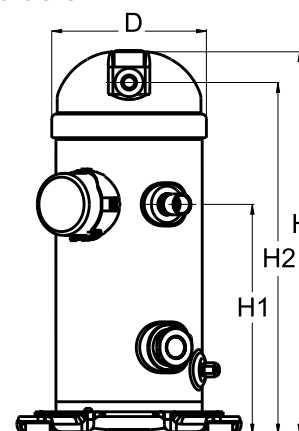


**General Characteristics**

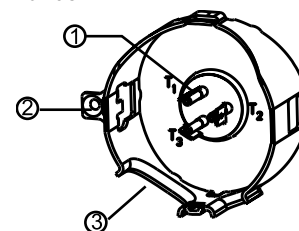
Model number (on compressor nameplate)	MLZ015T4LP9A	MLZ015T4LP9A
Code number for Singlepack*	121U8629	121L8629
Code number for Industrial pack**	121U8628	121L8628
Drawing number	0XC6300B-1	0XC6300B-1
Suction and discharge connections	Brazed	Brazed
Suction connection	3/4" ODF	3/4" ODF
Discharge connection	1/2" ODF	1/2" ODF
Oil sight glass	Threaded	Threaded
Oil equalisation connection	None	None
Oil drain connection	1/4" flare	1/4" flare
LP gauge port	None	None
IPR valve	32 bar	32 bar
Swept volume	33.77 cm <sup>3</sup> /rev	
Displacement @ Nominal speed	5.9 m <sup>3</sup> /h @ 2900 rpm - 7.1 m <sup>3</sup> /h @ 3500 rpm	
Net weight	31 kg	
Oil charge	1.06 litre, POE --	
Maximum system test pressure Low Side / High side	- bar(g) / - bar(g)	
Maximum differential test pressure	- bar	
Maximum number of starts per hour	12	
Refrigerant charge limit	3.63 kg	
Approved refrigerants	R404A,R134a,R407A/F,R448A,R449A,R452A,R513A,R22	

**Dimensions**


D=164.5 mm  
H=412 mm  
H1=250 mm  
H2=379 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	6.724 Ω
Winding resistance between phases 1-3 +/- 7% at 25°C	4.952 Ω
Winding resistance between phases 2-3 +/- 7% at 25°C	6.724 Ω
Rated Load Amps (RLA)	4.5 A
Maximum Continuous Current (MCC)	7 A
Locked Rotor Amps (LRA)	30 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.**

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

**Rotolock accessories, discharge side**

**Code no.**

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

**Rotolock accessories, sets**

**Code no.**

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

**Oil / lubricants**

**Code no.**

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

**Crankcase heaters**

**Code no.**

Belt type crankcase heater, 70 W, 240 V, CE mark, UL	120Z5040
Belt type crankcase heater, 70 W, 400/460V, CE mark, UL	120Z5041

**Miscellaneous accessories**

**Code no.**

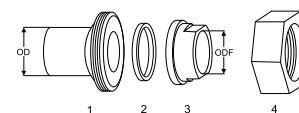
Acoustic hood	120Z5083
Discharge thermostat kit	7750009
IP54 upgrade kit	118U0056

**Spare parts**

**Code no.**

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

**Solder sleeve adapter set**



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

**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	3 069	3 699	4 420	5 247	-	-	-	-	-
20	2 929	3 556	4 273	5 094	6 030	-	-	-	-
30	2 595	3 200	3 891	4 681	5 583	6 609	7 769	-	-
40	2 288	2 850	3 492	4 230	5 077	6 045	7 145	-	-
50	-	2 512	3 085	3 749	4 519	5 407	6 427	-	-
60	-	-	-	3 245	3 916	4 704	5 622	-	-
68	-	-	-	-	-	4 098	4 920	-	-

**Power input in W**

16	773	785	803	829	-	-	-	-	-
20	858	870	886	907	935	-	-	-	-
30	1 082	1 098	1 113	1 129	1 147	1 168	1 194	-	-
40	1 329	1 355	1 377	1 395	1 410	1 424	1 437	-	-
50	-	1 652	1 687	1 713	1 733	1 746	1 755	-	-
60	-	-	-	2 094	2 125	2 145	2 156	-	-
68	-	-	-	-	-	2 525	2 543	-	-

**Current consumption in A**

16	1.49	1.51	1.55	1.59	-	-	-	-	-
20	1.65	1.67	1.71	1.75	1.80	-	-	-	-
30	2.08	2.11	2.14	2.17	2.21	2.25	2.30	-	-
40	2.56	2.61	2.65	2.68	2.71	2.74	2.77	-	-
50	-	3.18	3.25	3.30	3.33	3.36	3.38	-	-
60	-	-	-	4.03	4.09	4.13	4.15	-	-
68	-	-	-	-	-	4.86	4.89	-	-

**Mass flow in kg/h**

16	58	69	83	98	-	-	-	-	-
20	57	69	82	97	115	-	-	-	-
30	55	67	80	96	114	133	155	-	-
40	53	65	78	94	112	132	154	-	-
50	-	62	75	91	109	129	151	-	-
60	-	-	-	86	104	124	146	-	-
68	-	-	-	-	-	117	140	-	-

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

16	3.97	4.71	5.50	6.33	-	-	-	-	-
20	3.41	4.09	4.82	5.61	6.45	-	-	-	-
30	2.40	2.92	3.50	4.15	4.87	5.66	6.51	-	-
40	1.72	2.10	2.54	3.03	3.60	4.25	4.97	-	-
50	-	1.52	1.83	2.19	2.61	3.10	3.66	-	-
60	-	-	-	1.55	1.84	2.19	2.61	-	-
68	-	-	-	-	-	1.62	1.94	-	-

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

Cooling capacity	3 289	W
Power input	1 525	W
Current consumption	2.94	A
Mass flow	77	kg/h
C.O.P.	2.16	

**Pressure switch settings**

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

**Sound power data**

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

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Tolerance according EN12900

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

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

**Cooling capacity in W**

16	2 994	3 620	4 340	5 170	-	-	-	-	-
20	2 865	3 488	4 203	5 026	5 972	-	-	-	-
30	2 557	3 158	3 846	4 636	5 543	6 582	7 769	-	-
40	-	2 834	3 473	4 209	5 056	6 030	7 145	-	-
50	-	-	-	3 752	4 518	5 405	6 427	-	-
60	-	-	-	-	3 934	4 713	5 622	-	-
68	-	-	-	-	-	-	4 920	-	-

**Power input in W**

16	773	785	803	829	-	-	-	-	-
20	858	870	886	907	935	-	-	-	-
30	1 082	1 098	1 113	1 129	1 147	1 168	1 194	-	-
40	-	1 355	1 377	1 395	1 410	1 424	1 437	-	-
50	-	-	-	1 713	1 733	1 746	1 755	-	-
60	-	-	-	-	2 125	2 145	2 156	-	-
68	-	-	-	-	-	-	2 543	-	-

**Current consumption in A**

16	1.49	1.51	1.55	1.59	-	-	-	-	-
20	1.65	1.67	1.71	1.75	1.80	-	-	-	-
30	2.08	2.11	2.14	2.17	2.21	2.25	2.30	-	-
40	-	2.61	2.65	2.68	2.71	2.74	2.77	-	-
50	-	-	-	3.30	3.33	3.36	3.38	-	-
60	-	-	-	-	4.09	4.13	4.15	-	-
68	-	-	-	-	-	-	4.89	-	-

**Mass flow in kg/h**

16	51	62	76	91	-	-	-	-	-
20	50	62	75	91	109	-	-	-	-
30	48	60	74	90	108	130	155	-	-
40	-	58	72	88	107	129	154	-	-
50	-	-	-	85	104	126	151	-	-
60	-	-	-	-	99	121	146	-	-
68	-	-	-	-	-	-	140	-	-

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

16	3.87	4.61	5.40	6.24	-	-	-	-	-
20	3.34	4.01	4.74	5.54	6.39	-	-	-	-
30	2.36	2.88	3.46	4.11	4.83	5.64	6.51	-	-
40	-	2.09	2.52	3.02	3.59	4.24	4.97	-	-
50	-	-	-	2.19	2.61	3.10	3.66	-	-
60	-	-	-	-	1.85	2.20	2.61	-	-
68	-	-	-	-	-	-	1.94	-	-

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

Cooling capacity	3 283	W
Power input	1 525	W
Current consumption	2.94	A
Mass flow	71	kg/h
C.O.P.	2.15	

**Pressure switch settings**

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

**Sound power data**

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

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : 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	3 502	4 250	5 126	6 133	-	-	-	-	-
20	3 404	4 151	5 022	6 022	7 153	-	-	-	-
30	3 072	3 802	4 647	5 611	6 700	7 916	9 259	-	-
40	2 692	3 383	4 180	5 088	6 113	7 258	8 525	-	-
50	-	2 988	3 715	4 544	5 484	6 537	7 708	-	-
60	-	-	-	4 073	4 905	5 846	6 899	-	-
68	-	-	-	-	-	5 376	6 321	-	-

**Power input in W**

16	845	880	926	982	-	-	-	-	-
20	951	984	1 024	1 072	1 130	-	-	-	-
30	1 216	1 252	1 288	1 324	1 362	1 404	1 450	-	-
40	1 485	1 537	1 581	1 618	1 650	1 678	1 703	-	-
50	-	1 844	1 909	1 961	1 999	2 026	2 043	-	-
60	-	-	-	2 357	2 416	2 455	2 477	-	-
68	-	-	-	-	-	2 859	2 894	-	-

**Current consumption in A**

16	1.33	1.38	1.45	1.54	-	-	-	-	-
20	1.49	1.54	1.61	1.68	1.77	-	-	-	-
30	1.91	1.96	2.02	2.08	2.14	2.20	2.27	-	-
40	2.33	2.41	2.48	2.54	2.59	2.63	2.67	-	-
50	-	2.89	3.00	3.08	3.14	3.18	3.21	-	-
60	-	-	-	3.70	3.79	3.85	3.89	-	-
68	-	-	-	-	-	4.49	4.54	-	-

**Mass flow in kg/h**

16	68	83	100	119	-	-	-	-	-
20	68	83	100	119	141	-	-	-	-
30	66	81	99	118	140	164	189	-	-
40	63	79	96	116	139	163	189	-	-
50	-	74	92	113	136	160	186	-	-
60	-	-	-	107	131	156	183	-	-
68	-	-	-	-	-	151	178	-	-

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

16	4.15	4.83	5.54	6.24	-	-	-	-	-
20	3.58	4.22	4.90	5.62	6.33	-	-	-	-
30	2.53	3.04	3.61	4.24	4.92	5.64	6.39	-	-
40	1.81	2.20	2.64	3.14	3.70	4.33	5.01	-	-
50	-	1.62	1.95	2.32	2.74	3.23	3.77	-	-
60	-	-	-	1.73	2.03	2.38	2.79	-	-
68	-	-	-	-	-	1.88	2.18	-	-

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

Cooling capacity	3 941	W
Power input	1 740	W
Current consumption	2.73	A
Mass flow	95	kg/h
C.O.P.	2.26	

**Pressure switch settings**

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

**Sound power data**

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

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Tolerance according EN12900

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

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

**Cooling capacity in W**

16	3 417	4 159	5 032	6 043	-	-	-	-	-
20	3 330	4 071	4 940	5 941	7 084	-	-	-	-
30	3 028	3 753	4 594	5 558	6 652	7 884	9 259	-	-
40	-	3 364	4 157	5 063	6 088	7 240	8 525	-	-
50	-	-	-	4 547	5 482	6 534	7 708	-	-
60	-	-	-	-	4 928	5 857	6 899	-	-
68	-	-	-	-	-	-	6 321	-	-

**Power input in W**

16	845	880	926	982	-	-	-	-	-
20	951	984	1 024	1 072	1 130	-	-	-	-
30	1 216	1 252	1 288	1 324	1 362	1 404	1 450	-	-
40	-	1 537	1 581	1 618	1 650	1 678	1 703	-	-
50	-	-	-	1 961	1 999	2 026	2 043	-	-
60	-	-	-	-	2 416	2 455	2 477	-	-
68	-	-	-	-	-	-	2 894	-	-

**Current consumption in A**

16	1.33	1.38	1.45	1.54	-	-	-	-	-
20	1.49	1.54	1.61	1.68	1.77	-	-	-	-
30	1.91	1.96	2.02	2.08	2.14	2.20	2.27	-	-
40	-	2.41	2.48	2.54	2.59	2.63	2.67	-	-
50	-	-	-	3.08	3.14	3.18	3.21	-	-
60	-	-	-	-	3.79	3.85	3.89	-	-
68	-	-	-	-	-	-	4.54	-	-

**Mass flow in kg/h**

16	60	74	92	111	-	-	-	-	-
20	60	74	91	111	134	-	-	-	-
30	58	73	90	111	134	160	189	-	-
40	-	71	88	109	132	159	189	-	-
50	-	-	-	105	129	156	186	-	-
60	-	-	-	-	124	152	183	-	-
68	-	-	-	-	-	-	178	-	-

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

16	4.04	4.72	5.44	6.15	-	-	-	-	-
20	3.50	4.14	4.82	5.54	6.27	-	-	-	-
30	2.49	3.00	3.57	4.20	4.88	5.62	6.39	-	-
40	-	2.19	2.63	3.13	3.69	4.32	5.01	-	-
50	-	-	-	2.32	2.74	3.22	3.77	-	-
60	-	-	-	-	2.04	2.39	2.79	-	-
68	-	-	-	-	-	-	2.18	-	-

