General Characteristics

Model number (on compressor nameplate)		MT28JE4AVE
Code number for Singlepack*		MT28-4VI
Code number for Industrial pack**		MT28-4VM
Drawing number		8501024e
Suction and discharge connections		Rotolock
Suction connection		1 " Rotolock
Discharge connection		1 " Rotolock
Suction connection with supplied sleeve		1/2 " ODF
Discharge connection with supplied sleeve		3/8 " ODF
Oil sight glass		Threaded
Oil equalisation connection		3/8" flare SAE
Oil drain connection		None
LP gauge port		Schrader
IPR valve		None
Cylinders	1	
Swept volume	48.06 cm3/rev	
Displacement @ Nominal speed	8.4 m3/h @ 2900 rpm - 10.1 m3/h @ 3500 rpm	
Net weight	23 kg	
Oil charge	0.95 litre, Mineral - 160P	
Maximum system test pressure Low Side / High side	25 bar(g) / 30 bar(g)	
Maximum differential test pressure	30 bar	
Maximum number of starts per hour	12	
Refrigerant charge limit	2.5 kg	
Approved refrigerants	R22, R417A-160PZ	

Electrical Characteristics

Nominal voltage	380-400V/3/50Hz - 460V/3/60Hz
Voltage range	340-440 V @ 50Hz - 414-506 V @ 60Hz
Winding resistance (between phases) +/- 7% at 25ºC	6.23 Ω
Maximum Continuous Current (MCC)	7.5 A
Locked Rotor Amps (LRA)	29 A
Motor protection	Internal overload protector

Recommended Installation torques

Oil sight glass	50 Nm
Power connections / Earth connection	2 Nm / 2 Nm
Mounting bolts	15 Nm

Parts shipped with compressor

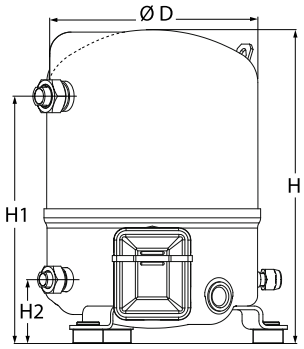
Mounting kit with grommets, bolts, nuts, sleeves and washers
Suction & Discharge solder sleeves, rotolock nuts and gaskets (shipped with rotolock version only)
Initial oil charge
Installation instructions

Approvals : CE certified, UL certified (file SA6873), CCC certified

*Singlepack: Compressor in cardboard box

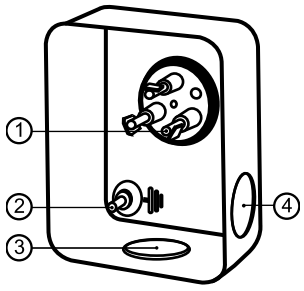
**Industrial pack: 12 Unboxed compressors on pallet (order per multiples of 12)

Dimensions



D=224 mm
H=333 mm
H1=263 mm
H2=68 mm
H3=- mm

Terminal box



IP55 (with cable gland)

1: Spade connectors 1/4"
2: Earth M4-12
3: Knock-out Ø 21 mm (0.83")
4: Hole Ø 21 mm (0.83")

