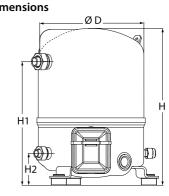
Datasheet, technical data

Maneurop reciprocating compressor, MT036-4

Danfoss

General Characteristics

Model number (on compressor nameplate)		MT36JG4FVE
Code number for Singlepack*		MT36-4VI
Code number for Industrial pack**		MT36-4VM
Drawing number		8501025f
Suction and discharge connections		Rotolock
Suction connection		1-1/4 " Rotolock
Discharge connection		1 " Rotolock
Suction connection with supplied sleeve		5/8 " ODF
Discharge connection with supplied sleeve		1/2 " 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	I
Swept volume	60.47 c	m3/rev
Displacement @ Nominal speed	10.5 m3/h @ 2900 rpm -	- 12.7 m3/h @ 3500 rpm
Net weight	25	kg
Oil charge	0.95 litre, Mi	ineral - 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	1	2
Refrigerant charge limit	2.5	kg
Approved refrigerants	R22, R417	7A-160PZ



D=224 mm H=356 mm H1=263 mm H2=68 mm H3=- mm

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 25°C	5.8 Ω
Maximum Continuous Current (MCC)	9 A
Locked Rotor Amps (LRA)	38 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

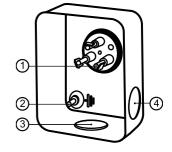
Installation instructions

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)

Terminal box



IP55 (with cable gland)

- 1: Spade connectors 1/4"
 - Earth M4-12

2:

- 3: Knock-out Ø 21 mm (0.83")
- 4: Hole Ø 21 mm (0.83'')