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

Cooling capacity	3 934	W
Power input	1 740	W
Current consumption	2.73	A
Mass flow	87	kg/h
C.O.P.	2.26	

**Pressure switch settings**

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

**Sound power data**

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

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Tolerance according EN12900

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

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

**Cooling capacity in W**

22	2 020	2 554	3 186	3 924	4 778	-	-	-	-
30	1 853	2 353	2 948	3 646	4 456	5 387	-	-	-
40	1 651	2 102	2 642	3 282	4 031	4 897	5 890	-	-
50	-	1 848	2 327	2 902	3 581	4 374	5 289	-	-
60	-	-	2 001	2 503	3 105	3 816	4 646	-	-
70	-	-	-	2 083	2 600	3 223	3 960	-	-
73	-	-	-	1 953	2 443	3 038	3 746	-	-

**Power input in W**

22	618	625	631	639	648	-	-	-	-
30	735	742	748	754	762	773	-	-	-
40	906	916	924	930	938	948	962	-	-
50	-	1 126	1 137	1 147	1 157	1 167	1 181	-	-
60	-	-	1 396	1 411	1 425	1 439	1 455	-	-
70	-	-	-	1 729	1 749	1 769	1 789	-	-
73	-	-	-	1 836	1 858	1 880	1 902	-	-

**Current consumption in A**

22	2.00	2.02	2.03	2.04	2.05	-	-	-	-
30	2.20	2.22	2.23	2.24	2.25	2.26	-	-	-
40	2.43	2.44	2.45	2.46	2.47	2.48	2.50	-	-
50	-	2.80	2.80	2.81	2.82	2.83	2.84	-	-
60	-	-	3.44	3.44	3.44	3.45	3.46	-	-
70	-	-	-	4.51	4.51	4.52	4.52	-	-
73	-	-	-	4.94	4.94	4.94	4.95	-	-

**Mass flow in kg/h**

22	43	54	66	80	96	-	-	-	-
30	43	53	65	79	95	113	-	-	-
40	42	52	64	78	94	112	133	-	-
50	-	52	63	77	93	111	132	-	-
60	-	-	62	75	91	109	130	-	-
70	-	-	-	73	89	107	127	-	-
73	-	-	-	73	88	106	126	-	-

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

22	3.27	4.09	5.05	6.15	7.37	-	-	-	-
30	2.52	3.17	3.94	4.83	5.85	6.97	-	-	-
40	1.82	2.29	2.86	3.53	4.30	5.17	6.13	-	-
50	-	1.64	2.05	2.53	3.10	3.75	4.48	-	-
60	-	-	1.43	1.77	2.18	2.65	3.19	-	-
70	-	-	-	1.20	1.49	1.82	2.21	-	-
73	-	-	-	1.06	1.31	1.62	1.97	-	-

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

Cooling capacity	1 975	W
Power input	1 016	W
Current consumption	2.59	A
Mass flow	52	kg/h
C.O.P.	1.94	

**Pressure switch settings**

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

**Sound power data**

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

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Tolerance according EN12900

**Performance data at 50 Hz, EN 12900 rating conditions, Suction temp. = 20 °C**
**R134a**

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

**Cooling capacity in W**

22	2 052	2 584	3 211	3 941	4 786	-	-	-	-
30	-	2 397	2 986	3 674	4 471	5 387	-	-	-
40	-	-	2 697	3 325	4 055	4 897	5 862	-	-
50	-	-	2 398	2 958	3 614	4 374	5 247	-	-
60	-	-	-	2 572	3 146	3 816	-	-	-
70	-	-	-	-	2 650	3 223	-	-	-
73	-	-	-	-	2 496	3 038	-	-	-

**Power input in W**

22	618	625	631	639	648	-	-	-	-
30	-	742	748	754	762	773	-	-	-
40	-	-	924	930	938	948	962	-	-
50	-	-	1 137	1 147	1 157	1 167	1 181	-	-
60	-	-	-	1 411	1 425	1 439	-	-	-
70	-	-	-	-	1 749	1 769	-	-	-
73	-	-	-	-	1 858	1 880	-	-	-

**Current consumption in A**

22	2.00	2.02	2.03	2.04	2.05	-	-	-	-
30	-	2.22	2.23	2.24	2.25	2.26	-	-	-
40	-	-	2.45	2.46	2.47	2.48	2.50	-	-
50	-	-	2.80	2.81	2.82	2.83	2.84	-	-
60	-	-	-	3.44	3.44	3.45	-	-	-
70	-	-	-	-	4.51	4.52	-	-	-
73	-	-	-	-	4.94	4.94	-	-	-

**Mass flow in kg/h**

22	39	49	62	76	93	-	-	-	-
30	-	49	61	76	93	113	-	-	-
40	-	-	60	75	92	112	136	-	-
50	-	-	59	74	91	111	135	-	-
60	-	-	-	72	89	109	-	-	-
70	-	-	-	-	87	107	-	-	-
73	-	-	-	-	86	106	-	-	-

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

22	3.32	4.13	5.09	6.17	7.38	-	-	-	-
30	-	3.23	3.99	4.87	5.86	6.97	-	-	-
40	-	-	2.92	3.57	4.32	5.17	6.10	-	-
50	-	-	2.11	2.58	3.12	3.75	4.44	-	-
60	-	-	-	1.82	2.21	2.65	-	-	-
70	-	-	-	-	1.52	1.82	-	-	-
73	-	-	-	-	1.34	1.62	-	-	-

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

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

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

**Pressure switch settings**

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

**Sound power data**

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

Tolerance according EN12900



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

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

**Cooling capacity in W**

22	2 496	3 149	3 926	4 828	5 859	-	-	-	-
30	2 277	2 904	3 650	4 517	5 506	6 621	-	-	-
40	2 003	2 591	3 290	4 104	5 035	6 085	7 256	-	-
50	-	2 258	2 903	3 656	4 520	5 496	6 586	-	-
60	-	-	2 477	3 161	3 949	4 843	5 845	-	-
70	-	-	-	2 608	3 312	4 115	5 021	-	-
73	-	-	-	2 428	3 106	3 881	4 755	-	-

**Power input in W**

22	739	753	768	787	810	-	-	-	-
30	872	887	903	920	940	964	-	-	-
40	1 058	1 080	1 100	1 118	1 138	1 159	1 184	-	-
50	-	1 303	1 332	1 357	1 380	1 403	1 428	-	-
60	-	-	1 604	1 640	1 672	1 701	1 729	-	-
70	-	-	-	1 972	2 017	2 057	2 094	-	-
73	-	-	-	2 082	2 132	2 176	2 216	-	-

**Current consumption in A**

22	1.99	2.00	2.01	2.01	2.02	-	-	-	-
30	2.19	2.21	2.22	2.23	2.24	2.26	-	-	-
40	2.42	2.44	2.46	2.47	2.49	2.51	2.54	-	-
50	-	2.77	2.80	2.82	2.84	2.87	2.90	-	-
60	-	-	3.38	3.41	3.44	3.48	3.51	-	-
70	-	-	-	4.40	4.44	4.48	4.53	-	-
73	-	-	-	4.79	4.84	4.88	4.93	-	-

**Mass flow in kg/h**

22	54	67	81	98	117	-	-	-	-
30	53	66	81	98	117	138	-	-	-
40	51	65	80	98	118	139	163	-	-
50	-	63	79	97	117	140	164	-	-
60	-	-	77	95	116	139	164	-	-
70	-	-	-	91	113	136	162	-	-
73	-	-	-	90	111	135	161	-	-

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

22	3.38	4.18	5.11	6.14	7.23	-	-	-	-
30	2.61	3.27	4.04	4.91	5.86	6.87	-	-	-
40	1.89	2.40	2.99	3.67	4.43	5.25	6.13	-	-
50	-	1.73	2.18	2.69	3.27	3.92	4.61	-	-
60	-	-	1.54	1.93	2.36	2.85	3.38	-	-
70	-	-	-	1.32	1.64	2.00	2.40	-	-
73	-	-	-	1.17	1.46	1.78	2.15	-	-

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

Cooling capacity	2 427	W
Power input	1 188	W
Current consumption	2.59	A
Mass flow	64	kg/h
C.O.P.	2.04	

**Pressure switch settings**

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

**Sound power data**

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

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Tolerance according EN12900

**Performance data at 60 Hz, EN 12900 rating conditions, Suction temp. = 20 °C**
**R134a**

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

**Cooling capacity in W**

22	2 536	3 186	3 956	4 849	5 869	-	-	-	-
30	-	2 958	3 697	4 551	5 525	6 621	-	-	-
40	-	-	3 358	4 157	5 065	6 085	7 222	-	-
50	-	-	2 991	3 727	4 561	5 496	6 534	-	-
60	-	-	-	3 249	4 002	4 843	-	-	-
70	-	-	-	-	3 376	4 115	-	-	-
73	-	-	-	-	3 173	3 881	-	-	-

**Power input in W**

22	739	753	768	787	810	-	-	-	-
30	-	887	903	920	940	964	-	-	-
40	-	-	1 100	1 118	1 138	1 159	1 184	-	-
50	-	-	1 332	1 357	1 380	1 403	1 428	-	-
60	-	-	-	1 640	1 672	1 701	-	-	-
70	-	-	-	-	2 017	2 057	-	-	-
73	-	-	-	-	2 132	2 176	-	-	-

**Current consumption in A**

22	1.99	2.00	2.01	2.01	2.02	-	-	-	-
30	-	2.21	2.22	2.23	2.24	2.26	-	-	-
40	-	-	2.46	2.47	2.49	2.51	2.54	-	-
50	-	-	2.80	2.82	2.84	2.87	2.90	-	-
60	-	-	-	3.41	3.44	3.48	-	-	-
70	-	-	-	-	4.44	4.48	-	-	-
73	-	-	-	-	4.84	4.88	-	-	-

**Mass flow in kg/h**

22	48	61	76	94	114	-	-	-	-
30	-	60	76	94	115	138	-	-	-
40	-	-	75	94	115	139	167	-	-
50	-	-	74	93	115	140	168	-	-
60	-	-	-	91	113	139	-	-	-
70	-	-	-	-	110	136	-	-	-
73	-	-	-	-	109	135	-	-	-

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

22	3.43	4.23	5.15	6.16	7.25	-	-	-	-
30	-	3.33	4.09	4.95	5.88	6.87	-	-	-
40	-	-	3.05	3.72	4.45	5.25	6.10	-	-
50	-	-	2.25	2.75	3.30	3.92	4.58	-	-
60	-	-	-	1.98	2.39	2.85	-	-	-
70	-	-	-	-	1.67	2.00	-	-	-
73	-	-	-	-	1.49	1.78	-	-	-

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

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

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

**Pressure switch settings**

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

**Sound power data**

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

Tolerance according EN12900

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

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

**Cooling capacity in W**

10	2 340	2 903	3 593	4 425	5 415	-	-	-	-
20	2 090	2 625	3 258	4 006	4 885	5 911	7 100	-	-
30	1 767	2 278	2 860	3 529	4 301	5 194	6 222	7 402	8 749
40	-	1 851	2 387	2 982	3 654	4 417	5 289	6 286	7 424
50	-	-	1 829	2 356	2 931	3 571	4 292	5 111	6 044
60	-	-	-	-	2 122	2 643	3 219	3 865	4 599

**Power input in W**

10	783	782	765	736	696	-	-	-	-
20	977	983	976	958	933	904	876	-	-
30	1 248	1 250	1 240	1 222	1 199	1 176	1 155	1 141	1 136
40	-	1 625	1 601	1 572	1 540	1 510	1 485	1 469	1 465
50	-	-	2 103	2 050	1 997	1 949	1 908	1 879	1 864
60	-	-	-	-	2 615	2 537	2 468	2 414	2 377

**Current consumption in A**

10	1.61	1.61	1.58	1.52	1.44	-	-	-	-
20	2.01	2.03	2.01	1.97	1.92	1.86	1.81	-	-
30	2.57	2.58	2.56	2.52	2.47	2.42	2.38	2.35	2.34
40	-	3.35	3.30	3.24	3.18	3.11	3.06	3.03	3.02
50	-	-	4.34	4.23	4.12	4.02	3.94	3.87	3.84
60	-	-	-	-	5.39	5.23	5.09	4.98	4.90

**Mass flow in kg/h**

10	45	58	74	91	113	-	-	-	-
20	44	57	72	90	110	135	163	-	-
30	42	55	70	87	107	131	159	191	229
40	-	51	66	83	102	126	153	184	221
50	-	-	58	75	95	117	144	175	211
60	-	-	-	-	83	105	131	161	197

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

10	2.99	3.71	4.69	6.01	7.78	-	-	-	-
20	2.14	2.67	3.34	4.18	5.24	6.54	8.11	-	-
30	1.42	1.82	2.31	2.89	3.59	4.42	5.39	6.49	7.70
40	-	1.14	1.49	1.90	2.37	2.93	3.56	4.28	5.07
50	-	-	0.87	1.15	1.47	1.83	2.25	2.72	3.24
60	-	-	-	-	0.81	1.04	1.30	1.60	1.93

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

Cooling capacity	3 302	W
Power input	1 751	W
Current consumption	3.61	A
Mass flow	99	kg/h
C.O.P.	1.89	

**Pressure switch settings**

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

**Sound power data**

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

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Tolerance according EN12900

**Performance data at 50 Hz, EN 12900 rating conditions, Superheat = 10 K**
**R404A**

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

**Cooling capacity in W**

10	2 248	2 810	3 501	4 339	5 342	-	-	-	-
20	1 966	2 493	3 124	3 876	4 767	5 814	7 032	-	-
30	1 616	2 111	2 686	3 356	4 140	5 055	6 119	7 346	8 749
40	1 197	1 661	2 180	2 771	3 451	4 239	5 152	6 209	7 424
50	-	-	1 605	2 117	2 695	3 358	4 124	5 013	6 044
60	-	-	-	-	1 867	2 405	3 024	3 748	4 599

