

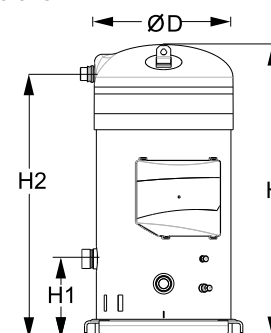
Datasheets

# Danfoss scroll compressors **SM / SY / SZ / SH / WSH**



**General Characteristics**

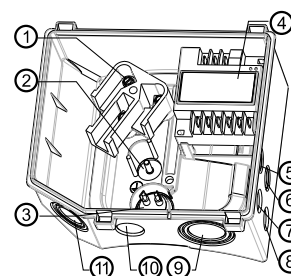
Model number (on compressor nameplate)	SY240A4PAE	SY240A4CAE
Code number for Singlepack*	SY240A4PAI	SY240A4CAI
Code number for Industrial pack**	SY240A4PAM	SY240A4CAM
Drawing number	8556098b	8556092b
Suction and discharge connections	Rotolock	Brazed
Suction connection	2-1/4" Rotolock	1-5/8" ODF
Discharge connection	1-3/4" Rotolock	1-1/8" ODF
Suction connection with supplied sleeve	1-5/8" ODF	
Discharge connection with supplied sleeve	1-1/8" ODF	
Oil sight glass	Threaded	Threaded
Oil equalisation connection	1/2" flare	1/2" flare
Oil drain connection	1/4" flare	1/4" flare
LP gauge port	Schrader	Schrader
IPR valve	Yes	Yes
Reverse rotation protection	Electronic module	Electronic module
Swept volume	347.8 cm <sup>3</sup> /rev	
Displacement @ Nominal speed	60.5 m <sup>3</sup> /h @ 2900 rpm - 73.0 m <sup>3</sup> /h @ 3500 rpm	
Net weight	150 kg	
Oil charge	8 litre, POE - 320SZ	
Maximum system test pressure Low Side / High side	20 bar(g) / 32 bar(g)	
Maximum differential test pressure	24 bar	
Maximum number of starts per hour	12	
Refrigerant charge limit	16 kg	
Approved refrigerants	R22, R407C, R134a	

**Dimensions**


D=344 mm  
H=726.9 mm  
H1=195.7 mm  
H2=654 mm  
H3=- mm

**Electrical Characteristics**

Nominal voltage	380-400V/3/50Hz - 460V/3/60Hz
Voltage range	342-440 V @ 50Hz - 414-506 V @ 60Hz
Winding resistance (between phases) +/- 7% at 25°C	0.616 Ω
Rated Load Amps (RLA)	35.7 A
Maximum Continuous Current (MCC)	50 A
Locked Rotor Amps (LRA)	215 A
Motor protection	Electronic protection module, 24 V AC

**Terminal box**


IP54 (with cable gland)

- 1: Power connection, 3 x 4.8 mm (3/16")
- 2: Earth M5
- 3: Thermistor connector
- 4: Electronic protection module
- 5: Double knock-out Ø 22.5 mm (7/8") & Ø 16.5 mm (0.65")
- 6: Double knock-out Ø 22.5 mm (7/8") & Ø 16.5 mm (0.65")
- 7: Knock-out Ø 20.7 mm (0.81")
- 8: Knock-out Ø 20.7 mm (0.81")
- 9: Triple knock-out Ø 50.8 mm (2") & Ø 43.7 mm (1.72") & Ø 34.5 mm (1.35")
- 10: Knock-out Ø 25.5 mm (1.00")
- 11: Triple knock-out Ø 40.5 mm (1.59") & Ø 32.2 mm (1.27") & Ø 25.5 mm (1")

**Recommended Installation torques**

Suction Rotolock nut or valve	130 Nm
Discharge Rotolock nut or valve	110 Nm
Oil sight glass	50 Nm
Power connections / Earth connection	3 Nm / 2 Nm
Mounting bolts	40 Nm

**Parts shipped with compressor**

Mounting kit with grommets and sleeves
Electronic protection module mounted in terminal box
Initial oil charge
Installation instructions

**Approvals** : CE certified, UL certified (file SA6873), -

\*Singlepack: Compressor in cardboard box

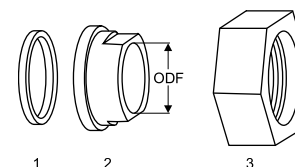
\*\*Industrial pack: 4 Unboxed compressors on pallet (order per multiples of 4)

**Rotolock accessories, suction side**

**Code no.**

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

**Gaskets, sleeves and nuts**



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

**Rotolock accessories, discharge side**

**Code no.**

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

**Rotolock accessories, sets**

**Code no.**

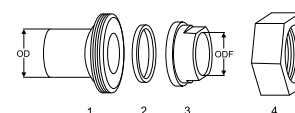
Solder sleeve adapter set, (2-1/4" Rotolock, 1-5/8" ODF), (1-3/4" Rotolock, 1-1/8" ODF)	7765028
Valve set, V03 (2-1/4"~1-5/8"), V02 (1-3/4"~1-1/8")	7703383
Gasket set, 1-1/4", 1-3/4", 2-1/4", OSG gaskets black & white	8156013

**Oil / lubricants**

**Code no.**

POE lubricant, 320SZ, 1 litre can	7754121
POE lubricant, 320SZ, 2.5 litre can	12020572

**Solder sleeve adapter set**



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

**Crankcase heaters**

**Code no.**

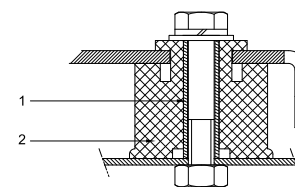
Surface sump heater + bottom insulation, 80 W, 24 V, CE mark, UL	12020359
Surface sump heater + bottom insulation, 80 W, 230 V, CE mark, UL	12020372
Surface sump heater + bottom insulation, 80 W, 400 V, CE mark, UL	12020373
Surface sump heater + bottom insulation, 80 W, 460 V, CE mark, UL	12020374
Belt type crankcase heater, 130 W, 230 V, CE mark, UL	7773122
Belt type crankcase heater, 130 W, 400 V, CE mark, UL	7773123

**Miscellaneous accessories**

**Code no.**

Electronic soft start kit, MCI 50 CM	037N0401
Acoustic hood for scroll compressor S240-S300	7755016
Bottom insulation for scroll compressor	12020355
Discharge thermostat kit	7750009

**Mounting kit**



- 1: Sleeve (4x)
  - 2: Grommet (4x)
- Bolts, nuts and washers not included

**Spare parts**

**Code no.**

Electronic motor protection module, 24 V AC	12020584
Mounting kit for 1 scroll compressor including 4 grommets, 4 sleeves	8156144
Mounting kit for 1 scroll compressor including 4 grommets, 4 sleeves, 2 rotolock nuts, 2 solder sleeves, 2 gaskets	8156148
Oil sight glass with gaskets (black & white)	8156019
Gasket for oil sight glass (white teflon)	8156129
Terminal box 210 x 190 incl. cover	12020458
T block connector 60 x 75 mm	8173021

**Performance data at 50 Hz, EN 12900 rating conditions**
**R22**

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

**Cooling capacity in W**

30	24 826	30 969	38 151	46 483	56 075	67 035	79 474	93 502	-
35	23 591	29 536	36 476	44 520	53 777	64 358	76 371	89 928	-
40	22 285	28 012	34 687	42 421	51 323	61 502	73 069	86 133	-
45	-	26 410	32 800	40 202	48 727	58 484	69 583	82 133	-
50	-	-	30 830	37 880	46 007	55 320	65 929	77 943	-
55	-	-	-	35 469	43 176	52 024	62 122	73 580	-
60	-	-	-	-	40 252	48 613	58 178	69 058	-
65	-	-	-	-	-	45 101	54 113	64 394	-

**Power input in W**

30	10 588	10 704	10 846	11 020	11 237	11 504	11 830	12 226	-
35	11 668	11 805	11 961	12 145	12 365	12 630	12 950	13 333	-
40	12 835	12 991	13 161	13 353	13 576	13 838	14 150	14 519	-
45	-	14 298	14 480	14 678	14 903	15 162	15 464	15 818	-
50	-	-	15 952	16 156	16 381	16 634	16 926	17 264	-
55	-	-	-	17 819	18 043	18 290	18 570	18 891	-
60	-	-	-	-	19 924	20 163	20 430	20 732	-
65	-	-	-	-	-	22 288	22 540	22 823	-

**Current consumption in A**

30	21.65	21.83	21.98	22.13	22.31	22.55	22.88	23.33	-
35	22.77	22.99	23.19	23.38	23.62	23.91	24.31	24.83	-
40	24.09	24.33	24.54	24.77	25.04	25.38	25.82	26.39	-
45	-	25.89	26.11	26.35	26.64	27.00	27.47	28.07	-
50	-	-	27.96	28.19	28.47	28.84	29.32	29.94	-
55	-	-	-	30.35	30.61	30.97	31.44	32.05	-
60	-	-	-	-	33.12	33.44	33.88	34.48	-
65	-	-	-	-	-	36.32	36.72	37.28	-

**Mass flow in kg/h**

30	534	657	799	961	1 145	1 353	1 588	1 850	-
35	527	651	793	955	1 140	1 348	1 583	1 845	-
40	519	643	785	947	1 131	1 339	1 574	1 835	-
45	-	633	775	936	1 120	1 328	1 561	1 822	-
50	-	-	762	923	1 106	1 313	1 545	1 805	-
55	-	-	-	908	1 089	1 295	1 525	1 784	-
60	-	-	-	-	1 070	1 274	1 503	1 759	-
65	-	-	-	-	-	1 250	1 477	1 731	-

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

30	2.34	2.89	3.52	4.22	4.99	5.83	6.72	7.65	-
35	2.02	2.50	3.05	3.67	4.35	5.10	5.90	6.74	-
40	1.74	2.16	2.64	3.18	3.78	4.44	5.16	5.93	-
45	-	1.85	2.27	2.74	3.27	3.86	4.50	5.19	-
50	-	-	1.93	2.34	2.81	3.33	3.90	4.51	-
55	-	-	-	1.99	2.39	2.84	3.35	3.90	-
60	-	-	-	-	2.02	2.41	2.85	3.33	-
65	-	-	-	-	-	2.02	2.40	2.82	-

