

Datasheets

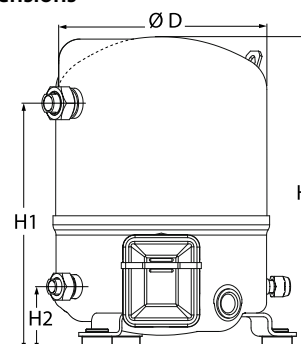
Danfoss Reciprocating compressors **MT / MTZ / NTZ**



General Characteristics

Model number (on compressor nameplate)		MT32JF4DVE
Code number for Singlepack*		MT32-4VI
Code number for Industrial pack**		MT32-4VM
Drawing number		8501024e
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 - 11.3 m ³ /h @ 3500 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

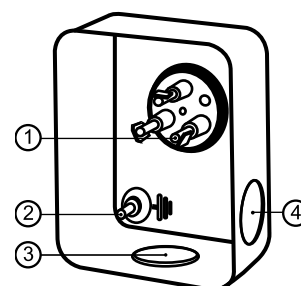
H2=68 mm

H3= mm

Electrical Characteristics

Nominal voltage	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	6.45 Ω
Maximum Continuous Current (MCC)	8 A
Locked Rotor Amps (LRA)	25 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, UL certified (file SA6873), CCC certified

*Singlepack: Compressor in cardboard box

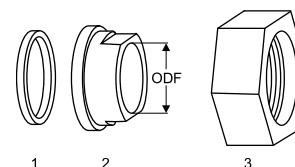
**Industrial pack: 12 Unboxed compressors on pallet (order per multiples of 12)

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.

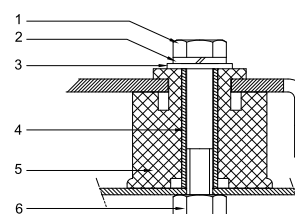
Mineral oil, 160P, 2 litre can	7754001
Mineral oil, 160P, 5 litre can	7754002

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.

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

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	2.88	3.07	3.27	3.45	3.61	3.72	3.78	3.76	3.67
35	2.93	3.13	3.34	3.54	3.73	3.87	3.97	4.01	3.96
40	2.96	3.17	3.40	3.63	3.85	4.04	4.18	4.27	4.27
45	2.97	3.21	3.47	3.73	3.98	4.21	4.40	4.54	4.61
50	-	3.24	3.52	3.82	4.12	4.39	4.64	4.84	4.97
55	-	-	3.57	3.91	4.25	4.58	4.89	5.15	5.35
60	-	-	-	4.00	4.39	4.78	5.14	5.47	5.75
65	-	-	-	-	4.53	4.98	5.41	5.81	6.17

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	4.64	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 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

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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	2 381	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	2.88	3.07	3.27	3.45	3.61	3.72	3.78	3.76	3.67
35	2.93	3.13	3.34	3.54	3.73	3.87	3.97	4.01	3.96
40	2.96	3.17	3.40	3.63	3.85	4.04	4.18	4.27	4.27
45	2.97	3.21	3.47	3.73	3.98	4.21	4.40	4.54	4.61
50	-	3.24	3.52	3.82	4.12	4.39	4.64	4.84	4.97
55	-	-	3.57	3.91	4.25	4.58	4.89	5.15	5.35
60	-	-	-	4.00	4.39	4.78	5.14	5.47	5.75
65	-	-	-	-	4.53	4.98	5.41	5.81	6.17

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	4.97	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 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

Tolerance according EN12900

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Performance data at 60 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	2 690	3 643	4 773	6 101	7 647	9 432	11 477	13 803	16 430
35	2 343	3 266	4 356	5 636	7 124	8 842	10 811	13 051	15 583
40	2 023	2 910	3 955	5 180	6 604	8 250	10 136	12 285	14 716
45	1 735	2 579	3 574	4 738	6 093	7 660	9 458	11 509	13 833
50	-	2 279	3 216	4 315	5 595	7 077	8 781	10 728	12 940
55	-	-	2 888	3 915	5 114	6 505	8 109	9 947	12 039
60	-	-	-	3 542	4 654	5 949	7 447	9 170	11 136
65	-	-	-	-	4 220	5 413	6 799	8 399	10 234