Maneurop reciprocating compressor. MT036-4

Performance data at 50 Hz, EN 12900 rating conditions

Cond. temp. in		1		-	ting temperatu		1		
°C (tc)	-25	-20	-15	-10	-5	0	5	10	15
Cooling capacit	y in W								
30	2 741	3 691	4 782	6 027	7 436	9 021	10 794	12 767	14 950
35	2 435	3 362	4 424	5 632	6 999	8 535	10 252	12 161	14 275
40	2 130	3 029	4 057	5 225	6 544	8 026	9 683	11 525	13 565
45	1 825	2 693	3 682	4 805	6 073	7 497	9 088	10 859	12 820
50	-	2 354	3 301	4 374	5 586	6 947	8 469	10 164	12 042
55	-	-	2 914	3 934	5 085	6 379	7 827	9 441	11 231
60	_	_	-	3 485	4 571	5 793	7 163	8 691	10 389
65	_	_	-	-	4 045	5 191	6 477	7 914	9 515
00					1010	0 101	0 111	7011	0010
Power input in V	N								
30	1 524	1 713	1 894	2 061	2 208	2 327	2 414	2 461	2 462
35	1 580	1 779	1 973	2 156	2 208	2 465	2 4 14	2 401	2 402
40	1 631	1 842	2 051	2 253	2 441	2 607	2 747	2 854	2 921
45	1 676	1 902	2 128	2 351	2 562	2 756	2 925	3 065	3 168
50	-	1 957	2 204	2 449	2 686	2 908	3 110	3 285	3 426
55	-	-	2 276	2 546	2 811	3 065	3 301	3 513	3 695
60	-	-	-	2 643	2 938	3 225	3 497	3 749	3 973
65	-	-	-	-	3 065	3 387	3 698	3 991	4 261
Current consun	ption in A						•		
30	3.35	3.54	3.74	3.94	4.12	4.27	4.38	4.44	4.44
35	3.41	3.61	3.83	4.05	4.26	4.45	4.60	4.71	4.75
40	3.47	3.68	3.92	4.17	4.41	4.64	4.84	4.99	5.10
45	3.51	3.75	4.02	4.30	4.58	4.85	5.09	5.30	5.47
50	-	3.81	4.11	4.43	4.75	5.07	5.37	5.64	5.86
55	-	-	4.20	4.56	4.93	5.30	5.66	5.99	6.29
60	-	-	-	4.70	5.12	5.54	5.96	6.36	6.73
65	_	-	-	-	5.31	5.80	6.29	6.76	7.21
				1					
Mass flow in kg	/h								
30	60	79	102	126	154	184	218	255	296
35	55	75	98	123	150	181	215	252	293
40	50	73	93	119	136	177	213	249	290
	45	66			140		207	249	290
45			89	114		173			
50	-	60	83	109	137	168	202	239	280
55	-	-	77	103	131	161	195	233	273
60	-	-	-	96	124	155	188	225	266
65	-	-	-	-	116	147	180	217	257
· · ·	erformance (C.C	,			1		T		
30	1.80	2.15	2.53	2.92	3.37	3.88	4.47	5.19	6.07
35	1.54	1.89	2.24	2.61	3.01	3.46	3.98	4.58	5.32
40	1.31	1.64	1.98	2.32	2.68	3.08	3.52	4.04	4.64
45	1.09	1.42	1.73	2.04	2.37	2.72	3.11	3.54	4.05
50	-	1.20	1.50	1.79	2.08	2.39	2.72	3.09	3.51
55	-	-	1.28	1.55	1.81	2.08	2.37	2.69	3.04
60	-	-	-	1.32	1.56	1.80	2.05	2.32	2.61
65	-	-	-	-	1.32	1.53	1.75	1.98	2.23
		•		•	•			•	
	mance at to = 5	°C, tc = 50 °C				Pressure switch	settings		
Nominal perfori		8 469	W			Maximum HP swit	-	27.9	bar(g)
		3 110	W			Minimum LP swite	•	0.7	bar(g)
Cooling capacity Power input	rrent consumption 5.37 A					LP pump down se	etting	0.9	bar(g)
Cooling capacity Power input Current consum	otion								
Cooling capacity Power input Current consump Mass flow	otion	202	kg/h						
Cooling capacity Power input Current consump Mass flow	otion		kg/h			Sound power dat			100 (1)
Cooling capacity Power input Current consump Mass flow C.O.P.	emperature at de	202 2.72	kg/h			Sound power dat Sound power leve With accoustic ho	el	67 61	dB(A) dB(A)