**Power input in W**

10	783	782	765	736	696	-	-	-	-
20	977	983	976	958	933	904	876	-	-
30	1 248	1 250	1 240	1 222	1 199	1 176	1 155	1 141	1 136
40	1 640	1 625	1 601	1 572	1 540	1 510	1 485	1 469	1 465
50	-	-	2 103	2 050	1 997	1 949	1 908	1 879	1 864
60	-	-	-	-	2 615	2 537	2 468	2 414	2 377

**Current consumption in A**

10	1.61	1.61	1.58	1.52	1.44	-	-	-	-
20	2.01	2.03	2.01	1.97	1.92	1.86	1.81	-	-
30	2.57	2.58	2.56	2.52	2.47	2.42	2.38	2.35	2.34
40	3.38	3.35	3.30	3.24	3.18	3.11	3.06	3.03	3.02
50	-	-	4.34	4.23	4.12	4.02	3.94	3.87	3.84
60	-	-	-	-	5.39	5.23	5.09	4.98	4.90

**Mass flow in kg/h**

10	53	68	84	103	124	-	-	-	-
20	52	67	83	101	122	145	172	-	-
30	50	64	80	98	119	142	168	197	229
40	44	59	76	93	113	136	161	190	221
50	-	-	67	85	105	127	152	180	211
60	-	-	-	-	92	114	139	166	197

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

10	2.87	3.59	4.57	5.90	7.67	-	-	-	-
20	2.01	2.54	3.20	4.05	5.11	6.43	8.03	-	-
30	1.29	1.69	2.17	2.75	3.45	4.30	5.30	6.44	7.70
40	0.73	1.02	1.36	1.76	2.24	2.81	3.47	4.23	5.07
50	-	-	0.76	1.03	1.35	1.72	2.16	2.67	3.24
60	-	-	-	-	0.71	0.95	1.23	1.55	1.93

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

Cooling capacity	3 082	W
Power input	1 751	W
Current consumption	3.61	A
Mass flow	109	kg/h
C.O.P.	1.76	

**Pressure switch settings**

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

**Sound power data**

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

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Tolerance according EN12900

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

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

**Cooling capacity in W**

10	2 856	3 532	4 349	5 325	6 478	-	-	-	-
20	2 514	3 159	3 917	4 805	5 843	7 049	8 441	-	-
30	2 134	2 750	3 450	4 253	5 177	6 241	7 464	8 863	10 458
40	-	2 283	2 926	3 644	4 456	5 380	6 434	7 638	9 010
50	-	-	2 324	2 959	3 659	4 444	5 331	6 341	7 491
60	-	-	-	-	2 764	3 411	4 133	4 950	5 881

**Power input in W**

10	967	947	930	916	902	-	-	-	-
20	1 209	1 195	1 184	1 172	1 160	1 145	1 126	-	-
30	1 502	1 497	1 492	1 486	1 477	1 464	1 445	1 418	1 382
40	-	1 868	1 872	1 872	1 868	1 859	1 841	1 814	1 777
50	-	-	2 339	2 348	2 351	2 346	2 331	2 306	2 268
60	-	-	-	-	2 940	2 942	2 932	2 910	2 874

**Current consumption in A**

10	1.52	1.49	1.46	1.44	1.41	-	-	-	-
20	1.90	1.87	1.86	1.84	1.82	1.80	1.77	-	-
30	2.36	2.35	2.34	2.33	2.32	2.30	2.27	2.22	2.17
40	-	2.93	2.94	2.94	2.93	2.92	2.89	2.85	2.79
50	-	-	3.67	3.68	3.69	3.68	3.66	3.62	3.56
60	-	-	-	-	4.61	4.62	4.60	4.57	4.51

**Mass flow in kg/h**

10	52	70	88	110	135	-	-	-	-
20	51	69	87	108	132	161	195	-	-
30	49	67	85	105	129	157	190	230	277
40	-	62	81	102	125	152	185	224	270
50	-	-	74	95	119	146	178	217	262
60	-	-	-	-	109	137	169	207	252

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

10	2.95	3.73	4.68	5.82	7.18	-	-	-	-
20	2.08	2.64	3.31	4.10	5.04	6.16	7.50	-	-
30	1.42	1.84	2.31	2.86	3.50	4.26	5.17	6.25	7.57
40	-	1.22	1.56	1.95	2.38	2.89	3.50	4.21	5.07
50	-	-	0.99	1.26	1.56	1.89	2.29	2.75	3.30
60	-	-	-	-	0.94	1.16	1.41	1.70	2.05

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

Cooling capacity	4 068	W
Power input	2 097	W
Current consumption	3.29	A
Mass flow	122	kg/h
C.O.P.	1.94	

**Pressure switch settings**

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

**Sound power data**

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

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Tolerance according EN12900

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

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

**Cooling capacity in W**

10	2 744	3 419	4 238	5 222	6 391	-	-	-	-
20	2 364	3 000	3 755	4 649	5 702	6 934	8 361	-	-
30	1 952	2 549	3 240	4 044	4 982	6 074	7 340	8 797	10 458
40	1 493	2 048	2 672	3 386	4 209	5 163	6 268	7 544	9 010
50	-	-	2 038	2 659	3 365	4 179	5 123	6 219	7 491
60	-	-	-	-	2 432	3 103	3 884	4 800	5 881

**Power input in W**

10	967	947	930	916	902	-	-	-	-
20	1 209	1 195	1 184	1 172	1 160	1 145	1 126	-	-
30	1 502	1 497	1 492	1 486	1 477	1 464	1 445	1 418	1 382
40	1 863	1 868	1 872	1 872	1 868	1 859	1 841	1 814	1 777
50	-	-	2 339	2 348	2 351	2 346	2 331	2 306	2 268
60	-	-	-	-	2 940	2 942	2 932	2 910	2 874

**Current consumption in A**

10	1.52	1.49	1.46	1.44	1.41	-	-	-	-
20	1.90	1.87	1.86	1.84	1.82	1.80	1.77	-	-
30	2.36	2.35	2.34	2.33	2.32	2.30	2.27	2.22	2.17
40	2.92	2.93	2.94	2.94	2.93	2.92	2.89	2.85	2.79
50	-	-	3.67	3.68	3.69	3.68	3.66	3.62	3.56
60	-	-	-	-	4.61	4.62	4.60	4.57	4.51

**Mass flow in kg/h**

10	62	81	101	123	149	-	-	-	-
20	61	80	100	121	146	174	206	-	-
30	58	78	98	119	142	170	201	237	277
40	52	73	93	114	138	165	195	230	270
50	-	-	85	107	131	158	188	223	262
60	-	-	-	-	121	148	179	213	252

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

10	2.84	3.61	4.56	5.70	7.09	-	-	-	-
20	1.96	2.51	3.17	3.97	4.91	6.05	7.43	-	-
30	1.30	1.70	2.17	2.72	3.37	4.15	5.08	6.20	7.57
40	0.80	1.10	1.43	1.81	2.25	2.78	3.40	4.16	5.07
50	-	-	0.87	1.13	1.43	1.78	2.20	2.70	3.30
60	-	-	-	-	0.83	1.05	1.32	1.65	2.05

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

Cooling capacity	3 797	W
Power input	2 097	W
Current consumption	3.29	A
Mass flow	135	kg/h
C.O.P.	1.81	

**Pressure switch settings**

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

**Sound power data**

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

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Tolerance according EN12900

**Performance data at 50 Hz, EN 12900 rating conditions**
**R407A**

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

**Cooling capacity in W**

10	2 447	3 061	3 801	4 684	-	-	-	-	-
20	2 185	2 766	3 467	4 303	5 290	6 445	-	-	-
30	1 889	2 424	3 071	3 847	4 766	5 845	7 101	8 547	-
40	1 572	2 047	2 627	3 328	4 165	5 156	6 315	7 658	-
45	-	1 850	2 391	3 050	3 841	4 781	5 887	7 173	-
50	-	-	2 149	2 761	3 502	4 390	5 438	6 664	-
55	-	-	-	2 463	3 152	3 982	4 970	6 132	-
60	-	-	-	-	2 791	3 561	4 485	5 579	-

**Power input in W**

10	740	749	750	740	-	-	-	-	-
20	890	907	919	924	919	900	-	-	-
30	1 079	1 100	1 120	1 136	1 145	1 144	1 131	1 102	-
40	1 335	1 355	1 377	1 400	1 419	1 433	1 437	1 429	-
45	-	1 513	1 536	1 560	1 583	1 602	1 613	1 614	-
50	-	-	1 718	1 743	1 769	1 792	1 809	1 818	-
55	-	-	-	1 953	1 980	2 006	2 028	2 044	-
60	-	-	-	-	2 219	2 247	2 273	2 295	-

**Current consumption in A**

10	1.71	1.75	1.78	1.80	-	-	-	-	-
20	2.24	2.29	2.32	2.34	2.35	2.36	-	-	-
30	2.55	2.60	2.63	2.65	2.66	2.67	2.68	2.69	-
40	2.82	2.87	2.90	2.92	2.93	2.94	2.95	2.96	-
45	-	3.05	3.08	3.10	3.11	3.12	3.13	3.14	-
50	-	-	3.32	3.34	3.35	3.36	3.36	3.38	-
55	-	-	-	3.66	3.67	3.68	3.68	3.69	-
60	-	-	-	-	4.10	4.11	4.11	4.12	-

**Mass flow in kg/h**

10	48	59	72	87	-	-	-	-	-
20	46	58	71	87	105	126	-	-	-
30	44	56	69	85	103	125	149	178	-
40	41	52	66	81	100	122	147	175	-
45	-	50	63	79	98	119	145	173	-
50	-	-	61	76	95	117	142	171	-
55	-	-	-	73	92	113	138	167	-
60	-	-	-	-	88	109	135	163	-

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

10	3.31	4.09	5.07	6.33	-	-	-	-	-
20	2.46	3.05	3.77	4.66	5.76	7.16	-	-	-
30	1.75	2.20	2.74	3.39	4.16	5.11	6.28	7.75	-
40	1.18	1.51	1.91	2.38	2.93	3.60	4.39	5.36	-
45	-	1.22	1.56	1.95	2.43	2.98	3.65	4.44	-
50	-	-	1.25	1.58	1.98	2.45	3.01	3.67	-
55	-	-	-	1.26	1.59	1.99	2.45	3.00	-
60	-	-	-	-	1.26	1.58	1.97	2.43	-

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

Cooling capacity	3 050	W
Power input	1 560	W
Current consumption	3.10	A
Mass flow	79	kg/h
C.O.P.	1.95	

**Pressure switch settings**

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

**Sound power data**

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

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Tolerance according EN12900

Danfoss can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alternations can be made without subsequential changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.

**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	2 599	3 247	4 029	4 960	-	-	-	-	-
20	2 337	2 956	3 701	4 588	5 636	6 859	-	-	-
30	2 040	2 614	3 307	4 137	5 120	6 272	7 610	9 151	-
40	1 719	2 234	2 863	3 620	4 524	5 592	6 839	8 283	-
45	-	2 035	2 625	3 341	4 201	5 221	6 418	7 808	-
50	-	-	2 380	3 051	3 863	4 832	5 976	7 310	-
55	-	-	-	2 752	3 513	4 428	5 515	6 791	-
60	-	-	-	-	-	4 011	5 040	6 255	-

**Power input in W**

10	740	749	750	740	-	-	-	-	-
20	890	907	919	924	919	900	-	-	-
30	1 079	1 100	1 120	1 136	1 145	1 144	1 131	1 102	-
40	1 335	1 355	1 377	1 400	1 419	1 433	1 437	1 429	-
45	-	1 513	1 536	1 560	1 583	1 602	1 613	1 614	-
50	-	-	1 718	1 743	1 769	1 792	1 809	1 818	-
55	-	-	-	1 953	1 980	2 006	2 028	2 044	-
60	-	-	-	-	-	2 247	2 273	2 295	-

**Current consumption in A**

10	1.71	1.75	1.78	1.80	-	-	-	-	-
20	2.24	2.29	2.32	2.34	2.35	2.36	-	-	-
30	2.55	2.60	2.63	2.65	2.66	2.67	2.68	2.69	-
40	2.82	2.87	2.90	2.92	2.93	2.94	2.95	2.96	-
45	-	3.05	3.08	3.10	3.11	3.12	3.13	3.14	-
50	-	-	3.32	3.34	3.35	3.36	3.36	3.38	-
55	-	-	-	3.66	3.67	3.68	3.68	3.69	-
60	-	-	-	-	-	4.11	4.11	4.12	-

**Mass flow in kg/h**

10	47	59	72	87	-	-	-	-	-
20	46	57	71	86	105	125	-	-	-
30	44	55	69	84	103	124	149	176	-
40	41	52	65	81	100	121	146	174	-
45	-	50	63	79	97	119	144	172	-
50	-	-	60	76	94	116	141	170	-
55	-	-	-	73	91	113	138	166	-
60	-	-	-	-	-	109	134	162	-

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

10	3.51	4.34	5.37	6.71	-	-	-	-	-
20	2.63	3.26	4.03	4.96	6.13	7.62	-	-	-
30	1.89	2.38	2.95	3.64	4.47	5.48	6.73	8.30	-
40	1.29	1.65	2.08	2.59	3.19	3.90	4.76	5.80	-
45	-	1.35	1.71	2.14	2.65	3.26	3.98	4.84	-
50	-	-	1.38	1.75	2.18	2.70	3.30	4.02	-
55	-	-	-	1.41	1.77	2.21	2.72	3.32	-
60	-	-	-	-	-	1.79	2.22	2.73	-

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

Cooling capacity	3 341	W
Power input	1 560	W
Current consumption	3.10	A
Mass flow	79	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	67	dB(A)
With acoustic hood	59	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

Danfoss can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alternations can be made without subsequential changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.



