

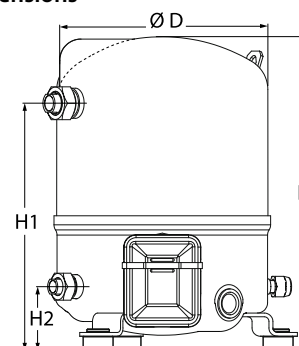
Datasheets

Danfoss Reciprocating compressors **MT / MTZ / NTZ**



General Characteristics

Model number (on compressor nameplate)		MT32JF5MVE
Code number for Singlepack*		MT32-5VI
Code number for Industrial pack**		MT32-5VM
Drawing number		8501021e
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		53.86 cm ³ /rev
Displacement @ Nominal speed		9.4 m ³ /h @ 2900 rpm
Net weight		24 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

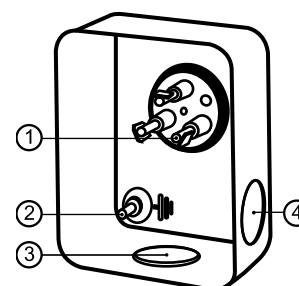
H1=263 mm

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	0.8 Ω / 4.22 Ω
Run capacitors A + C	25 μF + 10 μF
Start capacitor B	135 μF
Start relay	RVA-6AMKL
Maximum Continuous Current (MCC)	20 A
Locked Rotor Amps (LRA)	70 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, -, CCC certified

*Singlepack: Compressor in cardboard box

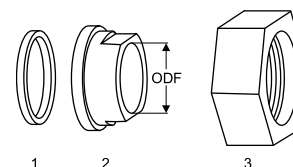
**Industrial pack: 12 Unboxed compressors on pallet (order per multiples of 12)

Rotolock accessories, suction side

Code no.

Solder sleeve, P09 (1-1/4" Rotolock, 5/8" ODF)	8153011
Angle adapter, C09 (1-1/4" Rotolock, 5/8" ODF)	8168009
Rotolock valve, V09 (1-1/4" Rotolock, 5/8" ODF)	8168033
Gasket, 1-1/4"	8156131

Gaskets, sleeves and nuts



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

Rotolock accessories, discharge 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

Rotolock accessories, sets

Code no.

Angle adapter set, C09 (1-1/4"~5/8"), C06 (1"~1/2")	7703012
Valve set, V09 (1-1/4"~5/8"), V06 (1"~1/2")	7703005
Gasket set, 1", 1-1/4", 1-3/4", OSG gaskets black & white	8156009

Oil / lubricants

Code no.

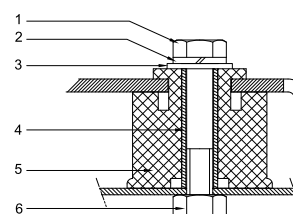
Mineral oil, 160P, 2 litre can	7754001
Mineral oil, 160P, 5 litre can	7754002

Crankcase heaters

Code no.

PTC heater 27W, CE mark, UL	120Z0459
Belt type crankcase heater, 54 W, 230 V, CE mark, UL	7773106

Mounting kit



- 1: Bolt (3x)
- 2: Lock washer (3x)
- 3: Flat washer (3x)
- 4: Sleeve (3x)
- 5: Grommet (3x)
- 6: Nut (3x)

Miscellaneous accessories

Code no.

PSC starting kit, 25 µF, 10 µF	7701024
CSR starting kit, 25 µF, 10 µF, 140 µF	7701023
CSR starting kit, prewired box, 25 µF, 10 µF, 140 µF	7701029
Acoustic hood for 1 cylinder compressor	120Z0575
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

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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	2 242	3 036	3 978	5 084	6 372	7 860	9 564	11 502	13 692
35	1 953	2 722	3 630	4 696	5 936	7 368	9 009	10 876	12 986
40	1 686	2 425	3 296	4 316	5 504	6 875	8 447	10 237	12 263
45	1 446	2 149	2 978	3 948	5 078	6 383	7 882	9 591	11 528
50	-	1 899	2 680	3 596	4 662	5 897	7 318	8 940	10 783
55	-	-	2 407	3 262	4 261	5 421	6 758	8 289	10 033
60	-	-	-	2 952	3 878	4 958	6 206	7 641	9 280
65	-	-	-	-	3 517	4 510	5 666	7 000	8 528

Power input in W

30	1 377	1 564	1 737	1 890	2 014	2 103	2 147	2 140	2 074
35	1 413	1 609	1 796	1 966	2 111	2 223	2 294	2 318	2 285
40	1 439	1 649	1 852	2 041	2 208	2 346	2 447	2 503	2 506
45	1 457	1 682	1 903	2 114	2 306	2 472	2 604	2 694	2 735
50	-	1 707	1 949	2 183	2 402	2 599	2 765	2 892	2 973
55	-	-	1 988	2 249	2 498	2 727	2 928	3 095	3 219
60	-	-	-	2 310	2 590	2 854	3 094	3 302	3 471
65	-	-	-	-	2 680	2 981	3 261	3 513	3 729