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

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R22

Maneurop reciprocating compressor. MT036-4

Performance data at 50 Hz, ARI rating conditions

Performanc	e data at 5	0 Hz, ARI ratir	ng conditio	ns					R22
Cond. temp. in				Evapor	ating temperatu	re in °C (to)			
°C (tc)	-25	-20	-15	-10	-5	0	5	10	15
Cooling capacity	-		/						(
30	2 911	3 917	5 071	6 386	7 873	9 545	11 413	13 490	15 787
35	2 596	3 580	4 707	5 988	7 435	9 059	10 874	12 890	15 120
40	2 279	3 239	4 333	5 576	6 977	8 550	10 307	12 258	14 417
45	1 962	2 892	3 950	5 150	6 502	8 019	9 713	11 596	13 679
50	-	2 541	3 559	4 711	6 010	7 467	9 094	10 903	12 906
55	-	-	3 161	4 262	5 502	6 894	8 450	10 182	12 100
60	-	-	-	3 801	4 979	6 302	7 783	9 432	11 262
65	-	-	-	-	4 442	5 692	7 092	8 655	10 392
Power input in V	v								
30	1 524	1 713	1 894	2 061	2 208	2 327	2 414	2 461	2 462
35	1 580	1 779	1 973	2 156	2 322	2 465	2 577	2 652	2 685
40	1 631	1 842	2 051	2 253	2 441	2 607	2 747	2 854	2 921
45	1 676	1 902	2 128	2 351	2 562	2 756	2 925	3 065	3 168
50	-	1 957	2 204	2 449	2 686	2 908	3 110	3 285	3 426
55	-	-	2 276	2 546	2 811	3 065	3 301	3 513	3 695
60	-	-	-	2 643	2 938	3 225	3 497	3 749	3 973
65	-	-	-	-	3 065	3 387	3 698	3 991	4 261
Current consum	ntion in A								
30	3.35	3.54	3.74	3.94	4.12	4.27	4.38	4.44	4.44
35	3.41	3.61	3.83	4.05	4.12	4.45	4.60	4.71	4.75
40	3.47	3.68	3.92	4.17	4.41	4.64	4.84	4.99	5.10
40	3.51	3.75	4.02	4.17	4.58	4.85	5.09	5.30	5.47
45 50	-							5.64	
50 55	-	3.81	4.11	4.43 4.56	4.75	5.07 5.30	5.37 5.66	5.99	5.86 6.29
	-	-							
60 65	-	-	-	4.70	5.12 5.31	5.54 5.80	5.96 6.29	6.36 6.76	6.73 7.21
05	-	-	-	-	5.51	5.80	0.29	0.70	1.21
Mass flow in kg/	'n				1		r	-	
30	59	79	101	126	153	183	217	254	294
35	55	75	97	122	150	180	214	251	292
40	50	70	93	118	146	176	210	247	288
45	45	65	88	113	141	172	206	243	283
50	-	60	83	108	136	167	200	238	278
55	-	-	77	102	130	161	194	231	272
60	-	-	-	95	123	154	187	224	264
65	-	-	-	-	116	146	179	216	256
Coefficient of pe	erformance (C.)	O.P.)							
30	1.91	2.29	2.68	3.10	3.57	4.10	4.73	5.48	6.41
35	1.64	2.01	2.39	2.78	3.20	3.68	4.22	4.86	5.63
40	1.40	1.76	2.00	2.47	2.86	3.28	3.75	4.30	4.94
45	1.17	1.52	1.86	2.19	2.54	2.91	3.32	3.78	4.32
43 50	-	1.30	1.62	1.92	2.24	2.57	2.92	3.32	3.77
55	-	-	1.39	1.67	1.96	2.25	2.56	2.90	3.27
60	-	-	-	1.44	1.90	1.95	2.30	2.52	2.83
65	-	-	-	-	1.09	1.95	1.92	2.52	2.83
lenste to t		0.00 ft = 1.1.1				Dura	44		
		<u>.2 °C, tc = 54.4 °C</u>	10/			Pressure switch		07.0	h = =(=)
Cooling capacity Power input		9 272 3 373	W			Maximum HP swite Minimum LP swite	•	27.9 0.7	bar(g) bar(g)
Current consump	ition	5.77	A			LP pump down se	•	0.7	bar(g) bar(g)
Vass flow		211	kg/h					0.0	201(9)
C.O.P.		2.75				Sound power da	ta		
_						Sound power leve		67	dB(A)
 Evanorating te 						With accoustic ho		61	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

With accoustic hood

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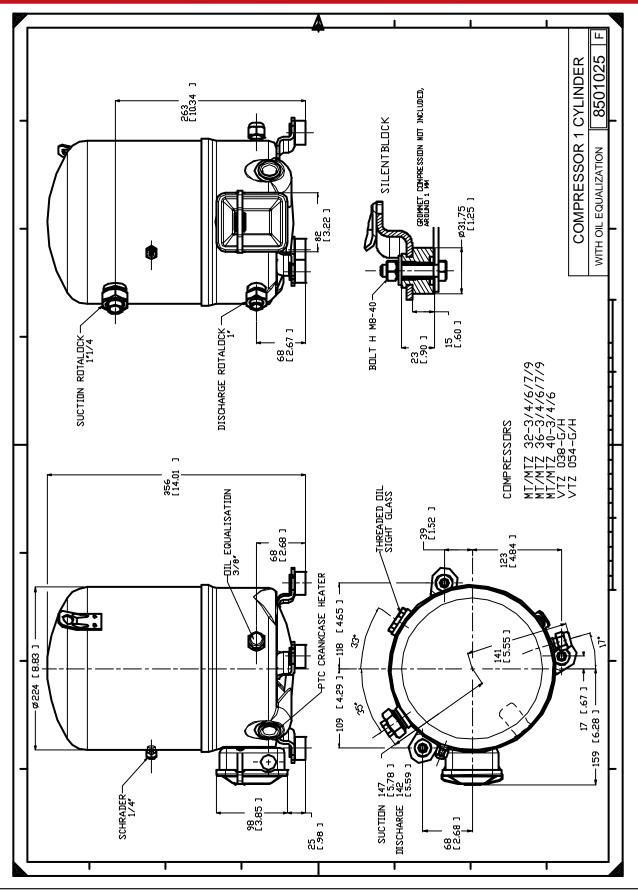