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	2 837	3 629	4 581	5 711	-	-	-	-	-
20	2 495	3 240	4 128	5 179	6 411	7 843	-	-	-
30	2 132	2 824	3 643	4 608	5 738	7 053	8 571	10 311	-
40	1 751	2 383	3 127	4 001	5 024	6 215	7 593	9 177	-
45	-	2 155	2 859	3 685	4 652	5 779	7 085	8 589	-
50	-	-	2 584	3 360	4 270	5 331	6 564	7 986	-
55	-	-	-	3 028	3 879	4 873	6 031	7 370	-
60	-	-	-	-	3 478	4 405	5 486	6 741	-

Power input in W

10	858	861	867	881	-	-	-	-	-
20	1 056	1 064	1 067	1 070	1 080	1 100	-	-	-
30	1 285	1 310	1 323	1 328	1 331	1 337	1 351	1 379	-
40	1 550	1 605	1 640	1 659	1 668	1 672	1 677	1 687	-
45	-	1 771	1 822	1 853	1 870	1 878	1 882	1 888	-
50	-	-	2 020	2 066	2 094	2 109	2 116	2 121	-
55	-	-	-	2 299	2 341	2 366	2 380	2 387	-
60	-	-	-	-	2 612	2 651	2 674	2 686	-

Current consumption in A

10	1.68	1.71	1.73	1.74	-	-	-	-	-
20	2.21	2.25	2.27	2.28	2.29	2.30	-	-	-
30	2.51	2.56	2.59	2.61	2.62	2.63	2.64	2.66	-
40	2.75	2.81	2.85	2.88	2.90	2.92	2.93	2.96	-
45	-	2.97	3.02	3.05	3.07	3.09	3.12	3.14	-
50	-	-	3.23	3.27	3.30	3.33	3.35	3.38	-
55	-	-	-	3.56	3.60	3.63	3.66	3.69	-
60	-	-	-	-	3.99	4.03	4.06	4.10	-

Mass flow in kg/h

10	55	70	87	107	-	-	-	-	-
20	53	68	85	105	127	154	-	-	-
30	50	65	82	102	125	151	180	214	-
40	46	61	78	98	121	147	176	210	-
45	-	58	76	96	118	144	174	207	-
50	-	-	73	93	116	142	171	204	-
55	-	-	-	90	113	139	168	201	-
60	-	-	-	-	109	135	165	198	-

Coefficient of performance (C.O.P.)

10	3.31	4.22	5.29	6.48	-	-	-	-	-
20	2.36	3.05	3.87	4.84	5.94	7.13	-	-	-
30	1.66	2.15	2.75	3.47	4.31	5.27	6.34	7.48	-
40	1.13	1.49	1.91	2.41	3.01	3.72	4.53	5.44	-
45	-	1.22	1.57	1.99	2.49	3.08	3.76	4.55	-
50	-	-	1.28	1.63	2.04	2.53	3.10	3.76	-
55	-	-	-	1.32	1.66	2.06	2.53	3.09	-
60	-	-	-	-	1.33	1.66	2.05	2.51	-

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

Cooling capacity	3 685	W
Power input	1 853	W
Current consumption	3.05	A
Mass flow	96	kg/h
C.O.P.	1.99	

Pressure switch settings

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

Sound power data

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

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Tolerance according EN12900

Danfoss can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alternations can be made without subsequential changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.

**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	3 013	3 851	4 856	6 048	-	-	-	-	-
20	2 669	3 462	4 407	5 522	6 829	8 346	-	-	-
30	2 303	3 045	3 923	4 956	6 164	7 568	9 186	11 038	-
40	1 915	2 602	3 407	4 352	5 457	6 740	8 223	9 926	-
45	-	2 370	3 138	4 037	5 088	6 310	7 724	9 349	-
50	-	-	2 862	3 714	4 709	5 869	7 213	8 761	-
55	-	-	-	3 383	4 323	5 419	6 692	8 162	-
60	-	-	-	-	-	4 962	6 165	7 557	-

**Power input in W**

10	858	861	867	881	-	-	-	-	-
20	1 056	1 064	1 067	1 070	1 080	1 100	-	-	-
30	1 285	1 310	1 323	1 328	1 331	1 337	1 351	1 379	-
40	1 550	1 605	1 640	1 659	1 668	1 672	1 677	1 687	-
45	-	1 771	1 822	1 853	1 870	1 878	1 882	1 888	-
50	-	-	2 020	2 066	2 094	2 109	2 116	2 121	-
55	-	-	-	2 299	2 341	2 366	2 380	2 387	-
60	-	-	-	-	-	2 651	2 674	2 686	-

**Current consumption in A**

10	1.68	1.71	1.73	1.74	-	-	-	-	-
20	2.21	2.25	2.27	2.28	2.29	2.30	-	-	-
30	2.51	2.56	2.59	2.61	2.62	2.63	2.64	2.66	-
40	2.75	2.81	2.85	2.88	2.90	2.92	2.93	2.96	-
45	-	2.97	3.02	3.05	3.07	3.09	3.12	3.14	-
50	-	-	3.23	3.27	3.30	3.33	3.35	3.38	-
55	-	-	-	3.56	3.60	3.63	3.66	3.69	-
60	-	-	-	-	-	4.03	4.06	4.10	-

**Mass flow in kg/h**

10	55	70	86	106	-	-	-	-	-
20	53	67	84	104	127	153	-	-	-
30	50	64	81	101	124	150	179	213	-
40	45	60	78	97	120	146	175	209	-
45	-	58	75	95	118	144	173	206	-
50	-	-	73	92	115	141	170	203	-
55	-	-	-	89	112	138	167	200	-
60	-	-	-	-	-	135	164	197	-

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

10	3.51	4.47	5.60	6.86	-	-	-	-	-
20	2.53	3.26	4.13	5.16	6.33	7.59	-	-	-
30	1.79	2.32	2.97	3.73	4.63	5.66	6.80	8.00	-
40	1.24	1.62	2.08	2.62	3.27	4.03	4.90	5.88	-
45	-	1.34	1.72	2.18	2.72	3.36	4.10	4.95	-
50	-	-	1.42	1.80	2.25	2.78	3.41	4.13	-
55	-	-	-	1.47	1.85	2.29	2.81	3.42	-
60	-	-	-	-	-	1.87	2.31	2.81	-

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

Cooling capacity	4 037	W
Power input	1 853	W
Current consumption	3.05	A
Mass flow	95	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	71	dB(A)
With acoustic hood	63	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

Danfoss can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alternations can be made without subsequential changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.

**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	-	1 921	2 414	2 997	3 673	4 450	5 333	6 327	7 440
35	-	1 781	2 263	2 830	3 486	4 238	5 091	6 052	7 126
40	-	1 645	2 112	2 658	3 289	4 012	4 831	5 754	6 785
45	-	-	1 968	2 490	3 092	3 781	4 562	5 442	6 425
50	-	-	-	2 335	2 903	3 554	4 292	5 124	6 056
55	-	-	-	-	2 731	3 339	4 031	4 811	5 686
60	-	-	-	-	-	3 145	3 785	4 508	5 322
65	-	-	-	-	-	-	3 561	4 223	4 971

**Power input in W**

30	-	1 000	1 029	1 058	1 086	1 115	1 147	1 181	1 218
35	-	1 109	1 146	1 178	1 208	1 236	1 262	1 289	1 316
40	-	1 217	1 264	1 304	1 337	1 366	1 391	1 412	1 432
45	-	-	1 383	1 433	1 473	1 506	1 532	1 552	1 566
50	-	-	-	1 565	1 616	1 656	1 685	1 706	1 718
55	-	-	-	-	1 764	1 814	1 850	1 875	1 888
60	-	-	-	-	-	1 980	2 026	2 058	2 075
65	-	-	-	-	-	-	2 214	2 255	2 279

**Current consumption in A**

30	-	1.80	1.86	1.91	1.96	2.01	2.07	2.13	2.20
35	-	2.00	2.07	2.13	2.18	2.23	2.28	2.32	2.37
40	-	2.20	2.28	2.35	2.41	2.46	2.51	2.55	2.58
45	-	-	2.50	2.58	2.66	2.72	2.76	2.80	2.83
50	-	-	-	2.82	2.92	2.99	3.04	3.08	3.10
55	-	-	-	-	3.18	3.27	3.34	3.38	3.41
60	-	-	-	-	-	3.57	3.66	3.71	3.74
65	-	-	-	-	-	-	3.99	4.07	4.11

**Mass flow in kg/h**

30	-	37	47	59	73	89	108	129	153
35	-	36	46	58	72	88	107	129	153
40	-	34	45	57	71	88	107	128	152
45	-	-	43	55	70	86	106	127	151
50	-	-	-	53	68	85	104	126	150
55	-	-	-	-	66	83	103	124	149
60	-	-	-	-	-	81	100	123	147
65	-	-	-	-	-	-	98	120	145

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

30	-	1.92	2.35	2.83	3.38	3.99	4.65	5.36	6.11
35	-	1.61	1.98	2.40	2.89	3.43	4.03	4.70	5.42
40	-	1.35	1.67	2.04	2.46	2.94	3.47	4.07	4.74
45	-	-	1.42	1.74	2.10	2.51	2.98	3.51	4.10
50	-	-	-	1.49	1.80	2.15	2.55	3.00	3.52
55	-	-	-	-	1.55	1.84	2.18	2.57	3.01
60	-	-	-	-	-	1.59	1.87	2.19	2.56
65	-	-	-	-	-	-	1.61	1.87	2.18

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

Cooling capacity	3 092	W
Power input	1 473	W
Current consumption	2.66	A
Mass flow	70	kg/h
C.O.P.	2.10	

**Pressure switch settings**

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

**Sound power data**

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

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Tolerance according EN12900

Danfoss can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alternations can be made without subsequential changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.

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

Danfoss can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alternations can be made without subsequential changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.

**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	-	2 305	2 897	3 596	4 408	5 340	6 399	7 593	8 928
35	-	2 137	2 716	3 396	4 183	5 085	6 109	7 262	8 552
40	-	1 974	2 534	3 189	3 947	4 814	5 798	6 905	8 142
45	-	-	2 362	2 988	3 710	4 537	5 474	6 530	7 710
50	-	-	-	2 802	3 484	4 265	5 151	6 149	7 267
55	-	-	-	-	3 278	4 007	4 837	5 773	6 823
60	-	-	-	-	-	3 774	4 541	5 410	6 386
65	-	-	-	-	-	-	4 273	5 068	5 965

**Power input in W**

30	-	1 183	1 220	1 255	1 290	1 326	1 364	1 405	1 451
35	-	1 307	1 354	1 396	1 433	1 468	1 501	1 533	1 567
40	-	1 431	1 491	1 542	1 585	1 622	1 653	1 681	1 706
45	-	-	1 630	1 694	1 746	1 788	1 821	1 847	1 866
50	-	-	-	1 850	1 915	1 965	2 003	2 030	2 047
55	-	-	-	-	2 090	2 153	2 199	2 230	2 248
60	-	-	-	-	-	2 350	2 408	2 447	2 468
65	-	-	-	-	-	-	2 629	2 679	2 708

**Current consumption in A**

30	-	1.86	1.91	1.97	2.02	2.08	2.14	2.20	2.28
35	-	2.05	2.12	2.19	2.25	2.30	2.35	2.41	2.46
40	-	2.25	2.34	2.42	2.49	2.54	2.59	2.64	2.68
45	-	-	2.56	2.66	2.74	2.81	2.86	2.90	2.93
50	-	-	-	2.90	3.00	3.08	3.14	3.18	3.21
55	-	-	-	-	3.28	3.38	3.45	3.50	3.53
60	-	-	-	-	-	3.69	3.78	3.84	3.87
65	-	-	-	-	-	-	4.12	4.20	4.25

**Mass flow in kg/h**

30	-	44	56	71	87	107	129	155	184
35	-	43	55	70	87	106	129	154	183
40	-	41	54	68	85	105	128	154	183
45	-	-	52	66	84	104	127	153	182
50	-	-	-	64	82	102	125	151	181
55	-	-	-	-	79	100	123	149	179
60	-	-	-	-	-	97	120	147	177
65	-	-	-	-	-	-	117	144	174

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

30	-	1.95	2.37	2.86	3.42	4.03	4.69	5.40	6.15
35	-	1.63	2.01	2.43	2.92	3.46	4.07	4.74	5.46
40	-	1.38	1.70	2.07	2.49	2.97	3.51	4.11	4.77
45	-	-	1.45	1.76	2.12	2.54	3.01	3.54	4.13
50	-	-	-	1.51	1.82	2.17	2.57	3.03	3.55
55	-	-	-	-	1.57	1.86	2.20	2.59	3.04
60	-	-	-	-	-	1.61	1.89	2.21	2.59
65	-	-	-	-	-	-	1.63	1.89	2.20

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

Cooling capacity	3 710	W
Power input	1 746	W
Current consumption	2.74	A
Mass flow	84	kg/h
C.O.P.	2.12	

**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

Danfoss can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alternations can be made without subsequential changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.

