2 148	2 143	2 167	2 204	-	-	-	-
20	2 751	2 688	2 675	2 693	2 724	2 752	2 760	-	-
30	3 436	3 366	3 347	3 360	3 388	3 415	3 423	3 394	3 311
40	4 276	4 201	4 178	4 189	4 217	4 244	4 254	4 229	4 151
50	-	-	5 190	5 201	5 230	5 260	5 274	5 254	5 184
60	-	-	-	-	6 448	6 483	6 503	6 491	6 430

Current consumption in A

10	6.91	6.74	6.72	6.80	6.91	-	-	-	-
20	8.63	8.44	8.39	8.45	8.55	8.64	8.66	-	-
30	10.78	10.56	10.50	10.54	10.63	10.72	10.74	10.65	10.39
40	13.42	13.18	13.11	13.14	13.23	13.32	13.35	13.27	13.02
50	-	-	16.29	16.32	16.41	16.50	16.55	16.49	16.27
60	-	-	-	-	20.23	20.34	20.41	20.37	20.18

Mass flow in kg/h

10	146	195	246	301	361	-	-	-	-
20	153	199	247	299	357	422	496	-	-
30	155	199	245	295	351	415	487	568	658
40	150	193	239	288	343	406	478	558	648
50	-	-	227	276	332	395	467	548	638
60	-	-	-	-	316	381	454	536	627

Coefficient of performance (C.O.P.)

10	3.03	3.91	4.88	5.95	7.14	-	-	-	-
20	2.13	2.76	3.46	4.25	5.13	6.14	7.34	-	-
30	1.47	1.92	2.42	2.98	3.62	4.35	5.21	6.26	7.57
40	0.96	1.29	1.64	2.04	2.49	3.00	3.61	4.34	5.24
50	-	-	1.05	1.33	1.64	2.00	2.42	2.92	3.54
60	-	-	-	-	0.99	1.24	1.52	1.87	2.29

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

Cooling capacity	9 555	W
Power input	4 699	W
Current consumption	14.74	A
Mass flow	338	kg/h
C.O.P.	2.03	

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 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	-	4 339	5 528	6 980	8 725	10 792	13 211	16 012	19 224
35	-	4 026	5 160	6 542	8 202	10 170	12 474	15 144	18 210
40	-	3 726	4 801	6 109	7 680	9 543	11 727	14 263	17 178
45	-	-	4 444	5 674	7 152	8 906	10 966	13 361	16 121
50	-	-	-	5 231	6 611	8 251	10 183	12 433	15 033
55	-	-	-	-	6 051	7 573	9 371	11 472	13 906
60	-	-	-	-	-	6 865	8 524	10 471	12 734
65	-	-	-	-	-	-	7 635	9 421	11 507

Power input in W

30	-	2 051	2 106	2 174	2 251	2 333	2 417	2 499	2 576
35	-	2 547	2 567	2 600	2 642	2 689	2 739	2 786	2 827
40	-	3 055	3 048	3 054	3 069	3 089	3 111	3 131	3 146
45	-	-	3 557	3 544	3 540	3 541	3 544	3 545	3 541
50	-	-	-	4 079	4 064	4 054	4 046	4 036	4 021
55	-	-	-	-	4 651	4 638	4 627	4 614	4 595
60	-	-	-	-	-	5 301	5 295	5 287	5 273
65	-	-	-	-	-	-	6 059	6 063	6 062

Current consumption in A

30	-	6.92	6.82	6.95	7.23	7.57	7.87	8.05	8.01
35	-	8.73	8.45	8.42	8.55	8.76	8.96	9.04	8.93
40	-	9.99	9.56	9.40	9.42	9.54	9.66	9.69	9.54
45	-	-	10.38	10.12	10.07	10.13	10.20	10.21	10.06
50	-	-	-	10.82	10.72	10.75	10.82	10.83	10.71
55	-	-	-	-	11.59	11.63	11.72	11.78	11.72
60	-	-	-	-	-	12.99	13.14	13.28	13.31
65	-	-	-	-	-	-	15.31	15.56	15.72

Mass flow in kg/h

30	-	99	123	153	187	226	272	324	384
35	-	97	121	150	184	223	269	321	381
40	-	94	119	147	180	220	265	317	377
45	-	-	115	143	176	215	261	313	373
50	-	-	-	138	171	210	255	308	368
55	-	-	-	-	164	203	249	301	361
60	-	-	-	-	-	195	240	293	353
65	-	-	-	-	-	-	231	283	344

Coefficient of performance (C.O.P.)

30	-	2.12	2.62	3.21	3.88	4.63	5.47	6.41	7.46
35	-	1.58	2.01	2.52	3.10	3.78	4.55	5.44	6.44
40	-	1.22	1.58	2.00	2.50	3.09	3.77	4.55	5.46
45	-	-	1.25	1.60	2.02	2.52	3.09	3.77	4.55
50	-	-	-	1.28	1.63	2.04	2.52	3.08	3.74
55	-	-	-	-	1.30	1.63	2.03	2.49	3.03
60	-	-	-	-	-	1.30	1.61	1.98	2.42
65	-	-	-	-	-	-	1.26	1.55	1.90

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

Cooling capacity	7 152	W
Power input	3 540	W
Current consumption	10.07	A
Mass flow	176	kg/h
C.O.P.	2.02	

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 60 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	-	5 115	6 513	8 225	10 286	12 727	15 583	18 888	22 674
35	-	4 757	6 095	7 729	9 693	12 021	14 746	17 901	21 520
40	-	4 409	5 682	7 235	9 100	11 311	13 901	16 902	20 349
45	-	-	5 266	6 733	8 495	10 585	13 036	15 880	19 151
50	-	-	-	6 213	7 868	9 833	12 140	14 823	17 914
55	-	-	-	-	7 208	9 044	11 204	13 721	16 628
60	-	-	-	-	-	8 208	10 216	12 562	15 279
65	-	-	-	-	-	-	9 164	11 334	13 856

Power input in W

30	-	2 469	2 539	2 621	2 711	2 807	2 906	3 004	3 099
35	-	3 051	3 078	3 117	3 165	3 220	3 277	3 335	3 389
40	-	3 648	3 640	3 645	3 659	3 680	3 705	3 731	3 753
45	-	-	4 235	4 214	4 203	4 200	4 200	4 202	4 202
50	-	-	-	4 836	4 808	4 788	4 773	4 759	4 744
55	-	-	-	-	5 483	5 456	5 433	5 412	5 391
60	-	-	-	-	-	6 212	6 191	6 172	6 152
65	-	-	-	-	-	-	7 057	7 048	7 039

Current consumption in A

30	-	6.92	6.82	6.95	7.23	7.57	7.87	8.05	8.01
35	-	8.73	8.45	8.42	8.55	8.76	8.96	9.04	8.93
40	-	9.99	9.56	9.40	9.42	9.54	9.66	9.69	9.54
45	-	-	10.38	10.12	10.07	10.13	10.20	10.21	10.06
50	-	-	-	10.82	10.72	10.75	10.82	10.83	10.71
55	-	-	-	-	11.59	11.63	11.72	11.78	11.72
60	-	-	-	-	-	12.99	13.14	13.28	13.31
65	-	-	-	-	-	-	15.31	15.56	15.72

Mass flow in kg/h

30	-	116	145	180	220	267	321	383	453
35	-	115	143	177	217	264	318	380	450
40	-	112	140	174	214	260	314	376	447
45	-	-	136	170	209	256	310	372	443
50	-	-	-	164	203	250	304	367	438
55	-	-	-	-	196	243	297	360	432
60	-	-	-	-	-	233	288	351	424
65	-	-	-	-	-	-	277	341	414

Coefficient of performance (C.O.P.)

30	-	2.07	2.57	3.14	3.79	4.53	5.36	6.29	7.32
35	-	1.56	1.98	2.48	3.06	3.73	4.50	5.37	6.35
40	-	1.21	1.56	1.99	2.49	3.07	3.75	4.53	5.42
45	-	-	1.24	1.60	2.02	2.52	3.10	3.78	4.56
50	-	-	-	1.28	1.64	2.05	2.54	3.11	3.78
55	-	-	-	-	1.31	1.66	2.06	2.54	3.08
60	-	-	-	-	-	1.32	1.65	2.04	2.48
65	-	-	-	-	-	-	1.30	1.61	1.97

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

Cooling capacity	8 495	W
Power input	4 203	W
Current consumption	10.07	A
Mass flow	209	kg/h
C.O.P.	2.02	

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 60 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	4 902	6 136	7 613	9 370	11 442	-	-	-	-
20	4 386	5 568	6 964	8 612	10 547	12 806	15 425	-	-
30	-	-	6 228	7 745	9 521	11 592	13 995	16 766	19 940
40	-	-	-	6 790	8 385	10 247	12 411	14 915	17 795
50	-	-	-	-	7 161	8 791	10 695	12 911	15 474
60	-	-	-	-	-	-	8 869	10 774	12 998

Power input in W

10	1 519	1 538	1 583	1 651	1 740	-	-	-	-
20	1 969	1 948	1 960	2 002	2 072	2 166	2 282	-	-
30	-	-	2 489	2 495	2 536	2 608	2 709	2 835	2 983
40	-	-	-	3 202	3 204	3 245	3 320	3 428	3 566
50	-	-	-	-	4 148	4 147	4 188	4 269	4 385
60	-	-	-	-	-	-	5 384	5 428	5 514

Current consumption in A

10	7.48	7.59	7.68	7.77	7.87	-	-	-	-
20	8.31	8.41	8.50	8.58	8.69	8.83	9.04	-	-
30	-	-	9.67	9.73	9.82	9.96	10.16	10.45	10.84
40	-	-	-	11.47	11.53	11.63	11.81	12.07	12.45
50	-	-	-	-	14.04	14.09	14.22	14.44	14.78
60	-	-	-	-	-	-	17.64	17.81	18.09

Mass flow in kg/h

10	80	101	126	155	190	-	-	-	-
20	77	98	123	153	188	230	280	-	-
30	-	-	119	148	184	226	275	333	401
40	-	-	-	142	177	219	268	326	394
50	-	-	-	-	168	209	258	315	383
60	-	-	-	-	-	-	245	302	368

Coefficient of performance (C.O.P.)

10	3.23	3.99	4.81	5.68	6.58	-	-	-	-
20	2.23	2.86	3.55	4.30	5.09	5.91	6.76	-	-
30	-	-	2.50	3.10	3.75	4.44	5.17	5.91	6.68
40	-	-	-	2.12	2.62	3.16	3.74	4.35	4.99
50	-	-	-	-	1.73	2.12	2.55	3.02	3.53
60	-	-	-	-	-	-	1.65	1.99	2.36

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

Cooling capacity	7 782	W
Power input	3 637	W
Current consumption	12.66	A
Mass flow	173	kg/h
C.O.P.	2.14	

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	4 923	6 166	7 656	9 428	11 516	-	-	-	-
20	4 348	5 532	6 935	8 594	10 545	12 821	15 454	-	-
30	3 733	4 834	6 128	7 651	9 442	11 534	13 962	16 757	19 940
40	-	-	5 259	6 623	8 230	10 116	12 317	14 867	17 795
50	-	-	-	5 534	6 934	8 590	10 540	12 823	15 474
60	-	-	-	-	5 577	6 979	8 655	10 647	12 998

Power input in W

10	1 519	1 538	1 583	1 651	1 740	-	-	-	-
20	1 969	1 948	1 960	2 002	2 072	2 166	2 282	-	-
30	2 590	2 519	2 489	2 495	2 536	2 608	2 709	2 835	2 983
40	-	-	3 240	3 202	3 204	3 245	3 320	3 428	3 566
50	-	-	-	4 194	4 148	4 147	4 188	4 269	4 385
60	-	-	-	-	5 439	5 387	5 384	5 428	5 514

Current consumption in A

10	7.48	7.59	7.68	7.77	7.87	-	-	-	-
20	8.31	8.41	8.50	8.58	8.69	8.83	9.04	-	-
30	9.54	9.61	9.67	9.73	9.82	9.96	10.16	10.45	10.84
40	-	-	11.45	11.47	11.53	11.63	11.81	12.07	12.45
50	-	-	-	14.04	14.04	14.09	14.22	14.44	14.78
60	-	-	-	-	17.60	17.58	17.64	17.81	18.09

Mass flow in kg/h

10	94	117	143	174	209	-	-	-	-
20	91	114	140	171	206	247	294	-	-
30	87	110	136	166	202	242	289	342	401
40	-	-	129	159	195	235	282	335	394
50	-	-	-	150	185	225	271	324	383
60	-	-	-	-	172	212	258	310	368

Coefficient of performance (C.O.P.)

10	3.24	4.01	4.84	5.71	6.62	-	-	-	-
20	2.21	2.84	3.54	4.29	5.09	5.92	6.77	-	-
30	1.44	1.92	2.46	3.07	3.72	4.42	5.15	5.91	6.68
40	-	-	1.62	2.07	2.57	3.12	3.71	4.34	4.99
50	-	-	-	1.32	1.67	2.07	2.52	3.00	3.53
60	-	-	-	-	1.03	1.30	1.61	1.96	2.36

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

Cooling capacity	7 591	W
Power input	3 637	W
Current consumption	12.66	A
Mass flow	190	kg/h
C.O.P.	2.09	

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	5 791	7 260	9 030	11 146	13 652	-	-	-	-
20	5 235	6 639	8 312	10 298	12 643	15 391	18 587	-	-
30	-	-	7 496	9 319	11 468	13 988	16 923	20 319	24 221
40	-	-	-	8 245	10 164	12 421	15 062	18 131	21 673
50	-	-	-	-	8 768	10 729	13 040	15 747	18 896
60	-	-	-	-	-	-	10 896	13 207	15 927

Power input in W

10	1 874	1 917	1 976	2 054	2 152	-	-	-	-
20	2 371	2 398	2 436	2 489	2 557	2 644	2 751	-	-
30	-	-	3 065	3 104	3 155	3 220	3 300	3 398	3 516
40	-	-	-	3 916	3 962	4 016	4 082	4 160	4 255
50	-	-	-	-	4 992	5 049	5 112	5 184	5 266
60	-	-	-	-	-	-	6 407	6 484	6 567

Current consumption in A

10	6.93	7.14	7.32	7.48	7.60	-	-	-	-
20	8.07	8.18	8.30	8.43	8.56	8.69	8.83	-	-
30	-	-	9.61	9.67	9.77	9.91	10.09	10.31	10.56
40	-	-	-	11.49	11.52	11.62	11.80	12.06	12.38
50	-	-	-	-	14.08	14.11	14.26	14.51	14.87
60	-	-	-	-	-	-	17.73	17.94	18.30

Mass flow in kg/h

10	94	119	149	184	227	-	-	-	-
20	92	117	147	183	225	276	337	-	-
30	-	-	143	179	221	272	333	404	488
40	-	-	-	173	215	265	325	396	479
50	-	-	-	-	206	256	315	385	467
60	-	-	-	-	-	-	301	370	451

Coefficient of performance (C.O.P.)

10	3.09	3.79	4.57	5.43	6.34	-	-	-	-
20	2.21	2.77	3.41	4.14	4.94	5.82	6.76	-	-
30	-	-	2.45	3.00	3.63	4.34	5.13	5.98	6.89
40	-	-	-	2.11	2.57	3.09	3.69	4.36	5.09
50	-	-	-	-	1.76	2.12	2.55	3.04	3.59
60	-	-	-	-	-	-	1.70	2.04	2.43

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

Cooling capacity	9 475	W
Power input	4 448	W
Current consumption	12.68	A
Mass flow	211	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		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
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	5 815	7 295	9 081	11 215	13 740	-	-	-	-
20	5 189	6 596	8 277	10 277	12 640	15 409	18 622	-	-
30	4 536	5 834	7 376	9 206	11 372	13 917	16 883	20 308	24 221
40	-	-	6 416	8 043	9 976	12 262	14 947	18 072	21 673
50	-	-	-	6 825	8 491	10 483	12 850	15 640	18 896
60	-	-	-	-	6 953	8 617	10 632	13 051	15 927

Power input in W

10	1 874	1 917	1 976	2 054	2 152	-	-	-	-
20	2 371	2 398	2 436	2 489	2 557	2 644	2 751	-	-
30	3 011	3 034	3 065	3 104	3 155	3 220	3 300	3 398	3 516
40	-	-	3 877	3 916	3 962	4 016	4 082	4 160	4 255
50	-	-	-	4 939	4 992	5 049	5 112	5 184	5 266
60	-	-	-	-	6 262	6 334	6 407	6 484	6 567

Current consumption in A

10	6.93	7.14	7.32	7.48	7.60	-	-	-	-
20	8.07	8.18	8.30	8.43	8.56	8.69	8.83	-	-
30	9.61	9.59	9.61	9.67	9.77	9.91	10.09	10.31	10.56
40	-	-	11.53	11.49	11.52	11.62	11.80	12.06	12.38
50	-	-	-	14.16	14.08	14.11	14.26	14.51	14.87
60	-	-	-	-	17.74	17.66	17.73	17.94	18.30

Mass flow in kg/h

10	111	139	170	207	249	-	-	-	-
20	109	136	168	204	247	297	354	-	-
30	105	132	163	200	243	293	350	415	488
40	-	-	158	194	236	285	342	407	479
50	-	-	-	185	226	275	331	395	467
60	-	-	-	-	215	262	317	380	451

Coefficient of performance (C.O.P.)

10	3.10	3.81	4.60	5.46	6.39	-	-	-	-
20	2.19	2.75	3.40	4.13	4.94	5.83	6.77	-	-
30	1.51	1.92	2.41	2.97	3.60	4.32	5.12	5.98	6.89
40	-	-	1.65	2.05	2.52	3.05	3.66	4.34	5.09
50	-	-	-	1.38	1.70	2.08	2.51	3.02	3.59
60	-	-	-	-	1.11	1.36	1.66	2.01	2.43

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

Cooling capacity	9 242	W
Power input	4 448	W
Current consumption	12.68	A
Mass flow	231	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

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	4 902	6 136	7 613	9 370	11 442	-	-	-	-
20	4 386	5 568	6 964	8 612	10 547	12 806	15 425	-	-
30	-	-	6 228	7 745	9 521	11 592	13 995	16 766	19 940
40	-	-	-	6 790	8 385	10 247	12 411	14 915	17 795
50	-	-	-	-	7 161	8 791	10 695	12 911	15 474
60	-	-	-	-	-	-	8 869	10 774	12 998

Power input in W

10	1 519	1 538	1 583	1 651	1 740	-	-	-	-
20	1 969	1 948	1 960	2 002	2 072	2 166	2 282	-	-
30	-	-	2 489	2 495	2 536	2 608	2 709	2 835	2 983
40	-	-	-	3 202	3 204	3 245	3 320	3 428	3 566
50	-	-	-	-	4 148	4 147	4 188	4 269	4 385
60	-	-	-	-	-	-	5 384	5 428	5 514

Current consumption in A

10	7.48	7.59	7.68	7.77	7.87	-	-	-	-
20	8.31	8.41	8.50	8.58	8.69	8.83	9.04	-	-
30	-	-	9.67	9.73	9.82	9.96	10.16	10.45	10.84
40	-	-	-	11.47	11.53	11.63	11.81	12.07	12.45
50	-	-	-	-	14.04	14.09	14.22	14.44	14.78
60	-	-	-	-	-	-	17.64	17.81	18.09

Mass flow in kg/h

10	80	101	126	155	190	-	-	-	-
20	77	98	123	153	188	230	280	-	-
30	-	-	119	148	184	226	275	333	401
40	-	-	-	142	177	219	268	326	394
50	-	-	-	-	168	209	258	315	383
60	-	-	-	-	-	-	245	302	368

Coefficient of performance (C.O.P.)

10	3.23	3.99	4.81	5.68	6.58	-	-	-	-
20	2.23	2.86	3.55	4.30	5.09	5.91	6.76	-	-
30	-	-	2.50	3.10	3.75	4.44	5.17	5.91	6.68
40	-	-	-	2.12	2.62	3.16	3.74	4.35	4.99
50	-	-	-	-	1.73	2.12	2.55	3.02	3.53
60	-	-	-	-	-	-	1.65	1.99	2.36

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

Cooling capacity	7 782	W
Power input	3 637	W
Current consumption	12.66	A
Mass flow	173	kg/h
C.O.P.	2.14	

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	4 912	6 155	7 644	9 416	11 505	-	-	-	-
20	4 336	5 520	6 923	8 582	10 533	12 811	15 446	-	-
30	3 722	4 822	6 115	7 638	9 429	11 523	13 954	16 751	19 940
40	-	-	5 245	6 609	8 217	10 104	12 307	14 861	17 795
50	-	-	-	5 520	6 920	8 577	10 530	12 817	15 474
60	-	-	-	-	5 563	6 966	8 645	10 641	12 998

Power input in W

10	1 519	1 538	1 583	1 651	1 740	-	-	-	-
20	1 969	1 948	1 960	2 002	2 072	2 166	2 282	-	-
30	2 590	2 519	2 489	2 495	2 536	2 608	2 709	2 835	2 983
40	-	-	3 240	3 202	3 204	3 245	3 320	3 428	3 566
50	-	-	-	4 194	4 148	4 147	4 188	4 269	4 385
60	-	-	-	-	5 439	5 387	5 384	5 428	5 514

Current consumption in A

10	7.48	7.59	7.68	7.77	7.87	-	-	-	-
20	8.31	8.41	8.50	8.58	8.69	8.83	9.04	-	-
30	9.54	9.61	9.67	9.73	9.82	9.96	10.16	10.45	10.84
40	-	-	11.45	11.47	11.53	11.63	11.81	12.07	12.45
50	-	-	-	14.04	14.04	14.09	14.22	14.44	14.78
60	-	-	-	-	17.60	17.58	17.64	17.81	18.09

Mass flow in kg/h

10	94	117	143	174	209	-	-	-	-
20	91	114	140	171	206	247	294	-	-
30	87	110	136	166	202	242	289	342	401
40	-	-	129	159	195	235	282	335	394
50	-	-	-	150	185	225	271	324	383
60	-	-	-	-	172	212	258	310	368

Coefficient of performance (C.O.P.)

10	3.23	4.00	4.83	5.70	6.61	-	-	-	-
20	2.20	2.83	3.53	4.29	5.08	5.91	6.77	-	-
30	1.44	1.91	2.46	3.06	3.72	4.42	5.15	5.91	6.68
40	-	-	1.62	2.06	2.56	3.11	3.71	4.33	4.99
50	-	-	-	1.32	1.67	2.07	2.51	3.00	3.53
60	-	-	-	-	1.02	1.29	1.61	1.96	2.36

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

Cooling capacity	7 577	W
Power input	3 637	W
Current consumption	12.66	A
Mass flow	190	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

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	5 791	7 260	9 030	11 146	13 652	-	-	-	-
20	5 235	6 639	8 312	10 298	12 643	15 391	18 587	-	-
30	-	-	7 496	9 319	11 468	13 988	16 923	20 319	24 221
40	-	-	-	8 245	10 164	12 421	15 062	18 131	21 673
50	-	-	-	-	8 768	10 729	13 040	15 747	18 896
60	-	-	-	-	-	-	10 896	13 207	15 927

Power input in W

10	1 874	1 917	1 976	2 054	2 152	-	-	-	-
20	2 371	2 398	2 436	2 489	2 557	2 644	2 751	-	-
30	-	-	3 065	3 104	3 155	3 220	3 300	3 398	3 516
40	-	-	-	3 916	3 962	4 016	4 082	4 160	4 255
50	-	-	-	-	4 992	5 049	5 112	5 184	5 266
60	-	-	-	-	-	-	6 407	6 484	6 567

Current consumption in A

10	6.93	7.14	7.32	7.48	7.60	-	-	-	-
20	8.07	8.18	8.30	8.43	8.56	8.69	8.83	-	-
30	-	-	9.61	9.67	9.77	9.91	10.09	10.31	10.56
40	-	-	-	11.49	11.52	11.62	11.80	12.06	12.38
50	-	-	-	-	14.08	14.11	14.26	14.51	14.87
60	-	-	-	-	-	-	17.73	17.94	18.30

Mass flow in kg/h

10	96	121	151	187	231	-	-	-	-
20	93	119	149	186	229	281	343	-	-
30	-	-	146	182	225	277	339	412	497
40	-	-	-	176	219	271	332	404	489
50	-	-	-	-	211	261	321	393	477
60	-	-	-	-	-	-	308	378	461

Coefficient of performance (C.O.P.)

10	3.09	3.79	4.57	5.43	6.34	-	-	-	-
20	2.21	2.77	3.41	4.14	4.94	5.82	6.76	-	-
30	-	-	2.45	3.00	3.63	4.34	5.13	5.98	6.89
40	-	-	-	2.11	2.57	3.09	3.69	4.36	5.09
50	-	-	-	-	1.76	2.12	2.55	3.04	3.59
60	-	-	-	-	-	-	1.70	2.04	2.43

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

Cooling capacity	9 475	W
Power input	4 448	W
Current consumption	12.68	A
Mass flow	215	kg/h
C.O.P.	2.13	

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	5 802	7 282	9 067	11 201	13 727	-	-	-	-
20	5 175	6 582	8 262	10 262	12 626	15 396	18 612	-	-
30	4 522	5 819	7 360	9 190	11 357	13 904	16 873	20 302	24 221
40	-	-	6 399	8 026	9 960	12 248	14 935	18 065	21 673
50	-	-	-	6 807	8 474	10 468	12 838	15 633	18 896
60	-	-	-	-	6 936	8 601	10 620	13 044	15 927

Power input in W

10	1 874	1 917	1 976	2 054	2 152	-	-	-	-
20	2 371	2 398	2 436	2 489	2 557	2 644	2 751	-	-
30	3 011	3 034	3 065	3 104	3 155	3 220	3 300	3 398	3 516
40	-	-	3 877	3 916	3 962	4 016	4 082	4 160	4 255
50	-	-	-	4 939	4 992	5 049	5 112	5 184	5 266
60	-	-	-	-	6 262	6 334	6 407	6 484	6 567

Current consumption in A

10	6.93	7.14	7.32	7.48	7.60	-	-	-	-
20	8.07	8.18	8.30	8.43	8.56	8.69	8.83	-	-
30	9.61	9.59	9.61	9.67	9.77	9.91	10.09	10.31	10.56
40	-	-	11.53	11.49	11.52	11.62	11.80	12.06	12.38
50	-	-	-	14.16	14.08	14.11	14.26	14.51	14.87
60	-	-	-	-	17.74	17.66	17.73	17.94	18.30

Mass flow in kg/h

10	113	141	173	210	253	-	-	-	-
20	111	138	170	208	251	302	360	-	-
30	107	135	166	204	247	298	356	423	497
40	-	-	161	197	240	291	349	415	489
50	-	-	-	189	231	281	338	404	477
60	-	-	-	-	219	267	324	388	461

Coefficient of performance (C.O.P.)

10	3.10	3.80	4.59	5.45	6.38	-	-	-	-
20	2.18	2.74	3.39	4.12	4.94	5.82	6.77	-	-
30	1.50	1.92	2.40	2.96	3.60	4.32	5.11	5.98	6.89
40	-	-	1.65	2.05	2.51	3.05	3.66	4.34	5.09
50	-	-	-	1.38	1.70	2.07	2.51	3.02	3.59
60	-	-	-	-	1.11	1.36	1.66	2.01	2.43

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

Cooling capacity	9 225	W
Power input	4 448	W
Current consumption	12.68	A
Mass flow	236	kg/h
C.O.P.	2.07	

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
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	5 348	6 619	8 150	9 971	12 114	-	-	-	-
20	4 767	5 980	7 421	9 120	11 108	13 416	16 073	-	-
30	-	5 288	6 611	8 160	9 965	12 058	14 468	17 227	20 365
40	-	-	5 726	7 097	8 692	10 543	12 678	15 130	17 929
50	-	-	-	-	7 297	8 877	10 710	12 827	15 259
60	-	-	-	-	-	7 069	8 571	10 326	12 362

Power input in W

10	1 573	1 610	1 649	1 690	1 733	-	-	-	-
20	2 000	2 036	2 074	2 116	2 159	2 205	2 251	-	-
30	-	2 584	2 619	2 657	2 698	2 741	2 786	2 832	2 880
40	-	-	3 322	3 354	3 390	3 428	3 468	3 511	3 555
50	-	-	-	-	4 276	4 306	4 339	4 374	4 412
60	-	-	-	-	-	5 417	5 439	5 464	5 492

Current consumption in A

10	7.27	7.27	7.27	7.32	7.42	-	-	-	-
20	8.22	8.29	8.34	8.39	8.47	8.59	8.77	-	-
30	-	9.54	9.66	9.76	9.84	9.93	10.05	10.22	10.47
40	-	-	11.37	11.53	11.64	11.73	11.82	11.93	12.07
50	-	-	-	-	14.01	14.13	14.21	14.28	14.35
60	-	-	-	-	-	17.24	17.35	17.40	17.43

Mass flow in kg/h

10	108	135	167	205	251	-	-	-	-
20	105	133	165	203	249	303	367	-	-
30	-	129	161	200	245	300	364	439	527
40	-	-	155	193	239	293	357	432	520
50	-	-	-	-	229	283	347	421	509
60	-	-	-	-	-	269	332	407	493

Coefficient of performance (C.O.P.)

10	3.40	4.11	4.94	5.90	6.99	-	-	-	-
20	2.38	2.94	3.58	4.31	5.14	6.09	7.14	-	-
30	-	2.05	2.52	3.07	3.69	4.40	5.19	6.08	7.07
40	-	-	1.72	2.12	2.56	3.08	3.66	4.31	5.04
50	-	-	-	-	1.71	2.06	2.47	2.93	3.46
60	-	-	-	-	-	1.31	1.58	1.89	2.25

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

Cooling capacity	8 010	W
Power input	3 806	W
Current consumption	12.75	A
Mass flow	234	kg/h
C.O.P.	2.10	

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	5 176	6 444	7 980	9 817	11 986	-	-	-	-
20	4 525	5 724	7 161	8 871	10 884	13 234	15 949	-	-
30	3 853	4 954	6 264	7 816	9 645	11 785	14 267	17 120	20 365
40	3 170	4 144	5 297	6 664	8 280	10 180	12 400	14 974	17 929
50	-	-	4 270	5 423	6 796	8 428	10 357	12 621	15 259
60	-	-	-	-	5 199	6 532	8 139	10 067	12 362

Power input in W

10	1 573	1 610	1 649	1 690	1 733	-	-	-	-
20	2 000	2 036	2 074	2 116	2 159	2 205	2 251	-	-
30	2 552	2 584	2 619	2 657	2 698	2 741	2 786	2 832	2 880
40	3 270	3 294	3 322	3 354	3 390	3 428	3 468	3 511	3 555
50	-	-	4 226	4 249	4 276	4 306	4 339	4 374	4 412
60	-	-	-	-	5 398	5 417	5 439	5 464	5 492

Current consumption in A

10	7.27	7.27	7.27	7.32	7.42	-	-	-	-
20	8.22	8.29	8.34	8.39	8.47	8.59	8.77	-	-
30	9.36	9.54	9.66	9.76	9.84	9.93	10.05	10.22	10.47
40	10.83	11.14	11.37	11.53	11.64	11.73	11.82	11.93	12.07
50	-	-	13.57	13.83	14.01	14.13	14.21	14.28	14.35
60	-	-	-	-	17.06	17.24	17.35	17.40	17.43

Mass flow in kg/h

10	128	157	191	230	276	-	-	-	-
20	124	155	189	228	274	327	387	-	-
30	120	150	184	224	270	323	383	451	527
40	113	143	177	217	263	316	376	444	520
50	-	-	167	207	252	305	365	433	509
60	-	-	-	-	238	290	350	418	493

Coefficient of performance (C.O.P.)

