

Datasheets

Maneurop® Reciprocating compressors MT / MTZ / MPZ / NTZ



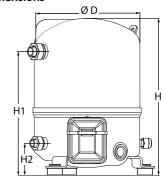


Datasheet, technical data

General Characteristics

Model number (on compressor nameplate)		MT28JE4A
Code number for Industrial pack**		MT28-4M
Drawing number		8501031e
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		None
Oil equalisation connection		None
Oil drain connection		None
LP gauge port		Schrader
IPR valve		30 bar / 8 bar
Cylinders	1	
Swept volume	48,06 ci	m3/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, Mi	neral - 160P
Maximum system test pressure Low Side / High side	25 bar(g) /	' 30 bar(g)
Maximum differential test pressure	301	bar
Maximum number of starts per hour	1:	2
Refrigerant charge limit	2,5	kg
Approved refrigerants	R22, R417	'A-160PZ

Dimensions



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

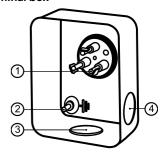
Electrical Characteristics

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	7.11 Ω
Maximum Continuous Current (MCC)	7.5 A
Locked Rotor Amps (LRA)	23 A
Motor protection	Internal overload protector

Recommended Installation torques

Oil sight glass	0 Nm
Power connections / Earth connection	Nm / 2 Nm
Mounting bolts	15 Nm

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")

Parts shipped with compressor

Mounting kit with grommets, bolts, nuts, sleeves and washers
Initial oil charge
Installation instructions

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

 $[\]hbox{*Singlepack: Compressor in cardboard box}\\$

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



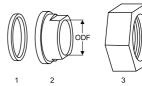
Datasheet, accessories and spare parts

Maneurop reciprocating compressor, MT028-4

Rotolock accessories, suction side	Code no.
Solder sleeve, P06 (1" Rotolock, 1/2" ODF)	8153007
Angle adapter, C06 (1" Rotolock, 1/2" ODF)	8168007
Rotolock valve, V06 (1" Rotolock, 1/2" ODF)	8168031
Gasket, 1"	8156130

Gaskets, sleeves and nuts

Rotolock accessories, discharge side	Code no.
Solder sleeve, P01 (1" Rotolock, 3/8" ODF)	8153010
Angle adapter, C01 (1" Rotolock, 3/8" ODF)	8168004
Rotolock valve, V01 (1" Rotolock, 3/8" ODF)	8168027
Gasket, 1"	8156130



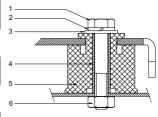
Rotolock accessories, sets	Code no.
Angle adapter set, C06 (1"~1/2"), C01 (1"~3/8")	7703011
Valve set, V06 (1"~1/2"), V01 (1"~3/8")	7703004
Gasket set, 1", 1-1/4", 1-3/4", OSG gaskets black & white	8156009

1: Gasket
2: Solder sleeve
3: Rotolock nut

Oil / lubricants	Code no.
Mineral oil, 160P, 2 litre can	7754001
Mineral oil, 160P, 5 litre can	7754002

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IVIOU	HUHW	NI.

Crankcase heaters	Code no.
PTC heater 27W	120Z0459
Belt type crankcase heater, 54 W, 230 V, CE mark, UL	7773106
Belt type crankcase heater, 54 W, 400 V, UL	7773013
Miscellaneous accessories	Code no



Miscellaneous accessories	Code no.
Electronic soft start kit, MCI 15 C	7705006
Acoustic hood for 1 cylinder compressor	7755001

Spare partsCode no.Mounting kit for 1 and 2 cylinder compressor, including 3 grommets, 3 bolts8156001Service kit for terminal box 80 x 96 mm, including 1 cover, 1 clamp8156134

1: Bolt (3x)

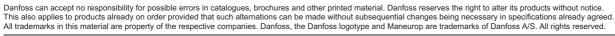
2: Lock washer (3x)

3: Flat washer (3x)

4: Sleeve (3x)

5: Grommet (3x)

6: Nut (3x)