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

Danfoss can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alternations can be made without subsequential changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.

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	2 830	3 231	4 001	4 914	-	-	-	-	-
20	2 552	2 933	3 667	4 537	5 561	6 754	-	-	-
30	2 233	2 586	3 268	4 080	5 039	6 162	7 465	8 965	-
40	1 886	2 202	2 816	3 555	4 434	5 472	6 683	8 085	-
45	-	-	2 575	3 271	4 105	5 094	6 253	7 600	-
50	-	-	-	2 976	3 760	4 696	5 801	7 089	-
55	-	-	-	-	3 402	4 281	5 326	6 552	-
60	-	-	-	-	-	-	-	-	-

Power input in W

10	786	788	790	790	-	-	-	-	-
20	953	959	965	969	972	973	-	-	-
30	1 160	1 171	1 185	1 194	1 201	1 206	1 209	1 213	-
40	1 426	1 443	1 466	1 484	1 497	1 507	1 514	1 520	-
45	-	-	1 636	1 659	1 676	1 689	1 699	1 707	-
50	-	-	-	1 857	1 879	1 896	1 909	1 919	-
55	-	-	-	-	2 107	2 129	2 146	2 159	-
60	-	-	-	-	-	-	-	-	-

Current consumption in A

10	1.82	1.84	1.87	1.88	-	-	-	-	-
20	2.40	2.42	2.45	2.46	2.47	2.47	-	-	-
30	2.73	2.75	2.78	2.80	2.81	2.81	2.82	2.83	-
40	3.03	3.05	3.08	3.09	3.10	3.10	3.11	3.12	-
45	-	-	3.27	3.28	3.29	3.30	3.30	3.31	-
50	-	-	-	3.54	3.55	3.55	3.56	3.57	-
55	-	-	-	-	3.90	3.90	3.90	3.91	-
60	-	-	-	-	-	-	-	-	-

Mass flow in kg/h

10	49	56	69	83	-	-	-	-	-
20	48	55	68	83	100	120	-	-	-
30	46	53	66	81	98	119	142	169	-
40	43	49	62	77	95	115	139	166	-
45	-	-	60	75	93	113	137	164	-
50	-	-	-	72	90	110	134	161	-
55	-	-	-	-	86	107	131	158	-
60	-	-	-	-	-	-	-	-	-

Coefficient of performance (C.O.P.)

10	3.60	4.10	5.07	6.22	-	-	-	-	-
20	2.68	3.06	3.80	4.68	5.72	6.94	-	-	-
30	1.92	2.21	2.76	3.42	4.20	5.11	6.17	7.39	-
40	1.32	1.53	1.92	2.40	2.96	3.63	4.41	5.32	-
45	-	-	1.57	1.97	2.45	3.02	3.68	4.45	-
50	-	-	-	1.60	2.00	2.48	3.04	3.69	-
55	-	-	-	-	1.61	2.01	2.48	3.04	-
60	-	-	-	-	-	-	-	-	-

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

Cooling capacity	3 271	W
Power input	1 659	W
Current consumption	3.28	A
Mass flow	75	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	67	dB(A)
With acoustic hood	59	dB(A)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Tolerance according EN12900

Danfoss can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alternations can be made without subsequential changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.

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	2 991	3 413	4 223	5 184	-	-	-	-	-
20	2 713	3 117	3 894	4 814	5 895	7 155	-	-	-
30	2 392	2 769	3 495	4 359	5 379	6 572	7 956	9 546	-
40	-	2 380	3 041	3 834	4 777	5 888	7 185	8 683	-
45	-	-	2 797	3 549	4 448	5 513	6 760	8 208	-
50	-	-	-	3 252	4 104	5 118	6 313	7 706	-
55	-	-	-	-	-	4 706	5 846	7 181	-
60	-	-	-	-	-	-	-	-	-

Power input in W

10	786	788	790	790	-	-	-	-	-
20	953	959	965	969	972	973	-	-	-
30	1 160	1 171	1 185	1 194	1 201	1 206	1 209	1 213	-
40	-	1 443	1 466	1 484	1 497	1 507	1 514	1 520	-
45	-	-	1 636	1 659	1 676	1 689	1 699	1 707	-
50	-	-	-	1 857	1 879	1 896	1 909	1 919	-
55	-	-	-	-	-	2 129	2 146	2 159	-
60	-	-	-	-	-	-	-	-	-

Current consumption in A

10	1.82	1.84	1.87	1.88	-	-	-	-	-
20	2.40	2.42	2.45	2.46	2.47	2.47	-	-	-
30	2.73	2.75	2.78	2.80	2.81	2.81	2.82	2.83	-
40	-	3.05	3.08	3.09	3.10	3.10	3.11	3.12	-
45	-	-	3.27	3.28	3.29	3.30	3.30	3.31	-
50	-	-	-	3.54	3.55	3.55	3.56	3.57	-
55	-	-	-	-	-	3.90	3.90	3.91	-
60	-	-	-	-	-	-	-	-	-

Mass flow in kg/h

10	49	56	68	83	-	-	-	-	-
20	48	55	67	82	99	119	-	-	-
30	46	52	65	80	98	118	141	168	-
40	-	49	62	77	94	115	138	165	-
45	-	-	60	74	92	112	136	163	-
50	-	-	-	72	89	110	133	160	-
55	-	-	-	-	-	106	130	157	-
60	-	-	-	-	-	-	-	-	-

Coefficient of performance (C.O.P.)

10	3.81	4.33	5.35	6.56	-	-	-	-	-
20	2.85	3.25	4.03	4.97	6.07	7.35	-	-	-
30	2.06	2.36	2.95	3.65	4.48	5.45	6.58	7.87	-
40	-	1.65	2.07	2.58	3.19	3.91	4.74	5.71	-
45	-	-	1.71	2.14	2.65	3.26	3.98	4.81	-
50	-	-	-	1.75	2.18	2.70	3.31	4.02	-
55	-	-	-	-	-	2.21	2.72	3.33	-
60	-	-	-	-	-	-	-	-	-

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

Cooling capacity	3 549	W
Power input	1 659	W
Current consumption	3.28	A
Mass flow	74	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	67	dB(A)
With acoustic hood	59	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

Danfoss can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alternations can be made without subsequential changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.



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	3 355	3 877	4 878	6 062	-	-	-	-	-
20	2 986	3 480	4 421	5 528	6 822	8 321	-	-	-
30	2 591	3 051	3 924	4 948	6 143	7 527	9 122	10 946	-
40	2 171	2 594	3 393	4 326	5 415	6 677	8 134	9 805	-
45	-	-	3 115	4 001	5 033	6 232	7 618	9 209	-
50	-	-	-	3 666	4 641	5 774	7 087	8 597	-
55	-	-	-	-	4 238	5 304	6 542	7 969	-
60	-	-	-	-	-	-	-	-	-

Power input in W

10	914	914	920	944	-	-	-	-	-
20	1 133	1 133	1 130	1 132	1 147	1 183	-	-	-
30	1 392	1 404	1 411	1 409	1 409	1 417	1 444	1 499	-
40	1 687	1 722	1 757	1 772	1 775	1 774	1 779	1 800	-
45	-	-	1 954	1 984	1 995	1 997	1 999	2 009	-
50	-	-	-	2 215	2 240	2 249	2 252	2 257	-
55	-	-	-	-	2 508	2 530	2 539	2 543	-
60	-	-	-	-	-	-	-	-	-

Current consumption in A

10	1.80	1.82	1.84	1.84	-	-	-	-	-
20	2.39	2.41	2.43	2.44	2.44	2.44	-	-	-
30	2.73	2.75	2.78	2.80	2.80	2.81	2.82	2.83	-
40	3.00	3.04	3.07	3.10	3.11	3.12	3.14	3.16	-
45	-	-	3.25	3.28	3.30	3.32	3.34	3.36	-
50	-	-	-	3.53	3.55	3.57	3.60	3.62	-
55	-	-	-	-	3.88	3.91	3.93	3.96	-
60	-	-	-	-	-	-	-	-	-

Mass flow in kg/h

10	59	67	84	103	-	-	-	-	-
20	56	65	82	101	123	148	-	-	-
30	53	62	79	98	120	145	173	206	-
40	49	58	75	94	116	141	169	202	-
45	-	-	72	92	113	138	167	199	-
50	-	-	-	89	111	136	164	196	-
55	-	-	-	-	108	132	161	192	-
60	-	-	-	-	-	-	-	-	-

Coefficient of performance (C.O.P.)

10	3.67	4.24	5.30	6.42	-	-	-	-	-
20	2.64	3.07	3.91	4.88	5.95	7.03	-	-	-
30	1.86	2.17	2.78	3.51	4.36	5.31	6.32	7.30	-
40	1.29	1.51	1.93	2.44	3.05	3.76	4.57	5.45	-
45	-	-	1.59	2.02	2.52	3.12	3.81	4.58	-
50	-	-	-	1.66	2.07	2.57	3.15	3.81	-
55	-	-	-	-	1.69	2.10	2.58	3.13	-
60	-	-	-	-	-	-	-	-	-

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

Cooling capacity	4 001	W
Power input	1 984	W
Current consumption	3.28	A
Mass flow	92	kg/h
C.O.P.	2.02	

Pressure switch settings

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

Sound power data

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

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Tolerance according EN12900

Danfoss can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alternations can be made without subsequential changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.

**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	3 545	4 095	5 150	6 395	-	-	-	-	-
20	3 175	3 698	4 694	5 865	7 232	8 814	-	-	-
30	2 776	3 267	4 197	5 288	6 558	8 029	9 721	11 655	-
40	-	2 805	3 664	4 666	5 834	7 186	8 745	10 531	-
45	-	-	3 384	4 341	5 454	6 745	8 235	9 945	-
50	-	-	-	4 006	5 064	6 293	7 713	9 345	-
55	-	-	-	-	-	5 831	7 180	8 734	-
60	-	-	-	-	-	-	-	-	-

**Power input in W**

10	914	914	920	944	-	-	-	-	-
20	1 133	1 133	1 130	1 132	1 147	1 183	-	-	-
30	1 392	1 404	1 411	1 409	1 409	1 417	1 444	1 499	-
40	-	1 722	1 757	1 772	1 775	1 774	1 779	1 800	-
45	-	-	1 954	1 984	1 995	1 997	1 999	2 009	-
50	-	-	-	2 215	2 240	2 249	2 252	2 257	-
55	-	-	-	-	-	2 530	2 539	2 543	-
60	-	-	-	-	-	-	-	-	-

**Current consumption in A**

10	1.80	1.82	1.84	1.84	-	-	-	-	-
20	2.39	2.41	2.43	2.44	2.44	2.44	-	-	-
30	2.73	2.75	2.78	2.80	2.80	2.81	2.82	2.83	-
40	-	3.04	3.07	3.10	3.11	3.12	3.14	3.16	-
45	-	-	3.25	3.28	3.30	3.32	3.34	3.36	-
50	-	-	-	3.53	3.55	3.57	3.60	3.62	-
55	-	-	-	-	-	3.91	3.93	3.96	-
60	-	-	-	-	-	-	-	-	-

**Mass flow in kg/h**

10	58	67	83	102	-	-	-	-	-
20	56	65	81	100	122	147	-	-	-
30	53	62	78	97	119	144	172	205	-
40	-	58	74	93	115	140	168	200	-
45	-	-	72	91	113	138	166	198	-
50	-	-	-	88	110	135	163	195	-
55	-	-	-	-	-	132	160	191	-
60	-	-	-	-	-	-	-	-	-

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

10	3.88	4.48	5.60	6.77	-	-	-	-	-
20	2.80	3.26	4.15	5.18	6.31	7.45	-	-	-
30	1.99	2.33	2.98	3.75	4.66	5.67	6.73	7.78	-
40	-	1.63	2.08	2.63	3.29	4.05	4.91	5.85	-
45	-	-	1.73	2.19	2.73	3.38	4.12	4.95	-
50	-	-	-	1.81	2.26	2.80	3.42	4.14	-
55	-	-	-	-	-	2.30	2.83	3.43	-
60	-	-	-	-	-	-	-	-	-

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

Cooling capacity	4 341	W
Power input	1 984	W
Current consumption	3.28	A
Mass flow	91	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	71	dB(A)
With acoustic hood	63	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

Danfoss can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alternations can be made without subsequential changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.