10	3.29	4.00	4.84	5.81	6.92	-	-	-	-
20	2.26	2.81	3.45	4.19	5.04	6.00	7.08	-	-
30	1.51	1.92	2.39	2.94	3.58	4.30	5.12	6.04	7.07
40	0.97	1.26	1.59	1.99	2.44	2.97	3.58	4.27	5.04
50	-	-	1.01	1.28	1.59	1.96	2.39	2.89	3.46
60	-	-	-	-	0.96	1.21	1.50	1.84	2.25

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

Cooling capacity	7 552	W
Power input	3 806	W
Current consumption	12.75	A
Mass flow	258	kg/h
C.O.P.	1.98	

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	6 272	7 819	9 708	11 977	14 664	-	-	-	-
20	5 656	7 112	8 865	10 955	13 421	16 302	19 636	-	-
30	-	6 388	7 971	9 849	12 059	14 640	17 633	21 075	25 004
40	-	-	7 036	8 667	10 587	12 836	15 453	18 476	21 946
50	-	-	-	-	9 016	10 898	13 105	15 677	18 652
60	-	-	-	-	-	8 837	10 601	12 687	15 136

Power input in W

10	1 927	1 985	2 041	2 124	2 263	-	-	-	-
20	2 380	2 478	2 536	2 584	2 651	2 766	2 956	-	-
30	-	3 057	3 166	3 228	3 272	3 326	3 420	3 582	3 841
40	-	-	3 889	4 013	4 083	4 126	4 171	4 247	4 384
50	-	-	-	-	5 042	5 122	5 167	5 207	5 270
60	-	-	-	-	-	6 273	6 368	6 419	6 457

Current consumption in A

10	7.71	7.60	7.62	7.79	8.15	-	-	-	-
20	8.44	8.45	8.47	8.55	8.72	9.02	9.47	-	-
30	-	9.63	9.83	9.97	10.10	10.25	10.46	10.75	11.18
40	-	-	11.46	11.82	12.06	12.22	12.34	12.44	12.57
50	-	-	-	-	14.38	14.71	14.89	14.95	14.93
60	-	-	-	-	-	17.49	17.88	18.05	18.04

Mass flow in kg/h

10	126	160	199	246	303	-	-	-	-
20	124	158	197	244	301	369	449	-	-
30	-	155	194	241	297	364	443	537	647
40	-	-	190	236	291	357	435	528	636
50	-	-	-	-	283	347	424	515	622
60	-	-	-	-	-	336	411	500	604

Coefficient of performance (C.O.P.)

10	3.26	3.94	4.76	5.64	6.48	-	-	-	-
20	2.38	2.87	3.50	4.24	5.06	5.89	6.64	-	-
30	-	2.09	2.52	3.05	3.69	4.40	5.16	5.88	6.51
40	-	-	1.81	2.16	2.59	3.11	3.71	4.35	5.01
50	-	-	-	-	1.79	2.13	2.54	3.01	3.54
60	-	-	-	-	-	1.41	1.66	1.98	2.34

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

Cooling capacity	9 813	W
Power input	4 546	W
Current consumption	13.19	A
Mass flow	287	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
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	6 069	7 612	9 505	11 791	14 510	-	-	-	-
20	5 368	6 807	8 555	10 655	13 150	16 081	19 485	-	-
30	4 684	5 985	7 553	9 434	11 672	14 309	17 388	20 944	25 004
40	4 021	5 152	6 509	8 138	10 084	12 394	15 114	18 285	21 946
50	-	-	5 428	6 774	8 397	10 346	12 672	15 425	18 652
60	-	-	-	-	6 608	8 166	10 066	12 369	15 136

Power input in W

10	1 927	1 985	2 041	2 124	2 263	-	-	-	-
20	2 380	2 478	2 536	2 584	2 651	2 766	2 956	-	-
30	2 871	3 057	3 166	3 228	3 272	3 326	3 420	3 582	3 841
40	3 357	3 680	3 889	4 013	4 083	4 126	4 171	4 247	4 384
50	-	-	4 662	4 898	5 042	5 122	5 167	5 207	5 270
60	-	-	-	-	6 107	6 273	6 368	6 419	6 457

Current consumption in A

10	7.71	7.60	7.62	7.79	8.15	-	-	-	-
20	8.44	8.45	8.47	8.55	8.72	9.02	9.47	-	-
30	9.36	9.63	9.83	9.97	10.10	10.25	10.46	10.75	11.18
40	10.25	10.95	11.46	11.82	12.06	12.22	12.34	12.44	12.57
50	-	-	13.14	13.87	14.38	14.71	14.89	14.95	14.93
60	-	-	-	-	16.84	17.49	17.88	18.05	18.04

Mass flow in kg/h

10	150	186	228	277	334	-	-	-	-
20	148	184	226	274	331	397	473	-	-
30	145	181	222	270	327	392	467	552	647
40	143	178	218	265	320	384	458	542	636
50	-	-	213	258	312	374	447	529	622
60	-	-	-	-	302	362	433	514	604

Coefficient of performance (C.O.P.)

10	3.15	3.83	4.66	5.55	6.41	-	-	-	-
20	2.26	2.75	3.37	4.12	4.96	5.81	6.59	-	-
30	1.63	1.96	2.39	2.92	3.57	4.30	5.08	5.85	6.51
40	1.20	1.40	1.67	2.03	2.47	3.00	3.62	4.31	5.01
50	-	-	1.16	1.38	1.67	2.02	2.45	2.96	3.54
60	-	-	-	-	1.08	1.30	1.58	1.93	2.34

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

Cooling capacity	9 253	W
Power input	4 546	W
Current consumption	13.19	A
Mass flow	316	kg/h
C.O.P.	2.04	

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)

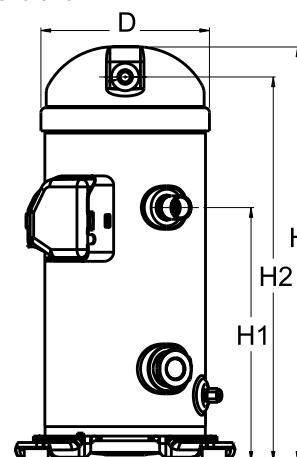
Sound power data

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

Tolerance according EN12900

General Characteristics

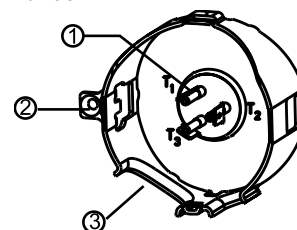
Model number (on compressor nameplate)	MLZ038T4LC9A	MLZ038T4LC9A
Code number for Singlepack*	121U8645	121L8645
Code number for Industrial pack**	121U8644	121L8644
Drawing number	0XR6025B-2	0XR6025B-2
Suction and discharge connections	Brazed	Brazed
Suction connection	7/8" ODF	7/8" ODF
Discharge connection	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	80.95 cm ³ /rev	
Displacement @ Nominal speed	14.1 m ³ /h @ 2900 rpm - 17.0 m ³ /h @ 3500 rpm	
Net weight	41 kg	
Oil charge	1.57 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	5.44 kg	
Approved refrigerants	R404A,R507,R134a,R407A,R407F,R448A,R449A,R452A,R22	

Dimensions


D=184 mm
H=455 mm
H1=280 mm
H2=422 mm
H3=- mm

Electrical Characteristics

Nominal voltage	380-400V/3/50Hz - 460V/3/60Hz
Voltage range	340-460 V @ 50Hz - 414-506 V @ 60Hz
Winding resistance between phases 1-2 +/- 7% at 25°C	2.316 Ω
Winding resistance between phases 1-3 +/- 7% at 25°C	2.332 Ω
Winding resistance between phases 2-3 +/- 7% at 25°C	2.364 Ω
Rated Load Amps (RLA)	9.6 A
Maximum Continuous Current (MCC)	15 A
Locked Rotor Amps (LRA)	70 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, -, -

*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.

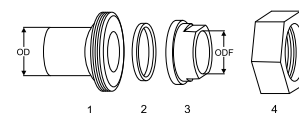
Rotolock valve, V05 (1-1/4" Rotolock, 7/8" ODF)	8168030
Gasket, 1-1/4"	8156131

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

Solder sleeve adapter set



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

Rotolock accessories, sets

Code no.

Solder sleeve adapter set (1-1/4" Rotolock, 7/8" ODF), (1" Rotolock, 1/2" ODF)	120Z0127
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
Belt type crankcase heater, 65 W, 400 V, CE mark, UL	120Z0060
Belt type crankcase heater, 70 W, 460 V, UL	120Z5012

Miscellaneous accessories

Code no.

Acoustic hood	120Z5084
Discharge thermostat kit	7750009
IP54 upgrade kit	118U0057

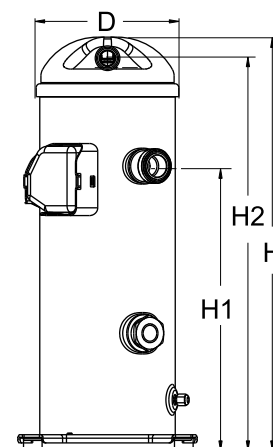
Spare parts

Code no.

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

General Characteristics

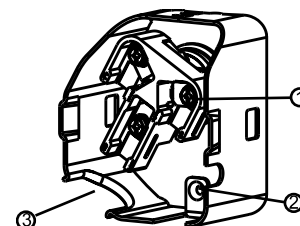
Model number (on compressor nameplate)		MLZ038T4LQ9
Code number for Singlepack*		121U8575
Code number for Industrial pack**		121U8574
Drawing number		0XR6298B-2
Suction and discharge connections		Rotolock
Suction connection		1-1/4 " Rotolock
Discharge connection		1 " Rotolock
Suction connection with supplied sleeve		7/8 " -
Discharge connection with supplied sleeve	- "	1/2 " -
Oil sight glass		Threaded
Oil equalisation connection		None
Oil drain connection		None
LP gauge port		None
IPR valve		None
Swept volume		80.95 cm ³ /rev
Displacement @ Nominal speed		14.1 m ³ /h @ 2900 rpm - 17.0 m ³ /h @ 3500 rpm
Net weight		41 kg
Oil charge		1.57 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		5.44 kg
Approved refrigerants		R404A, R507, R134a, R407A, R407C, R407F, R22

Dimensions


D=184 mm
H=454.9 mm
H1=280 mm
H2=422.2 mm
H3=- mm

Electrical Characteristics

Nominal voltage	380-400V/3/50Hz - 460V/3/60Hz
Voltage range	340-460 V @ 50Hz - 414-506 V @ 60Hz
Winding resistance between phases 1-2 +/- 7% at 25°C	2.316 Ω
Winding resistance between phases 1-3 +/- 7% at 25°C	2.332 Ω
Winding resistance between phases 2-3 +/- 7% at 25°C	2.364 Ω
Rated Load Amps (RLA)	9.6 A
Maximum Continuous Current (MCC)	15 A
Locked Rotor Amps (LRA)	70 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, V05 (1-1/4" Rotolock, 7/8" ODF)	8168030
Gasket, 1-1/4"	8156131

Rotolock accessories, discharge side
Code no.

Rotolock valve, V01 (1" Rotolock, 3/8" ODF)	8168027
Rotolock valve, V06 (1" Rotolock, 1/2" ODF)	8168031
Gasket, 1"	8156130

Rotolock accessories, sets
Code no.

Teflon seals, sleeves, nuts for discharge and suction (1" and 1"1/4)	120Z5074
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.

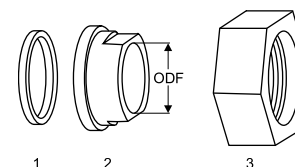
Belt type crankcase heater, 70 W, 230 V, UL	120Z5011
Belt type crankcase heater, 65 W, 230 V, CE mark, UL	120Z0059
Belt type crankcase heater, 65 W, 400 V, CE mark, UL	120Z0060
Belt type crankcase heater, 70 W, 460 V, UL	120Z5012

Miscellaneous accessories
Code no.

Acoustic hood	120Z5044
Discharge thermostat kit	7750009
IP54 upgrade kit	118U0057

Spare parts
Code no.

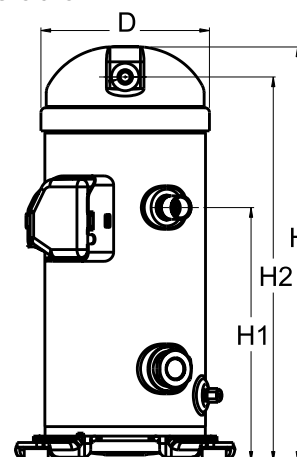
Mounting kit for 1 scroll compressor including 4 grommets, 4 sleeves, 4 bolts, 4 washers	120Z5005
Terminal box cover	120Z5018

Gaskets, sleeves and nuts


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

General Characteristics

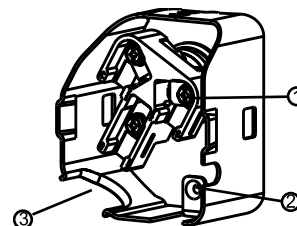
Model number (on compressor nameplate)	MLZ038T4LC9	MLZ038T4LC9
Code number for Singlepack*	121U8012	120U8012
Code number for Industrial pack**	121U8011	120U8011
Drawing number	0XR6025B-2	0XR6025B-2
Suction and discharge connections	Brazed	Brazed
Suction connection	7/8" ODF	7/8" ODF
Discharge connection	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	80.95 cm ³ /rev	
Displacement @ Nominal speed	14.1 m ³ /h @ 2900 rpm - 17.0 m ³ /h @ 3500 rpm	
Net weight	41 kg	
Oil charge	1.57 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	5.44 kg	
Approved refrigerants	R404A, R507, R134a, R407A, R407C, R407F, R22	

Dimensions


D=184 mm
H=455 mm
H1=280 mm
H2=422 mm
H3=- mm

Electrical Characteristics

Nominal voltage	380-400V/3/50Hz - 460V/3/60Hz
Voltage range	340-460 V @ 50Hz - 414-506 V @ 60Hz
Winding resistance between phases 1-2 +/- 7% at 25°C	2.316 Ω
Winding resistance between phases 1-3 +/- 7% at 25°C	2.332 Ω
Winding resistance between phases 2-3 +/- 7% at 25°C	2.364 Ω
Rated Load Amps (RLA)	9.6 A
Maximum Continuous Current (MCC)	15 A
Locked Rotor Amps (LRA)	70 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.

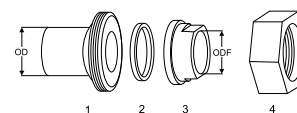
Rotolock valve, V05 (1-1/4" Rotolock, 7/8" ODF)	8168030
Gasket, 1-1/4"	8156131

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

Solder sleeve adapter set



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

Rotolock accessories, sets

Code no.

Solder sleeve adapter set (1-1/4" Rotolock, 7/8" ODF), (1" Rotolock, 1/2" ODF)	120Z0127
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
Belt type crankcase heater, 65 W, 400 V, CE mark, UL	120Z0060
Belt type crankcase heater, 70 W, 460 V, UL	120Z5012

Miscellaneous accessories

Code no.

Acoustic hood	120Z5044
Discharge thermostat kit	7750009
IP54 upgrade kit	118U0057

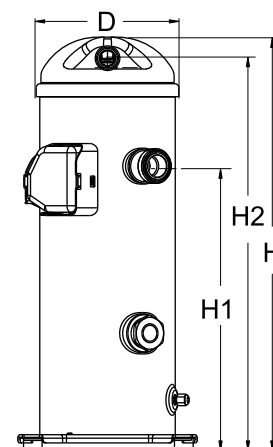
Spare parts

Code no.

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

General Characteristics

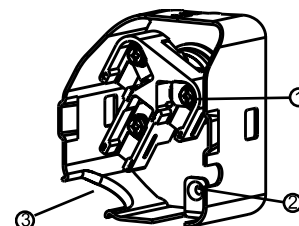
Model number (on compressor nameplate)	MLZ038T4LC9A	MLZ038T4LQ9A
Code number for Singlepack*	120U8645	121U8779
Code number for Industrial pack**	120U8644	121U8778
Drawing number	0XR6025B-2	0XR6298B-2
Suction and discharge connections	Brazed	Rotolock
Suction connection	7/8" ODF	1-1/4" Rotolock
Discharge connection	1/2" ODF	1" Rotolock
Suction connection with supplied sleeve		7/8" -
Discharge connection with supplied sleeve	- "	1/2" -
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	80.95 cm ³ /rev	
Displacement @ Nominal speed	14.1 m ³ /h @ 2900 rpm - 17.0 m ³ /h @ 3500 rpm	
Net weight	41 kg	
Oil charge	1.57 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	5.44 kg	
Approved refrigerants	R404A,R507,R134a,R407A,R407F,R448A,R449A,R452A,R22	

Dimensions


D=184 mm
H=454.9 mm
H1=280 mm
H2=422.2 mm
H3=- mm

Electrical Characteristics

Nominal voltage	380-400V/3/50Hz - 460V/3/60Hz
Voltage range	340-460 V @ 50Hz - 414-506 V @ 60Hz
Winding resistance between phases 1-2 +/- 7% at 25°C	2.316 Ω
Winding resistance between phases 1-3 +/- 7% at 25°C	2.332 Ω
Winding resistance between phases 2-3 +/- 7% at 25°C	2.364 Ω
Rated Load Amps (RLA)	9.6 A
Maximum Continuous Current (MCC)	15 A
Locked Rotor Amps (LRA)	70 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, V05 (1-1/4" Rotolock, 7/8" ODF)	8168030
Gasket, 1-1/4"	8156131

Rotolock accessories, discharge side
Code no.

Rotolock valve, V01 (1" Rotolock, 3/8" ODF)	8168027
Rotolock valve, V06 (1" Rotolock, 1/2" ODF)	8168031
Gasket, 1"	8156130

Rotolock accessories, sets
Code no.

Teflon seals, sleeves, nuts for discharge and suction (1" and 1"1/4)	120Z5074
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.

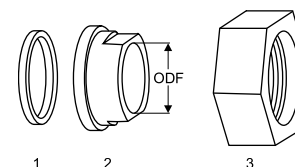
Belt type crankcase heater, 70 W, 230 V, UL	120Z5011
Belt type crankcase heater, 65 W, 230 V, CE mark, UL	120Z0059
Belt type crankcase heater, 65 W, 400 V, CE mark, UL	120Z0060
Belt type crankcase heater, 70 W, 460 V, UL	120Z5012

Miscellaneous accessories
Code no.

Acoustic hood	120Z5084
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

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	6 507	8 303	10 418	12 824	-	-	-	-	-
20	6 334	8 054	10 086	12 404	14 978	-	-	-	-
30	5 913	7 462	9 306	11 421	13 778	16 348	19 097	-	-
40	5 421	6 826	8 509	10 446	12 613	14 981	17 520	-	-
50	-	6 040	7 587	9 373	11 376	13 568	15 923	-	-
60	-	-	-	8 095	9 958	12 000	14 198	-	-
68	-	-	-	-	-	10 563	12 653	-	-

Power input in W

16	1 600	1 694	1 809	1 937	-	-	-	-	-
20	1 843	1 930	2 036	2 152	2 271	-	-	-	-
30	2 400	2 478	2 569	2 664	2 757	2 840	2 905	-	-
40	2 956	3 039	3 127	3 215	3 294	3 358	3 399	-	-
50	-	3 702	3 802	3 896	3 975	4 034	4 063	-	-
60	-	-	-	4 797	4 890	4 956	4 987	-	-
68	-	-	-	-	-	5 933	5 975	-	-

Current consumption in A

16	3.08	3.26	3.48	3.73	-	-	-	-	-
20	3.55	3.71	3.92	4.14	4.37	-	-	-	-
30	4.62	4.77	4.94	5.13	5.30	5.46	5.59	-	-
40	5.69	5.85	6.02	6.19	6.34	6.46	6.54	-	-
50	-	7.12	7.32	7.50	7.65	7.76	7.82	-	-
60	-	-	-	9.23	9.41	9.54	9.60	-	-
68	-	-	-	-	-	11.42	11.50	-	-

Mass flow in kg/h

16	107	146	191	240	-	-	-	-	-
20	112	149	193	241	291	-	-	-	-
30	121	155	196	242	290	339	387	-	-
40	123	155	194	238	286	336	384	-	-
50	-	145	184	228	277	327	377	-	-
60	-	-	-	208	259	311	364	-	-
68	-	-	-	-	-	291	347	-	-

Coefficient of performance (C.O.P.)

16	4.07	4.90	5.76	6.62	-	-	-	-	-
20	3.44	4.17	4.96	5.77	6.60	-	-	-	-
30	2.46	3.01	3.62	4.29	5.00	5.76	6.57	-	-
40	1.83	2.25	2.72	3.25	3.83	4.46	5.15	-	-
50	-	1.63	2.00	2.41	2.86	3.36	3.92	-	-
60	-	-	-	1.69	2.04	2.42	2.85	-	-
68	-	-	-	-	-	1.78	2.12	-	-

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

Cooling capacity	8 070	W
Power input	3 445	W
Current consumption	6.63	A
Mass flow	190	kg/h
C.O.P.	2.34	

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	70	dB(A)
With acoustic hood	62	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	6 348	8 125	10 228	12 636	-	-	-	-	-
20	6 196	7 899	9 920	12 238	14 832	-	-	-	-
30	5 827	7 364	9 200	11 312	13 679	16 282	19 097	-	-
40	-	6 788	8 463	10 395	12 562	14 944	17 520	-	-
50	-	-	-	9 380	11 373	13 561	15 923	-	-
60	-	-	-	-	10 004	12 024	14 198	-	-
68	-	-	-	-	-	-	12 653	-	-

Power input in W

16	1 600	1 694	1 809	1 937	-	-	-	-	-
20	1 843	1 930	2 036	2 152	2 271	-	-	-	-
30	2 400	2 478	2 569	2 664	2 757	2 840	2 905	-	-
40	-	3 039	3 127	3 215	3 294	3 358	3 399	-	-
50	-	-	-	3 896	3 975	4 034	4 063	-	-
60	-	-	-	-	4 890	4 956	4 987	-	-
68	-	-	-	-	-	-	5 975	-	-

Current consumption in A

16	3.08	3.26	3.48	3.73	-	-	-	-	-
20	3.55	3.71	3.92	4.14	4.37	-	-	-	-
30	4.62	4.77	4.94	5.13	5.30	5.46	5.59	-	-
40	-	5.85	6.02	6.19	6.34	6.46	6.54	-	-
50	-	-	-	7.50	7.65	7.76	7.82	-	-
60	-	-	-	-	9.41	9.54	9.60	-	-
68	-	-	-	-	-	-	11.50	-	-

Mass flow in kg/h

16	94	131	175	224	-	-	-	-	-
20	99	134	177	225	277	-	-	-	-
30	107	139	179	226	277	331	387	-	-
40	-	139	177	223	273	327	384	-	-
50	-	-	-	213	264	319	377	-	-
60	-	-	-	-	247	304	364	-	-
68	-	-	-	-	-	-	347	-	-

Coefficient of performance (C.O.P.)

16	3.97	4.80	5.65	6.52	-	-	-	-	-
20	3.36	4.09	4.87	5.69	6.53	-	-	-	-
30	2.43	2.97	3.58	4.25	4.96	5.73	6.57	-	-
40	-	2.23	2.71	3.23	3.81	4.45	5.15	-	-
50	-	-	-	2.41	2.86	3.36	3.92	-	-
60	-	-	-	-	2.05	2.43	2.85	-	-
68	-	-	-	-	-	-	2.12	-	-

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

Cooling capacity	8 055	W
Power input	3 445	W
Current consumption	6.63	A
Mass flow	174	kg/h
C.O.P.	2.34	

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	70	dB(A)
With acoustic hood	62	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	7 852	9 993	12 499	15 334	-	-	-	-	-
20	7 607	9 665	12 085	14 830	17 863	-	-	-	-
30	7 035	8 896	11 109	13 639	16 450	19 502	22 752	-	-
40	6 423	8 103	10 122	12 451	15 054	17 895	20 932	-	-
50	-	7 166	9 007	11 147	13 556	16 200	19 040	-	-
60	-	-	-	9 613	11 840	14 300	16 958	-	-
68	-	-	-	-	-	12 554	15 075	-	-

Power input in W

16	1 884	1 995	2 131	2 282	-	-	-	-	-
20	2 171	2 274	2 398	2 534	2 675	-	-	-	-
30	2 827	2 919	3 025	3 138	3 247	3 345	3 422	-	-
40	3 482	3 579	3 683	3 787	3 880	3 956	4 004	-	-
50	-	4 360	4 479	4 589	4 683	4 751	4 785	-	-
60	-	-	-	5 651	5 760	5 837	5 874	-	-
68	-	-	-	-	-	6 988	7 038	-	-

Current consumption in A

16	2.96	3.13	3.34	3.58	-	-	-	-	-
20	3.41	3.57	3.76	3.98	4.20	-	-	-	-
30	4.44	4.58	4.75	4.92	5.09	5.25	5.37	-	-
40	5.46	5.62	5.78	5.94	6.09	6.21	6.28	-	-
50	-	6.84	7.03	7.20	7.35	7.45	7.51	-	-
60	-	-	-	8.87	9.04	9.16	9.22	-	-
68	-	-	-	-	-	10.96	11.04	-	-

Mass flow in kg/h

16	149	187	235	290	-	-	-	-	-
20	151	188	236	290	348	-	-	-	-
30	153	190	236	290	347	406	464	-	-
40	149	186	232	286	343	403	461	-	-
50	-	172	219	274	333	394	453	-	-
60	-	-	-	251	312	375	437	-	-
68	-	-	-	-	-	351	416	-	-

Coefficient of performance (C.O.P.)

16	4.17	5.01	5.87	6.72	-	-	-	-	-
20	3.50	4.25	5.04	5.85	6.68	-	-	-	-
30	2.49	3.05	3.67	4.35	5.07	5.83	6.65	-	-
40	1.84	2.26	2.75	3.29	3.88	4.52	5.23	-	-
50	-	1.64	2.01	2.43	2.90	3.41	3.98	-	-
60	-	-	-	1.70	2.06	2.45	2.89	-	-
68	-	-	-	-	-	1.80	2.14	-	-

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

Cooling capacity	9 588	W
Power input	4 057	W
Current consumption	6.37	A
Mass flow	227	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	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
R22

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

Cooling capacity in W

16	7 660	9 779	12 271	15 109	-	-	-	-	-
20	7 441	9 479	11 886	14 632	17 689	-	-	-	-
30	6 933	8 780	10 982	13 509	16 332	19 423	22 752	-	-
40	-	8 057	10 067	12 389	14 993	17 850	20 932	-	-
50	-	-	-	11 155	13 553	16 192	19 040	-	-
60	-	-	-	-	11 895	14 328	16 958	-	-
68	-	-	-	-	-	-	15 075	-	-

Power input in W

16	1 884	1 995	2 131	2 282	-	-	-	-	-
20	2 171	2 274	2 398	2 534	2 675	-	-	-	-
30	2 827	2 919	3 025	3 138	3 247	3 345	3 422	-	-
40	-	3 579	3 683	3 787	3 880	3 956	4 004	-	-
50	-	-	-	4 589	4 683	4 751	4 785	-	-
60	-	-	-	-	5 760	5 837	5 874	-	-
68	-	-	-	-	-	-	7 038	-	-

Current consumption in A

16	2.96	3.13	3.34	3.58	-	-	-	-	-
20	3.41	3.57	3.76	3.98	4.20	-	-	-	-
30	4.44	4.58	4.75	4.92	5.09	5.25	5.37	-	-
40	-	5.62	5.78	5.94	6.09	6.21	6.28	-	-
50	-	-	-	7.20	7.35	7.45	7.51	-	-
60	-	-	-	-	9.04	9.16	9.22	-	-
68	-	-	-	-	-	-	11.04	-	-

Mass flow in kg/h

16	131	168	215	271	-	-	-	-	-
20	133	169	216	271	332	-	-	-	-
30	135	170	216	270	331	396	464	-	-
40	-	167	212	267	327	393	461	-	-
50	-	-	-	256	317	384	453	-	-
60	-	-	-	-	298	366	437	-	-
68	-	-	-	-	-	-	416	-	-

Coefficient of performance (C.O.P.)

16	4.07	4.90	5.76	6.62	-	-	-	-	-
20	3.43	4.17	4.96	5.77	6.61	-	-	-	-
30	2.45	3.01	3.63	4.31	5.03	5.81	6.65	-	-
40	-	2.25	2.73	3.27	3.86	4.51	5.23	-	-
50	-	-	-	2.43	2.89	3.41	3.98	-	-
60	-	-	-	-	2.07	2.45	2.89	-	-
68	-	-	-	-	-	-	2.14	-	-

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

Cooling capacity	9 569	W
Power input	4 057	W
Current consumption	6.37	A
Mass flow	208	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	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
R134a

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

Cooling capacity in W

22	4 835	6 110	7 620	9 390	11 447	-	-	-	-
30	4 440	5 646	7 072	8 744	10 687	12 928	-	-	-
40	3 925	5 034	6 344	7 881	9 671	11 740	14 113	-	-
50	-	4 394	5 575	6 965	8 589	10 473	12 643	-	-
60	-	-	4 774	6 003	7 448	9 135	11 088	-	-
70	-	-	-	5 004	6 257	7 733	9 458	-	-
73	-	-	-	4 698	5 891	7 302	8 955	-	-

Power input in W

22	1 439	1 456	1 470	1 487	1 512	-	-	-	-
30	1 698	1 726	1 748	1 766	1 786	1 811	-	-	-
40	2 066	2 117	2 154	2 180	2 200	2 220	2 242	-	-
50	-	2 579	2 638	2 680	2 709	2 729	2 746	-	-
60	-	-	3 215	3 280	3 325	3 354	3 372	-	-
70	-	-	-	3 994	4 063	4 108	4 135	-	-
73	-	-	-	4 233	4 310	4 362	4 393	-	-

Current consumption in A

22	3.18	3.19	3.19	3.19	3.22	-	-	-	-
30	3.67	3.70	3.72	3.73	3.77	3.84	-	-	-
40	4.28	4.32	4.34	4.35	4.38	4.43	4.53	-	-
50	-	5.20	5.20	5.19	5.19	5.21	5.28	-	-
60	-	-	6.61	6.56	6.52	6.49	6.49	-	-
70	-	-	-	8.78	8.66	8.56	8.50	-	-
73	-	-	-	9.65	9.51	9.39	9.29	-	-

Mass flow in kg/h

22	104	128	157	191	228	-	-	-	-
30	103	127	156	190	228	271	-	-	-
40	102	126	155	188	227	270	319	-	-
50	-	124	152	185	224	268	317	-	-
60	-	-	148	181	220	263	312	-	-
70	-	-	-	176	214	257	306	-	-
73	-	-	-	174	211	255	303	-	-

Coefficient of performance (C.O.P.)