Power input in W

30	1 653	1 876	2 084	2 268	2 417	2 523	2 577	2 568	2 489
35	1 695	1 931	2 156	2 360	2 533	2 668	2 753	2 781	2 742
40	1 727	1 979	2 222	2 449	2 650	2 816	2 936	3 003	3 007
45	1 749	2 018	2 284	2 536	2 767	2 966	3 125	3 233	3 283
50	-	2 048	2 339	2 620	2 883	3 119	3 318	3 470	3 568
55	-	-	2 386	2 699	2 997	3 272	3 514	3 714	3 862
60	-	-	-	2 772	3 108	3 425	3 713	3 963	4 165
65	-	-	-	-	3 216	3 577	3 914	4 216	4 475

Current consumption in A

30	2.88	3.07	3.27	3.45	3.61	3.72	3.78	3.76	3.67
35	2.93	3.13	3.34	3.54	3.73	3.87	3.97	4.01	3.96
40	2.96	3.17	3.40	3.63	3.85	4.04	4.18	4.27	4.27
45	2.97	3.21	3.47	3.73	3.98	4.21	4.40	4.54	4.61
50	-	3.24	3.52	3.82	4.12	4.39	4.64	4.84	4.97
55	-	-	3.57	3.91	4.25	4.58	4.89	5.15	5.35
60	-	-	-	4.00	4.39	4.78	5.14	5.47	5.75
65	-	-	-	-	4.53	4.98	5.41	5.81	6.17

Mass flow in kg/h

30	59	78	101	128	158	193	232	276	325
35	53	73	96	123	153	188	227	271	320
40	48	68	91	118	148	182	221	265	314
45	43	63	86	112	142	177	215	259	308
50	-	58	81	107	137	171	209	252	301
55	-	-	77	102	131	165	202	245	293
60	-	-	-	97	126	159	196	238	285
65	-	-	-	-	121	153	189	230	277

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	8 781	W
Power input	3 318	W
Current consumption	4.64	A
Mass flow	209	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	71	dB(A)
With accoustic hood	64	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 60 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	2 857	3 866	5 061	6 464	8 096	9 979	12 135	14 584	17 350
35	2 497	3 478	4 635	5 991	7 567	9 385	11 467	13 833	16 506
40	2 165	3 111	4 225	5 528	7 042	8 788	10 790	13 067	15 641
45	1 865	2 770	3 834	5 078	6 524	8 194	10 109	12 290	14 760
50	-	2 460	3 468	4 647	6 019	7 606	9 429	11 509	13 869
55	-	-	3 133	4 241	5 533	7 030	8 755	10 728	12 971
60	-	-	-	3 864	5 069	6 472	8 092	9 952	12 072
65	-	-	-	-	4 634	5 935	7 445	9 186	11 178

Power input in W

30	1 653	1 876	2 084	2 268	2 417	2 523	2 577	2 568	2 489
35	1 695	1 931	2 156	2 360	2 533	2 668	2 753	2 781	2 742
40	1 727	1 979	2 222	2 449	2 650	2 816	2 936	3 003	3 007
45	1 749	2 018	2 284	2 536	2 767	2 966	3 125	3 233	3 283
50	-	2 048	2 339	2 620	2 883	3 119	3 318	3 470	3 568
55	-	-	2 386	2 699	2 997	3 272	3 514	3 714	3 862
60	-	-	-	2 772	3 108	3 425	3 713	3 963	4 165
65	-	-	-	-	3 216	3 577	3 914	4 216	4 475

Current consumption in A

30	2.88	3.07	3.27	3.45	3.61	3.72	3.78	3.76	3.67
35	2.93	3.13	3.34	3.54	3.73	3.87	3.97	4.01	3.96
40	2.96	3.17	3.40	3.63	3.85	4.04	4.18	4.27	4.27
45	2.97	3.21	3.47	3.73	3.98	4.21	4.40	4.54	4.61
50	-	3.24	3.52	3.82	4.12	4.39	4.64	4.84	4.97
55	-	-	3.57	3.91	4.25	4.58	4.89	5.15	5.35
60	-	-	-	4.00	4.39	4.78	5.14	5.47	5.75
65	-	-	-	-	4.53	4.98	5.41	5.81	6.17

Mass flow in kg/h

30	58	78	101	127	157	192	230	274	323
35	53	73	96	122	152	187	226	269	318
40	48	68	91	117	147	181	220	264	313
45	43	63	85	112	142	176	214	257	306
50	-	58	81	106	136	170	208	251	299
55	-	-	76	102	131	164	201	244	291
60	-	-	-	97	125	158	195	236	283
65	-	-	-	-	121	152	188	229	275

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	9 677	W
Power input	3 581	W
Current consumption	4.97	A
Mass flow	220	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	71	dB(A)
With accoustic hood	64	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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