**Nominal performance at to = 5 °C, tc = 50 °C**

Cooling capacity	55 320	W
Power input	16 634	W
Current consumption	28.84	A
Mass flow	1 313	kg/h
C.O.P.	3.33	

**Pressure switch settings**

Maximum HP switch setting	28	bar(g)
Minimum LP switch setting	0.5	bar(g)
LP pump down setting	1.3	bar(g)

**Sound power data**

Sound power level	82	dB(A)
With acoustic hood	75	dB(A)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Tolerance according EN12900

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**Performance data at 50 Hz, ARI rating conditions**
**R22**

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

**Cooling capacity in W**

30	26 346	32 838	40 423	49 216	59 329	70 878	83 975	98 734	-
35	25 123	31 427	38 778	47 292	57 082	68 263	80 948	95 252	-
40	23 826	29 920	37 016	45 230	54 675	65 467	77 720	91 547	-
45	-	28 333	35 153	43 045	52 125	62 507	74 306	87 637	-
50	-	-	33 205	40 755	49 448	59 399	70 725	83 540	-
55	-	-	-	38 377	46 662	56 163	66 996	79 275	-
60	-	-	-	-	43 788	52 819	63 138	74 864	-
65	-	-	-	-	-	49 387	59 177	70 332	-

**Power input in W**

30	10 588	10 704	10 846	11 020	11 237	11 504	11 830	12 226	-
35	11 668	11 805	11 961	12 145	12 365	12 630	12 950	13 333	-
40	12 835	12 991	13 161	13 353	13 576	13 838	14 150	14 519	-
45	-	14 298	14 480	14 678	14 903	15 162	15 464	15 818	-
50	-	-	15 952	16 156	16 381	16 634	16 926	17 264	-
55	-	-	-	17 819	18 043	18 290	18 570	18 891	-
60	-	-	-	-	19 924	20 163	20 430	20 732	-
65	-	-	-	-	-	22 288	22 540	22 823	-

**Current consumption in A**

30	21.65	21.83	21.98	22.13	22.31	22.55	22.88	23.33	-
35	22.77	22.99	23.19	23.38	23.62	23.91	24.31	24.83	-
40	24.09	24.33	24.54	24.77	25.04	25.38	25.82	26.39	-
45	-	25.89	26.11	26.35	26.64	27.00	27.47	28.07	-
50	-	-	27.96	28.19	28.47	28.84	29.32	29.94	-
55	-	-	-	30.35	30.61	30.97	31.44	32.05	-
60	-	-	-	-	33.12	33.44	33.88	34.48	-
65	-	-	-	-	-	36.32	36.72	37.28	-

**Mass flow in kg/h**

30	531	654	795	956	1 139	1 346	1 579	1 840	-
35	524	647	789	950	1 134	1 341	1 574	1 834	-
40	516	639	781	942	1 125	1 332	1 565	1 825	-
45	-	630	771	931	1 114	1 320	1 552	1 811	-
50	-	-	758	918	1 100	1 305	1 536	1 794	-
55	-	-	-	903	1 083	1 287	1 517	1 773	-
60	-	-	-	-	1 064	1 267	1 494	1 749	-
65	-	-	-	-	-	1 243	1 468	1 721	-

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

30	2.49	3.07	3.73	4.47	5.28	6.16	7.10	8.08	-
35	2.15	2.66	3.24	3.89	4.62	5.40	6.25	7.14	-
40	1.86	2.30	2.81	3.39	4.03	4.73	5.49	6.31	-
45	-	1.98	2.43	2.93	3.50	4.12	4.81	5.54	-
50	-	-	2.08	2.52	3.02	3.57	4.18	4.84	-
55	-	-	-	2.15	2.59	3.07	3.61	4.20	-
60	-	-	-	-	2.20	2.62	3.09	3.61	-
65	-	-	-	-	-	2.22	2.63	3.08	-

**Nominal performance at to = 7.2 °C, tc = 54.4 °C**

Cooling capacity	61 179	W
Power input	18 200	W
Current consumption	30.88	A
Mass flow	1 387	kg/h
C.O.P.	3.36	

**Pressure switch settings**

Maximum HP switch setting	28	bar(g)
Minimum LP switch setting	0.5	bar(g)
LP pump down setting	1.3	bar(g)

**Sound power data**

Sound power level	82	dB(A)
With acoustic hood	75	dB(A)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Tolerance according EN12900

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**Performance data at 50 Hz, EN 12900 rating conditions**
**R407C**

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

**Cooling capacity in W**

30	22 179	28 382	35 758	44 467	54 671	66 532	80 209	95 865	-
35	20 769	26 758	33 849	42 203	51 982	63 346	76 456	91 475	-
40	19 313	25 061	31 840	39 811	49 137	59 977	72 493	86 846	-
45	17 825	23 304	29 744	37 305	46 150	56 439	68 333	81 993	-
50	-	21 504	27 576	34 700	43 036	52 746	63 991	76 931	-
55	-	19 673	25 351	32 010	39 810	48 914	59 481	71 674	-
60	-	-	23 084	29 249	36 486	44 956	54 819	66 237	-
65	-	-	-	-	33 079	40 887	50 018	60 633	-

**Power input in W**

30	10 577	10 687	10 818	10 958	11 096	11 220	11 320	11 385	-
35	11 690	11 798	11 934	12 086	12 244	12 395	12 530	12 636	-
40	12 937	13 041	13 180	13 343	13 520	13 697	13 865	14 013	-
45	14 347	14 446	14 588	14 761	14 955	15 157	15 358	15 544	-
50	-	16 046	16 189	16 371	16 581	16 807	17 038	17 263	-
55	-	17 872	18 015	18 205	18 429	18 678	18 939	19 201	-
60	-	-	20 097	20 293	20 531	20 801	21 090	21 389	-
65	-	-	-	-	22 918	23 208	23 525	23 858	-

**Current consumption in A**

30	20.74	21.18	21.53	21.81	22.06	22.31	22.58	22.91	-
35	22.08	22.51	22.84	23.10	23.32	23.54	23.78	24.07	-
40	23.56	24.00	24.33	24.59	24.81	25.01	25.23	25.51	-
45	25.24	25.71	26.06	26.34	26.57	26.78	27.00	27.28	-
50	-	27.67	28.07	28.38	28.64	28.88	29.13	29.42	-
55	-	29.94	30.40	30.76	31.08	31.36	31.66	31.98	-
60	-	-	33.09	33.54	33.92	34.27	34.63	35.01	-
65	-	-	-	-	37.21	37.65	38.09	38.55	-

**Mass flow in kg/h**

30	466	588	729	892	1 081	1 296	1 542	1 821	-
35	459	581	722	886	1 074	1 289	1 534	1 812	-
40	449	572	714	877	1 065	1 279	1 523	1 800	-
45	439	562	703	866	1 053	1 267	1 510	1 785	-
50	-	549	691	853	1 040	1 252	1 494	1 767	-
55	-	535	676	838	1 023	1 235	1 475	1 746	-
60	-	-	659	820	1 004	1 214	1 453	1 722	-
65	-	-	-	-	983	1 191	1 428	1 695	-

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

30	2.10	2.66	3.31	4.06	4.93	5.93	7.09	8.42	-
35	1.78	2.27	2.84	3.49	4.25	5.11	6.10	7.24	-
40	1.49	1.92	2.42	2.98	3.63	4.38	5.23	6.20	-
45	1.24	1.61	2.04	2.53	3.09	3.72	4.45	5.27	-
50	-	1.34	1.70	2.12	2.60	3.14	3.76	4.46	-
55	-	1.10	1.41	1.76	2.16	2.62	3.14	3.73	-
60	-	-	1.15	1.44	1.78	2.16	2.60	3.10	-
65	-	-	-	-	1.44	1.76	2.13	2.54	-

**Nominal performance at to = 5 °C, tc = 50 °C**

Cooling capacity	52 746	W
Power input	16 807	W
Current consumption	28.88	A
Mass flow	1 252	kg/h
C.O.P.	3.14	

**Pressure switch settings**

Maximum HP switch setting	29.5	bar(g)
Minimum LP switch setting	0.5	bar(g)
LP pump down setting	1	bar(g)

**Sound power data**

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

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Tolerance according EN12900

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Performance data at 50 Hz, ARI rating conditions

R407C

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

Cooling capacity in W

30	23 788	30 405	38 264	47 533	58 381	70 976	85 485	102 077	-
35	22 384	28 801	36 389	45 316	55 753	67 868	81 828	97 804	-
40	20 931	27 122	34 411	42 969	52 968	64 575	77 961	93 293	-
45	19 447	25 382	32 345	40 508	50 040	61 114	73 898	88 563	-
50	-	23 598	30 208	37 947	46 988	57 501	69 659	83 630	-
55	-	21 787	28 017	35 306	43 828	53 756	65 262	78 516	-
60	-	-	25 790	32 604	40 582	49 900	60 731	73 247	-
65	-	-	-	-	37 277	45 963	56 098	67 858	-

Power input in W

30	10 577	10 687	10 818	10 958	11 096	11 220	11 320	11 385	-
35	11 690	11 798	11 934	12 086	12 244	12 395	12 530	12 636	-
40	12 937	13 041	13 180	13 343	13 520	13 697	13 865	14 013	-
45	14 347	14 446	14 588	14 761	14 955	15 157	15 358	15 544	-
50	-	16 046	16 189	16 371	16 581	16 807	17 038	17 263	-
55	-	17 872	18 015	18 205	18 429	18 678	18 939	19 201	-
60	-	-	20 097	20 293	20 531	20 801	21 090	21 389	-
65	-	-	-	-	22 918	23 208	23 525	23 858	-

Current consumption in A

30	20.74	21.18	21.53	21.81	22.06	22.31	22.58	22.91	-
35	22.08	22.51	22.84	23.10	23.32	23.54	23.78	24.07	-
40	23.56	24.00	24.33	24.59	24.81	25.01	25.23	25.51	-
45	25.24	25.71	26.06	26.34	26.57	26.78	27.00	27.28	-
50	-	27.67	28.07	28.38	28.64	28.88	29.13	29.42	-
55	-	29.94	30.40	30.76	31.08	31.36	31.66	31.98	-
60	-	-	33.09	33.54	33.92	34.27	34.63	35.01	-
65	-	-	-	-	37.21	37.65	38.09	38.55	-

Mass flow in kg/h

30	464	585	725	887	1 075	1 289	1 533	1 810	-
35	456	578	718	881	1 068	1 282	1 525	1 801	-
40	447	569	710	872	1 059	1 272	1 514	1 789	-
45	436	559	699	862	1 047	1 260	1 501	1 774	-
50	-	546	687	849	1 034	1 245	1 485	1 756	-
55	-	532	672	833	1 018	1 228	1 466	1 736	-
60	-	-	656	816	999	1 207	1 444	1 712	-
65	-	-	-	-	977	1 184	1 419	1 685	-

Coefficient of performance (C.O.P.)

