

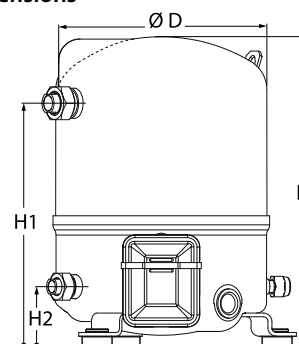
Datasheets

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



General Characteristics

Model number (on compressor nameplate)		MT36JG4EVE
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		30 bar / 8 bar
Cylinders	1	
Swept volume	60,47 cm ³ /rev	
Displacement @ Nominal speed	10.5 m ³ /h @ 2900 rpm - 12.7 m ³ /h @ 3500 rpm	
Net weight	25 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=356 mm

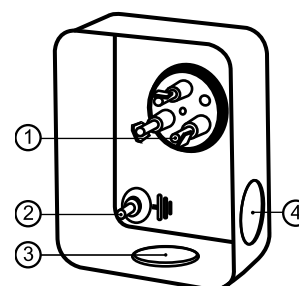
H1=263 mm

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	5.57 Ω
Maximum Continuous Current (MCC)	9 A
Locked Rotor Amps (LRA)	30 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	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

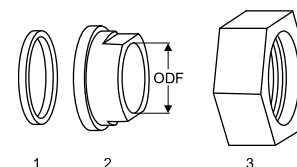
**Industrial pack: 12 Unboxed compressors on pallet (order per multiples of 12)

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.

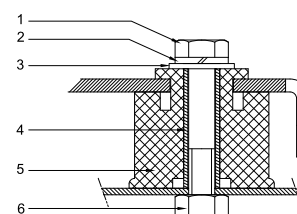
Mineral oil, 160P, 2 litre can	7754001
Mineral oil, 160P, 5 litre can	7754002

Crankcase heaters

Code no.

PTC heater 27W, CE mark, UL	120Z0459
Belt type crankcase heater, 54 W, 230 V, CE mark, UL	7773106
Belt type crankcase heater, 54 W, 400 V, UL	7773013

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.

Electronic soft start kit, MCI 15 C	7705006
Acoustic hood for 1 cylinder compressor	120Z0471
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

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	2 741	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

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 consumption 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

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	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 performance (C.O.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 performance at to = 5 °C, tc = 50 °C

Cooling capacity	8 469	W
Power input	3 110	W
Current consumption	5.37	A
Mass flow	202	kg/h
C.O.P.	2.72	

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	67	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

All performance data +/- 5%

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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	15

Cooling capacity in W

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 W

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 consumption 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

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 performance (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	2.11	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	-	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	1.69	1.95	2.23	2.52	2.83
65	-	-	-	-	1.45	1.68	1.92	2.17	2.44

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

Cooling capacity	9 272	W
Power input	3 373	W
Current consumption	5.77	A
Mass flow	211	kg/h
C.O.P.	2.75	

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	67	dB(A)
With accoustic 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

All performance data +/- 5%

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