Performance data at 50 Hz, EN 12900 rating conditions

R22

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)								
	-25	-20	-15	-10	-5	0	5	10	15
Cooling capacity in W									
30	2 029	2 783	3 657	4 661	5 808	7 107	8 571	10 210	12 036
35	1 807	2 541	3 390	4 363	5 473	6 730	8 146	9 731	11 497
40	1 583	2 294	3 114	4 053	5 122	6 333	7 697	9 224	10 927
45	1 358	2 042	2 829	3 730	4 755	5 916	7 224	8 690	10 325
50	-	1 785	2 536	3 394	4 372	5 479	6 727	8 128	9 691
55	-	-	2 235	3 047	3 973	5 023	6 208	7 539	9 027
60	-	-	-	2 689	3 559	4 548	5 666	6 923	8 332
65	-	-	-	-	3 132	4 055	5 101	6 281	7 606
Power input in W									
30	1 183	1 349	1 497	1 620	1 710	1 758	1 757	1 697	1 572
35	1 206	1 383	1 547	1 689	1 801	1 875	1 902	1 876	1 787
40	1 218	1 409	1 590	1 753	1 890	1 992	2 052	2 061	2 011
45	1 218	1 425	1 626	1 813	1 976	2 109	2 203	2 250	2 242
50	-	1 430	1 654	1 866	2 060	2 226	2 357	2 444	2 479
55	-	-	1 672	1 913	2 139	2 340	2 510	2 640	2 722
60	-	-	-	1 952	2 212	2 452	2 664	2 839	2 970
65	-	-	-	-	2 279	2 559	2 815	3 038	3 220
Current consumption in A									
30	2.96	3.10	3.25	3.38	3.48	3.54	3.54	3.46	3.30
35	2.98	3.14	3.30	3.45	3.58	3.67	3.70	3.67	3.56
40	3.00	3.17	3.35	3.52	3.68	3.81	3.89	3.90	3.85
45	3.00	3.18	3.39	3.59	3.79	3.95	4.08	4.15	4.15
50	-	3.19	3.42	3.66	3.89	4.11	4.29	4.41	4.48
55	-	-	3.44	3.72	4.00	4.26	4.50	4.69	4.83
60	-	-	-	3.78	4.10	4.42	4.72	4.98	5.19
65	-	-	-	-	4.21	4.59	4.95	5.28	5.57
Mass flow in kg/h									
30	44	60	78	98	120	146	174	204	239
35	41	57	75	95	118	143	171	202	236
40	37	54	72	92	115	140	168	199	233
45	34	50	68	88	111	136	164	195	230
50	-	46	64	84	107	132	160	191	225
55	-	-	59	79	102	127	155	186	220
60	-	-	-	74	96	121	149	180	213
65	-	-	-	-	90	115	142	172	206
Coefficient of performance (C.O.P.)									
30	1.71	2.06	2.44	2.88	3.40	4.04	4.88	6.02	7.66
35	1.50	1.84	2.19	2.58	3.04	3.59	4.28	5.19	6.43
40	1.30	1.63	1.96	2.31	2.71	3.18	3.75	4.48	5.43
45	1.11	1.43	1.74	2.06	2.41	2.80	3.28	3.86	4.61
50	-	1.25	1.53	1.82	2.12	2.46	2.85	3.33	3.91
55	-	-	1.34	1.59	1.86	2.15	2.47	2.86	3.32
60	-	-	-	1.38	1.61	1.85	2.13	2.44	2.81
65	-	-	-	-	1.37	1.58	1.81	2.07	2.36

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

Cooling capacity	6 727	W
Power input	2 357	W
Current consumption	4.29	A
Mass flow	160	kg/h
C.O.P.	2.85	

Pressure switch settings

Maximum HP switch setting	27.9	bar(g)
Minimum LP switch setting	0.7	bar(g)
LP pump down setting	0.9	bar(g)

Sound power data

Sound power level	68	dB(A)
With accoustic hood	61	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, ARI rating conditions