30	2.25	2.85	3.54	4.34	5.26	6.33	7.55	8.97	-
35	1.91	2.44	3.05	3.75	4.55	5.48	6.53	7.74	-
40	1.62	2.08	2.61	3.22	3.92	4.71	5.62	6.66	-
45	1.36	1.76	2.22	2.74	3.35	4.03	4.81	5.70	-
50	-	1.47	1.87	2.32	2.83	3.42	4.09	4.84	-
55	-	1.22	1.56	1.94	2.38	2.88	3.45	4.09	-
60	-	-	1.28	1.61	1.98	2.40	2.88	3.42	-
65	-	-	-	-	1.63	1.98	2.38	2.84	-

Nominal performance at to = 7.2 °C, tc = 54.4 °C

Cooling capacity	59 104	W
Power input	18 553	W
Current consumption	31.17	A
Mass flow	1 331	kg/h
C.O.P.	3.19	

Pressure switch settings

Maximum HP switch setting	29.5	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 = 11.1 K, Subcooling = 8.3 K

Tolerance according EN12900

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Performance data at 50 Hz, EN 12900 rating conditions

R134a

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

Cooling capacity in W

35	17 486	22 107	27 687	34 422	42 505	52 133	63 500	-	-
40	16 457	20 891	26 197	32 573	40 211	49 309	60 060	-	-
45	15 377	19 637	24 685	30 716	37 925	46 506	56 655	-	-
50	14 227	18 329	23 133	28 834	35 628	43 708	53 270	-	-
55	-	16 949	21 524	26 911	33 303	40 897	49 887	-	-
60	-	-	19 841	24 927	30 933	38 055	46 488	-	-
65	-	-	-	22 867	28 502	35 167	43 056	-	-
70	-	-	-	-	25 990	32 213	39 575	-	-

Power input in W

35	8 409	8 510	8 596	8 671	8 738	8 799	8 856	-	-
40	9 210	9 328	9 431	9 523	9 607	9 684	9 758	-	-
45	10 089	10 224	10 345	10 455	10 557	10 652	10 744	-	-
50	11 056	11 211	11 351	11 479	11 599	11 713	11 823	-	-
55	-	12 299	12 459	12 607	12 746	12 880	13 009	-	-
60	-	-	13 682	13 850	14 010	14 163	14 313	-	-
65	-	-	-	15 220	15 401	15 576	15 746	-	-
70	-	-	-	-	16 932	17 129	17 321	-	-

Current consumption in A

35	19.07	19.08	19.16	19.26	19.36	19.43	19.44	-	-
40	19.82	19.86	19.95	20.08	20.21	20.31	20.35	-	-
45	20.70	20.76	20.88	21.03	21.18	21.31	21.38	-	-
50	21.73	21.81	21.95	22.12	22.30	22.46	22.56	-	-
55	-	23.03	23.19	23.39	23.60	23.78	23.92	-	-
60	-	-	24.64	24.86	25.09	25.30	25.46	-	-
65	-	-	-	26.55	26.80	27.04	27.23	-	-
70	-	-	-	-	28.76	29.03	29.25	-	-

Mass flow in kg/h

35	425	526	645	785	949	1 143	1 368	-	-
40	421	523	641	780	942	1 132	1 354	-	-
45	416	519	637	775	935	1 123	1 340	-	-
50	409	513	632	769	928	1 113	1 328	-	-
55	-	505	625	762	920	1 104	1 316	-	-
60	-	-	616	753	911	1 093	1 303	-	-
65	-	-	-	743	901	1 082	1 289	-	-
70	-	-	-	-	888	1 068	1 275	-	-

Coefficient of performance (C.O.P.)

35	2.08	2.60	3.22	3.97	4.86	5.93	7.17	-	-
40	1.79	2.24	2.78	3.42	4.19	5.09	6.15	-	-
45	1.52	1.92	2.39	2.94	3.59	4.37	5.27	-	-
50	1.29	1.63	2.04	2.51	3.07	3.73	4.51	-	-
55	-	1.38	1.73	2.13	2.61	3.18	3.83	-	-
60	-	-	1.45	1.80	2.21	2.69	3.25	-	-
65	-	-	-	1.50	1.85	2.26	2.73	-	-
70	-	-	-	-	1.53	1.88	2.28	-	-

Nominal performance at to = 5 °C, tc = 50 °C

Cooling capacity	35 628	W
Power input	11 599	W
Current consumption	22.30	A
Mass flow	928	kg/h
C.O.P.	3.07	

Pressure switch settings

Maximum HP switch setting	20.5	bar(g)
Minimum LP switch setting	0.5	bar(g)
LP pump down setting	0.5	bar(g)

Sound power data

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

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Tolerance according EN12900

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Performance data at 50 Hz, ARI rating conditions

R134a

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

Cooling capacity in W

35	18 939	23 904	29 889	37 101	45 745	56 027	68 149	-	-
40	17 922	22 707	28 423	35 279	43 481	53 234	64 742	-	-
45	16 849	21 472	26 937	33 453	41 228	50 468	61 378	-	-
50	15 701	20 180	25 411	31 604	38 969	47 713	58 042	-	-
55	-	18 812	23 827	29 715	36 687	44 952	54 718	-	-
60	-	-	22 167	27 769	34 367	42 171	51 391	-	-
65	-	-	-	25 748	31 992	39 355	48 050	-	-
70	-	-	-	-	29 548	36 493	44 684	-	-

Power input in W

35	8 409	8 510	8 596	8 671	8 738	8 799	8 856	-	-
40	9 210	9 328	9 431	9 523	9 607	9 684	9 758	-	-
45	10 089	10 224	10 345	10 455	10 557	10 652	10 744	-	-
50	11 056	11 211	11 351	11 479	11 599	11 713	11 823	-	-
55	-	12 299	12 459	12 607	12 746	12 880	13 009	-	-
60	-	-	13 682	13 850	14 010	14 163	14 313	-	-
65	-	-	-	15 220	15 401	15 576	15 746	-	-
70	-	-	-	-	16 932	17 129	17 321	-	-

Current consumption in A

35	19.07	19.08	19.16	19.26	19.36	19.43	19.44	-	-
40	19.82	19.86	19.95	20.08	20.21	20.31	20.35	-	-
45	20.70	20.76	20.88	21.03	21.18	21.31	21.38	-	-
50	21.73	21.81	21.95	22.12	22.30	22.46	22.56	-	-
55	-	23.03	23.19	23.39	23.60	23.78	23.92	-	-
60	-	-	24.64	24.86	25.09	25.30	25.46	-	-
65	-	-	-	26.55	26.80	27.04	27.23	-	-
70	-	-	-	-	28.76	29.03	29.25	-	-

Mass flow in kg/h

35	423	523	641	781	944	1 137	1 360	-	-
40	419	520	638	776	937	1 126	1 346	-	-
45	414	516	634	771	930	1 117	1 333	-	-
50	407	510	628	765	923	1 107	1 321	-	-
55	-	503	622	758	915	1 098	1 308	-	-
60	-	-	613	750	907	1 087	1 296	-	-
65	-	-	-	739	896	1 076	1 282	-	-
70	-	-	-	-	883	1 063	1 268	-	-

Coefficient of performance (C.O.P.)

35	2.25	2.81	3.48	4.28	5.24	6.37	7.70	-	-
40	1.95	2.43	3.01	3.70	4.53	5.50	6.63	-	-
45	1.67	2.10	2.60	3.20	3.91	4.74	5.71	-	-
50	1.42	1.80	2.24	2.75	3.36	4.07	4.91	-	-
55	-	1.53	1.91	2.36	2.88	3.49	4.21	-	-
60	-	-	1.62	2.00	2.45	2.98	3.59	-	-
65	-	-	-	1.69	2.08	2.53	3.05	-	-
70	-	-	-	-	1.75	2.13	2.58	-	-

Nominal performance at to = 7.2 °C, tc = 54.4 °C

Cooling capacity	40 452	W
Power input	12 661	W
Current consumption	23.52	A
Mass flow	993	kg/h
C.O.P.	3.19	

Pressure switch settings

Maximum HP switch setting	20.5	bar(g)
Minimum LP switch setting	0.5	bar(g)
LP pump down setting	0.5	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 = 11.1 K , Subcooling = 8.3 K

Tolerance according EN12900

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Performance data at 50 Hz, EN 12900 rating conditions

R134a

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

Cooling capacity in W

35	17 486	22 107	27 687	34 422	42 505	52 133	63 500	-	-
40	16 457	20 891	26 197	32 573	40 211	49 309	60 060	-	-
45	15 377	19 637	24 685	30 716	37 925	46 506	56 655	-	-
50	14 227	18 329	23 133	28 834	35 628	43 708	53 270	-	-
55	-	16 949	21 524	26 911	33 303	40 897	49 887	-	-
60	-	-	19 841	24 927	30 933	38 055	46 488	-	-
65	-	-	-	22 867	28 502	35 167	43 056	-	-
70	-	-	-	-	25 990	32 213	39 575	-	-

Power input in W

35	8 409	8 510	8 596	8 671	8 738	8 799	8 856	-	-
40	9 210	9 328	9 431	9 523	9 607	9 684	9 758	-	-
45	10 089	10 224	10 345	10 455	10 557	10 652	10 744	-	-
50	11 056	11 211	11 351	11 479	11 599	11 713	11 823	-	-
55	-	12 299	12 459	12 607	12 746	12 880	13 009	-	-
60	-	-	13 682	13 850	14 010	14 163	14 313	-	-
65	-	-	-	15 220	15 401	15 576	15 746	-	-
70	-	-	-	-	16 932	17 129	17 321	-	-

Current consumption in A

35	19.07	19.08	19.16	19.26	19.36	19.43	19.44	-	-
40	19.82	19.86	19.95	20.08	20.21	20.31	20.35	-	-
45	20.70	20.76	20.88	21.03	21.18	21.31	21.38	-	-
50	21.73	21.81	21.95	22.12	22.30	22.46	22.56	-	-
55	-	23.03	23.19	23.39	23.60	23.78	23.92	-	-
60	-	-	24.64	24.86	25.09	25.30	25.46	-	-
65	-	-	-	26.55	26.80	27.04	27.23	-	-
70	-	-	-	-	28.76	29.03	29.25	-	-

Mass flow in kg/h

35	425	526	645	785	949	1 143	1 368	-	-
40	421	523	641	780	942	1 132	1 354	-	-
45	416	519	637	775	935	1 123	1 340	-	-
50	409	513	632	769	928	1 113	1 328	-	-
55	-	505	625	762	920	1 104	1 316	-	-
60	-	-	616	753	911	1 093	1 303	-	-
65	-	-	-	743	901	1 082	1 289	-	-
70	-	-	-	-	888	1 068	1 275	-	-

Coefficient of performance (C.O.P.)