Current consumption in A

30	8.06	8.59	9.13	9.64	10.08	10.40	10.56	10.52	10.24
35	8.18	8.74	9.33	9.90	10.41	10.83	11.10	11.20	11.06
40	8.26	8.87	9.51	10.16	10.76	11.29	11.69	11.92	11.95
45	8.31	8.97	9.69	10.42	11.13	11.77	12.31	12.70	12.89
50	-	9.05	9.85	10.68	11.50	12.28	12.97	13.52	13.90
55	-	-	9.99	10.93	11.89	12.81	13.65	14.38	14.96
60	-	-	-	11.18	12.28	13.35	14.37	15.29	16.07
65	-	-	-	-	12.67	13.91	15.12	16.24	17.23

Mass flow in kg/h

30	49	65	85	107	132	161	193	230	271
35	44	61	80	102	128	156	189	226	267
40	40	57	76	98	123	152	184	221	262
45	36	52	72	94	119	147	179	216	256
50	-	49	67	89	114	142	174	210	250
55	-	-	64	85	109	137	169	204	244
60	-	-	-	81	105	132	163	198	237
65	-	-	-	-	101	128	158	192	230

Coefficient of performance (C.O.P.)

30	1.63	1.94	2.29	2.69	3.16	3.74	4.45	5.37	6.60
35	1.38	1.69	2.02	2.39	2.81	3.31	3.93	4.69	5.68
40	1.17	1.47	1.78	2.11	2.49	2.93	3.45	4.09	4.89
45	0.99	1.28	1.56	1.87	2.20	2.58	3.03	3.56	4.21
50	-	1.11	1.38	1.65	1.94	2.27	2.65	3.09	3.63
55	-	-	1.21	1.45	1.71	1.99	2.31	2.68	3.12
60	-	-	-	1.28	1.50	1.74	2.01	2.31	2.67
65	-	-	-	-	1.31	1.51	1.74	1.99	2.29

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

Cooling capacity	7 318	W
Power input	2 765	W
Current consumption	12.97	A
Mass flow	174	kg/h
C.O.P.	2.65	

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 acoustic 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

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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

Cooling capacity in W

30	2 381	3 222	4 218	5 387	6 747	8 316	10 112	12 154	14 458
35	2 081	2 898	3 863	4 993	6 306	7 821	9 556	11 527	13 755
40	1 804	2 592	3 520	4 606	5 868	7 324	8 991	10 889	13 034
45	1 554	2 308	3 195	4 232	5 437	6 828	8 424	10 242	12 300
50	-	2 050	2 890	3 873	5 016	6 338	7 857	9 591	11 557
55	-	-	2 611	3 534	4 611	5 859	7 296	8 940	10 809
60	-	-	-	3 220	4 225	5 393	6 743	8 293	10 060
65	-	-	-	-	3 862	4 946	6 204	7 655	9 315

Power input in W

30	1 377	1 564	1 737	1 890	2 014	2 103	2 147	2 140	2 074
35	1 413	1 609	1 796	1 966	2 111	2 223	2 294	2 318	2 285
40	1 439	1 649	1 852	2 041	2 208	2 346	2 447	2 503	2 506
45	1 457	1 682	1 903	2 114	2 306	2 472	2 604	2 694	2 735
50	-	1 707	1 949	2 183	2 402	2 599	2 765	2 892	2 973
55	-	-	1 988	2 249	2 498	2 727	2 928	3 095	3 219
60	-	-	-	2 310	2 590	2 854	3 094	3 302	3 471
65	-	-	-	-	2 680	2 981	3 261	3 513	3 729

Current consumption in A

30	8.06	8.59	9.13	9.64	10.08	10.40	10.56	10.52	10.24
35	8.18	8.74	9.33	9.90	10.41	10.83	11.10	11.20	11.06
40	8.26	8.87	9.51	10.16	10.76	11.29	11.69	11.92	11.95
45	8.31	8.97	9.69	10.42	11.13	11.77	12.31	12.70	12.89
50	-	9.05	9.85	10.68	11.50	12.28	12.97	13.52	13.90
55	-	-	9.99	10.93	11.89	12.81	13.65	14.38	14.96
60	-	-	-	11.18	12.28	13.35	14.37	15.29	16.07
65	-	-	-	-	12.67	13.91	15.12	16.24	17.23

Mass flow in kg/h

30	49	65	84	106	131	160	192	228	269
35	44	61	80	102	127	156	188	224	265
40	40	56	75	97	123	151	183	220	260
45	36	52	71	93	118	146	178	215	255
50	-	48	67	89	113	141	173	209	249
55	-	-	63	85	109	136	168	203	243
60	-	-	-	81	105	132	162	197	236
65	-	-	-	-	101	127	157	191	229

Coefficient of performance (C.O.P.)