R22

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)								
	-25	-20	-15	-10	-5	0	5	10	15
Cooling capacity in W									
30	2 155	2 953	3 877	4 939	6 149	7 520	9 062	10 788	12 709
35	1 926	2 706	3 607	4 639	5 814	7 144	8 640	10 314	12 178
40	1 694	2 453	3 326	4 325	5 461	6 747	8 193	9 811	11 614
45	1 460	2 193	3 035	3 997	5 091	6 328	7 721	9 280	11 016
50	-	1 927	2 734	3 656	4 703	5 889	7 224	8 719	10 387
55	-	-	2 424	3 301	4 299	5 428	6 702	8 130	9 726
60	-	-	-	2 933	3 877	4 947	6 156	7 514	9 032
65	-	-	-	-	3 439	4 446	5 586	6 869	8 308
Power input in W									
30	1 183	1 349	1 497	1 620	1 710	1 758	1 757	1 697	1 572
35	1 206	1 383	1 547	1 689	1 801	1 875	1 902	1 876	1 787
40	1 218	1 409	1 590	1 753	1 890	1 992	2 052	2 061	2 011
45	1 218	1 425	1 626	1 813	1 976	2 109	2 203	2 250	2 242
50	-	1 430	1 654	1 866	2 060	2 226	2 357	2 444	2 479
55	-	-	1 672	1 913	2 139	2 340	2 510	2 640	2 722
60	-	-	-	1 952	2 212	2 452	2 664	2 839	2 970
65	-	-	-	-	2 279	2 559	2 815	3 038	3 220
Current consumption in A									
30	2.96	3.10	3.25	3.38	3.48	3.54	3.54	3.46	3.30
35	2.98	3.14	3.30	3.45	3.58	3.67	3.70	3.67	3.56
40	3.00	3.17	3.35	3.52	3.68	3.81	3.89	3.90	3.85
45	3.00	3.18	3.39	3.59	3.79	3.95	4.08	4.15	4.15
50	-	3.19	3.42	3.66	3.89	4.11	4.29	4.41	4.48
55	-	-	3.44	3.72	4.00	4.26	4.50	4.69	4.83
60	-	-	-	3.78	4.10	4.42	4.72	4.98	5.19
65	-	-	-	-	4.21	4.59	4.95	5.28	5.57
Mass flow in kg/h									
30	44	60	78	97	120	145	173	203	237
35	41	57	75	95	117	142	170	201	235
40	37	53	71	91	114	139	167	198	232
45	33	50	68	88	110	136	163	194	228
50	-	45	64	84	106	131	159	190	224
55	-	-	59	79	102	126	154	185	218
60	-	-	-	74	96	121	148	179	212
65	-	-	-	-	89	114	141	171	204
Coefficient of performance (C.O.P.)									
30	1.82	2.19	2.59	3.05	3.60	4.28	5.16	6.36	8.09
35	1.60	1.96	2.33	2.75	3.23	3.81	4.54	5.50	6.81
40	1.39	1.74	2.09	2.47	2.89	3.39	3.99	4.76	5.78
45	1.20	1.54	1.87	2.21	2.58	3.00	3.50	4.12	4.91
50	-	1.35	1.65	1.96	2.28	2.65	3.07	3.57	4.19
55	-	-	1.45	1.73	2.01	2.32	2.67	3.08	3.57
60	-	-	-	1.50	1.75	2.02	2.31	2.65	3.04
65	-	-	-	-	1.51	1.74	1.98	2.26	2.58

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

Cooling capacity	7 378	W
Power input	2 552	W
Current consumption	4.56	A
Mass flow	168	kg/h
C.O.P.	2.89	