22	3.36	4.20	5.18	6.31	7.57	-	-	-	-
30	2.62	3.27	4.05	4.95	5.99	7.14	-	-	-
40	1.90	2.38	2.95	3.61	4.39	5.29	6.29	-	-
50	-	1.70	2.11	2.60	3.17	3.84	4.60	-	-
60	-	-	1.48	1.83	2.24	2.72	3.29	-	-
70	-	-	-	1.25	1.54	1.88	2.29	-	-
73	-	-	-	1.11	1.37	1.67	2.04	-	-

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

Cooling capacity	4 717	W
Power input	2 338	W
Current consumption	4.71	A
Mass flow	125	kg/h
C.O.P.	2.02	

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	70	dB(A)
With acoustic hood	62	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	4 912	6 181	7 679	9 431	11 466	-	-	-	-
30	-	5 750	7 163	8 811	10 723	12 928	-	-	-
40	-	-	6 474	7 982	9 728	11 740	14 047	-	-
50	-	-	5 744	7 100	8 668	10 473	12 542	-	-
60	-	-	-	6 171	7 548	9 135	-	-	-
70	-	-	-	-	6 378	7 733	-	-	-
73	-	-	-	-	6 018	7 302	-	-	-

Power input in W

22	1 439	1 456	1 470	1 487	1 512	-	-	-	-
30	-	1 726	1 748	1 766	1 786	1 811	-	-	-
40	-	-	2 154	2 180	2 200	2 220	2 242	-	-
50	-	-	2 638	2 680	2 709	2 729	2 746	-	-
60	-	-	-	3 280	3 325	3 354	-	-	-
70	-	-	-	-	4 063	4 108	-	-	-
73	-	-	-	-	4 310	4 362	-	-	-

Current consumption in A

22	3.18	3.19	3.19	3.19	3.22	-	-	-	-
30	-	3.70	3.72	3.73	3.77	3.84	-	-	-
40	-	-	4.34	4.35	4.38	4.43	4.53	-	-
50	-	-	5.20	5.19	5.19	5.21	5.28	-	-
60	-	-	-	6.56	6.52	6.49	-	-	-
70	-	-	-	-	8.66	8.56	-	-	-
73	-	-	-	-	9.51	9.39	-	-	-

Mass flow in kg/h

22	94	118	147	182	223	-	-	-	-
30	-	117	146	181	223	271	-	-	-
40	-	-	145	180	221	270	327	-	-
50	-	-	142	177	219	268	325	-	-
60	-	-	-	173	215	263	-	-	-
70	-	-	-	-	209	257	-	-	-
73	-	-	-	-	206	255	-	-	-

Coefficient of performance (C.O.P.)

22	3.41	4.25	5.22	6.34	7.59	-	-	-	-
30	-	3.33	4.10	4.99	6.01	7.14	-	-	-
40	-	-	3.01	3.66	4.42	5.29	6.27	-	-
50	-	-	2.18	2.65	3.20	3.84	4.57	-	-
60	-	-	-	1.88	2.27	2.72	-	-	-
70	-	-	-	-	1.57	1.88	-	-	-
73	-	-	-	-	1.40	1.67	-	-	-

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	70	dB(A)
With acoustic hood	62	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	5 990	7 541	9 410	11 585	14 052	-	-	-	-
30	5 466	6 939	8 727	10 817	13 197	15 856	-	-	-
40	4 849	6 199	7 859	9 818	12 064	14 584	17 367	-	-
50	-	5 442	6 946	8 745	10 827	13 180	15 792	-	-
60	-	-	5 954	7 564	9 454	11 611	14 024	-	-
70	-	-	-	6 244	7 912	9 845	12 028	-	-
73	-	-	-	5 815	7 412	9 271	11 380	-	-

Power input in W

22	1 725	1 755	1 799	1 853	1 913	-	-	-	-
30	2 033	2 062	2 102	2 152	2 207	2 264	-	-	-
40	2 497	2 527	2 568	2 616	2 668	2 721	2 771	-	-
50	-	3 090	3 135	3 186	3 240	3 292	3 341	-	-
60	-	-	3 809	3 867	3 926	3 983	4 034	-	-
70	-	-	-	4 664	4 733	4 798	4 857	-	-
73	-	-	-	4 927	5 000	5 068	5 129	-	-

Current consumption in A

22	3.23	3.25	3.27	3.30	3.34	-	-	-	-
30	3.74	3.76	3.79	3.81	3.83	3.87	-	-	-
40	4.36	4.39	4.42	4.44	4.47	4.49	4.51	-	-
50	-	5.25	5.29	5.32	5.34	5.37	5.39	-	-
60	-	-	6.65	6.69	6.73	6.76	6.78	-	-
70	-	-	-	8.83	8.88	8.92	8.95	-	-
73	-	-	-	9.66	9.72	9.76	9.79	-	-

Mass flow in kg/h

22	132	165	202	243	289	-	-	-	-
30	127	163	201	243	289	342	-	-	-
40	122	159	198	241	289	342	402	-	-
50	-	153	194	239	287	341	401	-	-
60	-	-	189	234	283	338	398	-	-
70	-	-	-	226	276	331	392	-	-
73	-	-	-	223	273	328	389	-	-

Coefficient of performance (C.O.P.)

22	3.47	4.30	5.23	6.25	7.34	-	-	-	-
30	2.69	3.37	4.15	5.03	5.98	7.00	-	-	-
40	1.94	2.45	3.06	3.75	4.52	5.36	6.27	-	-
50	-	1.76	2.22	2.74	3.34	4.00	4.73	-	-
60	-	-	1.56	1.96	2.41	2.92	3.48	-	-
70	-	-	-	1.34	1.67	2.05	2.48	-	-
73	-	-	-	1.18	1.48	1.83	2.22	-	-

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

Cooling capacity	5 824	W
Power input	2 796	W
Current consumption	4.77	A
Mass flow	156	kg/h
C.O.P.	2.08	

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 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	6 085	7 629	9 483	11 635	14 076	-	-	-	-
30	-	7 067	8 839	10 900	13 242	15 856	-	-	-
40	-	-	8 021	9 945	12 136	14 584	17 286	-	-
50	-	-	7 157	8 914	10 927	13 180	15 667	-	-
60	-	-	-	7 776	9 581	11 611	-	-	-
70	-	-	-	-	8 065	9 845	-	-	-
73	-	-	-	-	7 572	9 271	-	-	-

Power input in W

22	1 725	1 755	1 799	1 853	1 913	-	-	-	-
30	-	2 062	2 102	2 152	2 207	2 264	-	-	-
40	-	-	2 568	2 616	2 668	2 721	2 771	-	-
50	-	-	3 135	3 186	3 240	3 292	3 341	-	-
60	-	-	-	3 867	3 926	3 983	-	-	-
70	-	-	-	-	4 733	4 798	-	-	-
73	-	-	-	-	5 000	5 068	-	-	-

Current consumption in A

22	3.23	3.25	3.27	3.30	3.34	-	-	-	-
30	-	3.76	3.79	3.81	3.83	3.87	-	-	-
40	-	-	4.42	4.44	4.47	4.49	4.51	-	-
50	-	-	5.29	5.32	5.34	5.37	5.39	-	-
60	-	-	-	6.69	6.73	6.76	-	-	-
70	-	-	-	-	8.88	8.92	-	-	-
73	-	-	-	-	9.72	9.76	-	-	-

Mass flow in kg/h

22	119	152	189	232	282	-	-	-	-
30	-	149	188	232	283	342	-	-	-
40	-	-	186	231	282	342	413	-	-
50	-	-	182	228	281	341	412	-	-
60	-	-	-	224	277	338	-	-	-
70	-	-	-	-	270	331	-	-	-
73	-	-	-	-	267	328	-	-	-

Coefficient of performance (C.O.P.)

22	3.53	4.35	5.27	6.28	7.36	-	-	-	-
30	-	3.43	4.20	5.07	6.00	7.00	-	-	-
40	-	-	3.12	3.80	4.55	5.36	6.24	-	-
50	-	-	2.28	2.80	3.37	4.00	4.69	-	-
60	-	-	-	2.01	2.44	2.92	-	-	-
70	-	-	-	-	1.70	2.05	-	-	-
73	-	-	-	-	1.51	1.83	-	-	-

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 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	5 776	7 017	8 524	10 324	12 443	-	-	-	-
20	5 296	6 504	7 944	9 641	11 624	13 917	16 547	-	-
30	4 692	5 831	7 166	8 725	10 535	12 620	15 009	17 727	20 801
40	-	5 020	6 215	7 600	9 200	11 041	13 152	15 557	18 284
50	-	-	5 115	6 288	7 643	9 204	11 000	13 056	15 400
60	-	-	-	-	5 888	7 133	8 578	10 249	12 172

Power input in W

10	1 671	1 694	1 729	1 780	1 847	-	-	-	-
20	2 113	2 120	2 137	2 166	2 209	2 269	2 348	-	-
30	2 698	2 691	2 691	2 700	2 721	2 756	2 807	2 876	2 968
40	-	3 446	3 431	3 422	3 422	3 433	3 457	3 497	3 556
50	-	-	4 394	4 369	4 349	4 338	4 337	4 350	4 378
60	-	-	-	-	5 542	5 511	5 487	5 473	5 472

Current consumption in A

10	3.59	3.59	3.60	3.61	3.63	-	-	-	-
20	4.26	4.28	4.30	4.33	4.36	4.41	4.47	-	-
30	4.99	5.00	5.02	5.04	5.07	5.11	5.17	5.25	5.35
40	-	5.95	5.95	5.95	5.96	5.97	6.01	6.06	6.13
50	-	-	7.28	7.24	7.20	7.18	7.17	7.18	7.22
60	-	-	-	-	9.01	8.93	8.86	8.81	8.79

Mass flow in kg/h

10	116	143	174	211	256	-	-	-	-
20	116	144	177	215	261	315	379	-	-
30	114	142	176	215	261	316	382	458	547
40	-	137	171	210	257	312	378	454	544
50	-	-	162	201	247	302	367	444	533
60	-	-	-	-	232	286	351	426	515

Coefficient of performance (C.O.P.)

10	3.46	4.14	4.93	5.80	6.74	-	-	-	-
20	2.51	3.07	3.72	4.45	5.26	6.13	7.05	-	-
30	1.74	2.17	2.66	3.23	3.87	4.58	5.35	6.16	7.01
40	-	1.46	1.81	2.22	2.69	3.22	3.80	4.45	5.14
50	-	-	1.16	1.44	1.76	2.12	2.54	3.00	3.52
60	-	-	-	-	1.06	1.29	1.56	1.87	2.22

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

Cooling capacity	8 447	W
Power input	3 855	W
Current consumption	6.52	A
Mass flow	253	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	70	dB(A)
With acoustic hood	62	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	5 550	6 791	8 306	10 125	12 276	-	-	-	-
20	4 981	6 177	7 616	9 328	11 343	13 689	16 390	-	-
30	4 292	5 405	6 730	8 297	10 138	12 283	14 760	17 594	20 801
40	3 513	4 504	5 676	7 061	8 690	10 596	12 811	15 365	18 284
50	-	-	4 487	5 651	7 029	8 656	10 570	12 805	15 400
60	-	-	-	-	5 181	6 490	8 060	9 938	12 172

Power input in W

10	1 671	1 694	1 729	1 780	1 847	-	-	-	-
20	2 113	2 120	2 137	2 166	2 209	2 269	2 348	-	-
30	2 698	2 691	2 691	2 700	2 721	2 756	2 807	2 876	2 968
40	3 464	3 446	3 431	3 422	3 422	3 433	3 457	3 497	3 556
50	-	-	4 394	4 369	4 349	4 338	4 337	4 350	4 378
60	-	-	-	-	5 542	5 511	5 487	5 473	5 472

Current consumption in A

10	3.59	3.59	3.60	3.61	3.63	-	-	-	-
20	4.26	4.28	4.30	4.33	4.36	4.41	4.47	-	-
30	4.99	5.00	5.02	5.04	5.07	5.11	5.17	5.25	5.35
40	5.95	5.95	5.95	5.95	5.96	5.97	6.01	6.06	6.13
50	-	-	7.28	7.24	7.20	7.18	7.17	7.18	7.22
60	-	-	-	-	9.01	8.93	8.86	8.81	8.79

Mass flow in kg/h

10	138	167	200	238	283	-	-	-	-
20	138	168	203	242	288	341	401	-	-
30	135	167	202	242	289	342	403	471	547
40	130	161	196	237	284	337	399	468	544
50	-	-	186	226	273	327	388	457	533
60	-	-	-	-	256	309	370	439	515

Coefficient of performance (C.O.P.)

10	3.32	4.01	4.80	5.69	6.65	-	-	-	-
20	2.36	2.91	3.56	4.31	5.14	6.03	6.98	-	-
30	1.59	2.01	2.50	3.07	3.73	4.46	5.26	6.12	7.01
40	1.01	1.31	1.65	2.06	2.54	3.09	3.71	4.39	5.14
50	-	-	1.02	1.29	1.62	2.00	2.44	2.94	3.52
60	-	-	-	-	0.93	1.18	1.47	1.82	2.22

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

Cooling capacity	7 884	W
Power input	3 855	W
Current consumption	6.52	A
Mass flow	279	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	70	dB(A)
With acoustic hood	62	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	6 947	8 678	10 730	13 140	15 943	-	-	-	-
20	6 226	7 814	9 667	11 823	14 316	17 185	20 463	-	-
30	5 505	6 960	8 627	10 540	12 737	15 254	18 126	21 390	25 079
40	-	6 018	7 509	9 193	11 105	13 282	15 761	18 576	21 765
50	-	-	6 215	7 681	9 320	11 170	13 266	15 647	18 346
60	-	-	-	-	7 282	8 817	10 545	12 502	14 728

Power input in W

10	2 201	2 148	2 143	2 167	2 204	-	-	-	-
20	2 751	2 688	2 675	2 693	2 724	2 752	2 760	-	-
30	3 436	3 366	3 347	3 360	3 388	3 415	3 423	3 394	3 311
40	-	4 201	4 178	4 189	4 217	4 244	4 254	4 229	4 151
50	-	-	5 190	5 201	5 230	5 260	5 274	5 254	5 184
60	-	-	-	-	6 448	6 483	6 503	6 491	6 430

Current consumption in A

10	3.45	3.37	3.36	3.40	3.46	-	-	-	-
20	4.32	4.22	4.20	4.22	4.27	4.32	4.33	-	-
30	5.39	5.28	5.25	5.27	5.32	5.36	5.37	5.32	5.19
40	-	6.59	6.55	6.57	6.62	6.66	6.67	6.63	6.51
50	-	-	8.14	8.16	8.21	8.25	8.27	8.24	8.13
60	-	-	-	-	10.12	10.17	10.20	10.18	10.09

Mass flow in kg/h

10	122	166	214	267	327	-	-	-	-
20	128	170	215	265	323	391	470	-	-
30	130	170	213	262	318	384	461	552	658
40	-	165	208	256	311	376	452	542	648
50	-	-	197	245	301	366	442	532	638
60	-	-	-	-	287	352	430	521	627

Coefficient of performance (C.O.P.)

10	3.16	4.04	5.01	6.06	7.23	-	-	-	-
20	2.26	2.91	3.61	4.39	5.26	6.24	7.41	-	-
30	1.60	2.07	2.58	3.14	3.76	4.47	5.30	6.30	7.57
40	-	1.43	1.80	2.19	2.63	3.13	3.71	4.39	5.24
50	-	-	1.20	1.48	1.78	2.12	2.52	2.98	3.54
60	-	-	-	-	1.13	1.36	1.62	1.93	2.29

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

Cooling capacity	10 238	W
Power input	4 699	W
Current consumption	7.37	A
Mass flow	306	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	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
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	6 676	8 399	10 456	12 887	15 729	-	-	-	-
20	5 855	7 420	9 268	11 439	13 971	16 903	20 269	-	-
30	5 034	6 452	8 101	10 023	12 258	14 846	17 826	21 229	25 079
40	4 124	5 399	6 858	8 541	10 490	12 746	15 352	18 347	21 765
50	-	-	5 452	6 901	8 571	10 504	12 747	15 346	18 346
60	-	-	-	-	6 408	8 021	9 908	12 124	14 728

Power input in W

10	2 201	2 148	2 143	2 167	2 204	-	-	-	-
20	2 751	2 688	2 675	2 693	2 724	2 752	2 760	-	-
30	3 436	3 366	3 347	3 360	3 388	3 415	3 423	3 394	3 311
40	4 276	4 201	4 178	4 189	4 217	4 244	4 254	4 229	4 151
50	-	-	5 190	5 201	5 230	5 260	5 274	5 254	5 184
60	-	-	-	-	6 448	6 483	6 503	6 491	6 430

Current consumption in A

10	3.45	3.37	3.36	3.40	3.46	-	-	-	-
20	4.32	4.22	4.20	4.22	4.27	4.32	4.33	-	-
30	5.39	5.28	5.25	5.27	5.32	5.36	5.37	5.32	5.19
40	6.71	6.59	6.55	6.57	6.62	6.66	6.67	6.63	6.51
50	-	-	8.14	8.16	8.21	8.25	8.27	8.24	8.13
60	-	-	-	-	10.12	10.17	10.20	10.18	10.09

Mass flow in kg/h

10	146	195	246	301	361	-	-	-	-
20	153	199	247	299	357	422	496	-	-
30	155	199	245	295	351	415	487	568	658
40	150	193	239	288	343	406	478	558	648
50	-	-	227	276	332	395	467	548	638
60	-	-	-	-	316	381	454	536	627

Coefficient of performance (C.O.P.)

10	3.03	3.91	4.88	5.95	7.14	-	-	-	-
20	2.13	2.76	3.46	4.25	5.13	6.14	7.34	-	-
30	1.47	1.92	2.42	2.98	3.62	4.35	5.21	6.26	7.57
40	0.96	1.29	1.64	2.04	2.49	3.00	3.61	4.34	5.24
50	-	-	1.05	1.33	1.64	2.00	2.42	2.92	3.54
60	-	-	-	-	0.99	1.24	1.52	1.87	2.29

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

Cooling capacity	9 555	W
Power input	4 699	W
Current consumption	7.37	A
Mass flow	338	kg/h
C.O.P.	2.03	

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 50 Hz, EN 12900 rating conditions
R407A

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

Cooling capacity in W

10	5 773	7 288	9 129	11 333	-	-	-	-	-
20	5 117	6 482	8 150	10 157	12 539	15 332	-	-	-
30	4 521	5 721	7 199	8 992	11 136	13 667	16 622	20 038	-
40	3 996	5 014	6 286	7 849	9 739	11 993	14 646	17 735	-
45	-	4 685	5 848	7 290	9 047	11 155	13 652	16 572	-
50	-	-	5 424	6 741	8 360	10 320	12 655	15 402	-
55	-	-	-	6 202	7 681	9 487	11 657	14 227	-
60	-	-	-	-	7 011	8 660	10 660	13 049	-

Power input in W

10	1 524	1 554	1 583	1 621	-	-	-	-	-
20	1 894	1 943	1 975	2 000	2 029	2 071	-	-	-
30	2 321	2 410	2 465	2 497	2 517	2 535	2 561	2 606	-
40	2 810	2 958	3 056	3 115	3 147	3 160	3 166	3 174	-
45	-	3 263	3 391	3 471	3 516	3 534	3 537	3 535	-
50	-	-	3 752	3 859	3 922	3 951	3 956	3 948	-
55	-	-	-	4 279	4 365	4 409	4 422	4 413	-
60	-	-	-	-	4 846	4 910	4 935	4 931	-

Current consumption in A

10	2.59	2.61	2.58	2.52	-	-	-	-	-
20	3.66	3.75	3.78	3.79	3.78	3.78	-	-	-
30	4.36	4.50	4.58	4.61	4.63	4.65	4.69	4.78	-
40	5.07	5.24	5.33	5.38	5.40	5.42	5.45	5.52	-
45	-	5.72	5.82	5.86	5.88	5.88	5.90	5.95	-
50	-	-	6.44	6.47	6.48	6.47	6.46	6.49	-
55	-	-	-	7.26	7.25	7.21	7.19	7.19	-
60	-	-	-	-	8.24	8.18	8.12	8.08	-

Mass flow in kg/h

10	113	140	173	211	-	-	-	-	-
20	109	135	167	205	249	300	-	-	-
30	106	131	162	199	242	292	350	416	-
40	104	128	157	192	234	283	340	406	-
45	-	127	155	189	230	279	335	400	-
50	-	-	153	187	227	274	330	394	-
55	-	-	-	184	223	270	325	388	-
60	-	-	-	-	221	266	320	383	-

Coefficient of performance (C.O.P.)

10	3.79	4.69	5.77	6.99	-	-	-	-	-
20	2.70	3.34	4.13	5.08	6.18	7.40	-	-	-
30	1.95	2.37	2.92	3.60	4.42	5.39	6.49	7.69	-
40	1.42	1.70	2.06	2.52	3.10	3.80	4.63	5.59	-
45	-	1.44	1.72	2.10	2.57	3.16	3.86	4.69	-
50	-	-	1.45	1.75	2.13	2.61	3.20	3.90	-
55	-	-	-	1.45	1.76	2.15	2.64	3.22	-
60	-	-	-	-	1.45	1.76	2.16	2.65	-

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

Cooling capacity	7 290	W
Power input	3 471	W
Current consumption	5.86	A
Mass flow	189	kg/h
C.O.P.	2.10	

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	70	dB(A)
With acoustic hood	62	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, ARI rating conditions
R407A

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

Cooling capacity in W

10	6 130	7 732	9 677	12 003	-	-	-	-	-
20	5 474	6 927	8 700	10 831	13 357	16 316	-	-	-
30	4 882	6 169	7 753	9 671	11 963	14 665	17 815	21 452	-
40	4 369	5 473	6 850	8 539	10 578	13 007	15 862	19 182	-
45	-	5 153	6 419	7 987	9 895	12 181	14 883	18 039	-
50	-	-	6 007	7 450	9 221	11 361	13 906	16 896	-
55	-	-	-	6 929	8 561	10 550	12 936	15 757	-
60	-	-	-	-	-	9 756	11 980	14 629	-

Power input in W

10	1 524	1 554	1 583	1 621	-	-	-	-	-
20	1 894	1 943	1 975	2 000	2 029	2 071	-	-	-
30	2 321	2 410	2 465	2 497	2 517	2 535	2 561	2 606	-
40	2 810	2 958	3 056	3 115	3 147	3 160	3 166	3 174	-
45	-	3 263	3 391	3 471	3 516	3 534	3 537	3 535	-
50	-	-	3 752	3 859	3 922	3 951	3 956	3 948	-
55	-	-	-	4 279	4 365	4 409	4 422	4 413	-
60	-	-	-	-	-	4 910	4 935	4 931	-

Current consumption in A

10	2.59	2.61	2.58	2.52	-	-	-	-	-
20	3.66	3.75	3.78	3.79	3.78	3.78	-	-	-
30	4.36	4.50	4.58	4.61	4.63	4.65	4.69	4.78	-
40	5.07	5.24	5.33	5.38	5.40	5.42	5.45	5.52	-
45	-	5.72	5.82	5.86	5.88	5.88	5.90	5.95	-
50	-	-	6.44	6.47	6.48	6.47	6.46	6.49	-
55	-	-	-	7.26	7.25	7.21	7.19	7.19	-
60	-	-	-	-	-	8.18	8.12	8.08	-

Mass flow in kg/h

10	112	140	172	210	-	-	-	-	-
20	108	135	167	204	248	298	-	-	-
30	105	130	161	197	240	290	348	414	-
40	104	127	156	191	233	282	338	403	-
45	-	126	154	188	229	277	333	398	-
50	-	-	152	186	225	273	328	392	-
55	-	-	-	183	222	269	323	386	-
60	-	-	-	-	-	265	318	380	-

Coefficient of performance (C.O.P.)

10	4.02	4.98	6.11	7.40	-	-	-	-	-
20	2.89	3.57	4.41	5.42	6.58	7.88	-	-	-
30	2.10	2.56	3.15	3.87	4.75	5.79	6.96	8.23	-
40	1.55	1.85	2.24	2.74	3.36	4.12	5.01	6.04	-
45	-	1.58	1.89	2.30	2.81	3.45	4.21	5.10	-
50	-	-	1.60	1.93	2.35	2.88	3.52	4.28	-
55	-	-	-	1.62	1.96	2.39	2.93	3.57	-
60	-	-	-	-	-	1.99	2.43	2.97	-

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

Cooling capacity	7 987	W
Power input	3 471	W
Current consumption	5.86	A
Mass flow	188	kg/h
C.O.P.	2.30	

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	70	dB(A)
With acoustic hood	62	dB(A)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 K

Tolerance according EN12900

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Performance data at 60 Hz, EN 12900 rating conditions
R407A

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

Cooling capacity in W

10	7 103	8 932	11 165	13 845	-	-	-	-	-
20	6 316	7 953	9 973	12 418	15 334	18 763	-	-	-
30	5 624	7 040	8 817	11 000	13 632	16 756	20 416	24 655	-
40	5 049	6 214	7 720	9 611	11 930	14 720	18 025	21 889	-
45	-	5 841	7 201	8 935	11 086	13 699	16 815	20 481	-
50	-	-	6 705	8 274	10 251	12 678	15 600	19 059	-
55	-	-	-	7 632	9 427	11 662	14 381	17 627	-
60	-	-	-	-	8 617	10 653	13 162	16 187	-

Power input in W

10	1 804	1 831	1 869	1 940	-	-	-	-	-
20	2 257	2 303	2 331	2 362	2 421	2 530	-	-	-
30	2 752	2 858	2 915	2 947	2 975	3 024	3 116	3 275	-
40	3 276	3 481	3 608	3 678	3 717	3 745	3 788	3 867	-
45	-	3 814	3 990	4 095	4 153	4 187	4 219	4 273	-
50	-	-	4 393	4 543	4 631	4 679	4 711	4 750	-
55	-	-	-	5 021	5 148	5 221	5 263	5 297	-
60	-	-	-	-	5 703	5 810	5 872	5 911	-

Current consumption in A

10	2.63	2.64	2.66	2.69	-	-	-	-	-
20	3.81	3.82	3.84	3.87	3.90	3.93	-	-	-
30	4.59	4.63	4.66	4.69	4.71	4.74	4.78	4.82	-
40	5.32	5.38	5.43	5.47	5.50	5.53	5.56	5.59	-
45	-	5.83	5.89	5.94	5.99	6.02	6.05	6.08	-
50	-	-	6.47	6.53	6.58	6.62	6.66	6.68	-
55	-	-	-	7.27	7.33	7.38	7.42	7.45	-
60	-	-	-	-	8.28	8.34	8.38	8.42	-

Mass flow in kg/h

10	138	172	212	258	-	-	-	-	-
20	134	166	205	251	305	367	-	-	-
30	131	161	198	243	296	358	430	512	-
40	132	158	193	235	287	348	419	501	-
45	-	158	191	232	282	342	413	495	-
50	-	-	189	229	278	337	407	488	-
55	-	-	-	227	274	332	401	481	-
60	-	-	-	-	271	327	395	474	-

Coefficient of performance (C.O.P.)

10	3.94	4.88	5.97	7.13	-	-	-	-	-
20	2.80	3.45	4.28	5.26	6.33	7.42	-	-	-
30	2.04	2.46	3.02	3.73	4.58	5.54	6.55	7.53	-
40	1.54	1.78	2.14	2.61	3.21	3.93	4.76	5.66	-
45	-	1.53	1.80	2.18	2.67	3.27	3.99	4.79	-
50	-	-	1.53	1.82	2.21	2.71	3.31	4.01	-
55	-	-	-	1.52	1.83	2.23	2.73	3.33	-
60	-	-	-	-	1.51	1.83	2.24	2.74	-

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

Cooling capacity	8 935	W
Power input	4 095	W
Current consumption	5.94	A
Mass flow	232	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	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

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Performance data at 60 Hz, ARI rating conditions

R407A

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

Cooling capacity in W

10	7 543	9 477	11 835	14 663	-	-	-	-	-
20	6 757	8 499	10 645	13 242	16 335	19 968	-	-	-
30	6 074	7 592	9 496	11 831	14 644	17 978	21 881	26 396	-
40	5 520	6 783	8 412	10 455	12 958	15 965	19 522	23 675	-
45	-	6 424	7 905	9 790	12 125	14 958	18 332	22 294	-
50	-	-	7 426	9 145	11 307	13 957	17 142	20 907	-
55	-	-	-	8 527	10 507	12 969	15 958	19 522	-
60	-	-	-	-	-	12 001	14 791	18 148	-

Power input in W

10	1 804	1 831	1 869	1 940	-	-	-	-	-
20	2 257	2 303	2 331	2 362	2 421	2 530	-	-	-
30	2 752	2 858	2 915	2 947	2 975	3 024	3 116	3 275	-
40	3 276	3 481	3 608	3 678	3 717	3 745	3 788	3 867	-
45	-	3 814	3 990	4 095	4 153	4 187	4 219	4 273	-
50	-	-	4 393	4 543	4 631	4 679	4 711	4 750	-
55	-	-	-	5 021	5 148	5 221	5 263	5 297	-
60	-	-	-	-	-	5 810	5 872	5 911	-

Current consumption in A

10	2.63	2.64	2.66	2.69	-	-	-	-	-
20	3.81	3.82	3.84	3.87	3.90	3.93	-	-	-
30	4.59	4.63	4.66	4.69	4.71	4.74	4.78	4.82	-
40	5.32	5.38	5.43	5.47	5.50	5.53	5.56	5.59	-
45	-	5.83	5.89	5.94	5.99	6.02	6.05	6.08	-
50	-	-	6.47	6.53	6.58	6.62	6.66	6.68	-
55	-	-	-	7.27	7.33	7.38	7.42	7.45	-
60	-	-	-	-	-	8.34	8.38	8.42	-

Mass flow in kg/h

10	138	171	211	257	-	-	-	-	-
20	133	165	204	250	303	365	-	-	-
30	131	160	197	242	294	356	427	509	-
40	131	158	192	234	285	346	416	498	-
45	-	157	190	231	281	340	410	492	-
50	-	-	188	228	276	335	404	485	-
55	-	-	-	226	273	330	398	478	-
60	-	-	-	-	-	326	393	471	-

Coefficient of performance (C.O.P.)

10	4.18	5.18	6.33	7.56	-	-	-	-	-
20	2.99	3.69	4.57	5.61	6.75	7.89	-	-	-
30	2.21	2.66	3.26	4.02	4.92	5.95	7.02	8.06	-
40	1.68	1.95	2.33	2.84	3.49	4.26	5.15	6.12	-
45	-	1.68	1.98	2.39	2.92	3.57	4.35	5.22	-
50	-	-	1.69	2.01	2.44	2.98	3.64	4.40	-
55	-	-	-	1.70	2.04	2.48	3.03	3.69	-
60	-	-	-	-	-	2.07	2.52	3.07	-

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

Cooling capacity	9 790	W
Power input	4 095	W
Current consumption	5.94	A
Mass flow	231	kg/h
C.O.P.	2.39	

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 = 11.1 K , Subcooling = 8.3 K

Tolerance according EN12900

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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	-	4 339	5 528	6 980	8 725	10 792	13 211	16 012	19 224
35	-	4 026	5 160	6 542	8 202	10 170	12 474	15 144	18 210
40	-	3 726	4 801	6 109	7 680	9 543	11 728	14 263	17 178
45	-	-	4 444	5 674	7 152	8 906	10 966	13 361	16 121
50	-	-	-	5 231	6 611	8 252	10 183	12 433	15 033
55	-	-	-	-	6 051	7 574	9 371	11 472	13 906
60	-	-	-	-	-	6 866	8 524	10 471	12 734
65	-	-	-	-	-	-	7 635	9 422	11 508

Power input in W

30	-	2 241	2 322	2 397	2 471	2 546	2 625	2 712	2 810
35	-	2 707	2 743	2 777	2 812	2 851	2 897	2 953	3 023
40	-	3 189	3 184	3 179	3 178	3 183	3 199	3 227	3 271
45	-	-	3 651	3 610	3 576	3 551	3 538	3 541	3 563
50	-	-	-	4 077	4 013	3 960	3 923	3 903	3 905
55	-	-	-	-	4 495	4 418	4 358	4 319	4 305
60	-	-	-	-	-	4 931	4 852	4 797	4 768
65	-	-	-	-	-	-	5 411	5 342	5 303

Current consumption in A

30	-	4.66	4.67	4.69	4.71	4.73	4.77	4.83	4.89
35	-	5.01	5.02	5.03	5.05	5.08	5.11	5.16	5.22
40	-	5.39	5.41	5.42	5.44	5.46	5.50	5.54	5.59
45	-	-	5.85	5.87	5.89	5.91	5.94	5.98	6.03
50	-	-	-	6.39	6.41	6.43	6.46	6.49	6.53
55	-	-	-	-	7.03	7.05	7.07	7.10	7.14
60	-	-	-	-	-	7.78	7.80	7.82	7.86
65	-	-	-	-	-	-	8.66	8.68	8.71

Mass flow in kg/h

30	-	99	123	153	187	226	272	324	384
35	-	97	121	150	184	223	269	321	381
40	-	94	119	147	180	220	265	317	377
45	-	-	115	143	176	215	261	313	373
50	-	-	-	138	171	210	255	308	368
55	-	-	-	-	164	203	249	301	361
60	-	-	-	-	-	195	240	293	353
65	-	-	-	-	-	-	231	283	344

Coefficient of performance (C.O.P.)