Maneurop reciprocating compressor. MT028-4

Performance data at 50 Hz, EN 12900 rating conditions

R22

Cond. temp. in				Evapor	ating temperature	in °C (to)			
°C (tc)	-25	-20	-15	-10	-5	0	5	10	15
			•	•		•			
Cooling capacity	/ in W				_				
30	2 029	2 783	3 657	4 662	5 809	7 108	8 572	10 212	12 038
35	1 807	2 541	3 390	4 364	5 474	6 731	8 147	9 732	11 498
40	1 583	2 295	3 115	4 054	5 124	6 335	7 699	9 227	10 930
45	1 358	2 042	2 829	3 729	4 755	5 916	7 224	8 690	10 324
50	-	1 786	2 536	3 395	4 373	5 480	6 729	8 130	9 693
55	-	-	2 235	3 048	3 974	5 024	6 210	7 541	9 030
60	-	-	-	2 689	3 559	4 548	5 665	6 923	8 331
65	-	-	-	-	3 133	4 056	5 102	6 283	7 608
Power input in W	v								
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
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
		1	1	1		-			
Coefficient of pe	rformance (C.0	D.P.) 2.06	2.44	2.88	3.40	4.04	4.88	6.02	7.66
35	1.50	1.84	2.44	2.58	3.40	3.59	4.00	5.19	6.43
40	1.30	1.63	1.96	2.31	2.71	3.18	3.75	4.48	5.44
45	1.11	1.43	1.74	2.06	2.41	2.80	3.73	3.86	4.61
70	1.1.1	1.40	1.74	۷.00	4.41	2.00	5.20	5.00	4.01

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

itolimiai portormanos at to 0 0, to	00 0	
Cooling capacity	6 729	W
Power input	2 357	W
Current consumption	4.29	Α
Mass flow	160	kg/h
C.O.P.	2.86	

1.25

1 53

1.34

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

Pressure switch settings

	Maximum HP switch setting	27.7	bar(g)
	Minimum LP switch setting	0.2	bar(g)
L	LP pump down setting	0.9	bar(g)

3.33

2.86

2.44

2.07

3.91

3.32

2.81

2.36

2.86

2.47

2.13

1.81

Sound power data

2.46

2.15

1.85

1.58

2.12

1.86

1.61

1.37

Sound power level	0	dB(A)
With accoustic hood	0	dB(A)

All performance data +/- 5%

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1 82

1.59

1.38



50

55

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point



Maneurop reciprocating compressor. MT028-4

Performance data at 50 Hz, ARI rating conditions

R22

Cond. temp. in				Evapora	iting temperature i	n °C (to)			
°C (tc)	-25	-20	-15	-10	-5	0	5	10	15
0	. ! \								
Cooling capacity		2.052	2.077	4.020	0.440	7.500	0.000	40.700	40.700
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 V	v								
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 consum	ption 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
•			l	I.		l .			-
Coefficient of pe	erformance (C.C 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	2.75	2.89	3.39	3.99	4.76	5.78
-									
45 50	1.20	1.54	1.87	2.21	2.58	3.00	3.50	4.12	4.91
50 55	-	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

recimial performance at to 7:2 0; to	04.4 0		
Cooling capacity	7 378	W	
Power input	2 552	W	
Current consumption	4.56	Α	
Mass flow	168	kg/h	
C.O.P.	2.89		

to: Evaporating temperature at dew point

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

Pressure switch settings

	Maximum HP switch setting	27.7	bar(g)
	Minimum LP switch setting	0.2	bar(g)
L	LP pump down setting	0.9	bar(g)

2.65

2.26

3.04

2.58

2.31

1.98

Sound power data

2.02

1.74

Sound power level	0	dB(A)
With accoustic hood	0	dB(A)