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

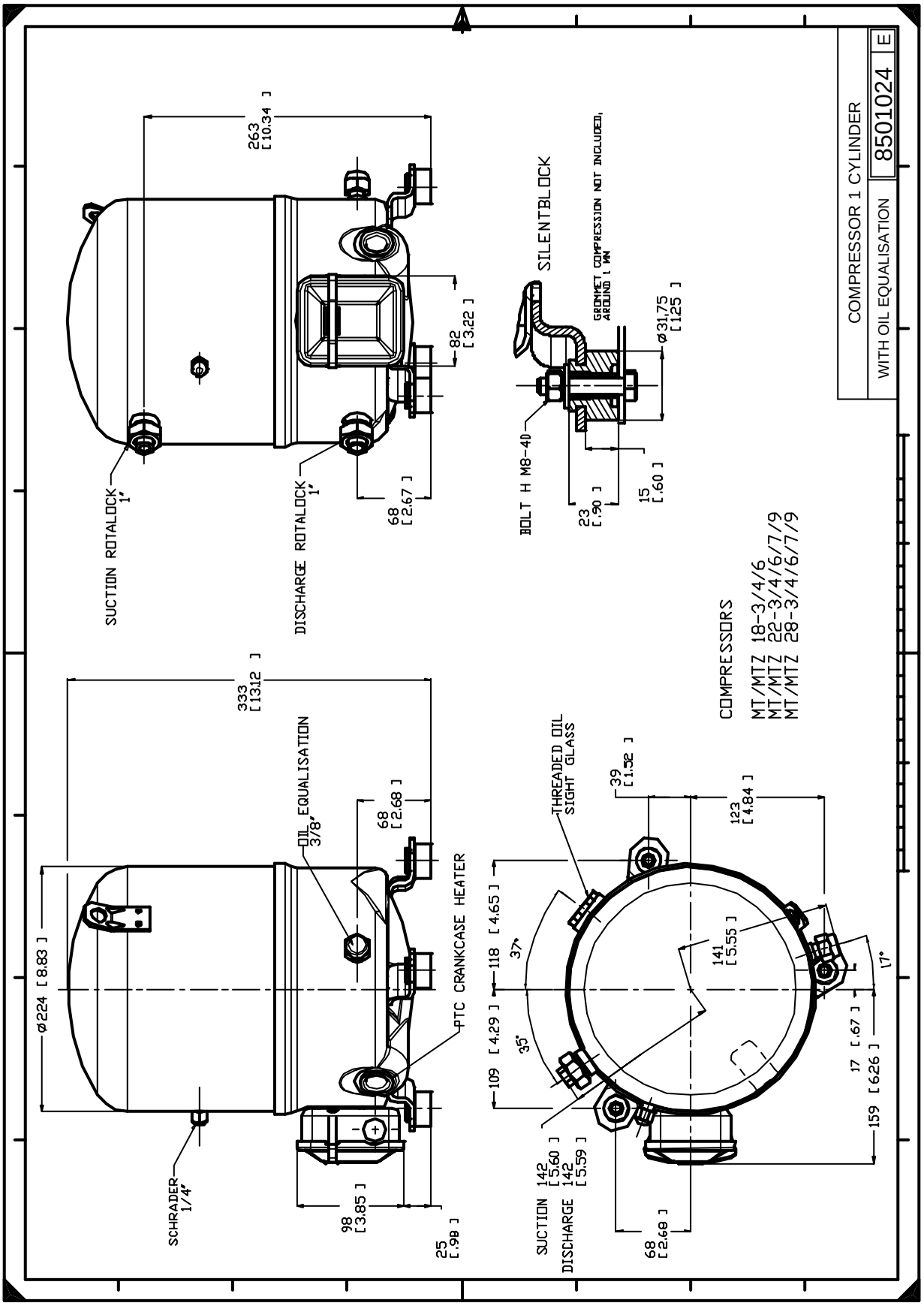
Pressure switch settings

Maximum HP switch setting	27.9	bar(g)
Minimum LP switch setting	0.7	bar(g)
LP pump down setting	0.9	bar(g)

Sound power data

Sound power level	68	dB(A)
With accoustic hood	61	dB(A)

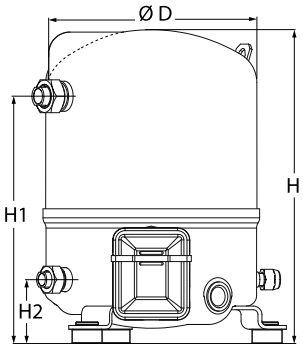
Tolerance according EN12900



General Characteristics

Model number (on compressor nameplate)		**MT28JE5PVE**
Code number for Singlepack*		MT28-5VI
Code number for Industrial pack**		MT28-5VM
Drawing number		8501021e
Suction and discharge connections		Rotolock
Suction connection		1 " Rotolock
Discharge connection		1 " Rotolock
Suction connection with supplied sleeve		1/2 " ODF
Discharge connection with supplied sleeve		3/8 " ODF
Oil sight glass		Threaded
Oil equalisation connection		3/8" flare SAE
Oil drain connection		None
LP gauge port		Schrader
IPR valve		None
Cylinders	1	
Swept volume	48.06 cm3/rev	
Displacement @ Nominal speed	8.4 m3/h @ 2900 rpm	
Net weight	23 kg	
Oil charge	0.95 litre, Mineral - 160P	
Maximum system test pressure Low Side / High side	25 bar(g) / 30 bar(g)	
Maximum differential test pressure	30 bar	
Maximum number of starts per hour	12	
Refrigerant charge limit	2.5 kg	
Approved refrigerants	R22, R417A-160PZ	

Dimensions

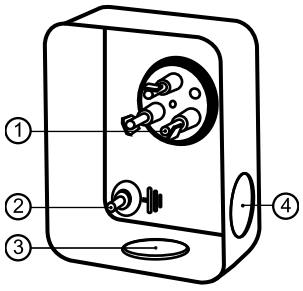


D=224 mm
H=333 mm
H1=263 mm
H2=68 mm
H3=- mm

Electrical Characteristics

Nominal voltage	220-240V/1/50Hz
Voltage range	220-240 V
Winding resistance (main / start) at 25°C	1.07 Ω / 3.26 Ω
Run capacitors A + C	20 µF + 10 µF
Start capacitor B	100 µF
Start relay	RVA-6AMKL
Maximum Continuous Current (MCC)	20 A
Locked Rotor Amps (LRA)	51 A
Motor protection	Internal overload protector