30	-	1.94	2.38	2.91	3.53	4.24	5.03	5.90	6.84
35	-	1.49	1.88	2.36	2.92	3.57	4.31	5.13	6.02
40	-	1.17	1.51	1.92	2.42	3.00	3.67	4.42	5.25
45	-	-	1.22	1.57	2.00	2.51	3.10	3.77	4.52
50	-	-	-	1.28	1.65	2.08	2.60	3.19	3.85
55	-	-	-	-	1.35	1.71	2.15	2.66	3.23
60	-	-	-	-	-	1.39	1.76	2.18	2.67
65	-	-	-	-	-	-	1.41	1.76	2.17

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

Cooling capacity	7 152	W
Power input	3 576	W
Current consumption	5.89	A
Mass flow	176	kg/h
C.O.P.	2.00	

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 60 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	-	5 031	6 458	8 191	10 265	12 714	15 572	18 875	22 655
35	-	4 729	6 083	7 728	9 698	12 026	14 748	17 896	21 507
40	-	4 408	5 691	7 248	9 114	11 322	13 907	16 902	20 342
45	-	-	5 273	6 743	8 505	10 593	13 041	15 882	19 152
50	-	-	-	6 201	7 860	9 828	12 139	14 827	17 926
55	-	-	-	-	7 171	9 018	11 192	13 726	16 654
60	-	-	-	-	-	8 155	10 191	12 569	15 324
65	-	-	-	-	-	-	9 125	11 345	13 924

Power input in W

30	-	3 125	3 107	3 095	3 083	3 063	3 026	2 965	2 872
35	-	3 528	3 500	3 482	3 466	3 444	3 409	3 351	3 265
40	-	3 970	3 934	3 911	3 892	3 870	3 836	3 784	3 705
45	-	-	4 416	4 389	4 368	4 347	4 317	4 270	4 199
50	-	-	-	4 924	4 902	4 883	4 857	4 817	4 756
55	-	-	-	-	5 501	5 484	5 464	5 432	5 381
60	-	-	-	-	-	6 160	6 146	6 123	6 084
65	-	-	-	-	-	-	6 910	6 897	6 870

Current consumption in A

30	-	4.04	3.98	4.06	4.22	4.42	4.60	4.70	4.68
35	-	5.10	4.93	4.92	4.99	5.12	5.23	5.28	5.22
40	-	5.84	5.58	5.49	5.50	5.57	5.64	5.66	5.57
45	-	-	6.06	5.91	5.88	5.91	5.96	5.96	5.88
50	-	-	-	6.32	6.26	6.28	6.32	6.33	6.26
55	-	-	-	-	6.77	6.79	6.85	6.88	6.84
60	-	-	-	-	-	7.59	7.68	7.76	7.78
65	-	-	-	-	-	-	8.94	9.09	9.18

Mass flow in kg/h

30	-	113	142	177	218	266	321	383	453
35	-	112	141	175	216	263	318	380	450
40	-	110	139	173	214	261	315	376	446
45	-	-	136	170	211	257	311	372	442
50	-	-	-	166	206	253	307	368	437
55	-	-	-	-	201	248	301	362	431
60	-	-	-	-	-	240	294	355	424
65	-	-	-	-	-	-	285	346	415

Coefficient of performance (C.O.P.)

30	-	1.61	2.08	2.65	3.33	4.15	5.15	6.37	7.89
35	-	1.34	1.74	2.22	2.80	3.49	4.33	5.34	6.59
40	-	1.11	1.45	1.85	2.34	2.93	3.62	4.47	5.49
45	-	-	1.19	1.54	1.95	2.44	3.02	3.72	4.56
50	-	-	-	1.26	1.60	2.01	2.50	3.08	3.77
55	-	-	-	-	1.30	1.64	2.05	2.53	3.09
60	-	-	-	-	-	1.32	1.66	2.05	2.52
65	-	-	-	-	-	-	1.32	1.64	2.03

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

Cooling capacity	8 505	W
Power input	4 368	W
Current consumption	5.88	A
Mass flow	211	kg/h
C.O.P.	1.95	

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 60 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
R407F

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)							
	-23	-20	-15	-10	-5	0	5	10

Cooling capacity in W

10	6 694	7 678	9 585	11 855	-	-	-	-	-
20	5 987	6 881	8 619	10 699	13 158	16 032	-	-	-
30	5 329	6 122	7 673	9 545	11 772	14 394	17 445	20 963	-
40	4 737	5 417	6 763	8 407	10 385	12 734	15 492	18 695	-
45	-	-	6 326	7 849	9 695	11 902	14 506	17 543	-
50	-	-	-	7 302	9 011	11 070	13 516	16 384	-
55	-	-	-	-	8 335	10 242	12 524	15 217	-
60	-	-	-	-	-	-	-	-	-

Power input in W

10	1 667	1 684	1 713	1 757	-	-	-	-	-
20	2 090	2 116	2 145	2 168	2 200	2 256	-	-	-
30	2 588	2 639	2 694	2 721	2 737	2 757	2 795	2 867	-
40	3 160	3 252	3 358	3 417	3 443	3 452	3 458	3 478	-
45	-	-	3 734	3 818	3 859	3 872	3 872	3 875	-
50	-	-	-	4 254	4 316	4 340	4 341	4 334	-
55	-	-	-	-	4 815	4 856	4 864	4 854	-
60	-	-	-	-	-	-	-	-	-

Current consumption in A

10	2.81	2.81	2.77	2.71	-	-	-	-	-
20	4.02	4.06	4.09	4.09	4.07	4.07	-	-	-
30	4.82	4.90	4.98	5.01	5.02	5.03	5.08	5.17	-
40	5.64	5.73	5.83	5.87	5.89	5.90	5.93	6.00	-
45	-	-	6.38	6.42	6.43	6.42	6.44	6.49	-
50	-	-	-	7.10	7.10	7.08	7.07	7.10	-
55	-	-	-	-	7.96	7.92	7.88	7.87	-
60	-	-	-	-	-	-	-	-	-

Mass flow in kg/h

10	117	133	164	201	-	-	-	-	-
20	113	129	159	195	237	285	-	-	-
30	110	125	154	189	230	277	332	394	-
40	107	121	149	183	222	269	322	384	-
45	-	-	147	180	219	264	318	379	-
50	-	-	-	177	215	260	313	373	-
55	-	-	-	-	212	256	308	367	-
60	-	-	-	-	-	-	-	-	-

Coefficient of performance (C.O.P.)

10	4.01	4.56	5.60	6.75	-	-	-	-	-
20	2.86	3.25	4.02	4.94	5.98	7.11	-	-	-
30	2.06	2.32	2.85	3.51	4.30	5.22	6.24	7.31	-
40	1.50	1.67	2.01	2.46	3.02	3.69	4.48	5.38	-
45	-	-	1.69	2.06	2.51	3.07	3.75	4.53	-
50	-	-	-	1.72	2.09	2.55	3.11	3.78	-
55	-	-	-	-	1.73	2.11	2.57	3.13	-
60	-	-	-	-	-	-	-	-	-

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

Cooling capacity	7 849	W
Power input	3 818	W
Current consumption	6.42	A
Mass flow	180	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	70	dB(A)
With acoustic hood	62	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, ARI rating conditions
R407F

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)							
	-23	-20	-15	-10	-5	0	5	10

Cooling capacity in W

10	7 074	8 111	10 118	12 506	-	-	-	-	-
20	6 365	7 312	9 152	11 352	13 949	16 983	-	-	-
30	5 709	6 554	8 207	10 199	12 568	15 353	18 591	22 322	-
40	-	5 857	7 303	9 067	11 188	13 705	16 655	20 078	-
45	-	-	6 873	8 516	10 506	12 882	15 682	18 945	-
50	-	-	-	7 979	9 834	12 064	14 709	17 809	-
55	-	-	-	-	-	11 258	13 745	16 678	-
60	-	-	-	-	-	-	-	-	-

Power input in W

10	1 667	1 684	1 713	1 757	-	-	-	-	-
20	2 090	2 116	2 145	2 168	2 200	2 256	-	-	-
30	2 588	2 639	2 694	2 721	2 737	2 757	2 795	2 867	-
40	-	3 252	3 358	3 417	3 443	3 452	3 458	3 478	-
45	-	-	3 734	3 818	3 859	3 872	3 872	3 875	-
50	-	-	-	4 254	4 316	4 340	4 341	4 334	-
55	-	-	-	-	-	4 856	4 864	4 854	-
60	-	-	-	-	-	-	-	-	-

Current consumption in A

10	2.81	2.81	2.77	2.71	-	-	-	-	-
20	4.02	4.06	4.09	4.09	4.07	4.07	-	-	-
30	4.82	4.90	4.98	5.01	5.02	5.03	5.08	5.17	-
40	-	5.73	5.83	5.87	5.89	5.90	5.93	6.00	-
45	-	-	6.38	6.42	6.43	6.42	6.44	6.49	-
50	-	-	-	7.10	7.10	7.08	7.07	7.10	-
55	-	-	-	-	-	7.92	7.88	7.87	-
60	-	-	-	-	-	-	-	-	-

Mass flow in kg/h

10	116	132	163	199	-	-	-	-	-
20	112	128	158	194	235	283	-	-	-
30	109	124	153	188	228	275	330	392	-
40	-	121	148	181	221	267	320	382	-
45	-	-	146	179	217	263	316	376	-
50	-	-	-	176	214	258	311	371	-
55	-	-	-	-	-	254	306	365	-
60	-	-	-	-	-	-	-	-	-

Coefficient of performance (C.O.P.)

10	4.24	4.82	5.91	7.12	-	-	-	-	-
20	3.05	3.46	4.27	5.24	6.34	7.53	-	-	-
30	2.21	2.48	3.05	3.75	4.59	5.57	6.65	7.79	-
40	-	1.80	2.17	2.65	3.25	3.97	4.82	5.77	-
45	-	-	1.84	2.23	2.72	3.33	4.05	4.89	-
50	-	-	-	1.88	2.28	2.78	3.39	4.11	-
55	-	-	-	-	-	2.32	2.83	3.44	-
60	-	-	-	-	-	-	-	-	-

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

Cooling capacity	8 516	W
Power input	3 818	W
Current consumption	6.42	A
Mass flow	179	kg/h
C.O.P.	2.23	

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	70	dB(A)
With acoustic hood	62	dB(A)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 K

Tolerance according EN12900

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Performance data at 60 Hz, EN 12900 rating conditions
R407F

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)							
	-23	-20	-15	-10	-5	0	5	10

Cooling capacity in W

10	8 289	9 492	11 825	14 605	-	-	-	-	-
20	7 426	8 512	10 639	13 197	16 229	19 774	-	-	-
30	6 647	7 594	9 478	11 779	14 538	17 796	21 595	25 976	-
40	5 982	6 769	8 375	10 382	12 832	15 768	19 228	23 256	-
45	-	-	7 854	9 701	11 984	14 744	18 022	21 860	-
50	-	-	-	9 038	11 144	13 720	16 806	20 445	-
55	-	-	-	-	10 316	12 699	15 585	19 016	-
60	-	-	-	-	-	-	-	-	-

Power input in W

10	1 919	1 932	1 966	2 035	-	-	-	-	-
20	2 424	2 447	2 470	2 498	2 554	2 665	-	-	-
30	2 993	3 050	3 105	3 133	3 158	3 206	3 303	3 473	-
40	3 616	3 732	3 860	3 929	3 965	3 992	4 036	4 122	-
45	-	-	4 279	4 385	4 441	4 473	4 506	4 566	-
50	-	-	-	4 876	4 964	5 011	5 044	5 088	-
55	-	-	-	-	5 532	5 605	5 648	5 687	-
60	-	-	-	-	-	-	-	-	-

Current consumption in A

10	2.79	2.79	2.80	2.82	-	-	-	-	-
20	4.05	4.06	4.07	4.09	4.11	4.15	-	-	-
30	4.91	4.93	4.96	4.98	5.00	5.03	5.06	5.10	-
40	5.72	5.76	5.80	5.84	5.87	5.89	5.92	5.95	-
45	-	-	6.32	6.36	6.40	6.43	6.46	6.48	-
50	-	-	-	7.01	7.06	7.09	7.12	7.15	-
55	-	-	-	-	7.88	7.93	7.96	7.98	-
60	-	-	-	-	-	-	-	-	-

Mass flow in kg/h

10	145	165	203	247	-	-	-	-	-
20	140	159	196	240	292	351	-	-	-
30	137	155	190	233	283	343	411	489	-
40	136	152	185	225	275	333	400	478	-
45	-	-	183	222	270	327	395	472	-
50	-	-	-	219	266	322	389	466	-
55	-	-	-	-	262	317	383	459	-
60	-	-	-	-	-	-	-	-	-

Coefficient of performance (C.O.P.)

10	4.32	4.91	6.01	7.18	-	-	-	-	-
20	3.06	3.48	4.31	5.28	6.35	7.42	-	-	-
30	2.22	2.49	3.05	3.76	4.60	5.55	6.54	7.48	-
40	1.65	1.81	2.17	2.64	3.24	3.95	4.76	5.64	-
45	-	-	1.84	2.21	2.70	3.30	4.00	4.79	-
50	-	-	-	1.85	2.25	2.74	3.33	4.02	-
55	-	-	-	-	1.86	2.27	2.76	3.34	-
60	-	-	-	-	-	-	-	-	-

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

Cooling capacity	9 701	W
Power input	4 385	W
Current consumption	6.36	A
Mass flow	222	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	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

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Performance data at 60 Hz, ARI rating conditions
R407F

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)							
	-23	-20	-15	-10	-5	0	5	10

Cooling capacity in W

10	8 760	10 027	12 483	15 407	-	-	-	-	-
20	7 896	9 046	11 296	14 001	17 204	20 947	-	-	-
30	7 121	8 131	10 138	12 586	15 520	18 982	23 014	27 660	-
40	-	7 319	9 044	11 198	13 825	16 969	20 672	24 978	-
45	-	-	8 533	10 526	12 986	15 958	19 483	23 606	-
50	-	-	-	9 877	12 161	14 951	18 291	22 224	-
55	-	-	-	-	-	13 958	17 105	20 841	-
60	-	-	-	-	-	-	-	-	-

Power input in W

10	1 919	1 932	1 966	2 035	-	-	-	-	-
20	2 424	2 447	2 470	2 498	2 554	2 665	-	-	-
30	2 993	3 050	3 105	3 133	3 158	3 206	3 303	3 473	-
40	-	3 732	3 860	3 929	3 965	3 992	4 036	4 122	-
45	-	-	4 279	4 385	4 441	4 473	4 506	4 566	-
50	-	-	-	4 876	4 964	5 011	5 044	5 088	-
55	-	-	-	-	-	5 605	5 648	5 687	-
60	-	-	-	-	-	-	-	-	-

Current consumption in A

10	2.79	2.79	2.80	2.82	-	-	-	-	-
20	4.05	4.06	4.07	4.09	4.11	4.15	-	-	-
30	4.91	4.93	4.96	4.98	5.00	5.03	5.06	5.10	-
40	-	5.76	5.80	5.84	5.87	5.89	5.92	5.95	-
45	-	-	6.32	6.36	6.40	6.43	6.46	6.48	-
50	-	-	-	7.01	7.06	7.09	7.12	7.15	-
55	-	-	-	-	-	7.93	7.96	7.98	-
60	-	-	-	-	-	-	-	-	-

Mass flow in kg/h

10	144	164	202	246	-	-	-	-	-
20	139	158	195	239	290	349	-	-	-
30	136	154	189	231	282	340	408	485	-
40	-	151	184	224	273	331	398	475	-
45	-	-	182	221	269	325	392	469	-
50	-	-	-	218	264	320	386	463	-
55	-	-	-	-	-	315	380	456	-
60	-	-	-	-	-	-	-	-	-

Coefficient of performance (C.O.P.)

10	4.57	5.19	6.35	7.57	-	-	-	-	-
20	3.26	3.70	4.57	5.61	6.74	7.86	-	-	-
30	2.38	2.67	3.26	4.02	4.91	5.92	6.97	7.96	-
40	-	1.96	2.34	2.85	3.49	4.25	5.12	6.06	-
45	-	-	1.99	2.40	2.92	3.57	4.32	5.17	-
50	-	-	-	2.03	2.45	2.98	3.63	4.37	-
55	-	-	-	-	-	2.49	3.03	3.66	-
60	-	-	-	-	-	-	-	-	-

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

Cooling capacity	10 526	W
Power input	4 385	W
Current consumption	6.36	A
Mass flow	221	kg/h
C.O.P.	2.40	

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 = 11.1 K , Subcooling = 8.3 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	4 902	6 136	7 613	9 370	11 442	-	-	-	-
20	4 386	5 568	6 964	8 612	10 547	12 806	15 425	-	-
30	-	-	6 228	7 745	9 521	11 592	13 995	16 766	19 940
40	-	-	-	6 790	8 385	10 247	12 411	14 915	17 795
50	-	-	-	-	7 161	8 791	10 695	12 911	15 474
60	-	-	-	-	-	-	8 869	10 774	12 998

Power input in W

10	1 519	1 538	1 583	1 651	1 740	-	-	-	-
20	1 969	1 948	1 960	2 002	2 072	2 166	2 282	-	-
30	-	-	2 489	2 495	2 536	2 608	2 709	2 835	2 983
40	-	-	-	3 202	3 204	3 245	3 320	3 428	3 566
50	-	-	-	-	4 148	4 147	4 188	4 269	4 385
60	-	-	-	-	-	-	5 384	5 428	5 514

Current consumption in A

10	3.62	3.68	3.72	3.76	3.81	-	-	-	-
20	4.03	4.07	4.11	4.16	4.21	4.28	4.38	-	-
30	-	-	4.68	4.71	4.76	4.82	4.92	5.06	5.25
40	-	-	-	5.56	5.58	5.63	5.72	5.85	6.03
50	-	-	-	-	6.80	6.82	6.89	7.00	7.16
60	-	-	-	-	-	-	8.54	8.62	8.76

Mass flow in kg/h

10	80	101	126	155	190	-	-	-	-
20	77	98	123	153	188	230	280	-	-
30	-	-	119	148	184	226	275	333	401
40	-	-	-	142	177	219	268	326	394
50	-	-	-	-	168	209	258	315	383
60	-	-	-	-	-	-	245	302	368

Coefficient of performance (C.O.P.)

10	3.23	3.99	4.81	5.68	6.58	-	-	-	-
20	2.23	2.86	3.55	4.30	5.09	5.91	6.76	-	-
30	-	-	2.50	3.10	3.75	4.44	5.17	5.91	6.68
40	-	-	-	2.12	2.62	3.16	3.74	4.35	4.99
50	-	-	-	-	1.73	2.12	2.55	3.02	3.53
60	-	-	-	-	-	-	1.65	1.99	2.36

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

Cooling capacity	7 782	W
Power input	3 637	W
Current consumption	6.13	A
Mass flow	173	kg/h
C.O.P.	2.14	

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
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	4 923	6 166	7 656	9 428	11 516	-	-	-	-
20	4 348	5 532	6 935	8 594	10 545	12 821	15 454	-	-
30	3 733	4 834	6 128	7 651	9 442	11 534	13 962	16 757	19 940
40	-	-	5 259	6 623	8 230	10 116	12 317	14 867	17 795
50	-	-	-	5 534	6 934	8 590	10 540	12 823	15 474
60	-	-	-	-	5 577	6 979	8 655	10 647	12 998

Power input in W

10	1 519	1 538	1 583	1 651	1 740	-	-	-	-
20	1 969	1 948	1 960	2 002	2 072	2 166	2 282	-	-
30	2 590	2 519	2 489	2 495	2 536	2 608	2 709	2 835	2 983
40	-	-	3 240	3 202	3 204	3 245	3 320	3 428	3 566
50	-	-	-	4 194	4 148	4 147	4 188	4 269	4 385
60	-	-	-	-	5 439	5 387	5 384	5 428	5 514

Current consumption in A

10	3.62	3.68	3.72	3.76	3.81	-	-	-	-
20	4.03	4.07	4.11	4.16	4.21	4.28	4.38	-	-
30	4.62	4.66	4.68	4.71	4.76	4.82	4.92	5.06	5.25
40	-	-	5.54	5.56	5.58	5.63	5.72	5.85	6.03
50	-	-	-	6.80	6.80	6.82	6.89	7.00	7.16
60	-	-	-	-	8.52	8.51	8.54	8.62	8.76

Mass flow in kg/h

10	94	117	143	174	209	-	-	-	-
20	91	114	140	171	206	247	294	-	-
30	87	110	136	166	202	242	289	342	401
40	-	-	129	159	195	235	282	335	394
50	-	-	-	150	185	225	271	324	383
60	-	-	-	-	172	212	258	310	368

Coefficient of performance (C.O.P.)

10	3.24	4.01	4.84	5.71	6.62	-	-	-	-
20	2.21	2.84	3.54	4.29	5.09	5.92	6.77	-	-
30	1.44	1.92	2.46	3.07	3.72	4.42	5.15	5.91	6.68
40	-	-	1.62	2.07	2.57	3.12	3.71	4.34	4.99
50	-	-	-	1.32	1.67	2.07	2.52	3.00	3.53
60	-	-	-	-	1.03	1.30	1.61	1.96	2.36

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

Cooling capacity	7 591	W
Power input	3 637	W
Current consumption	6.13	A
Mass flow	190	kg/h
C.O.P.	2.09	

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	5 791	7 260	9 030	11 146	13 652	-	-	-	-
20	5 235	6 639	8 312	10 298	12 643	15 391	18 587	-	-
30	-	-	7 496	9 319	11 468	13 988	16 923	20 319	24 221
40	-	-	-	8 245	10 164	12 421	15 062	18 131	21 673
50	-	-	-	-	8 768	10 729	13 040	15 747	18 896
60	-	-	-	-	-	-	10 896	13 207	15 927

Power input in W

10	1 874	1 917	1 976	2 054	2 152	-	-	-	-
20	2 371	2 398	2 436	2 489	2 557	2 644	2 751	-	-
30	-	-	3 065	3 104	3 155	3 220	3 300	3 398	3 516
40	-	-	-	3 916	3 962	4 016	4 082	4 160	4 255
50	-	-	-	-	4 992	5 049	5 112	5 184	5 266
60	-	-	-	-	-	-	6 407	6 484	6 567

Current consumption in A

10	3.47	3.58	3.67	3.75	3.81	-	-	-	-
20	4.04	4.10	4.16	4.22	4.29	4.36	4.43	-	-
30	-	-	4.82	4.85	4.90	4.97	5.06	5.17	5.29
40	-	-	-	5.76	5.77	5.82	5.92	6.04	6.21
50	-	-	-	-	7.06	7.07	7.14	7.27	7.45
60	-	-	-	-	-	-	8.89	8.99	9.17

Mass flow in kg/h

10	94	119	149	184	227	-	-	-	-
20	92	117	147	183	225	276	337	-	-
30	-	-	143	179	221	272	333	404	488
40	-	-	-	173	215	265	325	396	479
50	-	-	-	-	206	256	315	385	467
60	-	-	-	-	-	-	301	370	451

Coefficient of performance (C.O.P.)

10	3.09	3.79	4.57	5.43	6.34	-	-	-	-
20	2.21	2.77	3.41	4.14	4.94	5.82	6.76	-	-
30	-	-	2.45	3.00	3.63	4.34	5.13	5.98	6.89
40	-	-	-	2.11	2.57	3.09	3.69	4.36	5.09
50	-	-	-	-	1.76	2.12	2.55	3.04	3.59
60	-	-	-	-	-	-	1.70	2.04	2.43

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

Cooling capacity	9 475	W
Power input	4 448	W
Current consumption	6.35	A
Mass flow	211	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		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

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	5 815	7 295	9 081	11 215	13 740	-	-	-	-
20	5 189	6 596	8 277	10 277	12 640	15 409	18 622	-	-
30	4 536	5 834	7 376	9 206	11 372	13 917	16 883	20 308	24 221
40	-	-	6 416	8 043	9 976	12 262	14 947	18 072	21 673
50	-	-	-	6 825	8 491	10 483	12 850	15 640	18 896
60	-	-	-	-	6 953	8 617	10 632	13 051	15 927

Power input in W

10	1 874	1 917	1 976	2 054	2 152	-	-	-	-
20	2 371	2 398	2 436	2 489	2 557	2 644	2 751	-	-
30	3 011	3 034	3 065	3 104	3 155	3 220	3 300	3 398	3 516
40	-	-	3 877	3 916	3 962	4 016	4 082	4 160	4 255
50	-	-	-	4 939	4 992	5 049	5 112	5 184	5 266
60	-	-	-	-	6 262	6 334	6 407	6 484	6 567

Current consumption in A

10	3.47	3.58	3.67	3.75	3.81	-	-	-	-
20	4.04	4.10	4.16	4.22	4.29	4.36	4.43	-	-
30	4.82	4.81	4.82	4.85	4.90	4.97	5.06	5.17	5.29
40	-	-	5.78	5.76	5.77	5.82	5.92	6.04	6.21
50	-	-	-	7.09	7.06	7.07	7.14	7.27	7.45
60	-	-	-	-	8.89	8.85	8.89	8.99	9.17

Mass flow in kg/h

10	111	139	170	207	249	-	-	-	-
20	109	136	168	204	247	297	354	-	-
30	105	132	163	200	243	293	350	415	488
40	-	-	158	194	236	285	342	407	479
50	-	-	-	185	226	275	331	395	467
60	-	-	-	-	215	262	317	380	451

Coefficient of performance (C.O.P.)

10	3.10	3.81	4.60	5.46	6.39	-	-	-	-
20	2.19	2.75	3.40	4.13	4.94	5.83	6.77	-	-
30	1.51	1.92	2.41	2.97	3.60	4.32	5.12	5.98	6.89
40	-	-	1.65	2.05	2.52	3.05	3.66	4.34	5.09
50	-	-	-	1.38	1.70	2.08	2.51	3.02	3.59
60	-	-	-	-	1.11	1.36	1.66	2.01	2.43

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

Cooling capacity	9 242	W
Power input	4 448	W
Current consumption	6.35	A
Mass flow	231	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		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	4 902	6 136	7 613	9 370	11 442	-	-	-	-
20	4 386	5 568	6 964	8 612	10 547	12 806	15 425	-	-
30	-	-	6 228	7 745	9 521	11 592	13 995	16 766	19 940
40	-	-	-	6 790	8 385	10 247	12 411	14 915	17 795
50	-	-	-	-	7 161	8 791	10 695	12 911	15 474
60	-	-	-	-	-	-	8 869	10 774	12 998

Power input in W

10	1 519	1 538	1 583	1 651	1 740	-	-	-	-
20	1 969	1 948	1 960	2 002	2 072	2 166	2 282	-	-
30	-	-	2 489	2 495	2 536	2 608	2 709	2 835	2 983
40	-	-	-	3 202	3 204	3 245	3 320	3 428	3 566
50	-	-	-	-	4 148	4 147	4 188	4 269	4 385
60	-	-	-	-	-	-	5 384	5 428	5 514

Current consumption in A

10	3.62	3.68	3.72	3.76	3.81	-	-	-	-
20	4.03	4.07	4.11	4.16	4.21	4.28	4.38	-	-
30	-	-	4.68	4.71	4.76	4.82	4.92	5.06	5.25
40	-	-	-	5.56	5.58	5.63	5.72	5.85	6.03
50	-	-	-	-	6.80	6.82	6.89	7.00	7.16
60	-	-	-	-	-	-	8.54	8.62	8.76

Mass flow in kg/h

10	80	101	126	155	190	-	-	-	-
20	77	98	123	153	188	230	280	-	-
30	-	-	119	148	184	226	275	333	401
40	-	-	-	142	177	219	268	326	394
50	-	-	-	-	168	209	258	315	383
60	-	-	-	-	-	-	245	302	368

Coefficient of performance (C.O.P.)

10	3.23	3.99	4.81	5.68	6.58	-	-	-	-
20	2.23	2.86	3.55	4.30	5.09	5.91	6.76	-	-
30	-	-	2.50	3.10	3.75	4.44	5.17	5.91	6.68
40	-	-	-	2.12	2.62	3.16	3.74	4.35	4.99
50	-	-	-	-	1.73	2.12	2.55	3.02	3.53
60	-	-	-	-	-	-	1.65	1.99	2.36

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

Cooling capacity	7 782	W
Power input	3 637	W
Current consumption	6.13	A
Mass flow	173	kg/h
C.O.P.	2.14	

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	4 912	6 155	7 644	9 416	11 505	-	-	-	-
20	4 336	5 520	6 923	8 582	10 533	12 811	15 446	-	-
30	3 722	4 822	6 115	7 638	9 429	11 523	13 954	16 751	19 940
40	-	-	5 245	6 609	8 217	10 104	12 307	14 861	17 795
50	-	-	-	5 520	6 920	8 577	10 530	12 817	15 474
60	-	-	-	-	5 563	6 966	8 645	10 641	12 998

Power input in W

10	1 519	1 538	1 583	1 651	1 740	-	-	-	-
20	1 969	1 948	1 960	2 002	2 072	2 166	2 282	-	-
30	2 590	2 519	2 489	2 495	2 536	2 608	2 709	2 835	2 983
40	-	-	3 240	3 202	3 204	3 245	3 320	3 428	3 566
50	-	-	-	4 194	4 148	4 147	4 188	4 269	4 385
60	-	-	-	-	5 439	5 387	5 384	5 428	5 514

Current consumption in A

10	3.62	3.68	3.72	3.76	3.81	-	-	-	-
20	4.03	4.07	4.11	4.16	4.21	4.28	4.38	-	-
30	4.62	4.66	4.68	4.71	4.76	4.82	4.92	5.06	5.25
40	-	-	5.54	5.56	5.58	5.63	5.72	5.85	6.03
50	-	-	-	6.80	6.80	6.82	6.89	7.00	7.16
60	-	-	-	-	8.52	8.51	8.54	8.62	8.76

Mass flow in kg/h

10	94	117	143	174	209	-	-	-	-
20	91	114	140	171	206	247	294	-	-
30	87	110	136	166	202	242	289	342	401
40	-	-	129	159	195	235	282	335	394
50	-	-	-	150	185	225	271	324	383
60	-	-	-	-	172	212	258	310	368

Coefficient of performance (C.O.P.)