All performance data +/- 5%

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1.50

1.75

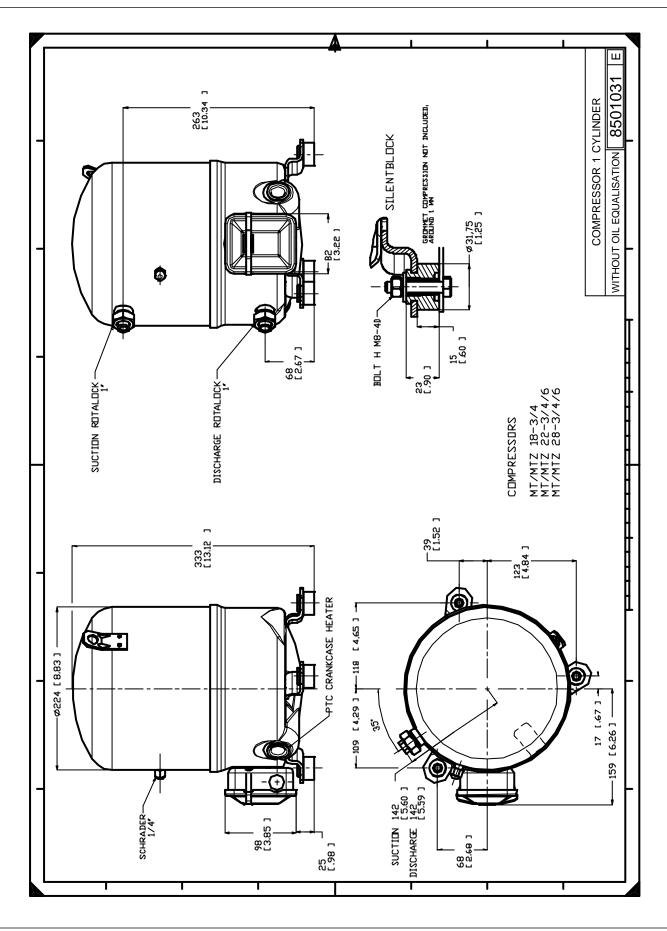
1.51



60

tc: Condensing temperature at dew point





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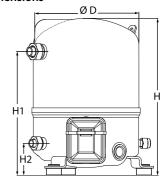