**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	1 965	2 470	3 075	3 797	4 650	-	-	-	-
20	1 766	2 255	2 834	3 519	4 324	5 264	6 355	-	-
30	-	-	2 544	3 180	3 926	4 796	5 805	6 969	8 303
40	-	-	-	2 792	3 466	4 254	5 171	6 231	7 450
50	-	-	-	-	2 955	3 650	4 463	5 408	6 501
60	-	-	-	-	-	-	3 690	4 509	5 465

**Power input in W**

10	775	785	796	806	811	-	-	-	-
20	955	956	965	980	996	1 009	1 018	-	-
30	-	-	1 188	1 194	1 208	1 227	1 247	1 264	1 275
40	-	-	-	1 496	1 497	1 508	1 527	1 549	1 573
50	-	-	-	-	1 908	1 900	1 905	1 921	1 944
60	-	-	-	-	-	-	2 429	2 426	2 436

**Current consumption in A**

10	2.51	2.50	2.50	2.49	2.48	-	-	-	-
20	2.61	2.62	2.63	2.64	2.65	2.65	2.66	-	-
30	-	-	2.81	2.83	2.85	2.86	2.88	2.89	2.91
40	-	-	-	3.13	3.15	3.16	3.18	3.20	3.21
50	-	-	-	-	3.61	3.62	3.63	3.64	3.65
60	-	-	-	-	-	-	4.29	4.28	4.28

**Mass flow in kg/h**

10	32	41	51	63	77	-	-	-	-
20	31	40	50	62	77	94	115	-	-
30	-	-	49	61	76	93	114	139	167
40	-	-	-	59	73	91	112	136	165
50	-	-	-	-	70	87	108	132	161
60	-	-	-	-	-	-	102	126	155

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

10	2.54	3.15	3.86	4.71	5.73	-	-	-	-
20	1.85	2.36	2.94	3.59	4.34	5.22	6.24	-	-
30	-	-	2.14	2.66	3.25	3.91	4.66	5.51	6.51
40	-	-	-	1.87	2.32	2.82	3.39	4.02	4.74
50	-	-	-	-	1.55	1.92	2.34	2.82	3.34
60	-	-	-	-	-	-	1.52	1.86	2.24

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

Cooling capacity	3 216	W
Power input	1 684	W
Current consumption	3.35	A
Mass flow	72	kg/h
C.O.P.	1.91	

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	1 974	2 482	3 093	3 821	4 680	-	-	-	-
20	1 751	2 241	2 823	3 512	4 323	5 270	6 367	-	-
30	1 503	1 962	2 504	3 142	3 893	4 772	5 792	6 965	8 303
40	-	-	2 147	2 723	3 402	4 200	5 132	6 211	7 450
50	-	-	-	2 266	2 862	3 567	4 398	5 371	6 501
60	-	-	-	-	2 282	2 882	3 601	4 456	5 465

**Power input in W**

10	775	785	796	806	811	-	-	-	-
20	955	956	965	980	996	1 009	1 018	-	-
30	1 211	1 192	1 188	1 194	1 208	1 227	1 247	1 264	1 275
40	-	-	1 510	1 496	1 497	1 508	1 527	1 549	1 573
50	-	-	-	1 933	1 908	1 900	1 905	1 921	1 944
60	-	-	-	-	2 488	2 448	2 429	2 426	2 436

**Current consumption in A**

10	2.51	2.50	2.50	2.49	2.48	-	-	-	-
20	2.61	2.62	2.63	2.64	2.65	2.65	2.66	-	-
30	2.78	2.80	2.81	2.83	2.85	2.86	2.88	2.89	2.91
40	-	-	3.12	3.13	3.15	3.16	3.18	3.20	3.21
50	-	-	-	3.61	3.61	3.62	3.63	3.64	3.65
60	-	-	-	-	4.31	4.30	4.29	4.28	4.28

**Mass flow in kg/h**

10	38	47	58	70	85	-	-	-	-
20	37	46	57	70	85	102	121	-	-
30	35	44	55	68	83	100	120	142	167
40	-	-	53	66	80	98	117	140	165
50	-	-	-	61	76	93	113	136	161
60	-	-	-	-	71	88	107	130	155

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

10	2.55	3.16	3.88	4.74	5.77	-	-	-	-
20	1.83	2.34	2.92	3.58	4.34	5.22	6.26	-	-
30	1.24	1.65	2.11	2.63	3.22	3.89	4.65	5.51	6.51
40	-	-	1.42	1.82	2.27	2.78	3.36	4.01	4.74
50	-	-	-	1.17	1.50	1.88	2.31	2.80	3.34
60	-	-	-	-	0.92	1.18	1.48	1.84	2.24

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

Cooling capacity	3 137	W
Power input	1 684	W
Current consumption	3.35	A
Mass flow	79	kg/h
C.O.P.	1.86	

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	2 255	2 893	3 665	4 588	5 682	-	-	-	-
20	1 997	2 597	3 311	4 159	5 158	6 328	7 686	-	-
30	-	-	2 961	3 730	4 632	5 686	6 910	8 324	9 945
40	-	-	-	3 302	4 104	5 039	6 126	7 384	8 830
50	-	-	-	-	3 573	4 387	5 334	6 433	7 703
60	-	-	-	-	-	-	4 534	5 472	6 561

**Power input in W**

10	836	867	898	922	935	-	-	-	-
20	1 062	1 088	1 120	1 153	1 181	1 198	1 201	-	-
30	-	-	1 378	1 407	1 438	1 466	1 485	1 490	1 476
40	-	-	-	1 736	1 759	1 785	1 809	1 825	1 829
50	-	-	-	-	2 192	2 205	2 222	2 239	2 250
60	-	-	-	-	-	-	2 776	2 781	2 787

**Current consumption in A**

10	2.22	2.24	2.27	2.29	2.30	-	-	-	-
20	2.42	2.43	2.46	2.49	2.52	2.53	2.53	-	-
30	-	-	2.68	2.70	2.73	2.77	2.79	2.80	2.78
40	-	-	-	3.02	3.04	3.07	3.10	3.13	3.15
50	-	-	-	-	3.51	3.52	3.55	3.58	3.62
60	-	-	-	-	-	-	4.22	4.24	4.27

**Mass flow in kg/h**

10	37	48	60	76	94	-	-	-	-
20	35	46	59	74	92	114	139	-	-
30	-	-	57	72	89	111	136	165	200
40	-	-	-	69	87	108	132	161	195
50	-	-	-	-	84	105	129	157	191
60	-	-	-	-	-	-	125	153	186

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

10	2.70	3.34	4.08	4.97	6.08	-	-	-	-
20	1.88	2.39	2.96	3.61	4.37	5.28	6.40	-	-
30	-	-	2.15	2.65	3.22	3.88	4.65	5.59	6.74
40	-	-	-	1.90	2.33	2.82	3.39	4.05	4.83
50	-	-	-	-	1.63	1.99	2.40	2.87	3.42
60	-	-	-	-	-	-	1.63	1.97	2.35

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

Cooling capacity	3 839	W
Power input	1 958	W
Current consumption	3.25	A
Mass flow	85	kg/h
C.O.P.	1.96	

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

**Pressure switch settings**

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

**Sound power data**

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

Tolerance according EN12900

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

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

**Cooling capacity in W**

10	2 264	2 907	3 685	4 616	5 718	-	-	-	-
20	1 980	2 580	3 297	4 150	5 157	6 335	7 701	-	-
30	1 706	2 260	2 914	3 685	4 594	5 657	6 894	8 319	9 945
40	-	-	2 533	3 221	4 028	4 975	6 080	7 360	8 830
50	-	-	-	2 756	3 460	4 287	5 257	6 390	7 703
60	-	-	-	-	2 886	3 591	4 424	5 407	6 561

**Power input in W**

10	836	867	898	922	935	-	-	-	-
20	1 062	1 088	1 120	1 153	1 181	1 198	1 201	-	-
30	1 347	1 357	1 378	1 407	1 438	1 466	1 485	1 490	1 476
40	-	-	1 722	1 736	1 759	1 785	1 809	1 825	1 829
50	-	-	-	2 190	2 192	2 205	2 222	2 239	2 250
60	-	-	-	-	2 789	2 777	2 776	2 781	2 787

**Current consumption in A**

10	2.22	2.24	2.27	2.29	2.30	-	-	-	-
20	2.42	2.43	2.46	2.49	2.52	2.53	2.53	-	-
30	2.69	2.67	2.68	2.70	2.73	2.77	2.79	2.80	2.78
40	-	-	3.02	3.02	3.04	3.07	3.10	3.13	3.15
50	-	-	-	3.53	3.51	3.52	3.55	3.58	3.62
60	-	-	-	-	4.25	4.22	4.22	4.24	4.27

**Mass flow in kg/h**

10	43	55	69	85	104	-	-	-	-
20	41	53	67	83	101	122	147	-	-
30	39	51	65	80	98	119	143	170	200
40	-	-	62	78	95	116	139	166	195
50	-	-	-	75	92	112	135	161	191
60	-	-	-	-	89	109	132	157	186

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

10	2.71	3.35	4.10	5.01	6.11	-	-	-	-
20	1.86	2.37	2.94	3.60	4.37	5.29	6.41	-	-
30	1.27	1.67	2.11	2.62	3.19	3.86	4.64	5.58	6.74
40	-	-	1.47	1.85	2.29	2.79	3.36	4.03	4.83
50	-	-	-	1.26	1.58	1.94	2.37	2.85	3.42
60	-	-	-	-	1.03	1.29	1.59	1.94	2.35

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

Cooling capacity	3 744	W
Power input	1 958	W
Current consumption	3.25	A
Mass flow	94	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		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	1 965	2 470	3 075	3 797	4 650	-	-	-	-
20	1 766	2 255	2 834	3 519	4 324	5 264	6 355	-	-
30	-	-	2 544	3 180	3 926	4 796	5 805	6 969	8 303
40	-	-	-	2 792	3 466	4 254	5 171	6 231	7 450
50	-	-	-	-	2 955	3 650	4 463	5 408	6 501
60	-	-	-	-	-	-	3 690	4 509	5 465

**Power input in W**

10	775	785	796	806	811	-	-	-	-
20	955	956	965	980	996	1 009	1 018	-	-
30	-	-	1 188	1 194	1 208	1 227	1 247	1 264	1 275
40	-	-	-	1 496	1 497	1 508	1 527	1 549	1 573
50	-	-	-	-	1 908	1 900	1 905	1 921	1 944
60	-	-	-	-	-	-	2 429	2 426	2 436

**Current consumption in A**

10	2.51	2.50	2.50	2.49	2.48	-	-	-	-
20	2.61	2.62	2.63	2.64	2.65	2.65	2.66	-	-
30	-	-	2.81	2.83	2.85	2.86	2.88	2.89	2.91
40	-	-	-	3.13	3.15	3.16	3.18	3.20	3.21
50	-	-	-	-	3.61	3.62	3.63	3.64	3.65
60	-	-	-	-	-	-	4.29	4.28	4.28

**Mass flow in kg/h**

10	32	41	51	63	77	-	-	-	-
20	31	40	50	62	77	94	115	-	-
30	-	-	49	61	76	93	114	139	167
40	-	-	-	59	73	91	112	136	165
50	-	-	-	-	70	87	108	132	161
60	-	-	-	-	-	-	102	126	155

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

10	2.54	3.15	3.86	4.71	5.73	-	-	-	-
20	1.85	2.36	2.94	3.59	4.34	5.22	6.24	-	-
30	-	-	2.14	2.66	3.25	3.91	4.66	5.51	6.51
40	-	-	-	1.87	2.32	2.82	3.39	4.02	4.74
50	-	-	-	-	1.55	1.92	2.34	2.82	3.34
60	-	-	-	-	-	-	1.52	1.86	2.24

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

Cooling capacity	3 216	W
Power input	1 684	W
Current consumption	3.35	A
Mass flow	72	kg/h
C.O.P.	1.91	

**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	1 969	2 477	3 088	3 816	4 676	-	-	-	-
20	1 746	2 236	2 817	3 507	4 318	5 266	6 364	-	-
30	1 498	1 957	2 498	3 137	3 888	4 767	5 788	6 963	8 303
40	-	-	2 141	2 717	3 397	4 195	5 128	6 209	7 450
50	-	-	-	2 260	2 856	3 561	4 394	5 369	6 501
60	-	-	-	-	2 277	2 877	3 597	4 453	5 465

**Power input in W**

10	775	785	796	806	811	-	-	-	-
20	955	956	965	980	996	1 009	1 018	-	-
30	1 211	1 192	1 188	1 194	1 208	1 227	1 247	1 264	1 275
40	-	-	1 510	1 496	1 497	1 508	1 527	1 549	1 573
50	-	-	-	1 933	1 908	1 900	1 905	1 921	1 944
60	-	-	-	-	2 488	2 448	2 429	2 426	2 436

**Current consumption in A**

10	2.51	2.50	2.50	2.49	2.48	-	-	-	-
20	2.61	2.62	2.63	2.64	2.65	2.65	2.66	-	-
30	2.78	2.80	2.81	2.83	2.85	2.86	2.88	2.89	2.91
40	-	-	3.12	3.13	3.15	3.16	3.18	3.20	3.21
50	-	-	-	3.61	3.61	3.62	3.63	3.64	3.65
60	-	-	-	-	4.31	4.30	4.29	4.28	4.28

**Mass flow in kg/h**

10	38	47	58	70	85	-	-	-	-
20	37	46	57	70	85	102	121	-	-
30	35	44	55	68	83	100	120	142	167
40	-	-	53	66	80	98	117	140	165
50	-	-	-	61	76	93	113	136	161
60	-	-	-	-	71	88	107	130	155

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

10	2.54	3.16	3.88	4.73	5.76	-	-	-	-
20	1.83	2.34	2.92	3.58	4.34	5.22	6.25	-	-
30	1.24	1.64	2.10	2.63	3.22	3.88	4.64	5.51	6.51
40	-	-	1.42	1.82	2.27	2.78	3.36	4.01	4.74
50	-	-	-	1.17	1.50	1.87	2.31	2.79	3.34
60	-	-	-	-	0.91	1.18	1.48	1.84	2.24

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

Cooling capacity	3 132	W
Power input	1 684	W
Current consumption	3.35	A
Mass flow	79	kg/h
C.O.P.	1.86	

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	2 255	2 893	3 665	4 588	5 682	-	-	-	-
20	1 997	2 597	3 311	4 159	5 158	6 328	7 686	-	-
30	-	-	2 961	3 730	4 632	5 686	6 910	8 324	9 945
40	-	-	-	3 302	4 104	5 039	6 126	7 384	8 830
50	-	-	-	-	3 573	4 387	5 334	6 433	7 703
60	-	-	-	-	-	-	4 534	5 472	6 561