10	3.23	4.00	4.83	5.70	6.61	-	-	-	-
20	2.20	2.83	3.53	4.29	5.08	5.91	6.77	-	-
30	1.44	1.91	2.46	3.06	3.72	4.42	5.15	5.91	6.68
40	-	-	1.62	2.06	2.56	3.11	3.71	4.33	4.99
50	-	-	-	1.32	1.67	2.07	2.51	3.00	3.53
60	-	-	-	-	1.02	1.29	1.61	1.96	2.36

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

Cooling capacity	7 577	W
Power input	3 637	W
Current consumption	6.13	A
Mass flow	190	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		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

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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	5 791	7 260	9 030	11 146	13 652	-	-	-	-
20	5 235	6 639	8 312	10 298	12 643	15 391	18 587	-	-
30	-	-	7 496	9 319	11 468	13 988	16 923	20 319	24 221
40	-	-	-	8 245	10 164	12 421	15 062	18 131	21 673
50	-	-	-	-	8 768	10 729	13 040	15 747	18 896
60	-	-	-	-	-	-	10 896	13 207	15 927

Power input in W

10	1 874	1 917	1 976	2 054	2 152	-	-	-	-
20	2 371	2 398	2 436	2 489	2 557	2 644	2 751	-	-
30	-	-	3 065	3 104	3 155	3 220	3 300	3 398	3 516
40	-	-	-	3 916	3 962	4 016	4 082	4 160	4 255
50	-	-	-	-	4 992	5 049	5 112	5 184	5 266
60	-	-	-	-	-	-	6 407	6 484	6 567

Current consumption in A

10	3.47	3.58	3.67	3.75	3.81	-	-	-	-
20	4.04	4.10	4.16	4.22	4.29	4.36	4.43	-	-
30	-	-	4.82	4.85	4.90	4.97	5.06	5.17	5.29
40	-	-	-	5.76	5.77	5.82	5.92	6.04	6.21
50	-	-	-	-	7.06	7.07	7.14	7.27	7.45
60	-	-	-	-	-	-	8.89	8.99	9.17

Mass flow in kg/h

10	96	121	151	187	231	-	-	-	-
20	93	119	149	186	229	281	343	-	-
30	-	-	146	182	225	277	339	412	497
40	-	-	-	176	219	271	332	404	489
50	-	-	-	-	211	261	321	393	477
60	-	-	-	-	-	-	308	378	461

Coefficient of performance (C.O.P.)

10	3.09	3.79	4.57	5.43	6.34	-	-	-	-
20	2.21	2.77	3.41	4.14	4.94	5.82	6.76	-	-
30	-	-	2.45	3.00	3.63	4.34	5.13	5.98	6.89
40	-	-	-	2.11	2.57	3.09	3.69	4.36	5.09
50	-	-	-	-	1.76	2.12	2.55	3.04	3.59
60	-	-	-	-	-	-	1.70	2.04	2.43

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

Cooling capacity	9 475	W
Power input	4 448	W
Current consumption	6.35	A
Mass flow	215	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		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

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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	5 802	7 282	9 067	11 201	13 727	-	-	-	-
20	5 175	6 582	8 262	10 262	12 626	15 396	18 612	-	-
30	4 522	5 819	7 360	9 190	11 357	13 904	16 873	20 302	24 221
40	-	-	6 399	8 026	9 960	12 248	14 935	18 065	21 673
50	-	-	-	6 807	8 474	10 468	12 838	15 633	18 896
60	-	-	-	-	6 936	8 601	10 620	13 044	15 927

Power input in W

10	1 874	1 917	1 976	2 054	2 152	-	-	-	-
20	2 371	2 398	2 436	2 489	2 557	2 644	2 751	-	-
30	3 011	3 034	3 065	3 104	3 155	3 220	3 300	3 398	3 516
40	-	-	3 877	3 916	3 962	4 016	4 082	4 160	4 255
50	-	-	-	4 939	4 992	5 049	5 112	5 184	5 266
60	-	-	-	-	6 262	6 334	6 407	6 484	6 567

Current consumption in A

10	3.47	3.58	3.67	3.75	3.81	-	-	-	-
20	4.04	4.10	4.16	4.22	4.29	4.36	4.43	-	-
30	4.82	4.81	4.82	4.85	4.90	4.97	5.06	5.17	5.29
40	-	-	5.78	5.76	5.77	5.82	5.92	6.04	6.21
50	-	-	-	7.09	7.06	7.07	7.14	7.27	7.45
60	-	-	-	-	8.89	8.85	8.89	8.99	9.17

Mass flow in kg/h

10	113	141	173	210	253	-	-	-	-
20	111	138	170	208	251	302	360	-	-
30	107	135	166	204	247	298	356	423	497
40	-	-	161	197	240	291	349	415	489
50	-	-	-	189	231	281	338	404	477
60	-	-	-	-	219	267	324	388	461

Coefficient of performance (C.O.P.)

10	3.10	3.80	4.59	5.45	6.38	-	-	-	-
20	2.18	2.74	3.39	4.12	4.94	5.82	6.77	-	-
30	1.50	1.92	2.40	2.96	3.60	4.32	5.11	5.98	6.89
40	-	-	1.65	2.05	2.51	3.05	3.66	4.34	5.09
50	-	-	-	1.38	1.70	2.07	2.51	3.02	3.59
60	-	-	-	-	1.11	1.36	1.66	2.01	2.43

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

Cooling capacity	9 225	W
Power input	4 448	W
Current consumption	6.35	A
Mass flow	236	kg/h
C.O.P.	2.07	

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
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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	5 348	6 619	8 150	9 971	12 114	-	-	-	-
20	4 767	5 980	7 421	9 120	11 108	13 416	16 073	-	-
30	-	5 288	6 611	8 160	9 965	12 058	14 468	17 227	20 365
40	-	-	5 726	7 097	8 692	10 543	12 678	15 130	17 929
50	-	-	-	-	7 297	8 877	10 710	12 827	15 259
60	-	-	-	-	-	7 069	8 571	10 326	12 362

Power input in W

10	1 573	1 610	1 649	1 690	1 733	-	-	-	-
20	2 000	2 036	2 074	2 116	2 159	2 205	2 251	-	-
30	-	2 584	2 619	2 657	2 698	2 741	2 786	2 832	2 880
40	-	-	3 322	3 354	3 390	3 428	3 468	3 511	3 555
50	-	-	-	-	4 276	4 306	4 339	4 374	4 412
60	-	-	-	-	-	5 417	5 439	5 464	5 492

Current consumption in A

10	3.65	3.65	3.65	3.67	3.72	-	-	-	-
20	4.13	4.16	4.18	4.21	4.25	4.31	4.40	-	-
30	-	4.79	4.85	4.90	4.94	4.98	5.04	5.13	5.25
40	-	-	5.70	5.78	5.84	5.89	5.93	5.98	6.06
50	-	-	-	-	7.03	7.09	7.13	7.17	7.20
60	-	-	-	-	-	8.65	8.70	8.73	8.75

Mass flow in kg/h

10	108	135	167	205	251	-	-	-	-
20	105	133	165	203	249	303	367	-	-
30	-	129	161	200	245	300	364	439	527
40	-	-	155	193	239	293	357	432	520
50	-	-	-	-	229	283	347	421	509
60	-	-	-	-	-	269	332	407	493

Coefficient of performance (C.O.P.)

10	3.40	4.11	4.94	5.90	6.99	-	-	-	-
20	2.38	2.94	3.58	4.31	5.14	6.09	7.14	-	-
30	-	2.05	2.52	3.07	3.69	4.40	5.19	6.08	7.07
40	-	-	1.72	2.12	2.56	3.08	3.66	4.31	5.04
50	-	-	-	-	1.71	2.06	2.47	2.93	3.46
60	-	-	-	-	-	1.31	1.58	1.89	2.25

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

Cooling capacity	8 010	W
Power input	3 806	W
Current consumption	6.40	A
Mass flow	234	kg/h
C.O.P.	2.10	

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
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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	5 176	6 444	7 980	9 817	11 986	-	-	-	-
20	4 525	5 724	7 161	8 871	10 884	13 234	15 949	-	-
30	3 853	4 954	6 264	7 816	9 645	11 785	14 267	17 120	20 365
40	3 170	4 144	5 297	6 664	8 280	10 180	12 400	14 974	17 929
50	-	-	4 270	5 423	6 796	8 428	10 357	12 621	15 259
60	-	-	-	-	5 199	6 532	8 139	10 067	12 362

Power input in W

10	1 573	1 610	1 649	1 690	1 733	-	-	-	-
20	2 000	2 036	2 074	2 116	2 159	2 205	2 251	-	-
30	2 552	2 584	2 619	2 657	2 698	2 741	2 786	2 832	2 880
40	3 270	3 294	3 322	3 354	3 390	3 428	3 468	3 511	3 555
50	-	-	4 226	4 249	4 276	4 306	4 339	4 374	4 412
60	-	-	-	-	5 398	5 417	5 439	5 464	5 492

Current consumption in A

10	3.65	3.65	3.65	3.67	3.72	-	-	-	-
20	4.13	4.16	4.18	4.21	4.25	4.31	4.40	-	-
30	4.70	4.79	4.85	4.90	4.94	4.98	5.04	5.13	5.25
40	5.43	5.59	5.70	5.78	5.84	5.89	5.93	5.98	6.06
50	-	-	6.81	6.94	7.03	7.09	7.13	7.17	7.20
60	-	-	-	-	8.56	8.65	8.70	8.73	8.75

Mass flow in kg/h

10	128	157	191	230	276	-	-	-	-
20	124	155	189	228	274	327	387	-	-
30	120	150	184	224	270	323	383	451	527
40	113	143	177	217	263	316	376	444	520
50	-	-	167	207	252	305	365	433	509
60	-	-	-	-	238	290	350	418	493

Coefficient of performance (C.O.P.)

10	3.29	4.00	4.84	5.81	6.92	-	-	-	-
20	2.26	2.81	3.45	4.19	5.04	6.00	7.08	-	-
30	1.51	1.92	2.39	2.94	3.58	4.30	5.12	6.04	7.07
40	0.97	1.26	1.59	1.99	2.44	2.97	3.58	4.27	5.04
50	-	-	1.01	1.28	1.59	1.96	2.39	2.89	3.46
60	-	-	-	-	0.96	1.21	1.50	1.84	2.25

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

Cooling capacity	7 552	W
Power input	3 806	W
Current consumption	6.40	A
Mass flow	258	kg/h
C.O.P.	1.98	

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
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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	6 272	7 819	9 708	11 977	14 664	-	-	-	-
20	5 656	7 112	8 865	10 955	13 421	16 302	19 636	-	-
30	-	6 388	7 971	9 849	12 059	14 640	17 633	21 075	25 004
40	-	-	7 036	8 667	10 587	12 836	15 453	18 476	21 946
50	-	-	-	-	9 016	10 898	13 105	15 677	18 652
60	-	-	-	-	-	8 837	10 601	12 687	15 136

Power input in W

10	1 927	1 985	2 041	2 124	2 263	-	-	-	-
20	2 380	2 478	2 536	2 584	2 651	2 766	2 956	-	-
30	-	3 057	3 166	3 228	3 272	3 326	3 420	3 582	3 841
40	-	-	3 889	4 013	4 083	4 126	4 171	4 247	4 384
50	-	-	-	-	5 042	5 122	5 167	5 207	5 270
60	-	-	-	-	-	6 273	6 368	6 419	6 457

Current consumption in A

10	3.83	3.78	3.79	3.87	4.05	-	-	-	-
20	4.20	4.20	4.21	4.25	4.34	4.48	4.71	-	-
30	-	4.79	4.89	4.96	5.02	5.10	5.20	5.35	5.56
40	-	-	5.70	5.88	6.00	6.08	6.13	6.19	6.25
50	-	-	-	-	7.15	7.31	7.40	7.43	7.42
60	-	-	-	-	-	8.69	8.89	8.97	8.97

Mass flow in kg/h

10	126	160	199	246	303	-	-	-	-
20	124	158	197	244	301	369	449	-	-
30	-	155	194	241	297	364	443	537	647
40	-	-	190	236	291	357	435	528	636
50	-	-	-	-	283	347	424	515	622
60	-	-	-	-	-	336	411	500	604

Coefficient of performance (C.O.P.)

10	3.26	3.94	4.76	5.64	6.48	-	-	-	-
20	2.38	2.87	3.50	4.24	5.06	5.89	6.64	-	-
30	-	2.09	2.52	3.05	3.69	4.40	5.16	5.88	6.51
40	-	-	1.81	2.16	2.59	3.11	3.71	4.35	5.01
50	-	-	-	-	1.79	2.13	2.54	3.01	3.54
60	-	-	-	-	-	1.41	1.66	1.98	2.34

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

Cooling capacity	9 813	W
Power input	4 546	W
Current consumption	6.56	A
Mass flow	287	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
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	6 069	7 612	9 505	11 791	14 510	-	-	-	-
20	5 368	6 807	8 555	10 655	13 150	16 081	19 485	-	-
30	4 684	5 985	7 553	9 434	11 672	14 309	17 388	20 944	25 004
40	4 021	5 152	6 509	8 138	10 084	12 394	15 114	18 285	21 946
50	-	-	5 428	6 774	8 397	10 346	12 672	15 425	18 652
60	-	-	-	-	6 608	8 166	10 066	12 369	15 136

Power input in W

10	1 927	1 985	2 041	2 124	2 263	-	-	-	-
20	2 380	2 478	2 536	2 584	2 651	2 766	2 956	-	-
30	2 871	3 057	3 166	3 228	3 272	3 326	3 420	3 582	3 841
40	3 357	3 680	3 889	4 013	4 083	4 126	4 171	4 247	4 384
50	-	-	4 662	4 898	5 042	5 122	5 167	5 207	5 270
60	-	-	-	-	6 107	6 273	6 368	6 419	6 457

Current consumption in A

10	3.83	3.78	3.79	3.87	4.05	-	-	-	-
20	4.20	4.20	4.21	4.25	4.34	4.48	4.71	-	-
30	4.65	4.79	4.89	4.96	5.02	5.10	5.20	5.35	5.56
40	5.09	5.44	5.70	5.88	6.00	6.08	6.13	6.19	6.25
50	-	-	6.53	6.90	7.15	7.31	7.40	7.43	7.42
60	-	-	-	-	8.37	8.69	8.89	8.97	8.97

Mass flow in kg/h

10	150	186	228	277	334	-	-	-	-
20	148	184	226	274	331	397	473	-	-
30	145	181	222	270	327	392	467	552	647
40	143	178	218	265	320	384	458	542	636
50	-	-	213	258	312	374	447	529	622
60	-	-	-	-	302	362	433	514	604

Coefficient of performance (C.O.P.)

10	3.15	3.83	4.66	5.55	6.41	-	-	-	-
20	2.26	2.75	3.37	4.12	4.96	5.81	6.59	-	-
30	1.63	1.96	2.39	2.92	3.57	4.30	5.08	5.85	6.51
40	1.20	1.40	1.67	2.03	2.47	3.00	3.62	4.31	5.01
50	-	-	1.16	1.38	1.67	2.02	2.45	2.96	3.54
60	-	-	-	-	1.08	1.30	1.58	1.93	2.34

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

Cooling capacity	9 253	W
Power input	4 546	W
Current consumption	6.56	A
Mass flow	316	kg/h
C.O.P.	2.04	

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)

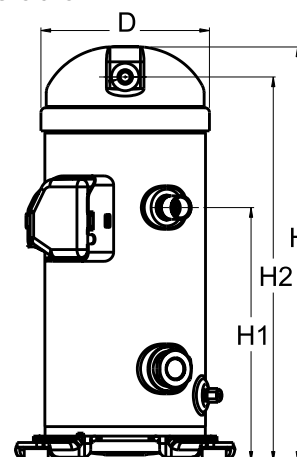
Sound power data

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

Tolerance according EN12900

General Characteristics

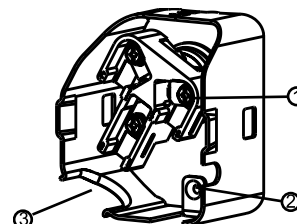
Model number (on compressor nameplate)	MLZ038T5LC9	MLZ038T5LC9
Code number for Singlepack*	121U8034	120U8034
Code number for Industrial pack**	121U8033	120U8033
Drawing number	0XR6025B-2	0XR6025B-2
Suction and discharge connections	Brazed	Brazed
Suction connection	7/8" ODF	7/8" ODF
Discharge connection	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	80.94 cm ³ /rev	
Displacement @ Nominal speed	14.1 m ³ /h @ 2900 rpm	
Net weight	41 kg	
Oil charge	1.57 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	5.44 kg	
Approved refrigerants	R404A, R507, R134a, R407A, R407C, R407F, R22	

Dimensions


D=184 mm
H=455 mm
H1=280 mm
H2=422 mm
H3=- mm

Electrical Characteristics

Nominal voltage	230V/1/50Hz
Voltage range	207-253 V
Winding resistance (main / start) at 25°C	0.39 Ω / 1.019 Ω
Run capacitors A + C	55 μF + - μF
Start capacitor B	88-108 μF
Start relay	RVA4GKL
Rated Load Amps (RLA)	24.3 A
Maximum Continuous Current (MCC)	38 A
Locked Rotor Amps (LRA)	130 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, -, -

*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.

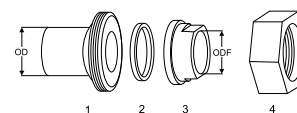
Rotolock valve, V05 (1-1/4" Rotolock, 7/8" ODF)	8168030
Gasket, 1-1/4"	8156131

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

Solder sleeve adapter set



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

Rotolock accessories, sets

Code no.

Solder sleeve adapter set (1-1/4" Rotolock, 7/8" ODF), (1" Rotolock, 1/2" ODF)	120Z0127
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
Belt type crankcase heater, 70 W, 575 V, UL	120Z5013

Miscellaneous accessories

Code no.

Acoustic hood	120Z5044
Discharge thermostat kit	7750009
IP54 upgrade kit	118U0057

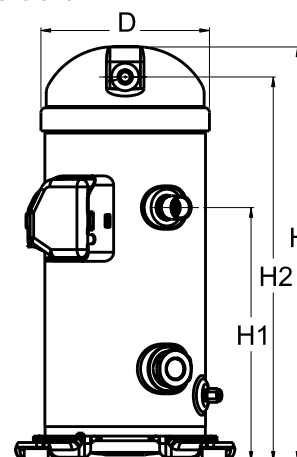
Spare parts

Code no.

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

General Characteristics

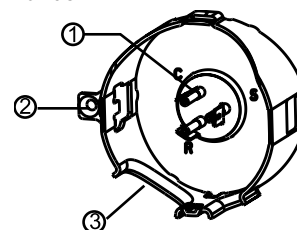
Model number (on compressor nameplate)	MLZ038T5LC9A	MLZ038T5LC9A
Code number for Singlepack*	121U8647	121L8647
Code number for Industrial pack**	121U8646	121L8646
Drawing number	0XR6025B-2	0XR6025B-2
Suction and discharge connections	Brazed	Brazed
Suction connection	7/8" ODF	7/8" ODF
Discharge connection	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	80.94 cm ³ /rev	
Displacement @ Nominal speed	14.1 m ³ /h @ 2900 rpm	
Net weight	41 kg	
Oil charge	1.57 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	5.44 kg	
Approved refrigerants	R404A,R507,R134a,R407A,R407F,R448A,R449A,R452A,R22	

Dimensions


D=184 mm
H=455 mm
H1=280 mm
H2=422 mm
H3=- mm

Electrical Characteristics

Nominal voltage	230V/1/50Hz
Voltage range	207-253 V
Winding resistance (main / start) at 25°C	0.39 Ω / 1.019 Ω
Run capacitors A + C	55 μF + - μF
Start capacitor B	88-108 μF
Start relay	RVA4GKL
Rated Load Amps (RLA)	24.3 A
Maximum Continuous Current (MCC)	38 A
Locked Rotor Amps (LRA)	130 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, -, -

*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.

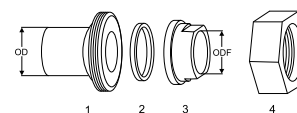
Rotolock valve, V05 (1-1/4" Rotolock, 7/8" ODF)	8168030
Gasket, 1-1/4"	8156131

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

Solder sleeve adapter set



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

Rotolock accessories, sets

Code no.

Solder sleeve adapter set (1-1/4" Rotolock, 7/8" ODF), (1" Rotolock, 1/2" ODF)	120Z0127
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
Belt type crankcase heater, 70 W, 575 V, UL	120Z5013

Miscellaneous accessories

Code no.

Acoustic hood	120Z5084
Discharge thermostat kit	7750009
IP54 upgrade kit	118U0057

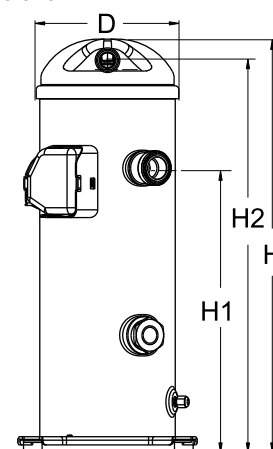
Spare parts

Code no.

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

General Characteristics

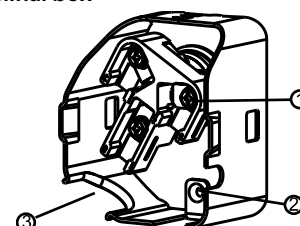
Model number (on compressor nameplate)		MLZ038T5LQ9
Code number for Singlepack*		121U8569
Code number for Industrial pack**		121U8568
Drawing number		0XR6298B-2
Suction and discharge connections		Rotolock
Suction connection		1-1/4 " Rotolock
Discharge connection		1 " Rotolock
Suction connection with supplied sleeve		7/8 " -
Discharge connection with supplied sleeve	- "	1/2 " -
Oil sight glass		Threaded
Oil equalisation connection		None
Oil drain connection		None
LP gauge port		None
IPR valve		None
Swept volume		80.94 cm ³ /rev
Displacement @ Nominal speed		14.1 m ³ /h @ 2900 rpm
Net weight		41 kg
Oil charge		1.57 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		5.44 kg
Approved refrigerants		R404A, R507, R134a, R407A, R407C, R407F, R22

Dimensions


D=184 mm
H=454.9 mm
H1=280 mm
H2=422.2 mm
H3=- mm

Electrical Characteristics

Nominal voltage	230V/1/50Hz
Voltage range	207-253 V
Winding resistance (main / start) at 25°C	0.39 Ω / 1.019 Ω
Run capacitors A + C	55 μF + - μF
Start capacitor B	88-108 μF
Start relay	RVA4GKL
Rated Load Amps (RLA)	24.3 A
Maximum Continuous Current (MCC)	38 A
Locked Rotor Amps (LRA)	130 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, -, -

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

Rotolock accessories, discharge side
Code no.

Rotolock valve, V01 (1" Rotolock, 3/8" ODF)	8168027
Rotolock valve, V06 (1" Rotolock, 1/2" ODF)	8168031
Gasket, 1"	8156130

Rotolock accessories, sets
Code no.

Teflon seals, sleeves, nuts for discharge and suction (1" and 1"1/4)	120Z5074
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.

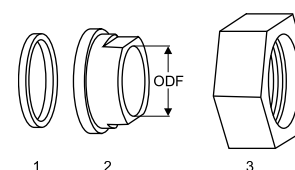
Belt type crankcase heater, 70 W, 230 V, UL	120Z5011
Belt type crankcase heater, 65 W, 230 V, CE mark, UL	120Z0059
Belt type crankcase heater, 70 W, 575 V, UL	120Z5013

Miscellaneous accessories
Code no.

Acoustic hood	120Z5044
Discharge thermostat kit	7750009
IP54 upgrade kit	118U0057

Spare parts
Code no.

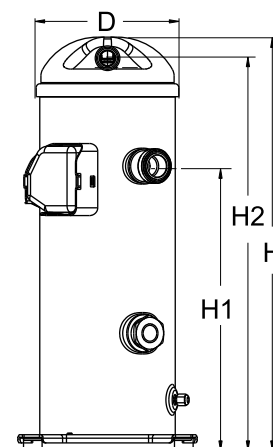
Mounting kit for 1 scroll compressor including 4 grommets, 4 sleeves, 4 bolts, 4 washers	120Z5005
Terminal box cover	120Z5018

Gaskets, sleeves and nuts


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

General Characteristics

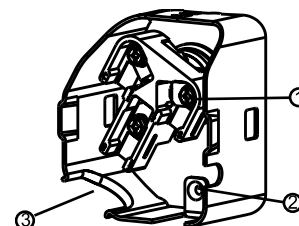
Model number (on compressor nameplate)	MLZ038T5LC9A	MLZ038T5LQ9A
Code number for Singlepack*		121U8781
Code number for Industrial pack**	120U8646	121U8780
Drawing number	0XR6025B-2	0XR6298B-2
Suction and discharge connections	Brazed	Rotolock
Suction connection	7/8" ODF	1-1/4" Rotolock
Discharge connection	1/2" ODF	1" Rotolock
Suction connection with supplied sleeve		7/8" -
Discharge connection with supplied sleeve	- "	1/2" -
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	80.94 cm ³ /rev	
Displacement @ Nominal speed	14.1 m ³ /h @ 2900 rpm	
Net weight	41 kg	
Oil charge	1.57 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	5.44 kg	
Approved refrigerants	R404A,R507,R134a,R407A,R407F,R448A,R449A,R452A,R22	

Dimensions


D=184 mm
H=454.9 mm
H1=280 mm
H2=422.2 mm
H3=- mm

Electrical Characteristics

Nominal voltage	230V/1/50Hz
Voltage range	207-253 V
Winding resistance (main / start) at 25°C	0.39 Ω / 1.019 Ω
Run capacitors A + C	55 μF + - μF
Start capacitor B	88-108 μF
Start relay	RVA4GKL
Rated Load Amps (RLA)	24.3 A
Maximum Continuous Current (MCC)	38 A
Locked Rotor Amps (LRA)	130 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, V05 (1-1/4" Rotolock, 7/8" ODF)	8168030
Gasket, 1-1/4"	8156131

Rotolock accessories, discharge side
Code no.

Rotolock valve, V01 (1" Rotolock, 3/8" ODF)	8168027
Rotolock valve, V06 (1" Rotolock, 1/2" ODF)	8168031
Gasket, 1"	8156130

Rotolock accessories, sets
Code no.

Teflon seals, sleeves, nuts for discharge and suction (1" and 1"1/4)	120Z5074
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.

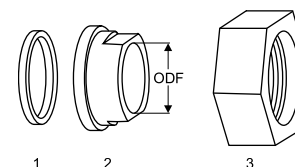
Belt type crankcase heater, 70 W, 230 V, UL	120Z5011
Belt type crankcase heater, 65 W, 230 V, CE mark, UL	120Z0059
Belt type crankcase heater, 70 W, 575 V, UL	120Z5013

Miscellaneous accessories
Code no.

Acoustic hood	120Z5084
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

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	7 082	8 564	10 279	12 214	-	-	-	-	-
20	6 928	8 459	10 224	12 214	14 415	-	-	-	-
30	6 268	7 829	9 634	11 673	13 933	16 401	19 057	-	-
40	5 490	6 955	8 672	10 633	12 829	15 246	17 868	-	-
50	-	6 175	7 679	9 437	11 442	13 684	16 149	-	-
60	-	-	-	8 418	10 109	12 051	14 234	-	-
68	-	-	-	-	-	10 918	12 787	-	-

Power input in W

16	1 835	1 871	1 910	1 956	-	-	-	-	-
20	2 124	2 170	2 217	2 268	2 324	-	-	-	-
30	2 701	2 767	2 829	2 889	2 948	3 009	3 074	-	-
40	3 210	3 292	3 364	3 428	3 486	3 539	3 591	-	-
50	-	3 922	3 999	4 063	4 114	4 156	4 189	-	-
60	-	-	-	4 973	5 014	5 038	5 049	-	-
68	-	-	-	-	-	6 056	6 045	-	-

Current consumption in A

16	9.81	10.00	10.22	10.46	-	-	-	-	-
20	11.36	11.60	11.86	12.13	12.43	-	-	-	-
30	14.44	14.80	15.13	15.45	15.77	16.09	16.44	-	-
40	17.16	17.60	17.99	18.33	18.64	18.93	19.20	-	-
50	-	20.98	21.39	21.73	22.00	22.22	22.40	-	-
60	-	-	-	26.60	26.81	26.94	27.00	-	-
68	-	-	-	-	-	32.38	32.32	-	-

Mass flow in kg/h

16	120	152	191	236	-	-	-	-	-
20	125	157	197	241	288	-	-	-	-
30	130	161	200	244	292	341	389	-	-
40	123	154	193	237	286	335	385	-	-
50	-	140	179	225	274	325	375	-	-
60	-	-	-	210	260	312	364	-	-
68	-	-	-	-	-	303	356	-	-

Coefficient of performance (C.O.P.)

16	3.86	4.58	5.38	6.24	-	-	-	-	-
20	3.26	3.90	4.61	5.39	6.20	-	-	-	-
30	2.32	2.83	3.41	4.04	4.73	5.45	6.20	-	-
40	1.71	2.11	2.58	3.10	3.68	4.31	4.98	-	-
50	-	1.57	1.92	2.32	2.78	3.29	3.85	-	-
60	-	-	-	1.69	2.02	2.39	2.82	-	-
68	-	-	-	-	-	1.80	2.12	-	-

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

Cooling capacity	8 158	W
Power input	3 658	W
Current consumption	19.56	A
Mass flow	187	kg/h
C.O.P.	2.23	

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	70	dB(A)
With acoustic hood	62	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	6 909	8 381	10 091	12 034	-	-	-	-	-
20	6 777	8 296	10 056	12 051	14 274	-	-	-	-
30	6 177	7 727	9 524	11 561	13 834	16 334	19 057	-	-
40	-	6 916	8 625	10 581	12 777	15 209	17 868	-	-
50	-	-	-	9 443	11 440	13 677	16 149	-	-
60	-	-	-	-	10 156	12 074	14 234	-	-
68	-	-	-	-	-	-	12 787	-	-

Power input in W

16	1 835	1 871	1 910	1 956	-	-	-	-	-
20	2 124	2 170	2 217	2 268	2 324	-	-	-	-
30	2 701	2 767	2 829	2 889	2 948	3 009	3 074	-	-
40	-	3 292	3 364	3 428	3 486	3 539	3 591	-	-
50	-	-	-	4 063	4 114	4 156	4 189	-	-
60	-	-	-	-	5 014	5 038	5 049	-	-
68	-	-	-	-	-	-	6 045	-	-

Current consumption in A

16	9.81	10.00	10.22	10.46	-	-	-	-	-
20	11.36	11.60	11.86	12.13	12.43	-	-	-	-
30	14.44	14.80	15.13	15.45	15.77	16.09	16.44	-	-
40	-	17.60	17.99	18.33	18.64	18.93	19.20	-	-
50	-	-	-	21.73	22.00	22.22	22.40	-	-
60	-	-	-	-	26.81	26.94	27.00	-	-
68	-	-	-	-	-	-	32.32	-	-

Mass flow in kg/h

16	106	136	175	220	-	-	-	-	-
20	110	141	180	225	275	-	-	-	-
30	114	144	183	228	278	332	389	-	-
40	-	138	176	222	273	327	385	-	-
50	-	-	-	210	261	317	375	-	-
60	-	-	-	-	248	304	364	-	-
68	-	-	-	-	-	-	356	-	-

Coefficient of performance (C.O.P.)