Datasheet, technical data

General Characteristics

Code number for Singlepack* Code number for Industrial pack** MT28-4VM Drawing number Suction and discharge connections Suction connection Discharge connection Suction connection Discharge connection with supplied sleeve Discharge connection with supplied sleeve Oil sight glass Oil equalisation connection LP gauge port IPR valve Supplication to the wight Swept volume Displacement @ Nominal speed MAT28-4VM MT28-4VM B501024e Stotolock 1 "Rotolock 1 "Rotolock 1 "Rotolock 1 "Rotolock 1/2 " ODF 3/8 " ODF Oil sight glass Oil equalisation connection None LP gauge port LP gauge port IPR valve Schrader IPR valve 1 Swept volume 1 Swept volume Displacement @ Nominal speed 8.4 m3/h @ 2900 rpm - 10.1 m3/h @ 3500 rpm Net weight Oil charge Oy,95 litre, Mineral - 160P Maximum system test pressure Low Side / High side Maximum differential test pressure 30 bar Maximum number of starts per hour 12 Refrigerant charge limit 2,5 kg Approved refrigerants	Model number (on compressor nameplate)		MT28JE4AVE	
Drawing number Suction and discharge connections Suction connection Discharge connection Discharge connection 1 "Rotolock 1 "Rotolock 1 "Rotolock 1 "Rotolock 5 uction connection with supplied sleeve Discharge connection Oil drain connection Discharge connecti	Code number for Singlepack*		MT28-4VI	
Suction and discharge connections Suction connection Discharge connection Discharge connection 1 "Rotolock 1 "Rotolock 1 "Rotolock Suction connection with supplied sleeve Discharge connection with supplied sleeve 1/2 " ODF Discharge connection with supplied sleeve 3/8 " ODF Oil sight glass Threaded Oil equalisation connection Solid rain connection LP gauge port Schrader IPR valve 10 Schrader IPR valve 11 Swept volume 12 kg,06 cm3/rev Displacement @ Nominal speed 8.4 m3/h @ 2900 rpm - 10.1 m3/h @ 3500 rpm Net weight Oil charge Maximum system test pressure Low Side / High side Maximum differential test pressure Maximum number of starts per hour 12 Refrigerant charge limit 1 2,5 kg	Code number for Industrial pack**		MT28-4VM	
Suction connection Discharge connection Discharge connection Suction connection with supplied sleeve Discharge connection with supplied sleeve Discharge connection with supplied sleeve Oil sight glass Oil drain connection Cil drain connection Cil gauge port LP gauge port LP gauge port Schrader IPR valve Tolinders Swept volume Displacement @ Nominal speed Net weight Oil charge Oil charge Oil charge Displacement est pressure Low Side / High side Maximum system test pressure Maximum number of starts per hour Refrigerant charge limit 1 "Rotolock 1 "Pother 1 Syle "OPF All "As "ODF Oil sight glass Threaded 3/8 "ODF None Schrader 1 Schrader 1 Ske bar 2 Schrader 1 Ske bar 2 Supplied Est pressure 3 Ops litre, Mineral - 160P Maximum number of starts per hour 12 Refrigerant charge limit	Drawing number		8501024e	
Discharge connection Suction connection with supplied sleeve Discharge connection with supplied sleeve Oil sight glass Oil drain connection LP gauge port LP gauge port IPR valve Swept volume Displacement @ Nominal speed Net weight Oil charge Oil charge Oil charge Maximum differential test pressure Maximum number of starts per hour Refrigerant charge limit 1 "Rotolock 1/2 " ODF 3/8 " ODF 3/8 " ODF 3/8 " ODF None Schraded S/8 " Glare SAE None Schrader Schrader 10 Servator Schrader 11 Swept volume 48,06 cm3/rev Start Sper None Starts per hour 12 Refrigerant charge limit 1 "Rotolock 1/2 " ODF 3/8 "ODF 3/8 " ODF 3/	Suction and discharge connections		Rotolock	
Suction connection with supplied sleeve Discharge connection with supplied sleeve Oil sight glass Oil drain connection LP gauge port IPR valve Cylinders Swept volume Displacement @ Nominal speed Net weight Oil charge Oil drain connection LP gauge port Swept volume Displacement @ Nominal speed 8.4 m3/h @ 2900 rpm - 10.1 m3/h @ 3500 rpm Net weight Oil charge Maximum system test pressure Low Side / High side Maximum differential test pressure Maximum number of starts per hour Refrigerant charge limit 1/2 " ODF 3/8 " ODF 1/2 " ODF 3/8 " ODF ANE Weight Schrader 30 bar / 8 bar 1 48,06 cm3/rev 10.1 m3/h @ 3500 rpm 23 kg O,95 litre, Mineral - 160P Maximum differential test pressure 30 bar Maximum number of starts per hour	Suction connection		1 " Rotolock	