61

dB(A)







Datasheet, technical data

Maneurop reciprocating compressor, MT036-5

Janfoss

General Characteristics

Model number (on compressor nameplate)		MT36JG5CVE
Code number for Singlepack*		MT36-5VI
Code number for Industrial pack**		MT36-5VM
Drawing number		8501020e
Suction and discharge connections		Rotolock
Suction connection		1-1/4 " Rotolock
Discharge connection		1 " Rotolock
Suction connection with supplied sleeve		5/8 " ODF
Discharge connection with supplied sleeve		1/2 " 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	60.47 ci	m3/rev
Displacement @ Nominal speed	10.5 m3/h @	o 2900 rpm
Net weight	25	kg
Oil charge	0.95 litre, Mi	neral - 160P
Maximum system test pressure Low Side / High side	25 bar(g) /	30 bar(g)
Maximum differential test pressure	301	oar
Maximum number of starts per hour	1:	2
Refrigerant charge limit	2.5	kg
Approved refrigerants	R22, R417	'A-160PZ

220-240V/1/50Hz 220-240 V

0.8 Ω / 4.22 Ω

 $25 \,\mu\text{F} + 10 \,\mu\text{F}$

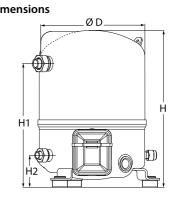
135 µF

RVA-6AMKL

22 A

60 A

Internal overload protector



D=224 mm H=356 mm H1=263 mm H2=68 mm H3=- mm

Terminal box

IP55 (with cable gland)

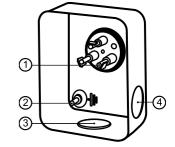
Earth M4-12

1: 2:

3: 4: Spade connectors 1/4"

Hole Ø 21 mm (0.83'')

Knock-out Ø 21 mm (0.83")



Recommended Installation torques

Electrical Characteristics

Winding resistance (main / start) at 25°C

Maximum Continuous Current (MCC)

Nominal voltage

Run capacitors A + C

Locked Rotor Amps (LRA)