35	2.08	2.60	3.22	3.97	4.86	5.93	7.17	-	-
40	1.79	2.24	2.78	3.42	4.19	5.09	6.15	-	-
45	1.52	1.92	2.39	2.94	3.59	4.37	5.27	-	-
50	1.29	1.63	2.04	2.51	3.07	3.73	4.51	-	-
55	-	1.38	1.73	2.13	2.61	3.18	3.83	-	-
60	-	-	1.45	1.80	2.21	2.69	3.25	-	-
65	-	-	-	1.50	1.85	2.26	2.73	-	-
70	-	-	-	-	1.53	1.88	2.28	-	-

Nominal performance at to = 5 °C, tc = 50 °C

Cooling capacity	35 628	W
Power input	11 599	W
Current consumption	22.30	A
Mass flow	928	kg/h
C.O.P.	3.07	

Pressure switch settings

Maximum HP switch setting	20.5	bar(g)
Minimum LP switch setting	0.5	bar(g)
LP pump down setting	0.5	bar(g)

Sound power data

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

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Tolerance according EN12900

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Performance data at 50 Hz, ARI rating conditions

R134a

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

Cooling capacity in W

35	18 939	23 904	29 889	37 101	45 745	56 027	68 149	-	-
40	17 922	22 707	28 423	35 279	43 481	53 234	64 742	-	-
45	16 849	21 472	26 937	33 453	41 228	50 468	61 378	-	-
50	15 701	20 180	25 411	31 604	38 969	47 713	58 042	-	-
55	-	18 812	23 827	29 715	36 687	44 952	54 718	-	-
60	-	-	22 167	27 769	34 367	42 171	51 391	-	-
65	-	-	-	25 748	31 992	39 355	48 050	-	-
70	-	-	-	-	29 548	36 493	44 684	-	-

Power input in W

35	8 409	8 510	8 596	8 671	8 738	8 799	8 856	-	-
40	9 210	9 328	9 431	9 523	9 607	9 684	9 758	-	-
45	10 089	10 224	10 345	10 455	10 557	10 652	10 744	-	-
50	11 056	11 211	11 351	11 479	11 599	11 713	11 823	-	-
55	-	12 299	12 459	12 607	12 746	12 880	13 009	-	-
60	-	-	13 682	13 850	14 010	14 163	14 313	-	-
65	-	-	-	15 220	15 401	15 576	15 746	-	-
70	-	-	-	-	16 932	17 129	17 321	-	-

Current consumption in A

35	19.07	19.08	19.16	19.26	19.36	19.43	19.44	-	-
40	19.82	19.86	19.95	20.08	20.21	20.31	20.35	-	-
45	20.70	20.76	20.88	21.03	21.18	21.31	21.38	-	-
50	21.73	21.81	21.95	22.12	22.30	22.46	22.56	-	-
55	-	23.03	23.19	23.39	23.60	23.78	23.92	-	-
60	-	-	24.64	24.86	25.09	25.30	25.46	-	-
65	-	-	-	26.55	26.80	27.04	27.23	-	-
70	-	-	-	-	28.76	29.03	29.25	-	-

Mass flow in kg/h

35	423	523	641	781	944	1 137	1 360	-	-
40	419	520	638	776	937	1 126	1 346	-	-
45	414	516	634	771	930	1 117	1 333	-	-
50	407	510	628	765	923	1 107	1 321	-	-
55	-	503	622	758	915	1 098	1 308	-	-
60	-	-	613	750	907	1 087	1 296	-	-
65	-	-	-	739	896	1 076	1 282	-	-
70	-	-	-	-	883	1 063	1 268	-	-

Coefficient of performance (C.O.P.)

35	2.25	2.81	3.48	4.28	5.24	6.37	7.70	-	-
40	1.95	2.43	3.01	3.70	4.53	5.50	6.63	-	-
45	1.67	2.10	2.60	3.20	3.91	4.74	5.71	-	-
50	1.42	1.80	2.24	2.75	3.36	4.07	4.91	-	-
55	-	1.53	1.91	2.36	2.88	3.49	4.21	-	-
60	-	-	1.62	2.00	2.45	2.98	3.59	-	-
65	-	-	-	1.69	2.08	2.53	3.05	-	-
70	-	-	-	-	1.75	2.13	2.58	-	-

Nominal performance at to = 7.2 °C, tc = 54.4 °C

Cooling capacity	40 452	W
Power input	12 661	W
Current consumption	23.52	A
Mass flow	993	kg/h
C.O.P.	3.19	

Pressure switch settings

Maximum HP switch setting	20.5	bar(g)
Minimum LP switch setting	0.5	bar(g)
LP pump down setting	0.5	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 = 11.1 K , Subcooling = 8.3 K

Tolerance according EN12900

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**Performance data at 50 Hz, EN 12900 rating conditions**
**R407C**

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

**Cooling capacity in W**

30	22 179	28 382	35 758	44 467	54 671	66 532	80 209	95 865	-
35	20 769	26 758	33 849	42 203	51 982	63 346	76 456	91 475	-
40	19 313	25 061	31 840	39 811	49 137	59 977	72 493	86 846	-
45	17 825	23 304	29 744	37 305	46 150	56 439	68 333	81 993	-
50	-	21 504	27 576	34 700	43 036	52 746	63 991	76 931	-
55	-	19 673	25 351	32 010	39 810	48 914	59 481	71 674	-
60	-	-	23 084	29 249	36 486	44 956	54 819	66 237	-
65	-	-	-	-	33 079	40 887	50 018	60 633	-

**Power input in W**

30	10 577	10 687	10 818	10 958	11 096	11 220	11 320	11 385	-
35	11 690	11 798	11 934	12 086	12 244	12 395	12 530	12 636	-
40	12 937	13 041	13 180	13 343	13 520	13 697	13 865	14 013	-
45	14 347	14 446	14 588	14 761	14 955	15 157	15 358	15 544	-
50	-	16 046	16 189	16 371	16 581	16 807	17 038	17 263	-
55	-	17 872	18 015	18 205	18 429	18 678	18 939	19 201	-
60	-	-	20 097	20 293	20 531	20 801	21 090	21 389	-
65	-	-	-	-	22 918	23 208	23 525	23 858	-

**Current consumption in A**

30	20.74	21.18	21.53	21.81	22.06	22.31	22.58	22.91	-
35	22.08	22.51	22.84	23.10	23.32	23.54	23.78	24.07	-
40	23.56	24.00	24.33	24.59	24.81	25.01	25.23	25.51	-
45	25.24	25.71	26.06	26.34	26.57	26.78	27.00	27.28	-
50	-	27.67	28.07	28.38	28.64	28.88	29.13	29.42	-
55	-	29.94	30.40	30.76	31.08	31.36	31.66	31.98	-
60	-	-	33.09	33.54	33.92	34.27	34.63	35.01	-
65	-	-	-	-	37.21	37.65	38.09	38.55	-

**Mass flow in kg/h**

30	466	588	729	892	1 081	1 296	1 542	1 821	-
35	459	581	722	886	1 074	1 289	1 534	1 812	-
40	449	572	714	877	1 065	1 279	1 523	1 800	-
45	439	562	703	866	1 053	1 267	1 510	1 785	-
50	-	549	691	853	1 040	1 252	1 494	1 767	-
55	-	535	676	838	1 023	1 235	1 475	1 746	-
60	-	-	659	820	1 004	1 214	1 453	1 722	-
65	-	-	-	-	983	1 191	1 428	1 695	-

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

30	2.10	2.66	3.31	4.06	4.93	5.93	7.09	8.42	-
35	1.78	2.27	2.84	3.49	4.25	5.11	6.10	7.24	-
40	1.49	1.92	2.42	2.98	3.63	4.38	5.23	6.20	-
45	1.24	1.61	2.04	2.53	3.09	3.72	4.45	5.27	-
50	-	1.34	1.70	2.12	2.60	3.14	3.76	4.46	-
55	-	1.10	1.41	1.76	2.16	2.62	3.14	3.73	-
60	-	-	1.15	1.44	1.78	2.16	2.60	3.10	-
65	-	-	-	-	1.44	1.76	2.13	2.54	-

**Nominal performance at to = 5 °C, tc = 50 °C**

Cooling capacity	52 746	W
Power input	16 807	W
Current consumption	28.88	A
Mass flow	1 252	kg/h
C.O.P.	3.14	

**Pressure switch settings**

Maximum HP switch setting	29.5	bar(g)
Minimum LP switch setting	0.5	bar(g)
LP pump down setting	1	bar(g)

**Sound power data**

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

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Tolerance according EN12900

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Performance data at 50 Hz, ARI rating conditions

R407C

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

Cooling capacity in W

30	23 788	30 405	38 264	47 533	58 381	70 976	85 485	102 077	-
35	22 384	28 801	36 389	45 316	55 753	67 868	81 828	97 804	-
40	20 931	27 122	34 411	42 969	52 968	64 575	77 961	93 293	-
45	19 447	25 382	32 345	40 508	50 040	61 114	73 898	88 563	-
50	-	23 598	30 208	37 947	46 988	57 501	69 659	83 630	-
55	-	21 787	28 017	35 306	43 828	53 756	65 262	78 516	-
60	-	-	25 790	32 604	40 582	49 900	60 731	73 247	-
65	-	-	-	-	37 277	45 963	56 098	67 858	-