Discharge connection with supplied sleeve Oil sight glass Oil equalisation connection Oil drain connection LP gauge port LP gauge port IPR valve Schrader IPR valve 10 slage with a supplied sleeve Schrader IPR valve 10 slage with a supplied sleeve Schrader IPR valve 11 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 Oil charge Maximum system test pressure Low Side / High side Maximum differential test pressure 30 bar Maximum number of starts per hour 12 Refrigerant charge limit 2,5 kg	Discharge connection		1 " Rotolock	
Oil sight glass Oil equalisation connection Oil drain connection LP gauge port LP gauge port IPR valve Cylinders Swept volume Displacement @ Nominal speed Net weight Oil charge Oil drain connection LP gauge port Schrader 1 Swept volume 48,06 cm3/rev Displacement @ Nominal speed 8.4 m3/h @ 2900 rpm - 10.1 m3/h @ 3500 rpm Net weight Oil charge Oil charge Oy95 litre, Mineral - 160P Maximum system test pressure Low Side / High side Maximum differential test pressure Maximum number of starts per hour 12 Refrigerant charge limit 2,5 kg	Suction connection with supplied sleeve		1/2 " ODF	
Oil equalisation connection Oil drain connection LP gauge port IPR valve Cylinders Swept volume Displacement @ Nominal speed Net weight Oil charge Oil charge Maximum system test pressure Maximum number of starts per hour Refrigerant charge limit 3/8" flare SAE None 848,06 cm3/rev 48,06 cm3/rev 848,06 cm3/rev 48,06 cm3/rev 92900 rpm - 10.1 m3/h @ 3500 rpm 23 kg 0,95 litre, Mineral - 160P 30 bar 30 bar	Discharge connection with supplied sleeve		3/8 " ODF	
Oil drain connection LP gauge port IPR valve Cylinders Swept volume Displacement @ Nominal speed Net weight Oil charge Oil charge Maximum system test pressure Maximum number of starts per hour Refrigerant charge limit None Schrader 30 bar / 8 bar 1 48,06 cm3/rev 48,06 cm3/rev 48,06 cm3/rev 2900 rpm - 10.1 m3/h @ 3500 rpm 8.4 m3/h @ 2900 rpm - 10.1 m3/h @ 3500 rpm 9.95 litre, Mineral - 160P 25 bar(g) / 30 bar(g) 30 bar	Oil sight glass		Threaded	
LP gauge port IPR valve Cylinders Swept volume Displacement @ Nominal speed Net weight Oil charge Maximum system test pressure Maximum differential test pressure Maximum number of starts per hour Refrigerant charge limit Schrader 30 bar / 8 bar 1 48,06 cm3/rev 48,06 cm3/rev 8.4 m3/h @ 2900 rpm - 10.1 m3/h @ 3500 rpm 23 kg 0,95 litre, Mineral - 160P 25 bar(g) / 30 bar(g) 30 bar Maximum number of starts per hour 12 Refrigerant charge limit 2,5 kg	Oil equalisation connection		3/8" flare SAE	
IPR valve 30 bar / 8 bar 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	Oil drain connection		None	
Cylinders Swept volume Displacement @ Nominal speed 8.4 m3/h @ 2900 rpm - 10.1 m3/h @ 3500 rpm Net weight Oil charge Maximum system test pressure Low Side / High side Maximum differential test pressure Maximum number of starts per hour Refrigerant charge limit 1 1 1 1 1 1 1 1 1 1 1 1 1	LP gauge port		Schrader	
Swept volume Displacement @ Nominal speed 8.4 m3/h @ 2900 rpm - 10.1 m3/h @ 3500 rpm Net weight Oil charge Oil charge Oil system test pressure Low Side / High side Maximum system test pressure Maximum differential test pressure 30 bar Maximum number of starts per hour 12 Refrigerant charge limit 28,06 cm3/rev 8.4 m3/h @ 2900 rpm - 10.1 m3/h @ 3500 rpm 0,95 litre, Mineral - 160P 25 bar(g) / 30 bar(g) 30 bar 12	IPR valve		30 bar / 8 bar	
Displacement @ Nominal speed 8.4 m3/h @ 2900 rpm - 10.1 m3/h @ 3500 rpm Net weight Oil charge 0,95 litre, Mineral - 160P Maximum system test pressure Low Side / High side Maximum differential test pressure 30 bar Maximum number of starts per hour Refrigerant charge limit 2,5 kg	Cylinders	1		
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	Swept volume	48,06 c	m3/rev	
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	Displacement @ Nominal speed	8.4 m3/h @ 2900 rpm -	10.1 m3/h @ 3500 rpm	
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	Net weight	23	kg	
Maximum differential test pressure 30 bar Maximum number of starts per hour 12 Refrigerant charge limit 2,5 kg	Oil charge	0,95 litre, Mineral - 160P		
Maximum number of starts per hour 12 Refrigerant charge limit 2,5 kg	Maximum system test pressure Low Side / High side	25 bar(g) / 30 bar(g)		
Refrigerant charge limit 2,5 kg	Maximum differential test pressure	30 bar		
	Maximum number of starts per hour	1:	2	
Approved refrigerants R22, R417A-160PZ	Refrigerant charge limit	2,5 kg		
	Approved refrigerants	R22, R417A-160PZ		