30	1.73	2.06	2.43	2.85	3.35	3.96	4.71	5.68	6.97
35	1.47	1.80	2.15	2.54	2.99	3.52	4.16	4.97	6.02
40	1.25	1.57	1.90	2.26	2.66	3.12	3.67	4.35	5.20
45	1.07	1.37	1.68	2.00	2.36	2.76	3.24	3.80	4.50
50	-	1.20	1.48	1.77	2.09	2.44	2.84	3.32	3.89
55	-	-	1.31	1.57	1.85	2.15	2.49	2.89	3.36
60	-	-	-	1.39	1.63	1.89	2.18	2.51	2.90
65	-	-	-	-	1.44	1.66	1.90	2.18	2.50

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

Cooling capacity	8 064	W
Power input	2 984	W
Current consumption	13.90	A
Mass flow	183	kg/h
C.O.P.	2.70	

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 acoustic hood	61	dB(A)

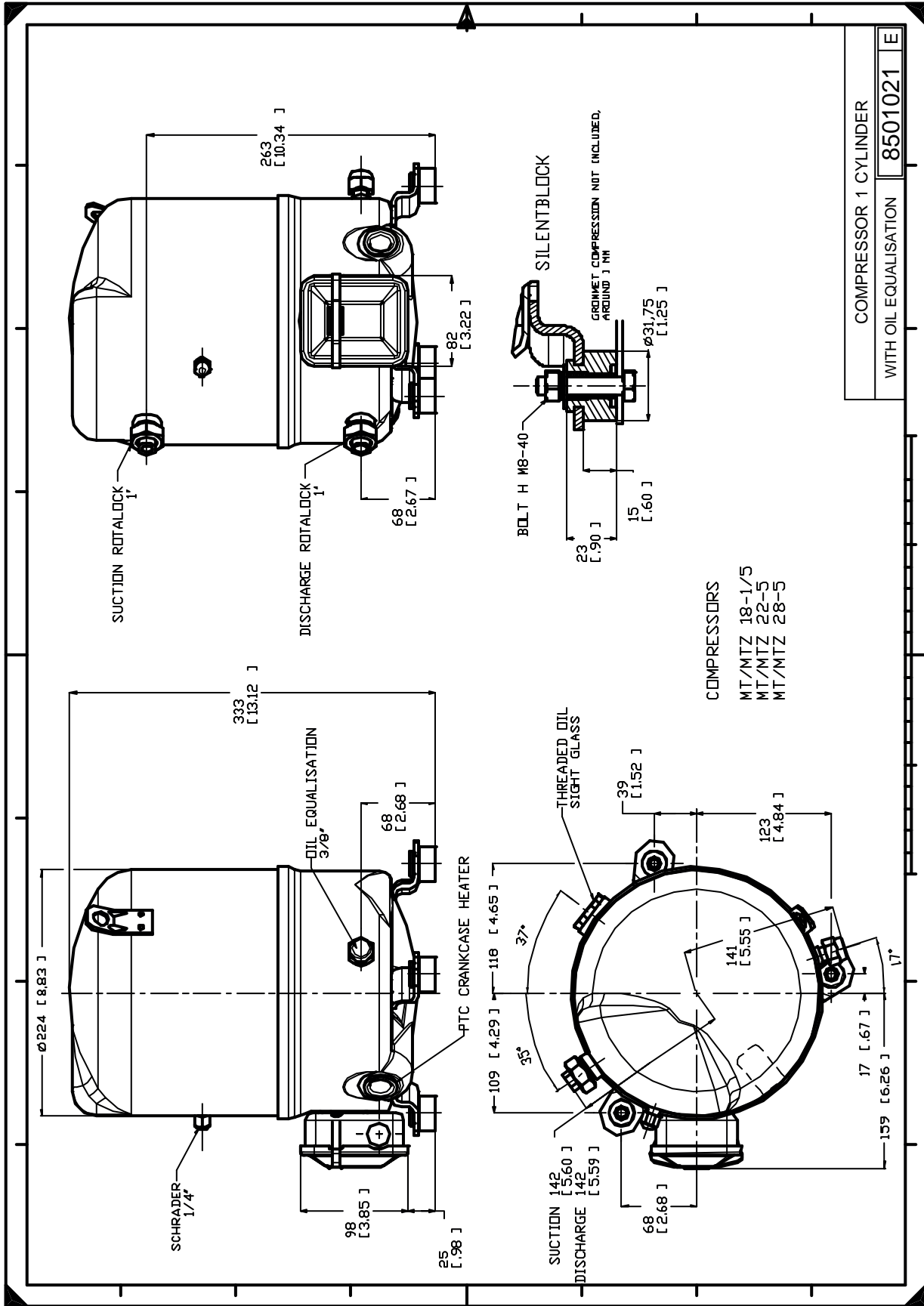
to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Tolerance according EN12900

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