Start capacitor B

Motor protection

Start relay

Voltage range

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, -, CCC certified

*Singlepack: Compressor in cardboard box

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



Maneurop reciprocating compressor. MT036-5

Performance data at 50 Hz, EN 12900 rating conditions

Cond. temp. in				Evapora	ating temperatu	re in °C (to)			
°C (tc)	-25	-20	-15	-10	-5	0	5	10	15
		·			•				
Cooling capacity	in W								
30	2 741	3 691	4 782	6 027	7 436	9 021	10 794	12 767	14 950
35	2 435	3 362	4 424	5 632	6 999	8 535	10 252	12 161	14 275
40	2 130	3 029	4 057	5 225	6 544	8 026	9 683	11 525	13 565
45	1 825	2 693	3 682	4 805	6 073	7 497	9 088	10 859	12 820
50	-	2 354	3 301	4 374	5 586	6 947	8 469	10 164	12 042
55	-	-	2 914	3 934	5 085	6 379	7 827	9 441	11 231
60	-	-	-	3 485	4 571	5 793	7 163	8 691	10 389
65	-	-	-	-	4 045	5 191	6 477	7 914	9 515
Power input in W		4 740	1 00 1	0.001	0.000	0.007	0.444	0.404	0.400
30	1 524	1 713	1 894	2 061	2 208	2 327	2 414	2 461	2 462
35	1 580	1 779	1 973	2 156	2 322	2 465	2 577	2 652	2 685
40	1 631	1 842	2 051	2 253	2 441	2 607	2 747	2 854	2 921
45	1 676	1 902	2 128	2 351	2 562	2 756	2 925	3 065	3 168
50	-	1 957	2 204	2 449	2 686	2 908	3 110	3 285	3 426
55	-	-	2 276	2 546	2 811	3 065	3 301	3 513	3 695
60	-	-	-	2 643	2 938	3 225	3 497	3 749	3 973
65	-	-	-	-	3 065	3 387	3 698	3 991	4 261
Current consump	otion in A								
30	10.35	10.93	11.54	12.15	12.71	13.18	13.52	13.71	13.69
35	10.53	11.16	11.82	12.50	13.15	13.73	14.20	14.52	14.67
40	10.70	11.37	12.11	12.87	13.62	14.32	14.93	15.41	15.73
45	10.84	11.58	12.40	13.26	14.12	14.96	15.72	16.37	16.87
50	-	11.77	12.69	13.66	14.66	15.64	16.56	17.39	18.09
55	-	-	12.98	14.07	15.21	16.35	17.46	18.48	19.40
60	-	-	-	14.50	15.80	17.11	18.40	19.64	20.78
65	-	-	-	-	16.40	17.90	19.40	20.86	22.24
lass flow in kg/h		<u>т т</u>			1			1	
30	60	79	102	126	154	184	218	255	296
35	55	75	98	123	150	181	215	252	293
40	50	71	93	119	146	177	211	249	290
45	45	66	89	114	142	173	207	244	285
50	-	60	83	109	137	168	202	239	280
55	-	-	77	103	131	161	195	233	273
60	-	-	-	96	124	155	188	225	266
65	-	-	-	-	116	147	180	217	257
Coefficient of per	formance (C.C) P)							
30	1.80	2.15	2.53	2.92	3.37	3.88	4.47	5.19	6.07
35	1.54	1.89	2.24	2.61	3.01	3.46	3.98	4.58	5.32
40	1.31	1.64	1.98	2.32	2.68	3.08	3.52	4.04	4.64
45	1.09	1.42	1.73	2.04	2.37	2.72	3.11	3.54	4.05
50	-	1.20	1.50	1.79	2.08	2.39	2.72	3.09	3.51
55	-	-	1.28	1.55	1.81	2.08	2.37	2.69	3.04
60	-	-	-	1.32	1.56	1.80	2.05	2.32	2.61
65	-	-	-	-	1.32	1.53	1.75	1.98	2.23
									-
Nominal perform	ance at to = 5		147	_		Pressure switch s	-		
Cooling capacity		8 469	W			Maximum HP swite	•	27.9	bar(g)
Power input Current consumpt	ion	3 110 16.56	W A			Minimum LP switch LP pump down set	•	0.7 0.9	bar(g) bar(g)
Jurrent consumpt Mass flow		202	A kg/h				ung	0.9	bar(g)
C.O.P.		2.72				Sound power dat	a		
						Sound power level		67	dB(A)
o: Evaporating ter	•					With accoustic hoc	od	61	dB(A)
c: Condensing ter	nperature at de	w point							