**Power input in W**

10	836	867	898	922	935	-	-	-	-
20	1 062	1 088	1 120	1 153	1 181	1 198	1 201	-	-
30	-	-	1 378	1 407	1 438	1 466	1 485	1 490	1 476
40	-	-	-	1 736	1 759	1 785	1 809	1 825	1 829
50	-	-	-	-	2 192	2 205	2 222	2 239	2 250
60	-	-	-	-	-	-	2 776	2 781	2 787

**Current consumption in A**

10	2.22	2.24	2.27	2.29	2.30	-	-	-	-
20	2.42	2.43	2.46	2.49	2.52	2.53	2.53	-	-
30	-	-	2.68	2.70	2.73	2.77	2.79	2.80	2.78
40	-	-	-	3.02	3.04	3.07	3.10	3.13	3.15
50	-	-	-	-	3.51	3.52	3.55	3.58	3.62
60	-	-	-	-	-	-	4.22	4.24	4.27

**Mass flow in kg/h**

10	37	48	61	77	96	-	-	-	-
20	36	47	59	75	93	116	142	-	-
30	-	-	58	73	91	113	138	169	204
40	-	-	-	71	88	110	135	165	199
50	-	-	-	-	86	107	131	161	195
60	-	-	-	-	-	-	128	156	190

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

10	2.70	3.34	4.08	4.97	6.08	-	-	-	-
20	1.88	2.39	2.96	3.61	4.37	5.28	6.40	-	-
30	-	-	2.15	2.65	3.22	3.88	4.65	5.59	6.74
40	-	-	-	1.90	2.33	2.82	3.39	4.05	4.83
50	-	-	-	-	1.63	1.99	2.40	2.87	3.42
60	-	-	-	-	-	-	1.63	1.97	2.35

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

Cooling capacity	3 839	W
Power input	1 958	W
Current consumption	3.25	A
Mass flow	87	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		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	2 259	2 902	3 680	4 611	5 713	-	-	-	-
20	1 975	2 575	3 292	4 144	5 151	6 330	7 697	-	-
30	1 700	2 254	2 908	3 679	4 587	5 652	6 890	8 316	9 945
40	-	-	2 527	3 214	4 022	4 969	6 075	7 357	8 830
50	-	-	-	2 749	3 453	4 280	5 252	6 387	7 703
60	-	-	-	-	2 879	3 584	4 419	5 404	6 561

**Power input in W**

10	836	867	898	922	935	-	-	-	-
20	1 062	1 088	1 120	1 153	1 181	1 198	1 201	-	-
30	1 347	1 357	1 378	1 407	1 438	1 466	1 485	1 490	1 476
40	-	-	1 722	1 736	1 759	1 785	1 809	1 825	1 829
50	-	-	-	2 190	2 192	2 205	2 222	2 239	2 250
60	-	-	-	-	2 789	2 777	2 776	2 781	2 787

**Current consumption in A**

10	2.22	2.24	2.27	2.29	2.30	-	-	-	-
20	2.42	2.43	2.46	2.49	2.52	2.53	2.53	-	-
30	2.69	2.67	2.68	2.70	2.73	2.77	2.79	2.80	2.78
40	-	-	3.02	3.02	3.04	3.07	3.10	3.13	3.15
50	-	-	-	3.53	3.51	3.52	3.55	3.58	3.62
60	-	-	-	-	4.25	4.22	4.22	4.24	4.27

**Mass flow in kg/h**

10	44	56	70	86	105	-	-	-	-
20	42	54	68	84	103	124	149	-	-
30	40	52	66	81	100	121	146	173	204
40	-	-	63	79	97	118	142	169	199
50	-	-	-	76	94	115	138	165	195
60	-	-	-	-	91	111	135	161	190

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

10	2.70	3.35	4.10	5.00	6.11	-	-	-	-
20	1.86	2.37	2.94	3.59	4.36	5.28	6.41	-	-
30	1.26	1.66	2.11	2.61	3.19	3.86	4.64	5.58	6.74
40	-	-	1.47	1.85	2.29	2.78	3.36	4.03	4.83
50	-	-	-	1.26	1.57	1.94	2.36	2.85	3.42
60	-	-	-	-	1.03	1.29	1.59	1.94	2.35

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

Cooling capacity	3 738	W
Power input	1 958	W
Current consumption	3.25	A
Mass flow	96	kg/h
C.O.P.	1.91	

**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	2 171	2 716	3 381	4 182	5 130	-	-	-	-
20	1 941	2 447	3 057	3 785	4 645	5 650	6 816	-	-
30	-	2 185	2 732	3 380	4 144	5 036	6 072	7 265	8 629
40	-	-	2 403	2 964	3 624	4 397	5 296	6 335	7 529
50	-	-	-	-	3 083	3 729	4 484	5 362	6 379
60	-	-	-	-	-	3 028	3 633	4 344	5 176

**Power input in W**

10	795	815	828	832	829	-	-	-	-
20	946	974	995	1 009	1 015	1 012	1 002	-	-
30	-	1 181	1 209	1 230	1 242	1 248	1 245	1 234	1 215
40	-	-	1 488	1 513	1 532	1 542	1 545	1 540	1 527
50	-	-	-	-	1 900	1 915	1 922	1 921	1 912
60	-	-	-	-	-	2 384	2 393	2 395	2 389

**Current consumption in A**

10	2.42	2.44	2.45	2.46	2.47	-	-	-	-
20	2.56	2.59	2.61	2.62	2.63	2.63	2.62	-	-
30	-	2.77	2.80	2.82	2.83	2.84	2.84	2.82	2.81
40	-	-	3.07	3.10	3.12	3.14	3.14	3.14	3.12
50	-	-	-	-	3.54	3.56	3.58	3.58	3.57
60	-	-	-	-	-	4.15	4.18	4.19	4.20

**Mass flow in kg/h**

10	44	55	69	86	106	-	-	-	-
20	43	54	68	84	104	128	156	-	-
30	-	53	67	83	102	125	153	185	223
40	-	-	65	81	100	122	149	181	218
50	-	-	-	-	97	119	145	176	213
60	-	-	-	-	-	115	141	171	207

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

10	2.73	3.33	4.09	5.02	6.19	-	-	-	-
20	2.05	2.51	3.07	3.75	4.58	5.58	6.80	-	-
30	-	1.85	2.26	2.75	3.34	4.04	4.88	5.89	7.10
40	-	-	1.61	1.96	2.37	2.85	3.43	4.11	4.93
50	-	-	-	-	1.62	1.95	2.33	2.79	3.34
60	-	-	-	-	-	1.27	1.52	1.81	2.17

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

Cooling capacity	3 357	W
Power input	1 705	W
Current consumption	3.31	A
Mass flow	98	kg/h
C.O.P.	1.97	

**Pressure switch settings**

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

**Sound power data**

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

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Tolerance according EN12900

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

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

**Cooling capacity in W**

10	2 101	2 644	3 311	4 117	5 076	-	-	-	-
20	1 843	2 342	2 950	3 681	4 551	5 574	6 763	-	-
30	1 598	2 047	2 589	3 238	4 011	4 922	5 987	7 220	8 629
40	1 361	1 754	2 223	2 783	3 452	4 246	5 180	6 269	7 529
50	-	-	1 847	2 313	2 872	3 540	4 336	5 276	6 379
60	-	-	-	-	2 261	2 798	3 449	4 235	5 176

**Power input in W**

10	795	815	828	832	829	-	-	-	-
20	946	974	995	1 009	1 015	1 012	1 002	-	-
30	1 146	1 181	1 209	1 230	1 242	1 248	1 245	1 234	1 215
40	1 414	1 455	1 488	1 513	1 532	1 542	1 545	1 540	1 527
50	-	-	1 849	1 878	1 900	1 915	1 922	1 921	1 912
60	-	-	-	-	2 367	2 384	2 393	2 395	2 389

**Current consumption in A**

10	2.42	2.44	2.45	2.46	2.47	-	-	-	-
20	2.56	2.59	2.61	2.62	2.63	2.63	2.62	-	-
30	2.73	2.77	2.80	2.82	2.83	2.84	2.84	2.82	2.81
40	2.98	3.03	3.07	3.10	3.12	3.14	3.14	3.14	3.12
50	-	-	3.45	3.50	3.54	3.56	3.58	3.58	3.57
60	-	-	-	-	4.11	4.15	4.18	4.19	4.20

**Mass flow in kg/h**

10	52	65	79	97	117	-	-	-	-
20	51	63	78	95	115	138	164	-	-
30	50	62	76	93	112	135	161	190	223
40	49	61	74	91	110	132	157	186	218
50	-	-	73	88	107	128	153	181	213
60	-	-	-	-	103	124	148	176	207

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

10	2.64	3.24	4.00	4.95	6.12	-	-	-	-
20	1.95	2.40	2.96	3.65	4.49	5.51	6.75	-	-
30	1.39	1.73	2.14	2.63	3.23	3.95	4.81	5.85	7.10
40	0.96	1.21	1.49	1.84	2.25	2.75	3.35	4.07	4.93
50	-	-	1.00	1.23	1.51	1.85	2.26	2.75	3.34
60	-	-	-	-	0.96	1.17	1.44	1.77	2.17

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

Cooling capacity	3 165	W
Power input	1 705	W
Current consumption	3.31	A
Mass flow	108	kg/h
C.O.P.	1.86	

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	2 614	3 273	4 077	5 042	6 183	-	-	-	-
20	2 343	2 956	3 696	4 579	5 621	6 837	8 243	-	-
30	-	2 648	3 311	4 099	5 028	6 113	7 371	8 817	10 466
40	-	-	2 925	3 605	4 407	5 349	6 444	7 711	9 163
50	-	-	-	-	3 762	4 546	5 467	6 540	7 782
60	-	-	-	-	-	3 710	4 442	5 309	6 328

**Power input in W**

10	956	989	1 009	1 020	1 022	-	-	-	-
20	1 136	1 182	1 215	1 236	1 246	1 248	1 243	-	-
30	-	1 424	1 468	1 499	1 517	1 525	1 523	1 515	1 501
40	-	-	1 788	1 827	1 852	1 865	1 867	1 860	1 845
50	-	-	-	-	2 271	2 288	2 292	2 285	2 269
60	-	-	-	-	-	2 812	2 818	2 810	2 792

**Current consumption in A**

10	2.41	2.38	2.36	2.36	2.36	-	-	-	-
20	2.53	2.53	2.53	2.54	2.54	2.55	2.56	-	-
30	-	2.72	2.75	2.78	2.80	2.81	2.81	2.80	2.79
40	-	-	3.04	3.10	3.14	3.16	3.17	3.15	3.12
50	-	-	-	-	3.57	3.62	3.64	3.63	3.59
60	-	-	-	-	-	4.19	4.23	4.24	4.21

**Mass flow in kg/h**

10	53	67	84	104	128	-	-	-	-
20	51	66	82	102	126	155	188	-	-
30	-	64	81	100	124	152	185	225	271
40	-	-	79	98	121	149	181	220	266
50	-	-	-	-	118	145	177	215	259
60	-	-	-	-	-	141	172	209	253

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

10	2.73	3.31	4.04	4.94	6.05	-	-	-	-
20	2.06	2.50	3.04	3.71	4.51	5.48	6.63	-	-
30	-	1.86	2.25	2.73	3.31	4.01	4.84	5.82	6.97
40	-	-	1.64	1.97	2.38	2.87	3.45	4.15	4.97
50	-	-	-	-	1.66	1.99	2.39	2.86	3.43
60	-	-	-	-	-	1.32	1.58	1.89	2.27

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

Cooling capacity	4 088	W
Power input	2 050	W
Current consumption	3.34	A
Mass flow	120	kg/h
C.O.P.	1.99	

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	2 530	3 186	3 992	4 963	6 118	-	-	-	-
20	2 223	2 829	3 567	4 454	5 508	6 745	8 180	-	-
30	1 939	2 481	3 137	3 927	4 867	5 975	7 269	8 762	10 466
40	1 676	2 142	2 706	3 385	4 198	5 165	6 303	7 631	9 163
50	-	-	2 272	2 829	3 504	4 316	5 286	6 435	7 782
60	-	-	-	-	2 782	3 428	4 218	5 176	6 328

**Power input in W**

10	956	989	1 009	1 020	1 022	-	-	-	-
20	1 136	1 182	1 215	1 236	1 246	1 248	1 243	-	-
30	1 364	1 424	1 468	1 499	1 517	1 525	1 523	1 515	1 501
40	1 661	1 734	1 788	1 827	1 852	1 865	1 867	1 860	1 845
50	-	-	2 194	2 240	2 271	2 288	2 292	2 285	2 269
60	-	-	-	-	2 792	2 812	2 818	2 810	2 792

**Current consumption in A**

10	2.41	2.38	2.36	2.36	2.36	-	-	-	-
20	2.53	2.53	2.53	2.54	2.54	2.55	2.56	-	-
30	2.69	2.72	2.75	2.78	2.80	2.81	2.81	2.80	2.79
40	2.88	2.97	3.04	3.10	3.14	3.16	3.17	3.15	3.12
50	-	-	3.40	3.50	3.57	3.62	3.64	3.63	3.59
60	-	-	-	-	4.11	4.19	4.23	4.24	4.21

**Mass flow in kg/h**

10	62	78	96	116	141	-	-	-	-
20	61	76	94	115	139	167	199	-	-
30	60	75	92	113	136	164	195	231	271
40	60	74	91	110	133	160	191	226	266
50	-	-	89	108	130	156	186	221	259
60	-	-	-	-	127	152	181	215	253