Power input in W

30	10 577	10 687	10 818	10 958	11 096	11 220	11 320	11 385	-
35	11 690	11 798	11 934	12 086	12 244	12 395	12 530	12 636	-
40	12 937	13 041	13 180	13 343	13 520	13 697	13 865	14 013	-
45	14 347	14 446	14 588	14 761	14 955	15 157	15 358	15 544	-
50	-	16 046	16 189	16 371	16 581	16 807	17 038	17 263	-
55	-	17 872	18 015	18 205	18 429	18 678	18 939	19 201	-
60	-	-	20 097	20 293	20 531	20 801	21 090	21 389	-
65	-	-	-	-	22 918	23 208	23 525	23 858	-

Current consumption in A

30	20.74	21.18	21.53	21.81	22.06	22.31	22.58	22.91	-
35	22.08	22.51	22.84	23.10	23.32	23.54	23.78	24.07	-
40	23.56	24.00	24.33	24.59	24.81	25.01	25.23	25.51	-
45	25.24	25.71	26.06	26.34	26.57	26.78	27.00	27.28	-
50	-	27.67	28.07	28.38	28.64	28.88	29.13	29.42	-
55	-	29.94	30.40	30.76	31.08	31.36	31.66	31.98	-
60	-	-	33.09	33.54	33.92	34.27	34.63	35.01	-
65	-	-	-	-	37.21	37.65	38.09	38.55	-

Mass flow in kg/h

30	464	585	725	887	1 075	1 289	1 533	1 810	-
35	456	578	718	881	1 068	1 282	1 525	1 801	-
40	447	569	710	872	1 059	1 272	1 514	1 789	-
45	436	559	699	862	1 047	1 260	1 501	1 774	-
50	-	546	687	849	1 034	1 245	1 485	1 756	-
55	-	532	672	833	1 018	1 228	1 466	1 736	-
60	-	-	656	816	999	1 207	1 444	1 712	-
65	-	-	-	-	977	1 184	1 419	1 685	-

Coefficient of performance (C.O.P.)

30	2.25	2.85	3.54	4.34	5.26	6.33	7.55	8.97	-
35	1.91	2.44	3.05	3.75	4.55	5.48	6.53	7.74	-
40	1.62	2.08	2.61	3.22	3.92	4.71	5.62	6.66	-
45	1.36	1.76	2.22	2.74	3.35	4.03	4.81	5.70	-
50	-	1.47	1.87	2.32	2.83	3.42	4.09	4.84	-
55	-	1.22	1.56	1.94	2.38	2.88	3.45	4.09	-
60	-	-	1.28	1.61	1.98	2.40	2.88	3.42	-
65	-	-	-	-	1.63	1.98	2.38	2.84	-

Nominal performance at to = 7.2 °C, tc = 54.4 °C

Cooling capacity	59 104	W
Power input	18 553	W
Current consumption	31.17	A
Mass flow	1 331	kg/h
C.O.P.	3.19	

Pressure switch settings

Maximum HP switch setting	29.5	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 = 11.1 K, Subcooling = 8.3 K

Tolerance according EN12900

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**Performance data at 60 Hz, EN 12900 rating conditions**
**R22**

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

**Cooling capacity in W**

30	30 265	37 690	46 345	56 361	67 873	81 013	95 915	112 713	-
35	28 748	35 931	44 288	53 952	65 056	77 734	92 118	108 341	-
40	27 163	34 082	42 121	51 412	62 088	74 282	88 126	103 754	-
45	-	32 160	39 860	48 757	58 984	70 673	83 955	98 965	-
50	-	-	37 521	46 004	55 760	66 921	79 620	93 989	-
55	-	-	-	43 165	52 429	63 041	75 134	88 839	-
60	-	-	-	-	49 005	59 045	70 508	83 524	-
65	-	-	-	-	-	54 941	65 749	78 050	-

**Power input in W**

30	12 663	12 864	13 132	13 474	13 897	14 407	15 011	15 716	-
35	13 978	14 174	14 430	14 753	15 149	15 625	16 187	16 844	-
40	15 402	15 602	15 854	16 165	16 543	16 993	17 522	18 138	-
45	-	17 163	17 420	17 728	18 095	18 528	19 032	19 615	-
50	-	-	19 145	19 458	19 823	20 246	20 733	21 292	-
55	-	-	-	21 372	21 743	22 164	22 643	23 185	-
60	-	-	-	-	23 871	24 299	24 777	25 312	-
65	-	-	-	-	-	26 668	27 153	27 688	-

**Current consumption in A**

30	20.42	20.67	20.89	21.14	21.43	21.82	22.32	22.99	-
35	21.72	22.02	22.31	22.63	22.99	23.45	24.04	24.79	-
40	23.18	23.52	23.85	24.21	24.62	25.13	25.77	26.57	-
45	-	25.25	25.59	25.96	26.39	26.92	27.58	28.41	-
50	-	-	27.62	27.97	28.39	28.91	29.57	30.40	-
55	-	-	-	30.32	30.70	31.19	31.81	32.61	-
60	-	-	-	-	33.41	33.83	34.40	35.14	-
65	-	-	-	-	-	36.93	37.40	38.06	-

**Mass flow in kg/h**

30	650	800	970	1 165	1 386	1 636	1 917	2 231	-
35	642	792	963	1 158	1 379	1 629	1 909	2 223	-
40	632	782	953	1 148	1 369	1 618	1 898	2 211	-
45	-	771	941	1 136	1 356	1 604	1 883	2 195	-
50	-	-	928	1 121	1 341	1 588	1 866	2 176	-
55	-	-	-	1 105	1 323	1 569	1 845	2 154	-
60	-	-	-	-	1 303	1 547	1 821	2 128	-
65	-	-	-	-	-	1 522	1 794	2 099	-

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

30	2.39	2.93	3.53	4.18	4.88	5.62	6.39	7.17	-
35	2.06	2.53	3.07	3.66	4.29	4.98	5.69	6.43	-
40	1.76	2.18	2.66	3.18	3.75	4.37	5.03	5.72	-
45	-	1.87	2.29	2.75	3.26	3.81	4.41	5.05	-
50	-	-	1.96	2.36	2.81	3.31	3.84	4.41	-
55	-	-	-	2.02	2.41	2.84	3.32	3.83	-
60	-	-	-	-	2.05	2.43	2.85	3.30	-
65	-	-	-	-	-	2.06	2.42	2.82	-

**Nominal performance at to = 5 °C, tc = 50 °C**

Cooling capacity	66 921	W
Power input	20 246	W
Current consumption	28.91	A
Mass flow	1 588	kg/h
C.O.P.	3.31	

**Pressure switch settings**

Maximum HP switch setting	28	bar(g)
Minimum LP switch setting	0.5	bar(g)
LP pump down setting	1.3	bar(g)

**Sound power data**

Sound power level	85	dB(A)
With acoustic hood	78	dB(A)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Tolerance according EN12900

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Performance data at 60 Hz, ARI rating conditions

R22

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

Cooling capacity in W

30	32 117	39 966	49 105	59 675	71 812	85 657	101 346	119 020	-
35	30 615	38 231	47 084	57 312	69 055	82 451	97 638	114 756	-
40	29 041	36 404	44 949	54 816	66 144	79 071	93 735	110 275	-
45	-	34 502	42 719	52 205	63 097	75 533	89 654	105 597	-
50	-	-	40 412	49 495	59 930	71 856	85 413	100 737	-
55	-	-	-	46 704	56 662	68 057	81 028	95 714	-
60	-	-	-	-	53 310	64 154	76 519	90 545	-
65	-	-	-	-	-	60 163	71 902	85 247	-

Power input in W

30	12 663	12 864	13 132	13 474	13 897	14 407	15 011	15 716	-
35	13 978	14 174	14 430	14 753	15 149	15 625	16 187	16 844	-
40	15 402	15 602	15 854	16 165	16 543	16 993	17 522	18 138	-
45	-	17 163	17 420	17 728	18 095	18 528	19 032	19 615	-
50	-	-	19 145	19 458	19 823	20 246	20 733	21 292	-
55	-	-	-	21 372	21 743	22 164	22 643	23 185	-
60	-	-	-	-	23 871	24 299	24 777	25 312	-
65	-	-	-	-	-	26 668	27 153	27 688	-

Current consumption in A

30	20.42	20.67	20.89	21.14	21.43	21.82	22.32	22.99	-
35	21.72	22.02	22.31	22.63	22.99	23.45	24.04	24.79	-
40	23.18	23.52	23.85	24.21	24.62	25.13	25.77	26.57	-
45	-	25.25	25.59	25.96	26.39	26.92	27.58	28.41	-
50	-	-	27.62	27.97	28.39	28.91	29.57	30.40	-
55	-	-	-	30.32	30.70	31.19	31.81	32.61	-
60	-	-	-	-	33.41	33.83	34.40	35.14	-
65	-	-	-	-	-	36.93	37.40	38.06	-

Mass flow in kg/h

30	647	795	965	1 159	1 379	1 627	1 906	2 218	-
35	639	788	958	1 152	1 372	1 620	1 898	2 210	-
40	629	778	948	1 142	1 361	1 609	1 887	2 198	-
45	-	767	937	1 130	1 349	1 596	1 873	2 183	-
50	-	-	923	1 115	1 333	1 579	1 855	2 164	-
55	-	-	-	1 099	1 316	1 560	1 834	2 141	-
60	-	-	-	-	1 296	1 538	1 811	2 115	-
65	-	-	-	-	-	1 514	1 784	2 087	-

Coefficient of performance (C.O.P.)