Terminal box



IP55 (with cable gland)
1: Spade connectors 1/4"
2: Earth M4-12
3: Knock-out Ø 21 mm (0.83")
4: Hole Ø 21 mm (0.83")

Recommended Installation torques

Oil sight glass	50 Nm
Power connections / Earth connection	2 Nm / 2 Nm
Mounting bolts	15 Nm

Parts shipped with compressor

Mounting kit with grommets, bolts, nuts, sleeves and washers
Suction & Discharge solder sleeves, rotolock nuts and gaskets (shipped with rotolock version only)
Initial oil charge
Installation instructions

Approvals : CE certified, -, -

*Singlepack: Compressor in cardboard box

**Industrial pack: 12 Unboxed compressors on pallet (order per multiples of 12)

Performance data at 50 Hz, EN 12900 rating conditions

R22

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)								
	-25	-20	-15	-10	-5	0	5	10	15
Cooling capacity in W									
30	2 029	2 783	3 657	4 661	5 808	7 107	8 571	10 210	12 036
35	1 807	2 541	3 390	4 363	5 473	6 730	8 146	9 731	11 497
40	1 583	2 294	3 114	4 053	5 122	6 333	7 697	9 224	10 927
45	1 358	2 042	2 829	3 730	4 755	5 916	7 224	8 690	10 325
50	-	1 785	2 536	3 394	4 372	5 479	6 727	8 128	9 691
55	-	-	2 235	3 047	3 973	5 023	6 208	7 539	9 027
60	-	-	-	2 689	3 559	4 548	5 666	6 923	8 332
65	-	-	-	-	3 132	4 055	5 101	6 281	7 606
Power input in W									
30	1 183	1 349	1 497	1 620	1 710	1 758	1 757	1 697	1 572
35	1 206	1 383	1 547	1 689	1 801	1 875	1 902	1 876	1 787
40	1 218	1 409	1 590	1 753	1 890	1 992	2 052	2 061	2 011
45	1 218	1 425	1 626	1 813	1 976	2 109	2 203	2 250	2 242
50	-	1 430	1 654	1 866	2 060	2 226	2 357	2 444	2 479
55	-	-	1 672	1 913	2 139	2 340	2 510	2 640	2 722
60	-	-	-	1 952	2 212	2 452	2 664	2 839	2 970
65	-	-	-	-	2 279	2 559	2 815	3 038	3 220
Current consumption in A									
30	8.11	8.50	8.90	9.26	9.54	9.70	9.69	9.49	9.04
35	8.18	8.60	9.04	9.46	9.81	10.05	10.15	10.07	9.76
40	8.22	8.68	9.17	9.65	10.09	10.43	10.65	10.70	10.54
45	8.22	8.73	9.28	9.84	10.38	10.83	11.18	11.38	11.38
50	-	8.74	9.37	10.03	10.67	11.26	11.75	12.10	12.28
55	-	-	9.44	10.20	10.96	11.69	12.33	12.86	13.23
60	-	-	-	10.35	11.25	12.13	12.94	13.66	14.22
65	-	-	-	-	11.53	12.57	13.57	14.48	15.26
Mass flow in kg/h									
30	44	60	78	98	120	146	174	204	239
35	41	57	75	95	118	143	171	202	236
40	37	54	72	92	115	140	168	199	233
45	34	50	68	88	111	136	164	195	230
50	-	46	64	84	107	132	160	191	225
55	-	-	59	79	102	127	155	186	220
60	-	-	-	74	96	121	149	180	213
65	-	-	-	-	90	115	142	172	206
Coefficient of performance (C.O.P.)									
30	1.71	2.06	2.44	2.88	3.40	4.04	4.88	6.02	7.66
35	1.50	1.84	2.19	2.58	3.04	3.59	4.28	5.19	6.43
40	1.30	1.63	1.96	2.31	2.71	3.18	3.75	4.48	5.43
45	1.11	1.43	1.74	2.06	2.41	2.80	3.28	3.86	4.61
50	-	1.25	1.53	1.82	2.12	2.46	2.85	3.33	3.91
55	-	-	1.34	1.59	1.86	2.15	2.47	2.86	3.32
60	-	-	-	1.38	1.61	1.85	2.13	2.44	2.81
65	-	-	-	-	1.37	1.58	1.81	2.07	2.36