16	3.77	4.48	5.28	6.15	-	-	-	-	-
20	3.19	3.82	4.54	5.31	6.14	-	-	-	-
30	2.29	2.79	3.37	4.00	4.69	5.43	6.20	-	-
40	-	2.10	2.56	3.09	3.67	4.30	4.98	-	-
50	-	-	-	2.32	2.78	3.29	3.85	-	-
60	-	-	-	-	2.03	2.40	2.82	-	-
68	-	-	-	-	-	-	2.12	-	-

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

Cooling capacity	8 142	W
Power input	3 658	W
Current consumption	19.56	A
Mass flow	171	kg/h
C.O.P.	2.23	

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	70	dB(A)
With acoustic hood	62	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	11 116	11 393	12 820	15 066	-	-	-	-	-
20	10 690	10 892	12 255	14 453	17 158	-	-	-	-
30	9 788	9 802	11 009	13 086	15 711	18 559	21 304	-	-
40	8 938	8 771	9 824	11 783	14 328	17 141	19 898	-	-
50	-	7 582	8 485	10 327	12 795	15 576	18 348	-	-
60	-	-	-	8 507	10 898	13 647	16 439	-	-
68	-	-	-	-	-	11 701	14 509	-	-

Power input in W

16	2 478	2 505	2 563	2 646	-	-	-	-	-
20	2 659	2 677	2 725	2 794	2 878	-	-	-	-
30	3 153	3 166	3 202	3 255	3 316	3 378	3 433	-	-
40	3 725	3 755	3 803	3 862	3 923	3 980	4 023	-	-
50	-	4 467	4 550	4 637	4 722	4 796	4 851	-	-
60	-	-	-	5 603	5 734	5 848	5 938	-	-
68	-	-	-	-	-	6 874	7 009	-	-

Current consumption in A

16	11.00	11.12	11.38	11.75	-	-	-	-	-
20	11.80	11.88	12.10	12.41	12.78	-	-	-	-
30	14.00	14.05	14.21	14.45	14.72	15.00	15.24	-	-
40	16.54	16.67	16.88	17.14	17.42	17.67	17.86	-	-
50	-	19.83	20.20	20.59	20.96	21.29	21.54	-	-
60	-	-	-	24.88	25.45	25.96	26.36	-	-
68	-	-	-	-	-	30.52	31.11	-	-

Mass flow in kg/h

16	275	248	256	288	-	-	-	-	-
20	266	241	250	284	332	-	-	-	-
30	251	227	239	277	329	387	442	-	-
40	239	216	230	270	326	388	448	-	-
50	-	200	216	258	316	382	446	-	-
60	-	-	-	234	295	364	431	-	-
68	-	-	-	-	-	336	406	-	-

Coefficient of performance (C.O.P.)

16	4.49	4.55	5.00	5.69	-	-	-	-	-
20	4.02	4.07	4.50	5.17	5.96	-	-	-	-
30	3.10	3.10	3.44	4.02	4.74	5.49	6.21	-	-
40	2.40	2.34	2.58	3.05	3.65	4.31	4.95	-	-
50	-	1.70	1.86	2.23	2.71	3.25	3.78	-	-
60	-	-	-	1.52	1.90	2.33	2.77	-	-
68	-	-	-	-	-	1.70	2.07	-	-

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

Cooling capacity	9 187	W
Power input	4 157	W
Current consumption	18.45	A
Mass flow	224	kg/h
C.O.P.	2.21	

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		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
R22

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

Cooling capacity in W

16	10 845	11 149	12 586	14 845	-	-	-	-	-
20	10 458	10 683	12 054	14 260	16 991	-	-	-	-
30	9 646	9 674	10 883	12 962	15 599	18 483	21 304	-	-
40	-	8 722	9 771	11 724	14 271	17 099	19 898	-	-
50	-	-	-	10 333	12 792	15 567	18 348	-	-
60	-	-	-	-	10 948	13 674	16 439	-	-
68	-	-	-	-	-	-	14 509	-	-

Power input in W

16	2 478	2 505	2 563	2 646	-	-	-	-	-
20	2 659	2 677	2 725	2 794	2 878	-	-	-	-
30	3 153	3 166	3 202	3 255	3 316	3 378	3 433	-	-
40	-	3 755	3 803	3 862	3 923	3 980	4 023	-	-
50	-	-	-	4 637	4 722	4 796	4 851	-	-
60	-	-	-	-	5 734	5 848	5 938	-	-
68	-	-	-	-	-	-	7 009	-	-

Current consumption in A

16	11.00	11.12	11.38	11.75	-	-	-	-	-
20	11.80	11.88	12.10	12.41	12.78	-	-	-	-
30	14.00	14.05	14.21	14.45	14.72	15.00	15.24	-	-
40	-	16.67	16.88	17.14	17.42	17.67	17.86	-	-
50	-	-	-	20.59	20.96	21.29	21.54	-	-
60	-	-	-	-	25.45	25.96	26.36	-	-
68	-	-	-	-	-	-	31.11	-	-

Mass flow in kg/h

16	242	223	234	269	-	-	-	-	-
20	234	216	229	265	317	-	-	-	-
30	221	204	219	258	314	378	442	-	-
40	-	194	210	252	311	379	448	-	-
50	-	-	-	241	302	373	446	-	-
60	-	-	-	-	281	355	431	-	-
68	-	-	-	-	-	-	406	-	-

Coefficient of performance (C.O.P.)

16	4.38	4.45	4.91	5.61	-	-	-	-	-
20	3.93	3.99	4.42	5.10	5.90	-	-	-	-
30	3.06	3.06	3.40	3.98	4.70	5.47	6.21	-	-
40	-	2.32	2.57	3.04	3.64	4.30	4.95	-	-
50	-	-	-	2.23	2.71	3.25	3.78	-	-
60	-	-	-	-	1.91	2.34	2.77	-	-
68	-	-	-	-	-	-	2.07	-	-

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

Cooling capacity	9 169	W
Power input	4 157	W
Current consumption	18.45	A
Mass flow	205	kg/h
C.O.P.	2.21	

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		dB(A)
With acoustic hood		dB(A)

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	4 804	6 165	7 672	9 362	11 275	-	-	-	-
30	4 427	5 750	7 206	8 833	10 668	12 751	-	-	-
40	3 825	5 089	6 471	8 007	9 736	11 695	13 923	-	-
50	-	4 321	5 616	7 050	8 660	10 485	12 561	-	-
60	-	-	4 696	6 016	7 496	9 173	11 087	-	-
70	-	-	-	4 960	6 297	7 816	9 555	-	-
73	-	-	-	4 647	5 939	7 408	9 092	-	-

Power input in W

22	1 613	1 662	1 700	1 744	1 808	-	-	-	-
30	1 836	1 901	1 943	1 977	2 019	2 082	-	-	-
40	2 135	2 237	2 299	2 338	2 368	2 403	2 459	-	-
50	-	2 621	2 723	2 784	2 820	2 846	2 876	-	-
60	-	-	3 221	3 323	3 384	3 418	3 440	-	-
70	-	-	-	3 963	4 066	4 127	4 159	-	-
73	-	-	-	4 177	4 296	4 367	4 407	-	-

Current consumption in A

22	8.63	8.89	9.09	9.33	9.67	-	-	-	-
30	9.82	10.16	10.39	10.57	10.80	11.13	-	-	-
40	11.42	11.96	12.30	12.50	12.66	12.85	13.15	-	-
50	-	14.02	14.56	14.89	15.08	15.22	15.38	-	-
60	-	-	17.23	17.77	18.09	18.28	18.40	-	-
70	-	-	-	21.19	21.75	22.07	22.24	-	-
73	-	-	-	22.33	22.97	23.36	23.57	-	-

Mass flow in kg/h

22	104	132	161	192	226	-	-	-	-
30	102	131	161	193	228	267	-	-	-
40	97	127	159	192	228	268	313	-	-
50	-	120	153	187	225	266	313	-	-
60	-	-	145	181	220	263	311	-	-
70	-	-	-	174	214	259	308	-	-
73	-	-	-	172	213	257	307	-	-

Coefficient of performance (C.O.P.)

22	2.98	3.71	4.51	5.37	6.24	-	-	-	-
30	2.41	3.03	3.71	4.47	5.28	6.12	-	-	-
40	1.79	2.28	2.81	3.42	4.11	4.87	5.66	-	-
50	-	1.65	2.06	2.53	3.07	3.68	4.37	-	-
60	-	-	1.46	1.81	2.22	2.68	3.22	-	-
70	-	-	-	1.25	1.55	1.89	2.30	-	-
73	-	-	-	1.11	1.38	1.70	2.06	-	-

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

Cooling capacity	4 715	W
Power input	2 422	W
Current consumption	12.95	A
Mass flow	124	kg/h
C.O.P.	1.95	

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	70	dB(A)
With acoustic hood	62	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	4 881	6 237	7 731	9 403	11 293	-	-	-	-
30	-	5 857	7 299	8 901	10 704	12 751	-	-	-
40	-	-	6 604	8 110	9 794	11 695	13 858	-	-
50	-	-	5 787	7 186	8 740	10 485	12 461	-	-
60	-	-	-	6 184	7 596	9 173	-	-	-
70	-	-	-	-	6 419	7 816	-	-	-
73	-	-	-	-	6 067	7 408	-	-	-

Power input in W

22	1 613	1 662	1 700	1 744	1 808	-	-	-	-
30	-	1 901	1 943	1 977	2 019	2 082	-	-	-
40	-	-	2 299	2 338	2 368	2 403	2 459	-	-
50	-	-	2 723	2 784	2 820	2 846	2 876	-	-
60	-	-	-	3 323	3 384	3 418	-	-	-
70	-	-	-	-	4 066	4 127	-	-	-
73	-	-	-	-	4 296	4 367	-	-	-

Current consumption in A

22	8.63	8.89	9.09	9.33	9.67	-	-	-	-
30	-	10.16	10.39	10.57	10.80	11.13	-	-	-
40	-	-	12.30	12.50	12.66	12.85	13.15	-	-
50	-	-	14.56	14.89	15.08	15.22	15.38	-	-
60	-	-	-	17.77	18.09	18.28	-	-	-
70	-	-	-	-	21.75	22.07	-	-	-
73	-	-	-	-	22.97	23.36	-	-	-

Mass flow in kg/h

22	93	121	151	183	221	-	-	-	-
30	-	121	151	185	223	267	-	-	-
40	-	-	148	183	223	268	322	-	-
50	-	-	143	179	220	266	321	-	-
60	-	-	-	173	215	263	-	-	-
70	-	-	-	-	209	259	-	-	-
73	-	-	-	-	208	257	-	-	-

Coefficient of performance (C.O.P.)

22	3.03	3.75	4.55	5.39	6.25	-	-	-	-
30	-	3.08	3.76	4.50	5.30	6.12	-	-	-
40	-	-	2.87	3.47	4.14	4.87	5.63	-	-
50	-	-	2.13	2.58	3.10	3.68	4.33	-	-
60	-	-	-	1.86	2.25	2.68	-	-	-
70	-	-	-	-	1.58	1.89	-	-	-
73	-	-	-	-	1.41	1.70	-	-	-

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	70	dB(A)
With acoustic hood	62	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	5 861	7 459	9 248	11 251	13 495	-	-	-	-
30	5 366	6 896	8 632	10 599	12 820	15 321	-	-	-
40	4 740	6 127	7 739	9 600	11 735	14 169	16 926	-	-
50	-	5 342	6 764	8 455	10 438	12 739	15 382	-	-
60	-	-	5 769	7 223	8 989	11 091	13 554	-	-
70	-	-	-	5 965	7 448	9 286	11 504	-	-
73	-	-	-	5 591	6 977	8 723	10 855	-	-

Power input in W

22	1 971	2 000	2 041	2 096	2 169	-	-	-	-
30	2 236	2 272	2 316	2 368	2 433	2 511	-	-	-
40	2 642	2 693	2 745	2 799	2 857	2 923	2 999	-	-
50	-	3 213	3 278	3 339	3 398	3 457	3 519	-	-
60	-	-	3 928	4 001	4 066	4 124	4 178	-	-
70	-	-	-	4 796	4 872	4 935	4 987	-	-
73	-	-	-	5 063	5 143	5 208	5 260	-	-

Current consumption in A

22	8.75	8.88	9.06	9.31	9.63	-	-	-	-
30	9.92	10.09	10.28	10.51	10.80	11.15	-	-	-
40	11.73	11.96	12.19	12.42	12.68	12.98	13.31	-	-
50	-	14.27	14.55	14.82	15.08	15.35	15.62	-	-
60	-	-	17.44	17.76	18.05	18.31	18.55	-	-
70	-	-	-	21.29	21.63	21.91	22.14	-	-
73	-	-	-	22.48	22.83	23.12	23.35	-	-

Mass flow in kg/h

22	126	158	192	229	270	-	-	-	-
30	124	157	192	231	274	322	-	-	-
40	121	153	189	230	275	325	381	-	-
50	-	149	184	225	271	324	382	-	-
60	-	-	178	218	264	318	378	-	-
70	-	-	-	210	255	309	370	-	-
73	-	-	-	207	252	305	367	-	-

Coefficient of performance (C.O.P.)

22	2.97	3.73	4.53	5.37	6.22	-	-	-	-
30	2.40	3.03	3.73	4.47	5.27	6.10	-	-	-
40	1.79	2.27	2.82	3.43	4.11	4.85	5.64	-	-
50	-	1.66	2.06	2.53	3.07	3.69	4.37	-	-
60	-	-	1.47	1.81	2.21	2.69	3.24	-	-
70	-	-	-	1.24	1.53	1.88	2.31	-	-
73	-	-	-	1.10	1.36	1.68	2.06	-	-

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

Cooling capacity	5 733	W
Power input	2 940	W
Current consumption	13.05	A
Mass flow	151	kg/h
C.O.P.	1.95	

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		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
R134a

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

Cooling capacity in W

22	5 955	7 546	9 319	11 300	13 517	-	-	-	-
30	-	7 024	8 743	10 681	12 863	15 321	-	-	-
40	-	-	7 898	9 724	11 805	14 169	16 847	-	-
50	-	-	6 970	8 619	10 534	12 739	15 259	-	-
60	-	-	-	7 425	9 109	11 091	-	-	-
70	-	-	-	-	7 592	9 286	-	-	-
73	-	-	-	-	7 127	8 723	-	-	-

Power input in W

22	1 971	2 000	2 041	2 096	2 169	-	-	-	-
30	-	2 272	2 316	2 368	2 433	2 511	-	-	-
40	-	-	2 745	2 799	2 857	2 923	2 999	-	-
50	-	-	3 278	3 339	3 398	3 457	3 519	-	-
60	-	-	-	4 001	4 066	4 124	-	-	-
70	-	-	-	-	4 872	4 935	-	-	-
73	-	-	-	-	5 143	5 208	-	-	-

Current consumption in A

22	8.75	8.88	9.06	9.31	9.63	-	-	-	-
30	-	10.09	10.28	10.51	10.80	11.15	-	-	-
40	-	-	12.19	12.42	12.68	12.98	13.31	-	-
50	-	-	14.55	14.82	15.08	15.35	15.62	-	-
60	-	-	-	17.76	18.05	18.31	-	-	-
70	-	-	-	-	21.63	21.91	-	-	-
73	-	-	-	-	22.83	23.12	-	-	-

Mass flow in kg/h

22	113	145	180	219	264	-	-	-	-
30	-	144	180	221	268	322	-	-	-
40	-	-	177	220	269	325	391	-	-
50	-	-	172	215	265	324	392	-	-
60	-	-	-	208	258	318	-	-	-
70	-	-	-	-	249	309	-	-	-
73	-	-	-	-	247	305	-	-	-

Coefficient of performance (C.O.P.)

22	3.02	3.77	4.57	5.39	6.23	-	-	-	-
30	-	3.09	3.78	4.51	5.29	6.10	-	-	-
40	-	-	2.88	3.47	4.13	4.85	5.62	-	-
50	-	-	2.13	2.58	3.10	3.69	4.34	-	-
60	-	-	-	1.86	2.24	2.69	-	-	-
70	-	-	-	-	1.56	1.88	-	-	-
73	-	-	-	-	1.39	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		dB(A)
With acoustic hood		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	5 765	7 046	8 603	10 463	12 652	-	-	-	-
20	5 257	6 484	7 951	9 682	11 706	14 048	16 736	-	-
30	4 657	5 799	7 144	8 716	10 543	12 652	15 068	17 819	20 931
40	-	5 010	6 201	7 583	9 182	11 025	13 139	15 550	18 285
50	-	-	5 140	6 300	7 640	9 187	10 967	13 007	15 333
60	-	-	-	-	5 936	7 155	8 569	10 207	12 093

Power input in W

10	1 800	1 812	1 832	1 859	1 895	-	-	-	-
20	2 275	2 284	2 302	2 329	2 367	2 416	2 478	-	-
30	2 893	2 885	2 887	2 901	2 928	2 968	3 022	3 092	3 179
40	-	3 698	3 673	3 661	3 663	3 681	3 715	3 766	3 836
50	-	-	4 743	4 692	4 657	4 639	4 640	4 660	4 700
60	-	-	-	-	5 994	5 928	5 882	5 858	5 855

Current consumption in A

10	11.84	11.85	11.87	11.91	11.98	-	-	-	-
20	14.07	14.13	14.19	14.28	14.39	14.55	14.76	-	-
30	16.46	16.51	16.57	16.64	16.74	16.87	17.06	17.32	17.65
40	-	19.64	19.63	19.63	19.65	19.72	19.83	20.00	20.24
50	-	-	24.01	23.88	23.78	23.70	23.68	23.71	23.81
60	-	-	-	-	29.73	29.47	29.25	29.09	28.99

Mass flow in kg/h

10	115	143	176	214	260	-	-	-	-
20	115	144	177	216	263	318	384	-	-
30	113	142	175	215	262	317	383	460	550
40	-	137	170	210	256	312	377	454	544
50	-	-	163	201	247	302	366	442	531
60	-	-	-	-	234	287	350	425	512

Coefficient of performance (C.O.P.)

10	3.20	3.89	4.70	5.63	6.68	-	-	-	-
20	2.31	2.84	3.45	4.16	4.95	5.81	6.75	-	-
30	1.61	2.01	2.47	3.00	3.60	4.26	4.99	5.76	6.58
40	-	1.35	1.69	2.07	2.51	3.00	3.54	4.13	4.77
50	-	-	1.08	1.34	1.64	1.98	2.36	2.79	3.26
60	-	-	-	-	0.99	1.21	1.46	1.74	2.07

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

Cooling capacity	8 432	W
Power input	4 122	W
Current consumption	21.53	A
Mass flow	252	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	70	dB(A)
With acoustic hood	62	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	5 540	6 819	8 383	10 261	12 483	-	-	-	-
20	4 943	6 158	7 623	9 368	11 424	13 818	16 577	-	-
30	4 259	5 376	6 708	8 288	10 146	12 314	14 818	17 685	20 931
40	3 509	4 495	5 663	7 045	8 673	10 580	12 798	15 358	18 285
50	-	-	4 509	5 661	7 026	8 639	10 537	12 757	15 333
60	-	-	-	-	5 224	6 509	8 052	9 898	12 093

Power input in W

10	1 800	1 812	1 832	1 859	1 895	-	-	-	-
20	2 275	2 284	2 302	2 329	2 367	2 416	2 478	-	-
30	2 893	2 885	2 887	2 901	2 928	2 968	3 022	3 092	3 179
40	3 736	3 698	3 673	3 661	3 663	3 681	3 715	3 766	3 836
50	-	-	4 743	4 692	4 657	4 639	4 640	4 660	4 700
60	-	-	-	-	5 994	5 928	5 882	5 858	5 855

Current consumption in A

10	11.84	11.85	11.87	11.91	11.98	-	-	-	-
20	14.07	14.13	14.19	14.28	14.39	14.55	14.76	-	-
30	16.46	16.51	16.57	16.64	16.74	16.87	17.06	17.32	17.65
40	19.65	19.64	19.63	19.63	19.65	19.72	19.83	20.00	20.24
50	-	-	24.01	23.88	23.78	23.70	23.68	23.71	23.81
60	-	-	-	-	29.73	29.47	29.25	29.09	28.99

Mass flow in kg/h

10	137	167	202	241	287	-	-	-	-
20	137	168	203	243	290	344	405	-	-
30	134	166	201	242	289	343	405	474	550
40	129	160	196	236	283	337	398	468	544
50	-	-	187	227	273	326	387	455	531
60	-	-	-	-	258	310	370	437	512

Coefficient of performance (C.O.P.)

10	3.08	3.76	4.58	5.52	6.59	-	-	-	-
20	2.17	2.70	3.31	4.02	4.83	5.72	6.69	-	-
30	1.47	1.86	2.32	2.86	3.47	4.15	4.90	5.72	6.58
40	0.94	1.22	1.54	1.92	2.37	2.87	3.45	4.08	4.77
50	-	-	0.95	1.21	1.51	1.86	2.27	2.74	3.26
60	-	-	-	-	0.87	1.10	1.37	1.69	2.07

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

Cooling capacity	7 870	W
Power input	4 122	W
Current consumption	21.53	A
Mass flow	279	kg/h
C.O.P.	1.91	

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	70	dB(A)
With acoustic hood	62	dB(A)

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	6 992	8 686	10 663	12 917	15 444	-	-	-	-
20	6 198	7 813	9 710	11 884	14 329	17 040	20 010	-	-
30	5 327	6 781	8 517	10 530	12 812	15 360	18 168	21 228	24 535
40	-	5 712	7 205	8 973	11 012	13 316	15 880	18 696	21 760
50	-	-	5 891	7 335	9 048	11 026	13 264	15 757	18 497
60	-	-	-	-	7 040	8 611	10 442	12 529	14 868

Power input in W

10	2 407	2 420	2 463	2 541	2 658	-	-	-	-
20	2 927	2 926	2 947	2 995	3 072	3 184	3 334	-	-
30	3 510	3 514	3 532	3 568	3 626	3 709	3 822	3 969	4 153
40	-	4 201	4 234	4 277	4 334	4 408	4 503	4 624	4 773
50	-	-	5 071	5 140	5 215	5 298	5 394	5 507	5 641
60	-	-	-	-	6 285	6 396	6 512	6 637	6 774

Current consumption in A

10	10.69	10.74	10.93	11.28	11.80	-	-	-	-
20	13.00	12.99	13.08	13.29	13.64	14.14	14.80	-	-
30	15.58	15.60	15.68	15.84	16.10	16.47	16.97	17.62	18.44
40	-	18.65	18.80	18.99	19.24	19.57	19.99	20.53	21.19
50	-	-	22.51	22.82	23.15	23.52	23.95	24.45	25.04
60	-	-	-	-	27.90	28.40	28.91	29.46	30.07

Mass flow in kg/h

10	132	174	218	267	320	-	-	-	-
20	130	171	217	267	324	388	461	-	-
30	124	164	209	261	320	387	463	550	648
40	-	156	199	250	309	378	457	548	651
50	-	-	188	236	295	363	444	537	643
60	-	-	-	-	279	346	426	520	629

Coefficient of performance (C.O.P.)

10	2.90	3.59	4.33	5.08	5.81	-	-	-	-
20	2.12	2.67	3.29	3.97	4.66	5.35	6.00	-	-
30	1.52	1.93	2.41	2.95	3.53	4.14	4.75	5.35	5.91
40	-	1.36	1.70	2.10	2.54	3.02	3.53	4.04	4.56
50	-	-	1.16	1.43	1.74	2.08	2.46	2.86	3.28
60	-	-	-	-	1.12	1.35	1.60	1.89	2.19

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

Cooling capacity	10 043	W
Power input	4 752	W
Current consumption	21.10	A
Mass flow	302	kg/h
C.O.P.	2.11	

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
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	6 719	8 406	10 390	12 669	15 237	-	-	-	-
20	5 828	7 419	9 309	11 498	13 984	16 761	19 820	-	-
30	4 872	6 286	7 998	10 013	12 330	14 950	17 867	21 069	24 535
40	3 964	5 125	6 580	8 337	10 402	12 779	15 468	18 466	21 760
50	-	-	5 168	6 591	8 321	10 370	12 745	15 454	18 497
60	-	-	-	-	6 195	7 834	9 812	12 150	14 868

Power input in W

10	2 407	2 420	2 463	2 541	2 658	-	-	-	-
20	2 927	2 926	2 947	2 995	3 072	3 184	3 334	-	-
30	3 510	3 514	3 532	3 568	3 626	3 709	3 822	3 969	4 153
40	4 173	4 201	4 234	4 277	4 334	4 408	4 503	4 624	4 773
50	-	-	5 071	5 140	5 215	5 298	5 394	5 507	5 641
60	-	-	-	-	6 285	6 396	6 512	6 637	6 774

Current consumption in A

10	10.69	10.74	10.93	11.28	11.80	-	-	-	-
20	13.00	12.99	13.08	13.29	13.64	14.14	14.80	-	-
30	15.58	15.60	15.68	15.84	16.10	16.47	16.97	17.62	18.44
40	18.53	18.65	18.80	18.99	19.24	19.57	19.99	20.53	21.19
50	-	-	22.51	22.82	23.15	23.52	23.95	24.45	25.04
60	-	-	-	-	27.90	28.40	28.91	29.46	30.07

Mass flow in kg/h

10	158	203	250	300	353	-	-	-	-
20	155	200	249	301	358	420	486	-	-
30	148	192	240	294	353	418	489	566	648
40	141	182	229	281	341	408	483	564	651
50	-	-	216	266	325	393	469	553	643
60	-	-	-	-	308	374	450	536	629

Coefficient of performance (C.O.P.)

10	2.79	3.47	4.22	4.99	5.73	-	-	-	-
20	1.99	2.54	3.16	3.84	4.55	5.26	5.94	-	-
30	1.39	1.79	2.26	2.81	3.40	4.03	4.67	5.31	5.91
40	0.95	1.22	1.55	1.95	2.40	2.90	3.43	3.99	4.56
50	-	-	1.02	1.28	1.60	1.96	2.36	2.81	3.28
60	-	-	-	-	0.99	1.22	1.51	1.83	2.19

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

Cooling capacity	9 373	W
Power input	4 752	W
Current consumption	21.10	A
Mass flow	334	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 : Superheat = 10 K , Subcooling = 0 K

Tolerance according EN12900

Performance data at 50 Hz, EN 12900 rating conditions
R407A

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

Cooling capacity in W

10	5 719	7 220	9 045	11 229	-	-	-	-	-
20	5 070	6 422	8 075	10 063	12 423	15 190	-	-	-
30	4 479	5 668	7 132	8 909	11 033	13 541	16 469	19 853	-
40	3 959	4 968	6 228	7 777	9 649	11 882	14 511	17 571	-
45	-	4 641	5 794	7 223	8 963	11 052	13 525	16 419	-
50	-	-	5 374	6 678	8 283	10 224	12 538	15 260	-
55	-	-	-	6 145	7 610	9 400	11 550	14 096	-
60	-	-	-	-	6 946	8 580	10 562	12 929	-

Power input in W

10	1 641	1 674	1 705	1 746	-	-	-	-	-
20	2 040	2 093	2 127	2 154	2 185	2 231	-	-	-
30	2 500	2 595	2 655	2 690	2 711	2 730	2 758	2 807	-
40	3 027	3 186	3 291	3 356	3 389	3 404	3 410	3 419	-
45	-	3 515	3 652	3 739	3 787	3 807	3 810	3 807	-
50	-	-	4 042	4 157	4 224	4 255	4 261	4 252	-
55	-	-	-	4 609	4 702	4 749	4 763	4 753	-
60	-	-	-	-	5 220	5 289	5 316	5 311	-

Current consumption in A

10	8.16	8.21	8.12	7.94	-	-	-	-	-
20	11.54	11.82	11.93	11.93	11.90	11.90	-	-	-
30	13.75	14.18	14.42	14.54	14.59	14.65	14.79	15.06	-
40	15.99	16.51	16.81	16.96	17.02	17.08	17.18	17.40	-
45	-	18.04	18.34	18.48	18.52	18.54	18.60	18.76	-
50	-	-	20.29	20.40	20.41	20.38	20.37	20.46	-
55	-	-	-	22.89	22.84	22.74	22.65	22.65	-
60	-	-	-	-	25.96	25.77	25.58	25.47	-

Mass flow in kg/h

10	111	139	172	209	-	-	-	-	-
20	108	134	166	203	247	297	-	-	-
30	105	130	160	197	239	289	347	412	-
40	103	127	155	190	232	281	337	402	-
45	-	126	153	187	228	276	332	396	-
50	-	-	152	185	225	272	327	391	-
55	-	-	-	183	221	268	322	385	-
60	-	-	-	-	219	264	317	379	-

Coefficient of performance (C.O.P.)

10	3.48	4.31	5.30	6.43	-	-	-	-	-
20	2.49	3.07	3.80	4.67	5.68	6.81	-	-	-
30	1.79	2.18	2.69	3.31	4.07	4.96	5.97	7.07	-
40	1.31	1.56	1.89	2.32	2.85	3.49	4.26	5.14	-
45	-	1.32	1.59	1.93	2.37	2.90	3.55	4.31	-
50	-	-	1.33	1.61	1.96	2.40	2.94	3.59	-
55	-	-	-	1.33	1.62	1.98	2.43	2.97	-
60	-	-	-	-	1.33	1.62	1.99	2.43	-

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

Cooling capacity	7 223	W
Power input	3 739	W
Current consumption	18.48	A
Mass flow	187	kg/h
C.O.P.	1.93	

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	70	dB(A)
With acoustic hood	62	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, ARI rating conditions
R407A

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

Cooling capacity in W

10	6 074	7 661	9 587	11 892	-	-	-	-	-
20	5 424	6 863	8 620	10 731	13 233	16 165	-	-	-
30	4 837	6 112	7 681	9 582	11 852	14 529	17 651	21 254	-
40	4 329	5 422	6 786	8 460	10 481	12 887	15 716	19 005	-
45	-	5 105	6 360	7 914	9 804	12 068	14 745	17 873	-
50	-	-	5 952	7 381	9 136	11 256	13 778	16 740	-
55	-	-	-	6 865	8 482	10 453	12 817	15 611	-
60	-	-	-	-	-	9 666	11 869	14 494	-

Power input in W

10	1 641	1 674	1 705	1 746	-	-	-	-	-
20	2 040	2 093	2 127	2 154	2 185	2 231	-	-	-
30	2 500	2 595	2 655	2 690	2 711	2 730	2 758	2 807	-
40	3 027	3 186	3 291	3 356	3 389	3 404	3 410	3 419	-
45	-	3 515	3 652	3 739	3 787	3 807	3 810	3 807	-
50	-	-	4 042	4 157	4 224	4 255	4 261	4 252	-
55	-	-	-	4 609	4 702	4 749	4 763	4 753	-
60	-	-	-	-	-	5 289	5 316	5 311	-

Current consumption in A

10	8.16	8.21	8.12	7.94	-	-	-	-	-
20	11.54	11.82	11.93	11.93	11.90	11.90	-	-	-
30	13.75	14.18	14.42	14.54	14.59	14.65	14.79	15.06	-
40	15.99	16.51	16.81	16.96	17.02	17.08	17.18	17.40	-
45	-	18.04	18.34	18.48	18.52	18.54	18.60	18.76	-
50	-	-	20.29	20.40	20.41	20.38	20.37	20.46	-
55	-	-	-	22.89	22.84	22.74	22.65	22.65	-
60	-	-	-	-	-	25.77	25.58	25.47	-

Mass flow in kg/h

10	111	138	171	208	-	-	-	-	-
20	107	133	165	202	246	296	-	-	-
30	104	129	159	196	238	288	345	410	-
40	103	126	155	189	231	279	335	399	-
45	-	125	153	186	227	275	330	394	-
50	-	-	151	184	223	270	325	388	-
55	-	-	-	182	220	266	320	382	-
60	-	-	-	-	-	262	315	377	-

Coefficient of performance (C.O.P.)