30	2.54	3.11	3.74	4.43	5.17	5.95	6.75	7.57	-
35	2.19	2.70	3.26	3.88	4.56	5.28	6.03	6.81	-
40	1.89	2.33	2.84	3.39	4.00	4.65	5.35	6.08	-
45	-	2.01	2.45	2.94	3.49	4.08	4.71	5.38	-
50	-	-	2.11	2.54	3.02	3.55	4.12	4.73	-
55	-	-	-	2.19	2.61	3.07	3.58	4.13	-
60	-	-	-	-	2.23	2.64	3.09	3.58	-
65	-	-	-	-	-	2.26	2.65	3.08	-

Nominal performance at to = 7.2 °C, tc = 54.4 °C

Cooling capacity	74 055	W
Power input	22 126	W
Current consumption	31.16	A
Mass flow	1 680	kg/h
C.O.P.	3.35	

Pressure switch settings

Maximum HP switch setting	28	bar(g)
Minimum LP switch setting	0.5	bar(g)
LP pump down setting	1.3	bar(g)

Sound power data

Sound power level	85	dB(A)
With acoustic hood	78	dB(A)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Tolerance according EN12900

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Performance data at 60 Hz, EN 12900 rating conditions

R407C

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

Cooling capacity in W

30	26 645	34 200	43 195	53 815	66 246	80 674	97 287	116 272	-
35	24 981	32 219	40 800	50 906	62 725	76 441	92 241	110 311	-
40	23 302	30 217	38 376	47 963	59 163	72 160	87 139	104 287	-
45	21 607	28 191	35 922	44 983	55 556	67 826	81 978	98 196	-
50	-	26 139	33 435	41 961	51 901	63 437	76 752	92 031	-
55	-	24 058	30 909	38 893	48 190	58 983	71 453	85 783	-
60	-	-	28 340	35 771	44 416	54 454	66 067	79 435	-
65	-	-	-	-	40 561	49 832	60 572	72 962	-

Power input in W

30	12 717	13 053	13 374	13 684	13 988	14 288	14 590	14 896	-
35	13 971	14 334	14 676	15 001	15 314	15 618	15 917	16 215	-
40	15 365	15 758	16 124	16 468	16 793	17 104	17 404	17 697	-
45	16 928	17 354	17 748	18 113	18 454	18 775	19 079	19 371	-
50	-	19 150	19 575	19 965	20 325	20 659	20 970	21 263	-
55	-	21 175	21 633	22 052	22 434	22 784	23 106	23 404	-
60	-	-	23 951	24 401	24 809	25 179	25 514	25 820	-
65	-	-	-	-	27 478	27 871	28 223	28 540	-

Current consumption in A

30	19.93	20.30	20.59	20.86	21.14	21.48	21.90	22.46	-
35	21.37	21.81	22.15	22.45	22.75	23.08	23.49	24.00	-
40	22.94	23.45	23.86	24.21	24.53	24.87	25.27	25.75	-
45	24.67	25.27	25.76	26.16	26.53	26.89	27.29	27.76	-
50	-	27.33	27.90	28.37	28.79	29.18	29.60	30.07	-
55	-	29.66	30.33	30.89	31.37	31.81	32.25	32.73	-
60	-	-	33.11	33.75	34.31	34.80	35.28	35.79	-
65	-	-	-	-	37.66	38.22	38.76	39.29	-

Mass flow in kg/h

30	560	709	881	1 080	1 309	1 571	1 870	2 208	-
35	551	699	871	1 069	1 296	1 556	1 851	2 186	-
40	541	690	860	1 057	1 282	1 540	1 832	2 163	-
45	531	679	849	1 045	1 268	1 523	1 812	2 139	-
50	-	668	838	1 032	1 253	1 506	1 792	2 115	-
55	-	657	826	1 019	1 238	1 488	1 771	2 090	-
60	-	-	813	1 005	1 223	1 470	1 750	2 065	-
65	-	-	-	-	1 207	1 451	1 728	2 040	-

Coefficient of performance (C.O.P.)

30	2.10	2.62	3.23	3.93	4.74	5.65	6.67	7.81	-
35	1.79	2.25	2.78	3.39	4.10	4.89	5.80	6.80	-
40	1.52	1.92	2.38	2.91	3.52	4.22	5.01	5.89	-
45	1.28	1.62	2.02	2.48	3.01	3.61	4.30	5.07	-
50	-	1.36	1.71	2.10	2.55	3.07	3.66	4.33	-
55	-	1.14	1.43	1.76	2.15	2.59	3.09	3.67	-
60	-	-	1.18	1.47	1.79	2.16	2.59	3.08	-
65	-	-	-	-	1.48	1.79	2.15	2.56	-

Nominal performance at to = 5 °C, tc = 50 °C

Cooling capacity	63 437	W
Power input	20 659	W
Current consumption	29.18	A
Mass flow	1 506	kg/h
C.O.P.	3.07	

Pressure switch settings

Maximum HP switch setting	29.5	bar(g)
Minimum LP switch setting	0.5	bar(g)
LP pump down setting	1	bar(g)

Sound power data

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

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Tolerance according EN12900

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**Performance data at 60 Hz, ARI rating conditions**
**R407C**

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

**Cooling capacity in W**

30	28 578	36 638	46 223	57 525	70 741	86 063	103 687	123 806	-
35	26 923	34 680	43 861	54 661	67 275	81 897	98 722	117 943	-
40	25 255	32 702	41 475	51 768	63 775	77 692	93 712	112 029	-
45	23 572	30 705	39 064	48 844	60 239	73 445	88 655	106 063	-
50	-	28 685	36 625	45 887	56 666	69 155	83 550	100 045	-
55	-	26 643	34 159	42 898	53 054	64 822	78 396	93 971	-
60	-	-	31 663	39 873	49 402	60 443	73 192	87 842	-
65	-	-	-	-	45 708	56 018	67 936	81 656	-

**Power input in W**

30	12 717	13 053	13 374	13 684	13 988	14 288	14 590	14 896	-
35	13 971	14 334	14 676	15 001	15 314	15 618	15 917	16 215	-
40	15 365	15 758	16 124	16 468	16 793	17 104	17 404	17 697	-
45	16 928	17 354	17 748	18 113	18 454	18 775	19 079	19 371	-
50	-	19 150	19 575	19 965	20 325	20 659	20 970	21 263	-
55	-	21 175	21 633	22 052	22 434	22 784	23 106	23 404	-
60	-	-	23 951	24 401	24 809	25 179	25 514	25 820	-
65	-	-	-	-	27 478	27 871	28 223	28 540	-

**Current consumption in A**

30	19.93	20.30	20.59	20.86	21.14	21.48	21.90	22.46	-
35	21.37	21.81	22.15	22.45	22.75	23.08	23.49	24.00	-
40	22.94	23.45	23.86	24.21	24.53	24.87	25.27	25.75	-
45	24.67	25.27	25.76	26.16	26.53	26.89	27.29	27.76	-
50	-	27.33	27.90	28.37	28.79	29.18	29.60	30.07	-
55	-	29.66	30.33	30.89	31.37	31.81	32.25	32.73	-
60	-	-	33.11	33.75	34.31	34.80	35.28	35.79	-
65	-	-	-	-	37.66	38.22	38.76	39.29	-

**Mass flow in kg/h**

30	558	705	876	1 074	1 301	1 562	1 859	2 194	-
35	548	696	866	1 063	1 289	1 547	1 840	2 172	-
40	539	686	856	1 051	1 275	1 531	1 821	2 150	-
45	528	676	845	1 039	1 261	1 514	1 802	2 126	-
50	-	665	833	1 026	1 246	1 497	1 781	2 102	-
55	-	653	821	1 013	1 231	1 479	1 760	2 077	-
60	-	-	809	999	1 216	1 461	1 739	2 052	-
65	-	-	-	-	1 200	1 443	1 718	2 027	-

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

30	2.25	2.81	3.46	4.20	5.06	6.02	7.11	8.31	-
35	1.93	2.42	2.99	3.64	4.39	5.24	6.20	7.27	-
40	1.64	2.08	2.57	3.14	3.80	4.54	5.38	6.33	-
45	1.39	1.77	2.20	2.70	3.26	3.91	4.65	5.48	-
50	-	1.50	1.87	2.30	2.79	3.35	3.98	4.71	-
55	-	1.26	1.58	1.95	2.36	2.85	3.39	4.02	-
60	-	-	1.32	1.63	1.99	2.40	2.87	3.40	-
65	-	-	-	-	1.66	2.01	2.41	2.86	-

**Nominal performance at to = 7.2 °C, tc = 54.4 °C**

Cooling capacity	71 125	W
Power input	22 659	W
Current consumption	31.66	A
Mass flow	1 601	kg/h
C.O.P.	3.14	

**Pressure switch settings**

Maximum HP switch setting	29.5	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 = 11.1 K, Subcooling = 8.3 K

Tolerance according EN12900

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Performance data at 60 Hz, EN 12900 rating conditions

R134a

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

Cooling capacity in W

35	21 392	27 163	34 022	42 117	51 599	62 621	75 333	-	-
40	20 061	25 596	32 162	39 908	48 985	59 544	71 736	-	-
45	18 704	23 991	30 253	37 638	46 298	56 382	68 040	-	-
50	17 327	22 353	28 299	35 312	43 541	53 137	64 250	-	-
55	-	20 689	26 305	32 933	40 720	49 815	60 368	-	-
60	-	-	24 276	30 506	37 836	46 417	56 396	-	-
65	-	-	-	28 032	34 893	42 944	52 333	-	-
70	-	-	-	-	31 888	39 393	48 176	-	-

Power input in W

35	10 138	10 244	10 368	10 511	10 675	10 858	11 063	-	-
40	11 133	11 249	11 382	11 534	11 705	11 895	12 105	-	-
45	12 216	12 344	12 490	12 653	12 834	13 033	13 252	-	-
50	13 398	13 543	13 703	13 880	14 075	14 287	14 517	-	-
55	-	14 858	15 037	15 231	15 441	15 668	15 913	-	-
60	-	-	16 502	16 716	16 946	17 191	17 453	-	-
65	-	-	-	18 350	18 602	18 868	19 151	-	-
70	-	-	-	-	20 422	20 713	21 018	-	-

Current consumption in A

35	17.72	17.91	18.03	18.11	18.20	18.35	18.62	-	-
40	18.71	18.86	18.96	19.05	19.17	19.38	19.72	-	-
45	19.91	20.01	20.09	20.18	20.33	20.59	21.00	-	-
50	21.30	21.36	21.42	21.50	21.67	21.98	22.46	-	-
55	-	22.92	22.94	23.02	23.21	23.55	24.10	-	-
60	-	-	24.66	24.73	24.94	25.31	25.92	-	-
65	-	-	-	26.64	26.85	27.26	27.92	-	-
70	-	-	-	-	28.96	29.40	30.11	-	-

Mass flow in kg/h

35	520	646	792	960	1 153	1 373	1 622	-	-
40	513	640	787	955	1 148	1 368	1 617	-	-
45	506	633	780	949	1 142	1 361	1 610	-	-
50	498	626	773	941	1 134	1 353	1 602	-	-
55	-	617	764	932	1 125	1 344	1 592	-	-
60	-	-	754	922	1 114	1 333	1 580	-	-
65	-	-	-	911	1 102	1 320	1 567	-	-
70	-	-	-	-	1 089	1 307	1 552	-	-

Coefficient of performance (C.O.P.)