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

Cooling capacity	6 727	W
Power input	2 357	W
Current consumption	11.75	A
Mass flow	160	kg/h
C.O.P.	2.85	

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	27.9	bar(g)
Minimum LP switch setting	0.7	bar(g)
LP pump down setting	0.9	bar(g)

Sound power data

Sound power level	68	dB(A)
With accoustic hood	61	dB(A)

Tolerance according EN12900

Performance data at 50 Hz, ARI rating conditions

R22

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)								
	-25	-20	-15	-10	-5	0	5	10	15
Cooling capacity in W									
30	2 155	2 953	3 877	4 939	6 149	7 520	9 062	10 788	12 709
35	1 926	2 706	3 607	4 639	5 814	7 144	8 640	10 314	12 178
40	1 694	2 453	3 326	4 325	5 461	6 747	8 193	9 811	11 614
45	1 460	2 193	3 035	3 997	5 091	6 328	7 721	9 280	11 016
50	-	1 927	2 734	3 656	4 703	5 889	7 224	8 719	10 387
55	-	-	2 424	3 301	4 299	5 428	6 702	8 130	9 726
60	-	-	-	2 933	3 877	4 947	6 156	7 514	9 032
65	-	-	-	-	3 439	4 446	5 586	6 869	8 308
Power input in W									
30	1 183	1 349	1 497	1 620	1 710	1 758	1 757	1 697	1 572
35	1 206	1 383	1 547	1 689	1 801	1 875	1 902	1 876	1 787
40	1 218	1 409	1 590	1 753	1 890	1 992	2 052	2 061	2 011
45	1 218	1 425	1 626	1 813	1 976	2 109	2 203	2 250	2 242
50	-	1 430	1 654	1 866	2 060	2 226	2 357	2 444	2 479
55	-	-	1 672	1 913	2 139	2 340	2 510	2 640	2 722
60	-	-	-	1 952	2 212	2 452	2 664	2 839	2 970
65	-	-	-	-	2 279	2 559	2 815	3 038	3 220
Current consumption in A									
30	8.11	8.50	8.90	9.26	9.54	9.70	9.69	9.49	9.04
35	8.18	8.60	9.04	9.46	9.81	10.05	10.15	10.07	9.76
40	8.22	8.68	9.17	9.65	10.09	10.43	10.65	10.70	10.54
45	8.22	8.73	9.28	9.84	10.38	10.83	11.18	11.38	11.38
50	-	8.74	9.37	10.03	10.67	11.26	11.75	12.10	12.28
55	-	-	9.44	10.20	10.96	11.69	12.33	12.86	13.23
60	-	-	-	10.35	11.25	12.13	12.94	13.66	14.22
65	-	-	-	-	11.53	12.57	13.57	14.48	15.26
Mass flow in kg/h									
30	44	60	78	97	120	145	173	203	237
35	41	57	75	95	117	142	170	201	235
40	37	53	71	91	114	139	167	198	232
45	33	50	68	88	110	136	163	194	228
50	-	45	64	84	106	131	159	190	224
55	-	-	59	79	102	126	154	185	218
60	-	-	-	74	96	121	148	179	212
65	-	-	-	-	89	114	141	171	204
Coefficient of performance (C.O.P.)									
30	1.82	2.19	2.59	3.05	3.60	4.28	5.16	6.36	8.09
35	1.60	1.96	2.33	2.75	3.23	3.81	4.54	5.50	6.81
40	1.39	1.74	2.09	2.47	2.89	3.39	3.99	4.76	5.78
45	1.20	1.54	1.87	2.21	2.58	3.00	3.50	4.12	4.91
50	-	1.35	1.65	1.96	2.28	2.65	3.07	3.57	4.19
55	-	-	1.45	1.73	2.01	2.32	2.67	3.08	3.57
60	-	-	-	1.50	1.75	2.02	2.31	2.65	3.04
65	-	-	-	-	1.51	1.74	1.98	2.26	2.58

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

Cooling capacity	7 378	W
Power input	2 552	W
Current consumption	12.50	A
Mass flow	168	kg/h
C.O.P.	2.89	

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Pressure switch settings

Maximum HP switch setting	27.9	bar(g)
Minimum LP switch setting	0.7	bar(g)
LP pump down setting	0.9	bar(g)

Sound power data

Sound power level	68	dB(A)
With accoustic hood	61	dB(A)

Tolerance according EN12900