Dimensions



D=224 mm H=333 mm H1=263 mm H2=68 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	7.11 Ω
Maximum Continuous Current (MCC)	7.5 A
Locked Rotor Amps (LRA)	23 A
Motor protection	Internal overload protector

Recommended Installation torques

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

Parts shipped with compressor

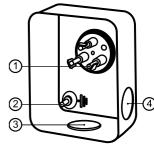
Mounting kit with grommets, bolts, nuts, sleeves and washers
Suction & Discharge solder sleeves, rotolock nuts and gaskets (shipped with rotolock version only)
Initial oil charge
Installation instructions

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

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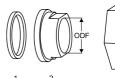
Datasheet, accessories and spare parts

Maneurop reciprocating compressor, MT028-4

Rotolock accessories, suction side	Code no.
Solder sleeve, P06 (1" Rotolock, 1/2" ODF)	8153007
Angle adapter, C06 (1" Rotolock, 1/2" ODF)	8168007
Rotolock valve, V06 (1" Rotolock, 1/2" ODF)	8168031
Gasket, 1"	8156130

Gaskets, sleeves and nuts

Rotolock accessories, discharge side	Code no.
Solder sleeve, P01 (1" Rotolock, 3/8" ODF)	8153010
Angle adapter, C01 (1" Rotolock, 3/8" ODF)	8168004
Rotolock valve, V01 (1" Rotolock, 3/8" ODF)	8168027
Gasket, 1"	8156130





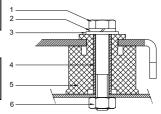
Rotolock accessories, sets	Code no.
Angle adapter set, C06 (1"~1/2"), C01 (1"~3/8")	7703011
Valve set, V06 (1"~1/2"), V01 (1"~3/8")	7703004
Gasket set, 1", 1-1/4", 1-3/4", OSG gaskets black & white	8156009

1: Gasket
2: Solder sleeve
3: Rotolock nut

Oil / lubricants	Code no.		
Mineral oil, 160P, 2 litre can	7754001		
Mineral oil, 160P, 5 litre can	7754002		

Mounting	kit
Mounting	VI.

Crankcase heaters	Code no.
PTC heater 27W	120Z0459
Belt type crankcase heater, 54 W, 230 V, CE mark, UL	7773106
Belt type crankcase heater, 54 W, 400 V, UL	7773013



Miscellaneous accessories	Code no.
Electronic soft start kit, MCI 15 C	7705006
Acoustic hood for 1 cylinder compressor	7755001
Oil equalisation nut	8153127

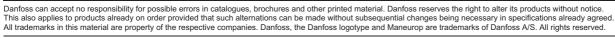
Spare parts	Code no.
Mounting kit for 1 and 2 cylinder compressor, including 3 grommets, 3 bolts	8156001
Oil sight glass with gaskets (black & white)	8156019
Gasket for oil sight glass (black chloroprene)	8156145
Service kit for terminal box 80 x 96 mm, including 1 cover, 1 clamp	8156134

1: Bolt (3x) 2: Lock washer (3x) 3: Flat washer (3x)

4: Sleeve (3x)

5: Grommet (3x)

6: Nut (3x)







Maneurop reciprocating compressor. MT028-4

Performance data at 50 Hz, EN 12900 rating conditions

R22

Cond. temp. in				Evapor	ating temperature	in °C (to)			
°C (tc)	-25	-20	-15	-10	-5	0	5	10	15
			•	•		•			
Cooling capacity	/ in W				_				
30	2 029	2 783	3 657	4 662	5 809	7 108	8 572	10 212	12 038
35	1 807	2 541	3 390	4 364	5 474	6 731	8 147	9 732	11 498
40	1 583	2 295	3 115	4 054	5 124	6 335	7 699	9 227	10 930
45	1 358	2 042	2 829	3 729	4 755	5 916	7 224	8 690	10 324
50	-	1 786	2 536	3 395	4 373	5 480	6 729	8 130	9 693
55	-	-	2 235	3 048	3 974	5 024	6 210	7 541	9 030
60	-	-	-	2 689	3 559	4 548	5 665	6 923	8 331
65	-	-	-	-	3 133	4 056	5 102	6 283	7 608
Power input in W	v								
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
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
		1	1	1		-			
Coefficient of pe	rformance (C.0	D.P.) 2.06	2.44	2.88	3.40	4.04	4.88	6.02	7.66
35	1.50	1.84	2.44	2.58	3.40	3.59	4.00	5.19	6.43
40	1.30	1.63	1.96	2.31	2.71	3.18	3.75	4.48	5.44
45	1.11	1.43	1.74	2.06	2.41	2.80	3.73	3.86	4.61
70	1.1.1	1.40	1.74	۷.00	4.41	2.00	5.20	5.00	4.01