10	3.70	4.58	5.62	6.81	-	-	-	-	-
20	2.66	3.28	4.05	4.98	6.06	7.25	-	-	-
30	1.93	2.36	2.89	3.56	4.37	5.32	6.40	7.57	-
40	1.43	1.70	2.06	2.52	3.09	3.79	4.61	5.56	-
45	-	1.45	1.74	2.12	2.59	3.17	3.87	4.69	-
50	-	-	1.47	1.78	2.16	2.65	3.23	3.94	-
55	-	-	-	1.49	1.80	2.20	2.69	3.28	-
60	-	-	-	-	-	1.83	2.23	2.73	-

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

Cooling capacity	7 914	W
Power input	3 739	W
Current consumption	18.48	A
Mass flow	186	kg/h
C.O.P.	2.12	

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	70	dB(A)
With acoustic hood	62	dB(A)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 K

Tolerance according EN12900

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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	-	4 044	5 342	6 849	8 609	10 666	13 068	15 858	19 082
35	-	3 752	5 004	6 453	8 144	10 122	12 432	15 119	18 229
40	-	3 463	4 660	6 044	7 658	9 548	11 759	14 335	17 322
45	-	-	4 307	5 617	7 147	8 941	11 044	13 500	16 356
50	-	-	-	5 169	6 606	8 295	10 282	12 611	15 326
55	-	-	-	-	6 031	7 608	9 470	11 662	14 227
60	-	-	-	-	-	6 874	8 603	10 648	13 055
65	-	-	-	-	-	-	7 675	9 566	11 804

Power input in W

30	-	2 669	2 615	2 582	2 558	2 532	2 494	2 430	2 330
35	-	3 001	2 942	2 907	2 884	2 863	2 831	2 777	2 691
40	-	3 379	3 310	3 268	3 242	3 220	3 190	3 142	3 064
45	-	-	3 743	3 689	3 654	3 626	3 594	3 546	3 471
50	-	-	-	4 192	4 143	4 104	4 064	4 012	3 935
55	-	-	-	-	4 732	4 678	4 625	4 563	4 479
60	-	-	-	-	-	5 368	5 298	5 221	5 125
65	-	-	-	-	-	-	6 106	6 009	5 897

Current consumption in A

30	-	11.90	11.99	12.00	11.93	11.78	11.53	11.18	10.72
35	-	13.33	13.36	13.35	13.29	13.16	12.96	12.68	12.32
40	-	14.94	14.90	14.85	14.76	14.64	14.46	14.24	13.95
45	-	-	16.71	16.59	16.46	16.32	16.15	15.96	15.72
50	-	-	-	18.67	18.48	18.29	18.12	17.93	17.73
55	-	-	-	-	20.91	20.67	20.46	20.26	20.08
60	-	-	-	-	-	23.55	23.28	23.05	22.86
65	-	-	-	-	-	-	26.68	26.40	26.18

Mass flow in kg/h

30	-	91	118	148	183	223	269	321	381
35	-	89	116	146	182	222	268	321	381
40	-	87	114	144	180	220	266	319	380
45	-	-	111	142	177	217	264	317	377
50	-	-	-	139	174	214	260	313	374
55	-	-	-	-	169	209	255	308	368
60	-	-	-	-	-	203	248	301	361
65	-	-	-	-	-	-	240	292	351

Coefficient of performance (C.O.P.)

30	-	1.52	2.04	2.65	3.37	4.21	5.24	6.53	8.19
35	-	1.25	1.70	2.22	2.82	3.54	4.39	5.44	6.77
40	-	1.02	1.41	1.85	2.36	2.97	3.69	4.56	5.65
45	-	-	1.15	1.52	1.96	2.47	3.07	3.81	4.71
50	-	-	-	1.23	1.59	2.02	2.53	3.14	3.89
55	-	-	-	-	1.27	1.63	2.05	2.56	3.18
60	-	-	-	-	-	1.28	1.62	2.04	2.55
65	-	-	-	-	-	-	1.26	1.59	2.00

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

Cooling capacity	7 147	W
Power input	3 654	W
Current consumption	16.46	A
Mass flow	177	kg/h
C.O.P.	1.96	

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
R407F

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)							
	-23	-20	-15	-10	-5	0	5	10

Cooling capacity in W

10	6 688	7 672	9 576	11 845	-	-	-	-	-
20	5 981	6 875	8 612	10 690	13 147	16 018	-	-	-
30	5 324	6 116	7 667	9 536	11 762	14 381	17 430	20 945	-
40	4 733	5 412	6 757	8 399	10 376	12 723	15 478	18 678	-
45	-	-	6 321	7 842	9 687	11 892	14 493	17 528	-
50	-	-	-	7 295	9 004	11 061	13 504	16 369	-
55	-	-	-	-	8 328	10 233	12 513	15 204	-
60	-	-	-	-	-	-	-	-	-

Power input in W

10	1 748	1 766	1 796	1 843	-	-	-	-	-
20	2 192	2 219	2 249	2 273	2 307	2 366	-	-	-
30	2 714	2 768	2 825	2 854	2 871	2 891	2 931	3 007	-
40	3 314	3 411	3 522	3 583	3 610	3 620	3 627	3 647	-
45	-	-	3 916	4 003	4 046	4 060	4 061	4 064	-
50	-	-	-	4 461	4 526	4 551	4 552	4 545	-
55	-	-	-	-	5 049	5 093	5 101	5 090	-
60	-	-	-	-	-	-	-	-	-

Current consumption in A

10	8.67	8.67	8.55	8.36	-	-	-	-	-
20	12.39	12.53	12.62	12.61	12.56	12.55	-	-	-
30	14.87	15.10	15.34	15.44	15.47	15.52	15.65	15.93	-
40	17.40	17.68	17.97	18.11	18.16	18.19	18.27	18.49	-
45	-	-	19.66	19.78	19.81	19.80	19.84	20.00	-
50	-	-	-	21.90	21.88	21.82	21.80	21.87	-
55	-	-	-	-	24.54	24.41	24.29	24.27	-
60	-	-	-	-	-	-	-	-	-

Mass flow in kg/h

10	117	133	164	200	-	-	-	-	-
20	113	129	159	195	236	284	-	-	-
30	109	125	154	188	229	277	332	394	-
40	107	121	149	182	222	268	322	384	-
45	-	-	147	180	218	264	317	379	-
50	-	-	-	177	215	260	312	373	-
55	-	-	-	-	212	256	307	367	-
60	-	-	-	-	-	-	-	-	-

Coefficient of performance (C.O.P.)

10	3.83	4.34	5.33	6.43	-	-	-	-	-
20	2.73	3.10	3.83	4.70	5.70	6.77	-	-	-
30	1.96	2.21	2.71	3.34	4.10	4.97	5.95	6.97	-
40	1.43	1.59	1.92	2.34	2.87	3.51	4.27	5.12	-
45	-	-	1.61	1.96	2.39	2.93	3.57	4.31	-
50	-	-	-	1.64	1.99	2.43	2.97	3.60	-
55	-	-	-	-	1.65	2.01	2.45	2.99	-
60	-	-	-	-	-	-	-	-	-

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

Cooling capacity	7 842	W
Power input	4 003	W
Current consumption	19.78	A
Mass flow	180	kg/h
C.O.P.	1.96	

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	70	dB(A)
With acoustic hood	62	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, ARI rating conditions
R407F

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)							
	-23	-20	-15	-10	-5	0	5	10

Cooling capacity in W

10	7 068	8 104	10 109	12 495	-	-	-	-	-
20	6 360	7 306	9 144	11 342	13 937	16 968	-	-	-
30	5 704	6 549	8 200	10 190	12 557	15 339	18 575	22 303	-
40	-	5 852	7 297	9 059	11 179	13 693	16 641	20 061	-
45	-	-	6 867	8 509	10 497	12 870	15 668	18 928	-
50	-	-	-	7 972	9 825	12 053	14 697	17 793	-
55	-	-	-	-	-	11 248	13 733	16 664	-
60	-	-	-	-	-	-	-	-	-

Power input in W

10	1 748	1 766	1 796	1 843	-	-	-	-	-
20	2 192	2 219	2 249	2 273	2 307	2 366	-	-	-
30	2 714	2 768	2 825	2 854	2 871	2 891	2 931	3 007	-
40	-	3 411	3 522	3 583	3 610	3 620	3 627	3 647	-
45	-	-	3 916	4 003	4 046	4 060	4 061	4 064	-
50	-	-	-	4 461	4 526	4 551	4 552	4 545	-
55	-	-	-	-	-	5 093	5 101	5 090	-
60	-	-	-	-	-	-	-	-	-

Current consumption in A

10	8.67	8.67	8.55	8.36	-	-	-	-	-
20	12.39	12.53	12.62	12.61	12.56	12.55	-	-	-
30	14.87	15.10	15.34	15.44	15.47	15.52	15.65	15.93	-
40	-	17.68	17.97	18.11	18.16	18.19	18.27	18.49	-
45	-	-	19.66	19.78	19.81	19.80	19.84	20.00	-
50	-	-	-	21.90	21.88	21.82	21.80	21.87	-
55	-	-	-	-	-	24.41	24.29	24.27	-
60	-	-	-	-	-	-	-	-	-

Mass flow in kg/h

10	116	132	163	199	-	-	-	-	-
20	112	128	158	194	235	283	-	-	-
30	109	124	153	187	228	275	329	391	-
40	-	121	148	181	221	267	320	381	-
45	-	-	146	178	217	262	315	376	-
50	-	-	-	176	214	258	310	370	-
55	-	-	-	-	-	254	305	365	-
60	-	-	-	-	-	-	-	-	-

Coefficient of performance (C.O.P.)

10	4.04	4.59	5.63	6.78	-	-	-	-	-
20	2.90	3.29	4.07	4.99	6.04	7.17	-	-	-
30	2.10	2.37	2.90	3.57	4.37	5.31	6.34	7.42	-
40	-	1.72	2.07	2.53	3.10	3.78	4.59	5.50	-
45	-	-	1.75	2.13	2.59	3.17	3.86	4.66	-
50	-	-	-	1.79	2.17	2.65	3.23	3.91	-
55	-	-	-	-	-	2.21	2.69	3.27	-
60	-	-	-	-	-	-	-	-	-

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

Cooling capacity	8 509	W
Power input	4 003	W
Current consumption	19.78	A
Mass flow	178	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	70	dB(A)
With acoustic hood	62	dB(A)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 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	4 553	5 756	7 201	8 923	10 956	-	-	-	-
20	4 137	5 305	6 682	8 304	10 206	12 423	14 991	-	-
30	-	-	6 071	7 571	9 318	11 349	13 699	16 403	19 495
40	-	-	-	6 743	8 314	10 137	12 246	14 676	17 464
50	-	-	-	-	7 215	8 807	10 652	12 788	15 248
60	-	-	-	-	-	-	8 940	10 758	12 868

Power input in W

10	1 838	1 868	1 910	1 953	1 991	-	-	-	-
20	2 223	2 231	2 262	2 307	2 360	2 411	2 451	-	-
30	-	-	2 749	2 774	2 818	2 873	2 931	2 983	3 020
40	-	-	-	3 449	3 462	3 499	3 550	3 609	3 665
50	-	-	-	-	4 387	4 382	4 405	4 447	4 500
60	-	-	-	-	-	-	5 592	5 594	5 620

Current consumption in A

10	13.96	13.97	14.04	14.13	14.24	-	-	-	-
20	14.84	14.84	14.91	15.04	15.20	15.37	15.52	-	-
30	-	-	16.34	16.45	16.61	16.80	16.99	17.18	17.33
40	-	-	-	18.73	18.85	19.01	19.20	19.40	19.58
50	-	-	-	-	22.30	22.39	22.53	22.69	22.86
60	-	-	-	-	-	-	27.36	27.44	27.55

Mass flow in kg/h

10	74	95	119	148	182	-	-	-	-
20	72	93	118	147	182	223	272	-	-
30	-	-	116	145	180	221	269	326	392
40	-	-	-	142	176	216	264	321	386
50	-	-	-	-	170	210	257	312	377
60	-	-	-	-	-	-	247	301	365

Coefficient of performance (C.O.P.)

10	2.48	3.08	3.77	4.57	5.50	-	-	-	-
20	1.86	2.38	2.95	3.60	4.32	5.15	6.12	-	-
30	-	-	2.21	2.73	3.31	3.95	4.67	5.50	6.45
40	-	-	-	1.96	2.40	2.90	3.45	4.07	4.76
50	-	-	-	-	1.64	2.01	2.42	2.88	3.39
60	-	-	-	-	-	-	1.60	1.92	2.29

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

Cooling capacity	7 776	W
Power input	3 883	W
Current consumption	20.40	A
Mass flow	173	kg/h
C.O.P.	2.00	

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
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	4 572	5 784	7 241	8 978	11 027	-	-	-	-
20	4 100	5 270	6 654	8 287	10 204	12 438	15 019	-	-
30	3 583	4 687	5 973	7 479	9 241	11 292	13 667	16 394	19 495
40	-	-	5 221	6 578	8 161	10 007	12 152	14 629	17 464
50	-	-	-	5 605	6 987	8 605	10 498	12 701	15 248
60	-	-	-	-	5 739	7 107	8 723	10 631	12 868

Power input in W

10	1 838	1 868	1 910	1 953	1 991	-	-	-	-
20	2 223	2 231	2 262	2 307	2 360	2 411	2 451	-	-
30	2 789	2 751	2 749	2 774	2 818	2 873	2 931	2 983	3 020
40	-	-	3 467	3 449	3 462	3 499	3 550	3 609	3 665
50	-	-	-	4 427	4 387	4 382	4 405	4 447	4 500
60	-	-	-	-	5 689	5 620	5 592	5 594	5 620

Current consumption in A

10	13.96	13.97	14.04	14.13	14.24	-	-	-	-
20	14.84	14.84	14.91	15.04	15.20	15.37	15.52	-	-
30	16.37	16.31	16.34	16.45	16.61	16.80	16.99	17.18	17.33
40	-	-	18.69	18.73	18.85	19.01	19.20	19.40	19.58
50	-	-	-	22.28	22.30	22.39	22.53	22.69	22.86
60	-	-	-	-	27.36	27.32	27.36	27.44	27.55

Mass flow in kg/h

10	88	110	136	165	200	-	-	-	-
20	86	109	135	165	200	240	286	-	-
30	83	106	132	162	197	237	283	335	392
40	-	-	128	158	193	233	278	329	386
50	-	-	-	152	186	226	270	321	377
60	-	-	-	-	178	216	260	309	365

Coefficient of performance (C.O.P.)

10	2.49	3.10	3.79	4.60	5.54	-	-	-	-
20	1.84	2.36	2.94	3.59	4.32	5.16	6.13	-	-
30	1.28	1.70	2.17	2.70	3.28	3.93	4.66	5.50	6.45
40	-	-	1.51	1.91	2.36	2.86	3.42	4.05	4.76
50	-	-	-	1.27	1.59	1.96	2.38	2.86	3.39
60	-	-	-	-	1.01	1.26	1.56	1.90	2.29

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

Cooling capacity	7 584	W
Power input	3 883	W
Current consumption	20.40	A
Mass flow	190	kg/h
C.O.P.	1.95	

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	4 553	5 756	7 201	8 923	10 956	-	-	-	-
20	4 137	5 305	6 682	8 304	10 206	12 423	14 991	-	-
30	-	-	6 071	7 571	9 318	11 349	13 699	16 403	19 495
40	-	-	-	6 743	8 314	10 137	12 246	14 676	17 464
50	-	-	-	-	7 215	8 807	10 652	12 788	15 248
60	-	-	-	-	-	-	8 940	10 758	12 868

Power input in W

10	1 838	1 868	1 910	1 953	1 991	-	-	-	-
20	2 223	2 231	2 262	2 307	2 360	2 411	2 451	-	-
30	-	-	2 749	2 774	2 818	2 873	2 931	2 983	3 020
40	-	-	-	3 449	3 462	3 499	3 550	3 609	3 665
50	-	-	-	-	4 387	4 382	4 405	4 447	4 500
60	-	-	-	-	-	-	5 592	5 594	5 620

Current consumption in A

10	13.96	13.97	14.04	14.13	14.24	-	-	-	-
20	14.84	14.84	14.91	15.04	15.20	15.37	15.52	-	-
30	-	-	16.34	16.45	16.61	16.80	16.99	17.18	17.33
40	-	-	-	18.73	18.85	19.01	19.20	19.40	19.58
50	-	-	-	-	22.30	22.39	22.53	22.69	22.86
60	-	-	-	-	-	-	27.36	27.44	27.55

Mass flow in kg/h

10	74	95	119	148	182	-	-	-	-
20	72	93	118	147	182	223	272	-	-
30	-	-	116	145	180	221	269	326	392
40	-	-	-	142	176	216	264	321	386
50	-	-	-	-	170	210	257	312	377
60	-	-	-	-	-	-	247	301	365

Coefficient of performance (C.O.P.)

10	2.48	3.08	3.77	4.57	5.50	-	-	-	-
20	1.86	2.38	2.95	3.60	4.32	5.15	6.12	-	-
30	-	-	2.21	2.73	3.31	3.95	4.67	5.50	6.45
40	-	-	-	1.96	2.40	2.90	3.45	4.07	4.76
50	-	-	-	-	1.64	2.01	2.42	2.88	3.39
60	-	-	-	-	-	-	1.60	1.92	2.29

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

Cooling capacity	7 776	W
Power input	3 883	W
Current consumption	20.40	A
Mass flow	173	kg/h
C.O.P.	2.00	

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
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	4 562	5 774	7 230	8 967	11 017	-	-	-	-
20	4 090	5 259	6 642	8 275	10 192	12 428	15 011	-	-
30	3 572	4 674	5 960	7 466	9 228	11 281	13 658	16 389	19 495
40	-	-	5 208	6 564	8 148	9 995	12 143	14 623	17 464
50	-	-	-	5 590	6 973	8 592	10 488	12 695	15 248
60	-	-	-	-	5 725	7 094	8 713	10 624	12 868

Power input in W

10	1 838	1 868	1 910	1 953	1 991	-	-	-	-
20	2 223	2 231	2 262	2 307	2 360	2 411	2 451	-	-
30	2 789	2 751	2 749	2 774	2 818	2 873	2 931	2 983	3 020
40	-	-	3 467	3 449	3 462	3 499	3 550	3 609	3 665
50	-	-	-	4 427	4 387	4 382	4 405	4 447	4 500
60	-	-	-	-	5 689	5 620	5 592	5 594	5 620

Current consumption in A

10	13.96	13.97	14.04	14.13	14.24	-	-	-	-
20	14.84	14.84	14.91	15.04	15.20	15.37	15.52	-	-
30	16.37	16.31	16.34	16.45	16.61	16.80	16.99	17.18	17.33
40	-	-	18.69	18.73	18.85	19.01	19.20	19.40	19.58
50	-	-	-	22.28	22.30	22.39	22.53	22.69	22.86
60	-	-	-	-	27.36	27.32	27.36	27.44	27.55

Mass flow in kg/h

10	88	110	136	165	200	-	-	-	-
20	86	109	135	165	200	240	286	-	-
30	83	106	132	162	197	237	283	335	392
40	-	-	128	158	193	233	278	329	386
50	-	-	-	152	186	226	270	321	377
60	-	-	-	-	178	216	260	309	365

Coefficient of performance (C.O.P.)

10	2.48	3.09	3.79	4.59	5.53	-	-	-	-
20	1.84	2.36	2.94	3.59	4.32	5.16	6.12	-	-
30	1.28	1.70	2.17	2.69	3.27	3.93	4.66	5.49	6.45
40	-	-	1.50	1.90	2.35	2.86	3.42	4.05	4.76
50	-	-	-	1.26	1.59	1.96	2.38	2.85	3.39
60	-	-	-	-	1.01	1.26	1.56	1.90	2.29

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

Cooling capacity	7 570	W
Power input	3 883	W
Current consumption	20.40	A
Mass flow	190	kg/h
C.O.P.	1.95	

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	5 266	6 560	8 121	9 980	12 169	-	-	-	-
20	4 695	5 927	7 394	9 124	11 150	13 502	16 212	-	-
30	-	5 255	6 597	8 171	10 006	12 133	14 585	17 391	20 583
40	-	-	5 742	7 130	8 745	10 620	12 785	15 270	18 108
50	-	-	-	-	7 378	8 971	10 820	12 957	15 412
60	-	-	-	-	-	7 197	8 702	10 461	12 504

Power input in W

10	1 932	1 956	1 979	2 006	2 044	-	-	-	-
20	2 306	2 344	2 372	2 395	2 422	2 457	2 509	-	-
30	-	2 836	2 877	2 905	2 928	2 952	2 984	3 030	3 097
40	-	-	3 538	3 579	3 607	3 627	3 647	3 673	3 711
50	-	-	-	-	4 501	4 526	4 542	4 555	4 574
60	-	-	-	-	-	5 692	5 712	5 722	5 728

Current consumption in A

10	13.54	13.61	13.68	13.78	13.95	-	-	-	-
20	14.77	14.95	15.06	15.15	15.25	15.40	15.62	-	-
30	-	16.42	16.65	16.80	16.90	16.99	17.10	17.26	17.52
40	-	-	18.77	19.06	19.23	19.33	19.40	19.45	19.55
50	-	-	-	-	22.57	22.76	22.85	22.88	22.88
60	-	-	-	-	-	27.60	27.79	27.85	27.84

Mass flow in kg/h

10	106	134	167	205	252	-	-	-	-
20	103	131	164	204	250	305	370	-	-
30	-	128	161	200	246	301	367	443	532
40	-	-	155	194	240	295	360	436	525
50	-	-	-	-	232	286	350	426	514
60	-	-	-	-	-	274	337	412	499

Coefficient of performance (C.O.P.)

10	2.73	3.35	4.10	4.98	5.95	-	-	-	-
20	2.04	2.53	3.12	3.81	4.60	5.49	6.46	-	-
30	-	1.85	2.29	2.81	3.42	4.11	4.89	5.74	6.65
40	-	-	1.62	1.99	2.42	2.93	3.51	4.16	4.88
50	-	-	-	-	1.64	1.98	2.38	2.84	3.37
60	-	-	-	-	-	1.26	1.52	1.83	2.18

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

Cooling capacity	8 074	W
Power input	4 024	W
Current consumption	20.76	A
Mass flow	236	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 : 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	5 096	6 386	7 952	9 826	12 040	-	-	-	-
20	4 456	5 673	7 135	8 874	10 925	13 320	16 087	-	-
30	3 808	4 923	6 251	7 827	9 685	11 859	14 382	17 283	20 583
40	3 162	4 146	5 312	6 694	8 330	10 255	12 504	15 112	18 108
50	-	-	4 326	5 488	6 872	8 517	10 463	12 749	15 412
60	-	-	-	-	5 314	6 651	8 263	10 198	12 504

Power input in W

10	1 932	1 956	1 979	2 006	2 044	-	-	-	-
20	2 306	2 344	2 372	2 395	2 422	2 457	2 509	-	-
30	2 777	2 836	2 877	2 905	2 928	2 952	2 984	3 030	3 097
40	3 387	3 476	3 538	3 579	3 607	3 627	3 647	3 673	3 711
50	-	-	4 398	4 461	4 501	4 526	4 542	4 555	4 574
60	-	-	-	-	5 654	5 692	5 712	5 722	5 728

Current consumption in A

10	13.54	13.61	13.68	13.78	13.95	-	-	-	-
20	14.77	14.95	15.06	15.15	15.25	15.40	15.62	-	-
30	16.06	16.42	16.65	16.80	16.90	16.99	17.10	17.26	17.52
40	17.73	18.35	18.77	19.06	19.23	19.33	19.40	19.45	19.55
50	-	-	21.76	22.25	22.57	22.76	22.85	22.88	22.88
60	-	-	-	-	27.25	27.60	27.79	27.85	27.84

Mass flow in kg/h

10	126	156	191	231	277	-	-	-	-
20	122	153	188	228	275	329	390	-	-
30	118	149	184	224	271	325	386	456	532
40	112	143	178	218	264	318	379	448	525
50	-	-	170	209	255	308	369	438	514
60	-	-	-	-	243	295	355	423	499

Coefficient of performance (C.O.P.)

10	2.64	3.26	4.02	4.90	5.89	-	-	-	-
20	1.93	2.42	3.01	3.70	4.51	5.42	6.41	-	-
30	1.37	1.74	2.17	2.69	3.31	4.02	4.82	5.70	6.65
40	0.93	1.19	1.50	1.87	2.31	2.83	3.43	4.11	4.88
50	-	-	0.98	1.23	1.53	1.88	2.30	2.80	3.37
60	-	-	-	-	0.94	1.17	1.45	1.78	2.18

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

Cooling capacity	7 613	W
Power input	4 024	W
Current consumption	20.76	A
Mass flow	260	kg/h
C.O.P.	1.89	

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)

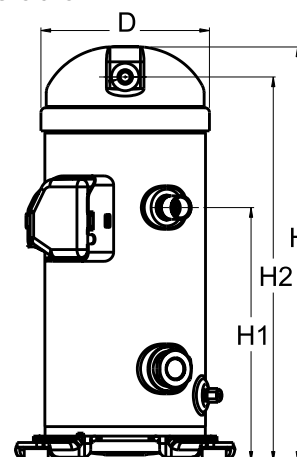
Sound power data

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

Tolerance according EN12900

General Characteristics

Model number (on compressor nameplate)	MLZ038T9LC9A	MLZ038T9LC9A
Code number for Singlepack*	120U8697	121L8697
Code number for Industrial pack**	120U8696	121L8696
Drawing number	0XR6025B-2	0XR6025B-2
Suction and discharge connections	Brazed	Brazed
Suction connection	7/8" ODF	7/8" 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	80.95 cm ³ /rev	
Displacement @ Nominal speed	17.0 m ³ /h @ 3500 rpm	
Net weight	41 kg	
Oil charge	1.57 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	5.44 kg	
Approved refrigerants	R404A,R507,R134a,R407A,R407F,R448A,R449A,R452A,R22	

Dimensions


D=184 mm

H=455 mm

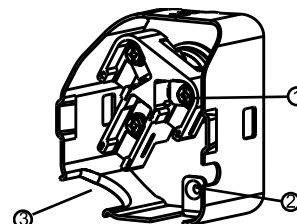
H1=280 mm

H2=422 mm

H3=- mm

Electrical Characteristics

Nominal voltage	380V/3/60Hz
Voltage range	342-418 V
Winding resistance between phases 1-2 +/- 7% at 25°C	1.476 Ω
Winding resistance between phases 1-3 +/- 7% at 25°C	1.455 Ω
Winding resistance between phases 2-3 +/- 7% at 25°C	1.487 Ω
Rated Load Amps (RLA)	11 A
Maximum Continuous Current (MCC)	17 A
Locked Rotor Amps (LRA)	81 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.

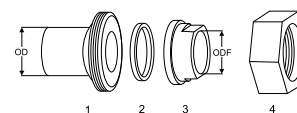
Rotolock valve, V05 (1-1/4" Rotolock, 7/8" ODF)	8168030
Gasket, 1-1/4"	8156131

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

Solder sleeve adapter set



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

Rotolock accessories, sets

Code no.

Solder sleeve adapter set (1-1/4" Rotolock, 7/8" ODF), (1" Rotolock, 1/2" ODF)	120Z0127
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, 65 W, 400 V, CE mark, UL	120Z0060
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Miscellaneous accessories

Code no.

Acoustic hood	120Z5084
Discharge thermostat kit	7750009
IP54 upgrade kit	118U0057

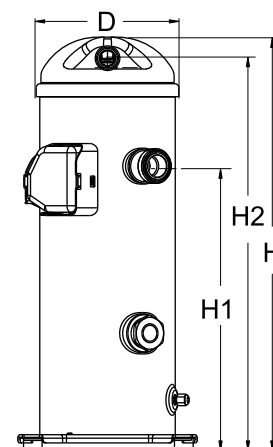
Spare parts

Code no.

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

General Characteristics

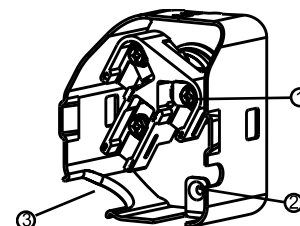
Model number (on compressor nameplate)		MLZ038T9LQ9A
Code number for Singlepack*		121U8787
Code number for Industrial pack**		121U8786
Drawing number		0XR6298B-2
Suction and discharge connections		Rotolock
Suction connection		1-1/4 " Rotolock
Discharge connection		1 " Rotolock
Suction connection with supplied sleeve		7/8 " -
Discharge connection with supplied sleeve	- "	1/2 " -
Oil sight glass		Threaded
Oil equalisation connection		None
Oil drain connection		None
LP gauge port		None
IPR valve		None
Swept volume		80.95 cm ³ /rev
Displacement @ Nominal speed		17.0 m ³ /h @ 3500 rpm
Net weight		41 kg
Oil charge		1.57 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		5.44 kg
Approved refrigerants		R404A,R507,R134a,R407A,R407F,R448A,R449A,R452A,R22

Dimensions


D=184 mm
H=454.9 mm
H1=280 mm
H2=422.2 mm
H3=- mm

Electrical Characteristics

Nominal voltage		380V/3/60Hz
Voltage range		342-418 V
Winding resistance between phases 1-2 +/- 7% at 25°C		1.476 Ω
Winding resistance between phases 1-3 +/- 7% at 25°C		1.455 Ω
Winding resistance between phases 2-3 +/- 7% at 25°C		1.487 Ω
Rated Load Amps (RLA)		11 A
Maximum Continuous Current (MCC)		17 A
Locked Rotor Amps (LRA)		81 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, V05 (1-1/4" Rotolock, 7/8" ODF)	8168030
Gasket, 1-1/4"	8156131

Rotolock accessories, discharge side
Code no.

Rotolock valve, V01 (1" Rotolock, 3/8" ODF)	8168027
Rotolock valve, V06 (1" Rotolock, 1/2" ODF)	8168031
Gasket, 1"	8156130

Rotolock accessories, sets
Code no.

Teflon seals, sleeves, nuts for discharge and suction (1" and 1"1/4)	120Z5074
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.

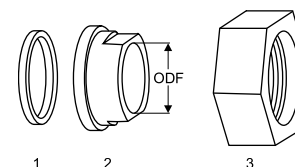
Belt type crankcase heater, 65 W, 400 V, CE mark, UL	120Z0060
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Miscellaneous accessories
Code no.

Acoustic hood	120Z5084
Discharge thermostat kit	7750009
IP54 upgrade kit	118U0057

Spare parts
Code no.

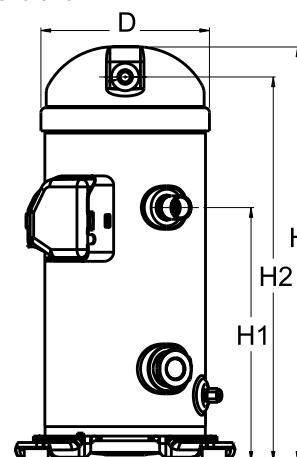
Mounting kit for 1 scroll compressor including 4 grommets, 4 sleeves, 4 bolts, 4 washers	120Z5005
Terminal box cover	120Z5018

Gaskets, sleeves and nuts


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

General Characteristics

Model number (on compressor nameplate)		MLZ038T9LC9
Code number for Singlepack*		120U8296
Code number for Industrial pack**		120U8295
Drawing number		0XR6025B-2
Suction and discharge connections		Brazed
Suction connection		7/8 " ODF
Discharge connection		1/2 " ODF
Oil sight glass		Threaded
Oil equalisation connection		None
Oil drain connection		1/4" flare
LP gauge port		None
IPR valve		32 bar
Swept volume		80.95 cm ³ /rev
Displacement @ Nominal speed		17.0 m ³ /h @ 3500 rpm
Net weight		41 kg
Oil charge		1.57 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		5.44 kg
Approved refrigerants		R404A, R507, R134a, R407C, R22

Dimensions


D=184 mm

H=455 mm

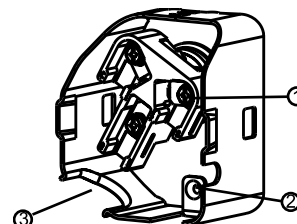
H1=280 mm

H2=422 mm

H3=- mm

Electrical Characteristics

Nominal voltage		380V/3/60Hz
Voltage range		342-418 V
Winding resistance between phases 1-2 +/- 7% at 25°C		1.476 Ω
Winding resistance between phases 1-3 +/- 7% at 25°C		1.455 Ω
Winding resistance between phases 2-3 +/- 7% at 25°C		1.487 Ω
Rated Load Amps (RLA)		11 A
Maximum Continuous Current (MCC)		17 A
Locked Rotor Amps (LRA)		81 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.