35	2.11	2.65	3.28	4.01	4.83	5.77	6.81	-	-
40	1.80	2.28	2.83	3.46	4.19	5.01	5.93	-	-
45	1.53	1.94	2.42	2.97	3.61	4.33	5.13	-	-
50	1.29	1.65	2.07	2.54	3.09	3.72	4.43	-	-
55	-	1.39	1.75	2.16	2.64	3.18	3.79	-	-
60	-	-	1.47	1.82	2.23	2.70	3.23	-	-
65	-	-	-	1.53	1.88	2.28	2.73	-	-
70	-	-	-	-	1.56	1.90	2.29	-	-

Nominal performance at to = 5 °C, tc = 50 °C

Cooling capacity	43 541	W
Power input	14 075	W
Current consumption	21.67	A
Mass flow	1 134	kg/h
C.O.P.	3.09	

Pressure switch settings

Maximum HP switch setting	20.5	bar(g)
Minimum LP switch setting	0.5	bar(g)
LP pump down setting	0.5	bar(g)

Sound power data

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

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Tolerance according EN12900

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Performance data at 60 Hz, ARI rating conditions

R134a

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

Cooling capacity in W

35	23 169	29 371	36 727	45 395	55 532	67 298	80 848	-	-
40	21 846	27 821	34 895	43 225	52 968	64 284	77 329	-	-
45	20 495	26 232	33 012	40 992	50 331	61 185	73 713	-	-
50	19 123	24 611	31 085	38 704	47 625	58 006	70 006	-	-
55	-	22 962	29 120	36 366	44 858	54 755	66 214	-	-
60	-	-	27 122	33 984	42 036	51 437	62 344	-	-
65	-	-	-	31 565	39 166	48 059	58 403	-	-
70	-	-	-	-	36 253	44 627	54 396	-	-

Power input in W

35	10 138	10 244	10 368	10 511	10 675	10 858	11 063	-	-
40	11 133	11 249	11 382	11 534	11 705	11 895	12 105	-	-
45	12 216	12 344	12 490	12 653	12 834	13 033	13 252	-	-
50	13 398	13 543	13 703	13 880	14 075	14 287	14 517	-	-
55	-	14 858	15 037	15 231	15 441	15 668	15 913	-	-
60	-	-	16 502	16 716	16 946	17 191	17 453	-	-
65	-	-	-	18 350	18 602	18 868	19 151	-	-
70	-	-	-	-	20 422	20 713	21 018	-	-

Current consumption in A

35	17.72	17.91	18.03	18.11	18.20	18.35	18.62	-	-
40	18.71	18.86	18.96	19.05	19.17	19.38	19.72	-	-
45	19.91	20.01	20.09	20.18	20.33	20.59	21.00	-	-
50	21.30	21.36	21.42	21.50	21.67	21.98	22.46	-	-
55	-	22.92	22.94	23.02	23.21	23.55	24.10	-	-
60	-	-	24.66	24.73	24.94	25.31	25.92	-	-
65	-	-	-	26.64	26.85	27.26	27.92	-	-
70	-	-	-	-	28.96	29.40	30.11	-	-

Mass flow in kg/h

35	517	643	788	955	1 147	1 365	1 613	-	-
40	511	637	783	950	1 142	1 360	1 608	-	-
45	504	630	776	944	1 136	1 354	1 601	-	-
50	496	623	769	936	1 128	1 346	1 593	-	-
55	-	614	760	927	1 119	1 337	1 583	-	-
60	-	-	750	917	1 108	1 326	1 571	-	-
65	-	-	-	906	1 097	1 313	1 558	-	-
70	-	-	-	-	1 084	1 300	1 544	-	-

Coefficient of performance (C.O.P.)

35	2.29	2.87	3.54	4.32	5.20	6.20	7.31	-	-
40	1.96	2.47	3.07	3.75	4.53	5.40	6.39	-	-
45	1.68	2.13	2.64	3.24	3.92	4.69	5.56	-	-
50	1.43	1.82	2.27	2.79	3.38	4.06	4.82	-	-
55	-	1.55	1.94	2.39	2.91	3.49	4.16	-	-
60	-	-	1.64	2.03	2.48	2.99	3.57	-	-
65	-	-	-	1.72	2.11	2.55	3.05	-	-
70	-	-	-	-	1.78	2.15	2.59	-	-

Nominal performance at to = 7.2 °C, tc = 54.4 °C

Cooling capacity	49 390	W
Power input	15 367	W
Current consumption	23.14	A
Mass flow	1 212	kg/h
C.O.P.	3.21	

Pressure switch settings

Maximum HP switch setting	20.5	bar(g)
Minimum LP switch setting	0.5	bar(g)
LP pump down setting	0.5	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 = 11.1 K , Subcooling = 8.3 K

Tolerance according EN12900

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**Performance data at 60 Hz, EN 12900 rating conditions**
**R134a**

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

**Cooling capacity in W**

35	21 392	27 163	34 022	42 117	51 599	62 621	75 333	-	-
40	20 061	25 596	32 162	39 908	48 985	59 544	71 736	-	-
45	18 704	23 991	30 253	37 638	46 298	56 382	68 040	-	-
50	17 327	22 353	28 299	35 312	43 541	53 137	64 250	-	-
55	-	20 689	26 305	32 933	40 720	49 815	60 368	-	-
60	-	-	24 276	30 506	37 836	46 417	56 396	-	-
65	-	-	-	28 032	34 893	42 944	52 333	-	-
70	-	-	-	-	31 888	39 393	48 176	-	-

**Power input in W**

35	10 138	10 244	10 368	10 511	10 675	10 858	11 063	-	-
40	11 133	11 249	11 382	11 534	11 705	11 895	12 105	-	-
45	12 216	12 344	12 490	12 653	12 834	13 033	13 252	-	-
50	13 398	13 543	13 703	13 880	14 075	14 287	14 517	-	-
55	-	14 858	15 037	15 231	15 441	15 668	15 913	-	-
60	-	-	16 502	16 716	16 946	17 191	17 453	-	-
65	-	-	-	18 350	18 602	18 868	19 151	-	-
70	-	-	-	-	20 422	20 713	21 018	-	-

**Current consumption in A**

35	17.72	17.91	18.03	18.11	18.20	18.35	18.62	-	-
40	18.71	18.86	18.96	19.05	19.17	19.38	19.72	-	-
45	19.91	20.01	20.09	20.18	20.33	20.59	21.00	-	-
50	21.30	21.36	21.42	21.50	21.67	21.98	22.46	-	-
55	-	22.92	22.94	23.02	23.21	23.55	24.10	-	-
60	-	-	24.66	24.73	24.94	25.31	25.92	-	-
65	-	-	-	26.64	26.85	27.26	27.92	-	-
70	-	-	-	-	28.96	29.40	30.11	-	-

**Mass flow in kg/h**

35	520	646	792	960	1 153	1 373	1 622	-	-
40	513	640	787	955	1 148	1 368	1 617	-	-
45	506	633	780	949	1 142	1 361	1 610	-	-
50	498	626	773	941	1 134	1 353	1 602	-	-
55	-	617	764	932	1 125	1 344	1 592	-	-
60	-	-	754	922	1 114	1 333	1 580	-	-
65	-	-	-	911	1 102	1 320	1 567	-	-
70	-	-	-	-	1 089	1 307	1 552	-	-

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

35	2.11	2.65	3.28	4.01	4.83	5.77	6.81	-	-
40	1.80	2.28	2.83	3.46	4.19	5.01	5.93	-	-
45	1.53	1.94	2.42	2.97	3.61	4.33	5.13	-	-
50	1.29	1.65	2.07	2.54	3.09	3.72	4.43	-	-
55	-	1.39	1.75	2.16	2.64	3.18	3.79	-	-
60	-	-	1.47	1.82	2.23	2.70	3.23	-	-
65	-	-	-	1.53	1.88	2.28	2.73	-	-
70	-	-	-	-	1.56	1.90	2.29	-	-

**Nominal performance at to = 5 °C, tc = 50 °C**

Cooling capacity	43 541	W
Power input	14 075	W
Current consumption	21.67	A
Mass flow	1 134	kg/h
C.O.P.	3.09	

**Pressure switch settings**

Maximum HP switch setting	20.5	bar(g)
Minimum LP switch setting	0.5	bar(g)
LP pump down setting	0.5	bar(g)

**Sound power data**

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

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Tolerance according EN12900

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Performance data at 60 Hz, ARI rating conditions

R134a

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

Cooling capacity in W

35	23 169	29 371	36 727	45 395	55 532	67 298	80 848	-	-
40	21 846	27 821	34 895	43 225	52 968	64 284	77 329	-	-
45	20 495	26 232	33 012	40 992	50 331	61 185	73 713	-	-
50	19 123	24 611	31 085	38 704	47 625	58 006	70 006	-	-
55	-	22 962	29 120	36 366	44 858	54 755	66 214	-	-
60	-	-	27 122	33 984	42 036	51 437	62 344	-	-
65	-	-	-	31 565	39 166	48 059	58 403	-	-
70	-	-	-	-	36 253	44 627	54 396	-	-

Power input in W

35	10 138	10 244	10 368	10 511	10 675	10 858	11 063	-	-
40	11 133	11 249	11 382	11 534	11 705	11 895	12 105	-	-
45	12 216	12 344	12 490	12 653	12 834	13 033	13 252	-	-
50	13 398	13 543	13 703	13 880	14 075	14 287	14 517	-	-
55	-	14 858	15 037	15 231	15 441	15 668	15 913	-	-
60	-	-	16 502	16 716	16 946	17 191	17 453	-	-
65	-	-	-	18 350	18 602	18 868	19 151	-	-
70	-	-	-	-	20 422	20 713	21 018	-	-

Current consumption in A

35	17.72	17.91	18.03	18.11	18.20	18.35	18.62	-	-
40	18.71	18.86	18.96	19.05	19.17	19.38	19.72	-	-
45	19.91	20.01	20.09	20.18	20.33	20.59	21.00	-	-
50	21.30	21.36	21.42	21.50	21.67	21.98	22.46	-	-
55	-	22.92	22.94	23.02	23.21	23.55	24.10	-	-
60	-	-	24.66	24.73	24.94	25.31	25.92	-	-
65	-	-	-	26.64	26.85	27.26	27.92	-	-
70	-	-	-	-	28.96	29.40	30.11	-	-

Mass flow in kg/h

35	517	643	788	955	1 147	1 365	1 613	-	-
40	511	637	783	950	1 142	1 360	1 608	-	-
45	504	630	776	944	1 136	1 354	1 601	-	-
50	496	623	769	936	1 128	1 346	1 593	-	-
55	-	614	760	927	1 119	1 337	1 583	-	-
60	-	-	750	917	1 108	1 326	1 571	-	-
65	-	-	-	906	1 097	1 313	1 558	-	-
70	-	-	-	-	1 084	1 300	1 544	-	-

Coefficient of performance (C.O.P.)