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

itolimiai portormanos at to 0 0, to	00 0	
Cooling capacity	6 729	W
Power input	2 357	W
Current consumption	4.29	Α
Mass flow	160	kg/h
C.O.P.	2.86	

1.25

1 53

1.34

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

Pressure switch settings

	Maximum HP switch setting	27.7	bar(g)
	Minimum LP switch setting	0.2	bar(g)
L	LP pump down setting	0.9	bar(g)

3.33

2.86

2.44

2.07

3.91

3.32

2.81

2.36

2.86

2.47

2.13

1.81

Sound power data

2.46

2.15

1.85

1.58

2.12

1.86

1.61

1.37

Sound power level	0	dB(A)
With accoustic hood	0	dB(A)

All performance data +/- 5%

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1 82

1.59

1.38



50

55

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point



Maneurop reciprocating compressor. MT028-4

Performance data at 50 Hz, ARI rating conditions

R22

Cond. temp. in	ond. temp. in Evaporating temperature in °C (to)								
°C (tc)	-25	-20	-15	-10	-5	0	5	10	15
0									
Cooling capacity		2.052	2.077	4.020	0.140	7.500	0.000	40.700	10.700
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 V	v								
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 consum	ption in A	,	T	T	,	1	T		1
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 pe	erformance (C.C) 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	1.74	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	2.20	2.32	2.67	3.08	3.57
33			1.+0	1.73	۷.01	2.32	2.01	5.00	3.01

rommar portormanoe at to 7:2 e, to	U-1		
Cooling capacity	7 378	W	
Power input	2 552	W	
Current consumption	4.56	Α	
Mass flow	168	kg/h	
C.O.P.	2.89		

to: Evaporating temperature at dew point

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

Pressure switch settings

	Maximum HP switch setting	27.7	bar(g)
	Minimum LP switch setting	0.2	bar(g)
L	LP pump down setting	0.9	bar(g)

2.65

2.26

3.04

2.58

2.31

1.98

Sound power data

2.02

1.74

Sound power level	0	dB(A)
With accoustic hood	0	dB(A)

All performance data +/- 5%

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1.50

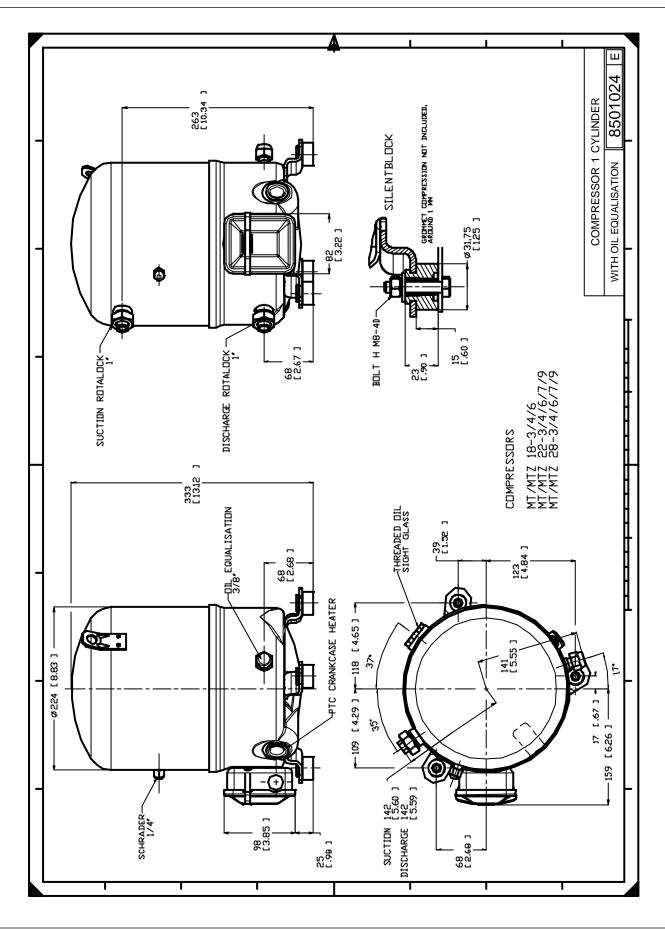
1.75

1.51



tc: Condensing temperature at dew point





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