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

10	2.65	3.22	3.95	4.87	5.99	-	-	-	-
20	1.96	2.39	2.94	3.60	4.42	5.40	6.58	-	-
30	1.42	1.74	2.14	2.62	3.21	3.92	4.77	5.78	6.97
40	1.01	1.24	1.51	1.85	2.27	2.77	3.38	4.10	4.97
50	-	-	1.04	1.26	1.54	1.89	2.31	2.82	3.43
60	-	-	-	-	1.00	1.22	1.50	1.84	2.27

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

Cooling capacity	3 854	W
Power input	2 050	W
Current consumption	3.34	A
Mass flow	132	kg/h
C.O.P.	1.88	

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**
**R513A**

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)							
	-15	-10	-5	0	5	10	15	18

**Cooling capacity in W**

10	2 489	3 051	3 733	-	-	-	-	-	-
20	2 274	2 799	3 431	4 183	5 065	-	-	-	-
30	2 047	2 530	3 107	3 790	4 591	5 521	-	-	-
40	-	2 248	2 764	3 373	4 087	4 917	5 874	6 514	-
50	-	-	2 405	2 935	3 556	4 280	5 119	5 681	-
60	-	-	-	2 479	3 002	3 615	4 329	4 811	-
70	-	-	-	2 008	2 427	2 924	3 508	3 906	-
73	-	-	-	-	2 252	2 712	3 256	3 628	-

**Power input in W**

10	535	540	544	-	-	-	-	-	-
20	666	674	676	676	676	-	-	-	-
30	808	824	829	829	824	817	-	-	-
40	-	995	1 009	1 013	1 008	997	984	975	-
50	-	-	1 222	1 234	1 234	1 224	1 207	1 195	-
60	-	-	-	1 499	1 508	1 504	1 488	1 474	-
70	-	-	-	1 812	1 836	1 842	1 833	1 821	-
73	-	-	-	-	1 946	1 956	1 950	1 939	-

**Current consumption in A**

10	2.28	2.28	2.28	-	-	-	-	-	-
20	2.36	2.37	2.37	2.37	2.37	-	-	-	-
30	2.45	2.46	2.47	2.48	2.48	2.47	-	-	-
40	-	2.59	2.61	2.62	2.62	2.61	2.59	2.57	-
50	-	-	2.80	2.82	2.82	2.81	2.79	2.76	-
60	-	-	-	3.09	3.10	3.09	3.07	3.04	-
70	-	-	-	3.44	3.47	3.47	3.45	3.42	-
73	-	-	-	-	3.60	3.61	3.58	3.56	-

**Mass flow in kg/h**

10	48	59	72	-	-	-	-	-	-
20	47	58	72	88	107	-	-	-	-
30	46	58	71	87	106	128	-	-	-
40	-	56	70	85	104	126	152	170	-
50	-	-	68	83	102	124	150	167	-
60	-	-	-	81	99	121	146	164	-
70	-	-	-	79	96	118	143	160	-
73	-	-	-	-	96	116	141	158	-

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

10	4.65	5.65	6.86	-	-	-	-	-	-
20	3.41	4.15	5.07	6.19	7.49	-	-	-	-
30	2.53	3.07	3.75	4.57	5.57	6.75	-	-	-
40	-	2.26	2.74	3.33	4.06	4.93	5.97	6.68	-
50	-	-	1.97	2.38	2.88	3.50	4.24	4.76	-
60	-	-	-	1.65	1.99	2.40	2.91	3.26	-
70	-	-	-	1.11	1.32	1.59	1.91	2.14	-
73	-	-	-	-	1.16	1.39	1.67	1.87	-

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

Cooling capacity	2 102	W
Power input	1 091	W
Current consumption	2.67	A
Mass flow	56	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		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

Danfoss can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alternations can be made without subsequential changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.

**Performance data at 50 Hz, EN 12900 rating conditions, Superheat = 10 K**
**R513A**

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)							
	-15	-10	-5	0	5	10	15	18

**Cooling capacity in W**

10	2 442	3 008	3 697	-	-	-	-	-	-
20	2 208	2 737	3 378	4 143	5 044	-	-	-	-
30	1 963	2 450	3 036	3 736	4 560	5 521	-	-	-
40	1 710	2 149	2 676	3 304	4 047	4 917	5 924	6 597	-
50	-	1 838	2 300	2 851	3 507	4 280	5 183	5 791	-
60	-	-	1 911	2 381	2 944	3 615	4 408	4 948	-
70	-	-	-	1 895	2 360	2 924	3 602	4 071	-
73	-	-	-	1 747	2 182	2 712	3 355	3 802	-

**Power input in W**

10	535	540	544	-	-	-	-	-	-
20	666	674	676	676	676	-	-	-	-
30	808	824	829	829	824	817	-	-	-
40	967	995	1 009	1 013	1 008	997	984	975	-
50	-	1 194	1 222	1 234	1 234	1 224	1 207	1 195	-
60	-	-	1 472	1 499	1 508	1 504	1 488	1 474	-
70	-	-	-	1 812	1 836	1 842	1 833	1 821	-
73	-	-	-	1 916	1 946	1 956	1 950	1 939	-

**Current consumption in A**

10	2.28	2.28	2.28	-	-	-	-	-	-
20	2.36	2.37	2.37	2.37	2.37	-	-	-	-
30	2.45	2.46	2.47	2.48	2.48	2.47	-	-	-
40	2.57	2.59	2.61	2.62	2.62	2.61	2.59	2.57	-
50	-	2.77	2.80	2.82	2.82	2.81	2.79	2.76	-
60	-	-	3.06	3.09	3.10	3.09	3.07	3.04	-
70	-	-	-	3.44	3.47	3.47	3.45	3.42	-
73	-	-	-	3.57	3.60	3.61	3.58	3.56	-

**Mass flow in kg/h**

10	53	64	77	-	-	-	-	-	-
20	52	63	76	92	109	-	-	-	-
30	51	62	75	91	108	128	-	-	-
40	50	61	74	89	106	126	149	163	-
50	-	60	72	87	104	124	146	161	-
60	-	-	70	85	102	121	143	158	-
70	-	-	-	82	99	118	139	154	-
73	-	-	-	81	98	116	138	152	-

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

10	4.56	5.57	6.79	-	-	-	-	-	-
20	3.31	4.06	5.00	6.13	7.46	-	-	-	-
30	2.43	2.97	3.66	4.51	5.54	6.75	-	-	-
40	1.77	2.16	2.65	3.26	4.02	4.93	6.02	6.76	-
50	-	1.54	1.88	2.31	2.84	3.50	4.29	4.85	-
60	-	-	1.30	1.59	1.95	2.40	2.96	3.36	-
70	-	-	-	1.05	1.29	1.59	1.97	2.24	-
73	-	-	-	0.91	1.12	1.39	1.72	1.96	-

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

Cooling capacity	1 994	W
Power input	1 091	W
Current consumption	2.67	A
Mass flow	61	kg/h
C.O.P.	1.83	

**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

Danfoss can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alternations can be made without subsequential changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.



**Performance data at 60 Hz, EN 12900 rating conditions, Suction temp. = 20 °C**
**R513A**

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)							
	-15	-10	-5	0	5	10	15	18

**Cooling capacity in W**

10	2 957	3 618	4 424	-	-	-	-	-	-
20	2 714	3 336	4 090	4 989	6 044	-	-	-	-
30	2 453	3 025	3 717	4 540	5 506	6 627	-	-	-
40	-	2 696	3 314	4 050	4 917	5 926	7 088	7 863	-
50	-	-	2 890	3 529	4 285	5 170	6 196	6 884	-
60	-	-	-	2 985	3 620	4 370	5 249	5 843	-
70	-	-	-	2 429	2 930	3 535	4 256	4 749	-
73	-	-	-	-	2 720	3 280	3 951	4 412	-

**Power input in W**

10	671	665	662	-	-	-	-	-	-
20	828	831	828	825	829	-	-	-	-
30	991	1 011	1 017	1 014	1 008	1 007	-	-	-
40	-	1 210	1 233	1 238	1 232	1 222	1 212	1 210	-
50	-	-	1 481	1 503	1 505	1 493	1 474	1 461	-
60	-	-	-	1 811	1 830	1 825	1 805	1 787	-
70	-	-	-	2 167	2 211	2 223	2 210	2 192	-
73	-	-	-	-	2 337	2 355	2 346	2 330	-

**Current consumption in A**

10	2.17	2.18	2.20	-	-	-	-	-	-
20	2.26	2.27	2.28	2.29	2.30	-	-	-	-
30	2.37	2.38	2.39	2.40	2.40	2.39	-	-	-
40	-	2.53	2.55	2.56	2.56	2.55	2.50	2.46	-
50	-	-	2.76	2.78	2.79	2.78	2.74	2.70	-
60	-	-	-	3.07	3.10	3.10	3.06	3.03	-
70	-	-	-	3.45	3.49	3.51	3.49	3.46	-
73	-	-	-	-	3.63	3.65	3.64	3.61	-

**Mass flow in kg/h**

10	57	70	86	-	-	-	-	-	-
20	56	70	86	105	127	-	-	-	-
30	55	69	85	104	127	154	-	-	-
40	-	68	83	102	125	152	184	205	-
50	-	-	82	100	123	150	181	203	-
60	-	-	-	98	120	146	177	199	-
70	-	-	-	95	116	142	173	194	-
73	-	-	-	-	115	141	171	192	-

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

10	4.41	5.44	6.68	-	-	-	-	-	-
20	3.28	4.01	4.94	6.05	7.29	-	-	-	-
30	2.48	2.99	3.66	4.48	5.46	6.58	-	-	-
40	-	2.23	2.69	3.27	3.99	4.85	5.85	6.50	-
50	-	-	1.95	2.35	2.85	3.46	4.20	4.71	-
60	-	-	-	1.65	1.98	2.39	2.91	3.27	-
70	-	-	-	1.12	1.33	1.59	1.93	2.17	-
73	-	-	-	-	1.16	1.39	1.68	1.89	-

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

Cooling capacity	2 527	W
Power input	1 318	W
Current consumption	2.62	A
Mass flow	67	kg/h
C.O.P.	1.92	

**Pressure switch settings**

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

**Sound power data**

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

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Tolerance according EN12900

Danfoss can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alternations can be made without subsequential changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.

**Performance data at 60 Hz, EN 12900 rating conditions, Superheat = 10 K**
**R513A**

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)							
	-15	-10	-5	0	5	10	15	18

**Cooling capacity in W**

10	2 901	3 567	4 382	-	-	-	-	-	-
20	2 635	3 262	4 027	4 941	6 018	-	-	-	-
30	2 352	2 929	3 632	4 475	5 470	6 627	-	-	-
40	2 062	2 577	3 208	3 967	4 869	5 926	7 148	7 963	-
50	-	2 216	2 763	3 429	4 226	5 170	6 274	7 017	-
60	-	-	2 307	2 867	3 550	4 370	5 345	6 009	-
70	-	-	-	2 293	2 850	3 535	4 370	4 949	-
73	-	-	-	2 120	2 636	3 280	4 070	4 623	-

**Power input in W**

10	671	665	662	-	-	-	-	-	-
20	828	831	828	825	829	-	-	-	-
30	991	1 011	1 017	1 014	1 008	1 007	-	-	-
40	1 163	1 210	1 233	1 238	1 232	1 222	1 212	1 210	-
50	-	1 432	1 481	1 503	1 505	1 493	1 474	1 461	-
60	-	-	1 763	1 811	1 830	1 825	1 805	1 787	-
70	-	-	-	2 167	2 211	2 223	2 210	2 192	-
73	-	-	-	2 284	2 337	2 355	2 346	2 330	-

**Current consumption in A**

10	2.17	2.18	2.20	-	-	-	-	-	-
20	2.26	2.27	2.28	2.29	2.30	-	-	-	-
30	2.37	2.38	2.39	2.40	2.40	2.39	-	-	-
40	2.51	2.53	2.55	2.56	2.56	2.55	2.50	2.46	-
50	-	2.73	2.76	2.78	2.79	2.78	2.74	2.70	-
60	-	-	3.03	3.07	3.10	3.10	3.06	3.03	-
70	-	-	-	3.45	3.49	3.51	3.49	3.46	-
73	-	-	-	3.58	3.63	3.65	3.64	3.61	-

**Mass flow in kg/h**

10	63	76	91	-	-	-	-	-	-
20	62	76	91	109	130	-	-	-	-
30	61	75	90	108	130	154	-	-	-
40	60	73	89	107	128	152	179	197	-
50	-	72	87	105	125	150	177	195	-
60	-	-	85	102	122	146	173	191	-
70	-	-	-	100	119	142	169	186	-
73	-	-	-	99	118	141	167	185	-

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

10	4.32	5.36	6.62	-	-	-	-	-	-
20	3.18	3.93	4.86	5.99	7.26	-	-	-	-
30	2.37	2.90	3.57	4.41	5.42	6.58	-	-	-
40	1.77	2.13	2.60	3.20	3.95	4.85	5.90	6.58	-
50	-	1.55	1.87	2.28	2.81	3.46	4.26	4.80	-
60	-	-	1.31	1.58	1.94	2.39	2.96	3.36	-
70	-	-	-	1.06	1.29	1.59	1.98	2.26	-
73	-	-	-	0.93	1.13	1.39	1.73	1.98	-

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

Cooling capacity	2 397	W
Power input	1 318	W
Current consumption	2.62	A
Mass flow	73	kg/h
C.O.P.	1.82	

**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

Danfoss can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alternations can be made without subsequential changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.