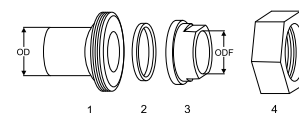
Rotolock valve, V05 (1-1/4" Rotolock, 7/8" ODF)	8168030
Gasket, 1-1/4"	8156131

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

Solder sleeve adapter set



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

Rotolock accessories, sets

Code no.

Solder sleeve adapter set (1-1/4" Rotolock, 7/8" ODF), (1" Rotolock, 1/2" ODF)	120Z0127
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, 65 W, 400 V, CE mark, UL	120Z0060
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Miscellaneous accessories

Code no.

Acoustic hood	120Z5044
Discharge thermostat kit	7750009
IP54 upgrade kit	118U0057

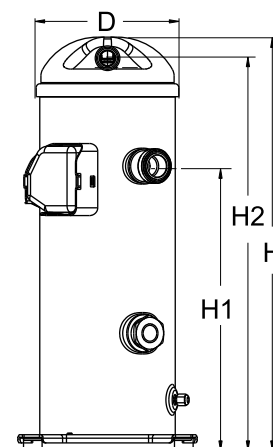
Spare parts

Code no.

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

General Characteristics

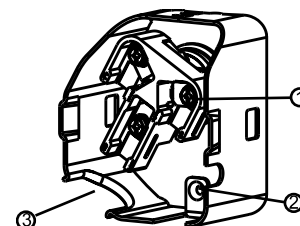
Model number (on compressor nameplate)		MLZ038T9LQ9
Code number for Singlepack*		121U8591
Code number for Industrial pack**		121U8590
Drawing number		0XR6298B-2
Suction and discharge connections		Rotolock
Suction connection		1-1/4 " Rotolock
Discharge connection		1 " Rotolock
Suction connection with supplied sleeve		7/8 " -
Discharge connection with supplied sleeve	- "	1/2 " -
Oil sight glass		Threaded
Oil equalisation connection		None
Oil drain connection		None
LP gauge port		None
IPR valve		None
Swept volume		80.95 cm ³ /rev
Displacement @ Nominal speed		17.0 m ³ /h @ 3500 rpm
Net weight		41 kg
Oil charge		1.57 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		5.44 kg
Approved refrigerants		R404A, R507, R134a, R407C, R22

Dimensions


D=184 mm
H=454.9 mm
H1=280 mm
H2=422.2 mm
H3=- mm

Electrical Characteristics

Nominal voltage		380V/3/60Hz
Voltage range		342-418 V
Winding resistance between phases 1-2 +/- 7% at 25°C		1.476 Ω
Winding resistance between phases 1-3 +/- 7% at 25°C		1.455 Ω
Winding resistance between phases 2-3 +/- 7% at 25°C		1.487 Ω
Rated Load Amps (RLA)		11 A
Maximum Continuous Current (MCC)		17 A
Locked Rotor Amps (LRA)		81 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, V05 (1-1/4" Rotolock, 7/8" ODF)	8168030
Gasket, 1-1/4"	8156131

Rotolock accessories, discharge side
Code no.

Rotolock valve, V01 (1" Rotolock, 3/8" ODF)	8168027
Rotolock valve, V06 (1" Rotolock, 1/2" ODF)	8168031
Gasket, 1"	8156130

Rotolock accessories, sets
Code no.

Teflon seals, sleeves, nuts for discharge and suction (1" and 1"1/4)	120Z5074
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.

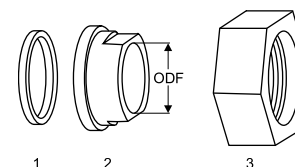
Belt type crankcase heater, 65 W, 400 V, CE mark, UL	120Z0060
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Miscellaneous accessories
Code no.

Acoustic hood	120Z5044
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

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	7 660	9 779	12 271	15 109	-	-	-	-	-
20	7 441	9 479	11 886	14 632	17 689	-	-	-	-
30	6 933	8 780	10 982	13 509	16 332	19 423	22 752	-	-
40	-	8 057	10 067	12 389	14 993	17 850	20 932	-	-
50	-	-	-	11 155	13 553	16 192	19 040	-	-
60	-	-	-	-	11 895	14 328	16 958	-	-
68	-	-	-	-	-	-	15 075	-	-

Power input in W

16	1 884	1 995	2 131	2 282	-	-	-	-	-
20	2 171	2 274	2 398	2 534	2 675	-	-	-	-
30	2 827	2 919	3 025	3 138	3 247	3 345	3 422	-	-
40	-	3 579	3 683	3 787	3 880	3 956	4 004	-	-
50	-	-	-	4 589	4 683	4 751	4 785	-	-
60	-	-	-	-	5 760	5 837	5 874	-	-
68	-	-	-	-	-	-	7 038	-	-

Current consumption in A

16	3.58	3.79	4.05	4.33	-	-	-	-	-
20	4.12	4.32	4.55	4.81	5.08	-	-	-	-
30	5.37	5.54	5.75	5.96	6.17	6.35	6.50	-	-
40	-	6.80	7.00	7.19	7.37	7.51	7.60	-	-
50	-	-	-	8.72	8.89	9.02	9.09	-	-
60	-	-	-	-	10.94	11.09	11.16	-	-
68	-	-	-	-	-	-	13.37	-	-

Mass flow in kg/h

16	131	168	215	271	-	-	-	-	-
20	133	169	216	271	332	-	-	-	-
30	135	170	216	270	331	396	464	-	-
40	-	167	212	267	327	393	461	-	-
50	-	-	-	256	317	384	453	-	-
60	-	-	-	-	298	366	437	-	-
68	-	-	-	-	-	-	416	-	-

Coefficient of performance (C.O.P.)

16	4.07	4.90	5.76	6.62	-	-	-	-	-
20	3.43	4.17	4.96	5.77	6.61	-	-	-	-
30	2.45	3.01	3.63	4.31	5.03	5.81	6.65	-	-
40	-	2.25	2.73	3.27	3.86	4.51	5.23	-	-
50	-	-	-	2.43	2.89	3.41	3.98	-	-
60	-	-	-	-	2.07	2.45	2.89	-	-
68	-	-	-	-	-	-	2.14	-	-

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

Cooling capacity	9 569	W
Power input	4 057	W
Current consumption	7.71	A
Mass flow	208	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	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
R134a

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

Cooling capacity in W

22	5 990	7 541	9 410	11 585	14 052	-	-	-	-
30	5 466	6 939	8 727	10 817	13 197	15 856	-	-	-
40	4 849	6 199	7 859	9 818	12 064	14 584	17 367	-	-
50	-	5 442	6 946	8 745	10 827	13 180	15 792	-	-
60	-	-	5 954	7 564	9 454	11 611	14 024	-	-
70	-	-	-	6 244	7 912	9 845	12 028	-	-
73	-	-	-	5 815	7 412	9 271	11 380	-	-

Power input in W

22	1 725	1 755	1 799	1 853	1 913	-	-	-	-
30	2 033	2 062	2 102	2 152	2 207	2 264	-	-	-
40	2 497	2 527	2 568	2 616	2 668	2 721	2 771	-	-
50	-	3 090	3 135	3 186	3 240	3 292	3 341	-	-
60	-	-	3 809	3 867	3 926	3 983	4 034	-	-
70	-	-	-	4 664	4 733	4 798	4 857	-	-
73	-	-	-	4 927	5 000	5 068	5 129	-	-

Current consumption in A

22	3.28	3.33	3.42	3.52	3.63	-	-	-	-
30	3.86	3.92	3.99	4.09	4.19	4.30	-	-	-
40	4.74	4.80	4.88	4.97	5.07	5.17	5.26	-	-
50	-	5.87	5.95	6.05	6.15	6.25	6.35	-	-
60	-	-	7.23	7.34	7.46	7.56	7.66	-	-
70	-	-	-	8.86	8.99	9.11	9.22	-	-
73	-	-	-	9.36	9.50	9.63	9.74	-	-

Mass flow in kg/h

22	132	165	202	243	289	-	-	-	-
30	127	163	201	243	289	342	-	-	-
40	122	159	198	241	289	342	402	-	-
50	-	153	194	239	287	341	401	-	-
60	-	-	189	234	283	338	398	-	-
70	-	-	-	226	276	331	392	-	-
73	-	-	-	223	273	328	389	-	-

Coefficient of performance (C.O.P.)

22	3.47	4.30	5.23	6.25	7.34	-	-	-	-
30	2.69	3.37	4.15	5.03	5.98	7.00	-	-	-
40	1.94	2.45	3.06	3.75	4.52	5.36	6.27	-	-
50	-	1.76	2.22	2.74	3.34	4.00	4.73	-	-
60	-	-	1.56	1.96	2.41	2.92	3.48	-	-
70	-	-	-	1.34	1.67	2.05	2.48	-	-
73	-	-	-	1.18	1.48	1.83	2.22	-	-

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

Cooling capacity	5 824	W
Power input	2 796	W
Current consumption	5.31	A
Mass flow	156	kg/h
C.O.P.	2.08	

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 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	6 085	7 629	9 483	11 635	14 076	-	-	-	-
30	-	7 067	8 839	10 900	13 242	15 856	-	-	-
40	-	-	8 021	9 945	12 136	14 584	17 286	-	-
50	-	-	7 157	8 914	10 927	13 180	15 667	-	-
60	-	-	-	7 776	9 581	11 611	-	-	-
70	-	-	-	-	8 065	9 845	-	-	-
73	-	-	-	-	7 572	9 271	-	-	-

Power input in W

22	1 725	1 755	1 799	1 853	1 913	-	-	-	-
30	-	2 062	2 102	2 152	2 207	2 264	-	-	-
40	-	-	2 568	2 616	2 668	2 721	2 771	-	-
50	-	-	3 135	3 186	3 240	3 292	3 341	-	-
60	-	-	-	3 867	3 926	3 983	-	-	-
70	-	-	-	-	4 733	4 798	-	-	-
73	-	-	-	-	5 000	5 068	-	-	-

Current consumption in A

22	3.28	3.33	3.42	3.52	3.63	-	-	-	-
30	-	3.92	3.99	4.09	4.19	4.30	-	-	-
40	-	-	4.88	4.97	5.07	5.17	5.26	-	-
50	-	-	5.95	6.05	6.15	6.25	6.35	-	-
60	-	-	-	7.34	7.46	7.56	-	-	-
70	-	-	-	-	8.99	9.11	-	-	-
73	-	-	-	-	9.50	9.63	-	-	-

Mass flow in kg/h

22	119	152	189	232	282	-	-	-	-
30	-	149	188	232	283	342	-	-	-
40	-	-	186	231	282	342	413	-	-
50	-	-	182	228	281	341	412	-	-
60	-	-	-	224	277	338	-	-	-
70	-	-	-	-	270	331	-	-	-
73	-	-	-	-	267	328	-	-	-

Coefficient of performance (C.O.P.)

22	3.53	4.35	5.27	6.28	7.36	-	-	-	-
30	-	3.43	4.20	5.07	6.00	7.00	-	-	-
40	-	-	3.12	3.80	4.55	5.36	6.24	-	-
50	-	-	2.28	2.80	3.37	4.00	4.69	-	-
60	-	-	-	2.01	2.44	2.92	-	-	-
70	-	-	-	-	1.70	2.05	-	-	-
73	-	-	-	-	1.51	1.83	-	-	-

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, 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	6 947	8 678	10 730	13 140	15 943	-	-	-	-
20	6 226	7 814	9 667	11 823	14 316	17 185	20 463	-	-
30	5 505	6 960	8 627	10 540	12 737	15 254	18 126	21 390	25 079
40	-	6 018	7 509	9 193	11 105	13 282	15 761	18 576	21 765
50	-	-	6 215	7 681	9 320	11 170	13 266	15 647	18 346
60	-	-	-	-	7 282	8 817	10 545	12 502	14 728

Power input in W

10	2 201	2 148	2 143	2 167	2 204	-	-	-	-
20	2 751	2 688	2 675	2 693	2 724	2 752	2 760	-	-
30	3 436	3 366	3 347	3 360	3 388	3 415	3 423	3 394	3 311
40	-	4 201	4 178	4 189	4 217	4 244	4 254	4 229	4 151
50	-	-	5 190	5 201	5 230	5 260	5 274	5 254	5 184
60	-	-	-	-	6 448	6 483	6 503	6 491	6 430

Current consumption in A

10	4.18	4.08	4.07	4.12	4.19	-	-	-	-
20	5.22	5.11	5.08	5.11	5.17	5.23	5.24	-	-
30	6.52	6.39	6.36	6.38	6.44	6.49	6.50	6.45	6.29
40	-	7.98	7.93	7.96	8.01	8.06	8.08	8.03	7.88
50	-	-	9.86	9.88	9.93	9.99	10.02	9.98	9.84
60	-	-	-	-	12.25	12.31	12.35	12.33	12.21

Mass flow in kg/h

10	122	166	214	267	327	-	-	-	-
20	128	170	215	265	323	391	470	-	-
30	130	170	213	262	318	384	461	552	658
40	-	165	208	256	311	376	452	542	648
50	-	-	197	245	301	366	442	532	638
60	-	-	-	-	287	352	430	521	627

Coefficient of performance (C.O.P.)

10	3.16	4.04	5.01	6.06	7.23	-	-	-	-
20	2.26	2.91	3.61	4.39	5.26	6.24	7.41	-	-
30	1.60	2.07	2.58	3.14	3.76	4.47	5.30	6.30	7.57
40	-	1.43	1.80	2.19	2.63	3.13	3.71	4.39	5.24
50	-	-	1.20	1.48	1.78	2.12	2.52	2.98	3.54
60	-	-	-	-	1.13	1.36	1.62	1.93	2.29

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

Cooling capacity	10 238	W
Power input	4 699	W
Current consumption	8.92	A
Mass flow	306	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	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
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	6 676	8 399	10 456	12 887	15 729	-	-	-	-
20	5 855	7 420	9 268	11 439	13 971	16 903	20 269	-	-
30	5 034	6 452	8 101	10 023	12 258	14 846	17 826	21 229	25 079
40	4 124	5 399	6 858	8 541	10 490	12 746	15 352	18 347	21 765
50	-	-	5 452	6 901	8 571	10 504	12 747	15 346	18 346
60	-	-	-	-	6 408	8 021	9 908	12 124	14 728

Power input in W

10	2 201	2 148	2 143	2 167	2 204	-	-	-	-
20	2 751	2 688	2 675	2 693	2 724	2 752	2 760	-	-
30	3 436	3 366	3 347	3 360	3 388	3 415	3 423	3 394	3 311
40	4 276	4 201	4 178	4 189	4 217	4 244	4 254	4 229	4 151
50	-	-	5 190	5 201	5 230	5 260	5 274	5 254	5 184
60	-	-	-	-	6 448	6 483	6 503	6 491	6 430

Current consumption in A

10	4.18	4.08	4.07	4.12	4.19	-	-	-	-
20	5.22	5.11	5.08	5.11	5.17	5.23	5.24	-	-
30	6.52	6.39	6.36	6.38	6.44	6.49	6.50	6.45	6.29
40	8.12	7.98	7.93	7.96	8.01	8.06	8.08	8.03	7.88
50	-	-	9.86	9.88	9.93	9.99	10.02	9.98	9.84
60	-	-	-	-	12.25	12.31	12.35	12.33	12.21

Mass flow in kg/h

10	146	195	246	301	361	-	-	-	-
20	153	199	247	299	357	422	496	-	-
30	155	199	245	295	351	415	487	568	658
40	150	193	239	288	343	406	478	558	648
50	-	-	227	276	332	395	467	548	638
60	-	-	-	-	316	381	454	536	627

Coefficient of performance (C.O.P.)

10	3.03	3.91	4.88	5.95	7.14	-	-	-	-
20	2.13	2.76	3.46	4.25	5.13	6.14	7.34	-	-
30	1.47	1.92	2.42	2.98	3.62	4.35	5.21	6.26	7.57
40	0.96	1.29	1.64	2.04	2.49	3.00	3.61	4.34	5.24
50	-	-	1.05	1.33	1.64	2.00	2.42	2.92	3.54
60	-	-	-	-	0.99	1.24	1.52	1.87	2.29

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

Cooling capacity	9 555	W
Power input	4 699	W
Current consumption	8.92	A
Mass flow	338	kg/h
C.O.P.	2.03	

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	74	dB(A)
With acoustic hood	66	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	5 791	7 260	9 030	11 146	13 652	-	-	-	-
20	5 235	6 639	8 312	10 298	12 643	15 391	18 587	-	-
30	-	-	7 496	9 319	11 468	13 988	16 923	20 319	24 221
40	-	-	-	8 245	10 164	12 421	15 062	18 131	21 673
50	-	-	-	-	8 768	10 729	13 040	15 747	18 896
60	-	-	-	-	-	-	10 896	13 207	15 927

Power input in W

10	1 874	1 917	1 976	2 054	2 152	-	-	-	-
20	2 371	2 398	2 436	2 489	2 557	2 644	2 751	-	-
30	-	-	3 065	3 104	3 155	3 220	3 300	3 398	3 516
40	-	-	-	3 916	3 962	4 016	4 082	4 160	4 255
50	-	-	-	-	4 992	5 049	5 112	5 184	5 266
60	-	-	-	-	-	-	6 407	6 484	6 567

Current consumption in A

10	4.36	4.49	4.61	4.70	4.78	-	-	-	-
20	5.08	5.15	5.22	5.30	5.39	5.47	5.56	-	-
30	-	-	6.05	6.08	6.15	6.24	6.35	6.48	6.64
40	-	-	-	7.23	7.25	7.31	7.43	7.59	7.79
50	-	-	-	-	8.86	8.88	8.97	9.13	9.35
60	-	-	-	-	-	-	11.15	11.29	11.51

Mass flow in kg/h

10	94	119	149	184	227	-	-	-	-
20	92	117	147	183	225	276	337	-	-
30	-	-	143	179	221	272	333	404	488
40	-	-	-	173	215	265	325	396	479
50	-	-	-	-	206	256	315	385	467
60	-	-	-	-	-	-	301	370	451

Coefficient of performance (C.O.P.)

10	3.09	3.79	4.57	5.43	6.34	-	-	-	-
20	2.21	2.77	3.41	4.14	4.94	5.82	6.76	-	-
30	-	-	2.45	3.00	3.63	4.34	5.13	5.98	6.89
40	-	-	-	2.11	2.57	3.09	3.69	4.36	5.09
50	-	-	-	-	1.76	2.12	2.55	3.04	3.59
60	-	-	-	-	-	-	1.70	2.04	2.43

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

Cooling capacity	9 475	W
Power input	4 448	W
Current consumption	7.98	A
Mass flow	211	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		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
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	5 815	7 295	9 081	11 215	13 740	-	-	-	-
20	5 189	6 596	8 277	10 277	12 640	15 409	18 622	-	-
30	4 536	5 834	7 376	9 206	11 372	13 917	16 883	20 308	24 221
40	-	-	6 416	8 043	9 976	12 262	14 947	18 072	21 673
50	-	-	-	6 825	8 491	10 483	12 850	15 640	18 896
60	-	-	-	-	6 953	8 617	10 632	13 051	15 927

Power input in W

10	1 874	1 917	1 976	2 054	2 152	-	-	-	-
20	2 371	2 398	2 436	2 489	2 557	2 644	2 751	-	-
30	3 011	3 034	3 065	3 104	3 155	3 220	3 300	3 398	3 516
40	-	-	3 877	3 916	3 962	4 016	4 082	4 160	4 255
50	-	-	-	4 939	4 992	5 049	5 112	5 184	5 266
60	-	-	-	-	6 262	6 334	6 407	6 484	6 567

Current consumption in A

10	4.36	4.49	4.61	4.70	4.78	-	-	-	-
20	5.08	5.15	5.22	5.30	5.39	5.47	5.56	-	-
30	6.05	6.03	6.05	6.08	6.15	6.24	6.35	6.48	6.64
40	-	-	7.25	7.23	7.25	7.31	7.43	7.59	7.79
50	-	-	-	8.91	8.86	8.88	8.97	9.13	9.35
60	-	-	-	-	11.16	11.11	11.15	11.29	11.51

Mass flow in kg/h

10	111	139	170	207	249	-	-	-	-
20	109	136	168	204	247	297	354	-	-
30	105	132	163	200	243	293	350	415	488
40	-	-	158	194	236	285	342	407	479
50	-	-	-	185	226	275	331	395	467
60	-	-	-	-	215	262	317	380	451

Coefficient of performance (C.O.P.)

10	3.10	3.81	4.60	5.46	6.39	-	-	-	-
20	2.19	2.75	3.40	4.13	4.94	5.83	6.77	-	-
30	1.51	1.92	2.41	2.97	3.60	4.32	5.12	5.98	6.89
40	-	-	1.65	2.05	2.52	3.05	3.66	4.34	5.09
50	-	-	-	1.38	1.70	2.08	2.51	3.02	3.59
60	-	-	-	-	1.11	1.36	1.66	2.01	2.43

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

Cooling capacity	9 242	W
Power input	4 448	W
Current consumption	7.98	A
Mass flow	231	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

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	5 791	7 260	9 030	11 146	13 652	-	-	-	-
20	5 235	6 639	8 312	10 298	12 643	15 391	18 587	-	-
30	-	-	7 496	9 319	11 468	13 988	16 923	20 319	24 221
40	-	-	-	8 245	10 164	12 421	15 062	18 131	21 673
50	-	-	-	-	8 768	10 729	13 040	15 747	18 896
60	-	-	-	-	-	-	10 896	13 207	15 927

Power input in W

10	1 874	1 917	1 976	2 054	2 152	-	-	-	-
20	2 371	2 398	2 436	2 489	2 557	2 644	2 751	-	-
30	-	-	3 065	3 104	3 155	3 220	3 300	3 398	3 516
40	-	-	-	3 916	3 962	4 016	4 082	4 160	4 255
50	-	-	-	-	4 992	5 049	5 112	5 184	5 266
60	-	-	-	-	-	-	6 407	6 484	6 567

Current consumption in A

10	4.36	4.49	4.61	4.70	4.78	-	-	-	-
20	5.08	5.15	5.22	5.30	5.39	5.47	5.56	-	-
30	-	-	6.05	6.08	6.15	6.24	6.35	6.48	6.64
40	-	-	-	7.23	7.25	7.31	7.43	7.59	7.79
50	-	-	-	-	8.86	8.88	8.97	9.13	9.35
60	-	-	-	-	-	-	11.15	11.29	11.51

Mass flow in kg/h

10	96	121	151	187	231	-	-	-	-
20	93	119	149	186	229	281	343	-	-
30	-	-	146	182	225	277	339	412	497
40	-	-	-	176	219	271	332	404	489
50	-	-	-	-	211	261	321	393	477
60	-	-	-	-	-	-	308	378	461

Coefficient of performance (C.O.P.)

10	3.09	3.79	4.57	5.43	6.34	-	-	-	-
20	2.21	2.77	3.41	4.14	4.94	5.82	6.76	-	-
30	-	-	2.45	3.00	3.63	4.34	5.13	5.98	6.89
40	-	-	-	2.11	2.57	3.09	3.69	4.36	5.09
50	-	-	-	-	1.76	2.12	2.55	3.04	3.59
60	-	-	-	-	-	-	1.70	2.04	2.43

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

Cooling capacity	9 475	W
Power input	4 448	W
Current consumption	7.98	A
Mass flow	215	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		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	5 802	7 282	9 067	11 201	13 727	-	-	-	-
20	5 175	6 582	8 262	10 262	12 626	15 396	18 612	-	-
30	4 522	5 819	7 360	9 190	11 357	13 904	16 873	20 302	24 221
40	-	-	6 399	8 026	9 960	12 248	14 935	18 065	21 673
50	-	-	-	6 807	8 474	10 468	12 838	15 633	18 896
60	-	-	-	-	6 936	8 601	10 620	13 044	15 927

Power input in W

10	1 874	1 917	1 976	2 054	2 152	-	-	-	-
20	2 371	2 398	2 436	2 489	2 557	2 644	2 751	-	-
30	3 011	3 034	3 065	3 104	3 155	3 220	3 300	3 398	3 516
40	-	-	3 877	3 916	3 962	4 016	4 082	4 160	4 255
50	-	-	-	4 939	4 992	5 049	5 112	5 184	5 266
60	-	-	-	-	6 262	6 334	6 407	6 484	6 567

Current consumption in A

10	4.36	4.49	4.61	4.70	4.78	-	-	-	-
20	5.08	5.15	5.22	5.30	5.39	5.47	5.56	-	-
30	6.05	6.03	6.05	6.08	6.15	6.24	6.35	6.48	6.64
40	-	-	7.25	7.23	7.25	7.31	7.43	7.59	7.79
50	-	-	-	8.91	8.86	8.88	8.97	9.13	9.35
60	-	-	-	-	11.16	11.11	11.15	11.29	11.51

Mass flow in kg/h

10	113	141	173	210	253	-	-	-	-
20	111	138	170	208	251	302	360	-	-
30	107	135	166	204	247	298	356	423	497
40	-	-	161	197	240	291	349	415	489
50	-	-	-	189	231	281	338	404	477
60	-	-	-	-	219	267	324	388	461

Coefficient of performance (C.O.P.)

10	3.10	3.80	4.59	5.45	6.38	-	-	-	-
20	2.18	2.74	3.39	4.12	4.94	5.82	6.77	-	-
30	1.50	1.92	2.40	2.96	3.60	4.32	5.11	5.98	6.89
40	-	-	1.65	2.05	2.51	3.05	3.66	4.34	5.09
50	-	-	-	1.38	1.70	2.07	2.51	3.02	3.59
60	-	-	-	-	1.11	1.36	1.66	2.01	2.43

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

Cooling capacity	9 225	W
Power input	4 448	W
Current consumption	7.98	A
Mass flow	236	kg/h
C.O.P.	2.07	

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	6 272	7 819	9 708	11 977	14 664	-	-	-	-
20	5 656	7 112	8 865	10 955	13 421	16 302	19 636	-	-
30	-	6 388	7 971	9 849	12 059	14 640	17 633	21 075	25 004
40	-	-	7 036	8 667	10 587	12 836	15 453	18 476	21 946
50	-	-	-	-	9 016	10 898	13 105	15 677	18 652
60	-	-	-	-	-	8 837	10 601	12 687	15 136

Power input in W

10	1 927	1 985	2 041	2 124	2 263	-	-	-	-
20	2 380	2 478	2 536	2 584	2 651	2 766	2 956	-	-
30	-	3 057	3 166	3 228	3 272	3 326	3 420	3 582	3 841
40	-	-	3 889	4 013	4 083	4 126	4 171	4 247	4 384
50	-	-	-	-	5 042	5 122	5 167	5 207	5 270
60	-	-	-	-	-	6 273	6 368	6 419	6 457

Current consumption in A

10	4.79	4.73	4.73	4.84	5.07	-	-	-	-
20	5.24	5.25	5.26	5.31	5.42	5.60	5.88	-	-
30	-	5.99	6.11	6.19	6.28	6.37	6.50	6.68	6.95
40	-	-	7.12	7.34	7.49	7.60	7.67	7.73	7.81
50	-	-	-	-	8.94	9.14	9.25	9.29	9.28
60	-	-	-	-	-	10.87	11.11	11.22	11.21

Mass flow in kg/h

10	126	160	199	246	303	-	-	-	-
20	124	158	197	244	301	369	449	-	-
30	-	155	194	241	297	364	443	537	647
40	-	-	190	236	291	357	435	528	636
50	-	-	-	-	283	347	424	515	622
60	-	-	-	-	-	336	411	500	604

Coefficient of performance (C.O.P.)

10	3.26	3.94	4.76	5.64	6.48	-	-	-	-
20	2.38	2.87	3.50	4.24	5.06	5.89	6.64	-	-
30	-	2.09	2.52	3.05	3.69	4.40	5.16	5.88	6.51
40	-	-	1.81	2.16	2.59	3.11	3.71	4.35	5.01
50	-	-	-	-	1.79	2.13	2.54	3.01	3.54
60	-	-	-	-	-	1.41	1.66	1.98	2.34

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

Cooling capacity	9 813	W
Power input	4 546	W
Current consumption	8.20	A
Mass flow	287	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
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	6 069	7 612	9 505	11 791	14 510	-	-	-	-
20	5 368	6 807	8 555	10 655	13 150	16 081	19 485	-	-
30	4 684	5 985	7 553	9 434	11 672	14 309	17 388	20 944	25 004
40	4 021	5 152	6 509	8 138	10 084	12 394	15 114	18 285	21 946
50	-	-	5 428	6 774	8 397	10 346	12 672	15 425	18 652
60	-	-	-	-	6 608	8 166	10 066	12 369	15 136

Power input in W

10	1 927	1 985	2 041	2 124	2 263	-	-	-	-
20	2 380	2 478	2 536	2 584	2 651	2 766	2 956	-	-
30	2 871	3 057	3 166	3 228	3 272	3 326	3 420	3 582	3 841
40	3 357	3 680	3 889	4 013	4 083	4 126	4 171	4 247	4 384
50	-	-	4 662	4 898	5 042	5 122	5 167	5 207	5 270
60	-	-	-	-	6 107	6 273	6 368	6 419	6 457

Current consumption in A

10	4.79	4.73	4.73	4.84	5.07	-	-	-	-
20	5.24	5.25	5.26	5.31	5.42	5.60	5.88	-	-
30	5.81	5.99	6.11	6.19	6.28	6.37	6.50	6.68	6.95
40	6.37	6.80	7.12	7.34	7.49	7.60	7.67	7.73	7.81
50	-	-	8.17	8.62	8.94	9.14	9.25	9.29	9.28
60	-	-	-	-	10.47	10.87	11.11	11.22	11.21

Mass flow in kg/h

10	150	186	228	277	334	-	-	-	-
20	148	184	226	274	331	397	473	-	-
30	145	181	222	270	327	392	467	552	647
40	143	178	218	265	320	384	458	542	636
50	-	-	213	258	312	374	447	529	622
60	-	-	-	-	302	362	433	514	604

Coefficient of performance (C.O.P.)

10	3.15	3.83	4.66	5.55	6.41	-	-	-	-
20	2.26	2.75	3.37	4.12	4.96	5.81	6.59	-	-
30	1.63	1.96	2.39	2.92	3.57	4.30	5.08	5.85	6.51
40	1.20	1.40	1.67	2.03	2.47	3.00	3.62	4.31	5.01
50	-	-	1.16	1.38	1.67	2.02	2.45	2.96	3.54
60	-	-	-	-	1.08	1.30	1.58	1.93	2.34

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

Cooling capacity	9 253	W
Power input	4 546	W
Current consumption	8.20	A
Mass flow	316	kg/h
C.O.P.	2.04	

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