35	2.29	2.87	3.54	4.32	5.20	6.20	7.31	-	-
40	1.96	2.47	3.07	3.75	4.53	5.40	6.39	-	-
45	1.68	2.13	2.64	3.24	3.92	4.69	5.56	-	-
50	1.43	1.82	2.27	2.79	3.38	4.06	4.82	-	-
55	-	1.55	1.94	2.39	2.91	3.49	4.16	-	-
60	-	-	1.64	2.03	2.48	2.99	3.57	-	-
65	-	-	-	1.72	2.11	2.55	3.05	-	-
70	-	-	-	-	1.78	2.15	2.59	-	-

Nominal performance at to = 7.2 °C, tc = 54.4 °C

Cooling capacity	49 390	W
Power input	15 367	W
Current consumption	23.14	A
Mass flow	1 212	kg/h
C.O.P.	3.21	

Pressure switch settings

Maximum HP switch setting	20.5	bar(g)
Minimum LP switch setting	0.5	bar(g)
LP pump down setting	0.5	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 = 11.1 K , Subcooling = 8.3 K

Tolerance according EN12900

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**Performance data at 60 Hz, EN 12900 rating conditions**
**R407C**

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

**Cooling capacity in W**

30	26 645	34 200	43 195	53 815	66 246	80 674	97 287	116 272	-
35	24 981	32 219	40 800	50 906	62 725	76 441	92 241	110 311	-
40	23 302	30 217	38 376	47 963	59 163	72 160	87 139	104 287	-
45	21 607	28 191	35 922	44 983	55 556	67 826	81 978	98 196	-
50	-	26 139	33 435	41 961	51 901	63 437	76 752	92 031	-
55	-	24 058	30 909	38 893	48 190	58 983	71 453	85 783	-
60	-	-	28 340	35 771	44 416	54 454	66 067	79 435	-
65	-	-	-	-	40 561	49 832	60 572	72 962	-

**Power input in W**

30	12 717	13 053	13 374	13 684	13 988	14 288	14 590	14 896	-
35	13 971	14 334	14 676	15 001	15 314	15 618	15 917	16 215	-
40	15 365	15 758	16 124	16 468	16 793	17 104	17 404	17 697	-
45	16 928	17 354	17 748	18 113	18 454	18 775	19 079	19 371	-
50	-	19 150	19 575	19 965	20 325	20 659	20 970	21 263	-
55	-	21 175	21 633	22 052	22 434	22 784	23 106	23 404	-
60	-	-	23 951	24 401	24 809	25 179	25 514	25 820	-
65	-	-	-	-	27 478	27 871	28 223	28 540	-

**Current consumption in A**

30	19.93	20.30	20.59	20.86	21.14	21.48	21.90	22.46	-
35	21.37	21.81	22.15	22.45	22.75	23.08	23.49	24.00	-
40	22.94	23.45	23.86	24.21	24.53	24.87	25.27	25.75	-
45	24.67	25.27	25.76	26.16	26.53	26.89	27.29	27.76	-
50	-	27.33	27.90	28.37	28.79	29.18	29.60	30.07	-
55	-	29.66	30.33	30.89	31.37	31.81	32.25	32.73	-
60	-	-	33.11	33.75	34.31	34.80	35.28	35.79	-
65	-	-	-	-	37.66	38.22	38.76	39.29	-

**Mass flow in kg/h**

30	560	709	881	1 080	1 309	1 571	1 870	2 208	-
35	551	699	871	1 069	1 296	1 556	1 851	2 186	-
40	541	690	860	1 057	1 282	1 540	1 832	2 163	-
45	531	679	849	1 045	1 268	1 523	1 812	2 139	-
50	-	668	838	1 032	1 253	1 506	1 792	2 115	-
55	-	657	826	1 019	1 238	1 488	1 771	2 090	-
60	-	-	813	1 005	1 223	1 470	1 750	2 065	-
65	-	-	-	-	1 207	1 451	1 728	2 040	-

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

30	2.10	2.62	3.23	3.93	4.74	5.65	6.67	7.81	-
35	1.79	2.25	2.78	3.39	4.10	4.89	5.80	6.80	-
40	1.52	1.92	2.38	2.91	3.52	4.22	5.01	5.89	-
45	1.28	1.62	2.02	2.48	3.01	3.61	4.30	5.07	-
50	-	1.36	1.71	2.10	2.55	3.07	3.66	4.33	-
55	-	1.14	1.43	1.76	2.15	2.59	3.09	3.67	-
60	-	-	1.18	1.47	1.79	2.16	2.59	3.08	-
65	-	-	-	-	1.48	1.79	2.15	2.56	-

**Nominal performance at to = 5 °C, tc = 50 °C**

Cooling capacity	63 437	W
Power input	20 659	W
Current consumption	29.18	A
Mass flow	1 506	kg/h
C.O.P.	3.07	

**Pressure switch settings**

Maximum HP switch setting	29.5	bar(g)
Minimum LP switch setting	0.5	bar(g)
LP pump down setting	1	bar(g)

**Sound power data**

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

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Tolerance according EN12900

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**Performance data at 60 Hz, ARI rating conditions**
**R407C**

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

**Cooling capacity in W**

30	28 578	36 638	46 223	57 525	70 741	86 063	103 687	123 806	-
35	26 923	34 680	43 861	54 661	67 275	81 897	98 722	117 943	-
40	25 255	32 702	41 475	51 768	63 775	77 692	93 712	112 029	-
45	23 572	30 705	39 064	48 844	60 239	73 445	88 655	106 063	-
50	-	28 685	36 625	45 887	56 666	69 155	83 550	100 045	-
55	-	26 643	34 159	42 898	53 054	64 822	78 396	93 971	-
60	-	-	31 663	39 873	49 402	60 443	73 192	87 842	-
65	-	-	-	-	45 708	56 018	67 936	81 656	-

**Power input in W**

30	12 717	13 053	13 374	13 684	13 988	14 288	14 590	14 896	-
35	13 971	14 334	14 676	15 001	15 314	15 618	15 917	16 215	-
40	15 365	15 758	16 124	16 468	16 793	17 104	17 404	17 697	-
45	16 928	17 354	17 748	18 113	18 454	18 775	19 079	19 371	-
50	-	19 150	19 575	19 965	20 325	20 659	20 970	21 263	-
55	-	21 175	21 633	22 052	22 434	22 784	23 106	23 404	-
60	-	-	23 951	24 401	24 809	25 179	25 514	25 820	-
65	-	-	-	-	27 478	27 871	28 223	28 540	-

**Current consumption in A**

30	19.93	20.30	20.59	20.86	21.14	21.48	21.90	22.46	-
35	21.37	21.81	22.15	22.45	22.75	23.08	23.49	24.00	-
40	22.94	23.45	23.86	24.21	24.53	24.87	25.27	25.75	-
45	24.67	25.27	25.76	26.16	26.53	26.89	27.29	27.76	-
50	-	27.33	27.90	28.37	28.79	29.18	29.60	30.07	-
55	-	29.66	30.33	30.89	31.37	31.81	32.25	32.73	-
60	-	-	33.11	33.75	34.31	34.80	35.28	35.79	-
65	-	-	-	-	37.66	38.22	38.76	39.29	-

**Mass flow in kg/h**

30	558	705	876	1 074	1 301	1 562	1 859	2 194	-
35	548	696	866	1 063	1 289	1 547	1 840	2 172	-
40	539	686	856	1 051	1 275	1 531	1 821	2 150	-
45	528	676	845	1 039	1 261	1 514	1 802	2 126	-
50	-	665	833	1 026	1 246	1 497	1 781	2 102	-
55	-	653	821	1 013	1 231	1 479	1 760	2 077	-
60	-	-	809	999	1 216	1 461	1 739	2 052	-
65	-	-	-	-	1 200	1 443	1 718	2 027	-

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

30	2.25	2.81	3.46	4.20	5.06	6.02	7.11	8.31	-
35	1.93	2.42	2.99	3.64	4.39	5.24	6.20	7.27	-
40	1.64	2.08	2.57	3.14	3.80	4.54	5.38	6.33	-
45	1.39	1.77	2.20	2.70	3.26	3.91	4.65	5.48	-
50	-	1.50	1.87	2.30	2.79	3.35	3.98	4.71	-
55	-	1.26	1.58	1.95	2.36	2.85	3.39	4.02	-
60	-	-	1.32	1.63	1.99	2.40	2.87	3.40	-
65	-	-	-	-	1.66	2.01	2.41	2.86	-

**Nominal performance at to = 7.2 °C, tc = 54.4 °C**

Cooling capacity	71 125	W
Power input	22 659	W
Current consumption	31.66	A
Mass flow	1 601	kg/h
C.O.P.	3.14	

**Pressure switch settings**

Maximum HP switch setting	29.5	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 = 11.1 K, Subcooling = 8.3 K

Tolerance according EN12900

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