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

Tolerance according EN12900

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R22

Maneurop reciprocating compressor. MT036-5

Performance data at 50 Hz, ARI rating conditions

Performanc	e data at 5	0 Hz, ARI ratir	ng conditio	ons					R22
Cond. temp. in				Evapora	ating temperatu	re in °C (to)			
°C (tc)	-25	-20	-15	-10	-5	0	5	10	15
						Ľ			
Cooling capacity	y in W 2 911	3 917	5 071	6 386	7 873	9 545	11 413	13 490	15 787
30		+ +							
35	2 596	3 580	4 707	5 988	7 435	9 059	10 874	12 890	15 120
40	2 279	3 239	4 333	5 576	6 977	8 550	10 307	12 258	14 417
45	1 962	2 892	3 950	5 150	6 502	8 019	9 713	11 596	13 679
50 55	-	2 541	3 559	4 711	6 010	7 467	9 094	10 903	12 906
55			3 161	4 262	5 502	6 894	8 450	10 182	12 100
60 65	-	-	-	3 801	4 979 4 442	6 302 5 692	7 783	9 432 8 655	11 262 10 392
00	-	-	-	-	4 442	5 692	7 092	0 000	10 392
Power input in V	V			1	1	I			
30	1 524	1 713	1 894	2 061	2 208	2 327	2 414	2 461	2 462
35	1 580	1 779	1 973	2 156	2 322	2 465	2 577	2 652	2 685
40	1 631	1 842	2 051	2 253	2 441	2 607	2 747	2 854	2 921
45	1 676	1 902	2 128	2 351	2 562	2 756	2 925	3 065	3 168
50	-	1 957	2 204	2 449	2 686	2 908	3 110	3 285	3 426
55	-	-	2 276	2 546	2 811	3 065	3 301	3 513	3 695
60	-	-	-	2 643	2 938	3 225	3 497	3 749	3 973
65	-	-	-	-	3 065	3 387	3 698	3 991	4 261
Current consum	ption in A								
30	10.35	10.93	11.54	12.15	12.71	13.18	13.52	13.71	13.69
35	10.53	11.16	11.82	12.50	13.15	13.73	14.20	14.52	14.67
40	10.70	11.37	12.11	12.87	13.62	14.32	14.93	15.41	15.73
45	10.84	11.58	12.40	13.26	14.12	14.96	15.72	16.37	16.87
50	-	11.77	12.69	13.66	14.66	15.64	16.56	17.39	18.09
55	-	-	12.98	14.07	15.21	16.35	17.46	18.48	19.40
60	-	-	-	14.50	15.80	17.11	18.40	19.64	20.78
65	-	-	-	-	16.40	17.90	19.40	20.86	22.24
Mass flow in kg/	'h								
30	59	79	101	126	153	183	217	254	294
35	55	75	97	122	150	180	214	251	292
40	50	70	93	118	146	176	210	247	288
45	45	65	88	113	141	172	206	243	283
50	-	60	83	108	136	167	200	238	278
55	_	-	77	102	130	161	194	231	272
60	-	-	-	95	123	154	187	224	264
65	-	-	-	-	116	146	179	216	256
							•		
Coefficient of pe	•	,	0.00	0.40	0.57	4.40	4.70	5.40	
30	1.91	2.29	2.68	3.10	3.57	4.10	4.73	5.48	6.41
35	1.64	2.01	2.39	2.78	3.20	3.68	4.22	4.86	5.63
40	1.40	1.76	2.11	2.47	2.86	3.28	3.75	4.30	4.94
45	1.17	1.52	1.86	2.19	2.54	2.91	3.32	3.78	4.32
50 55	-	1.30	1.62	1.92	2.24	2.57	2.92	3.32	3.77
55	-	-	1.39	1.67	1.96	2.25	2.56	2.90	3.27
60 65	-	-	-	- 1.44	1.69 1.45	1.95	2.23 1.92	2.52 2.17	2.83 2.44
		<u>2 °C, tc = 54.4 °C</u>	10/			Pressure switch		07.0	h == (=)
Cooling capacity Power input		9 272 3 373	W			Maximum HP swite Minimum LP swite	•	27.9 0.7	bar(g) bar(g)
Current consump	tion	17.80	A			LP pump down se	•	0.7	bar(g) bar(g)
Mass flow		211	kg/h					0.0	201(9)
C.O.P.		2.75	-			Sound power dat	ta		
						Sound power leve		67	dB(A)
o: Evaporating te						With accoustic ho	a al	61	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

With accoustic hood

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dB(A)





