



Datasheets

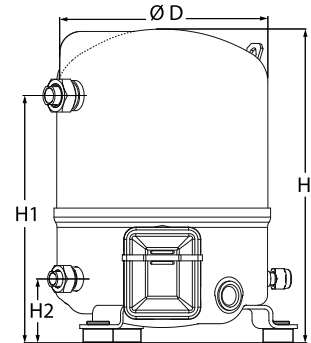
Maneurop[®] Reciprocating compressors MT / MTZ / MPZ / NTZ



General Characteristics

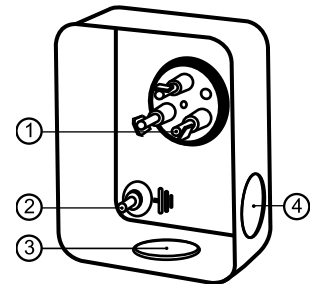
Model number (on compressor nameplate)		MTZ32JF4BVE
Code number for Singlepack*		MTZ32-4VI
Code number for Industrial pack**		MTZ32-4VM
Drawing number		8501025f
Suction and discharge connections		Rotolock
Suction connection		1-1/4" Rotolock
Discharge connection		1" Rotolock
Suction connection with supplied sleeve		5/8" ODF
Discharge connection with supplied sleeve		1/2" ODF
Oil sight glass		Threaded
Oil equalization connection		3/8" flare SAE
Oil drain connection		None
LP gauge port		Schrader
IPR valve		435 psi / 115 psi
Cylinders		1
Swept volume		3.29 in3/rev
Displacement @ Nominal speed		331 cfh @ 2900 rpm - 399 cfh @ 3500 rpm
Net weight		53 lbs
Oil charge		32 oz, POE - 160PZ
Maximum system test pressure Low Side / High side		363 psi / 435 psi
Maximum differential test pressure		435 psi
Maximum number of starts per hour		12
Refrigerant charge limit		6 lbs
Approved refrigerants		R404A, R507A, R134a, R407C

Dimensions



D=8.8 inch, H=14 inch,
H1=10.4 inch, H2=2.7 inch

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")

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 77°F	6.15 Ω
Maximum Continuous Current (MCC)	8 A
Locked Rotor Amps (LRA)	25 A
Motor protection	Internal overload protector

Recommended Installation torques

Oil sight glass	37 ft.lbs
Power connections / Earth connection	ft.lbs / 1 ft.lbs
Mounting bolts	11 ft.lbs

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

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.

POE lubricant, 160PZ, 1 liter can	7754019
POE lubricant, 160PZ, 2 liter can	7754020

Crankcase heaters
Code no.

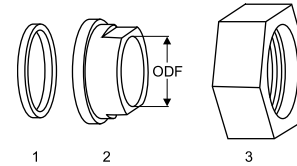
PTC heater 27W	120Z0459
Belt type crankcase heater, 54 W, 230 V, CE mark, UL	7773106
Belt type crankcase heater, 54 W, 400 V, UL	7773013

Miscellaneous accessories
Code no.

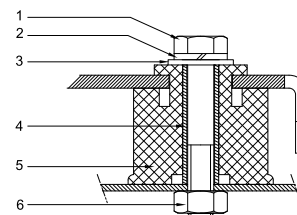
Electronic soft start kit, MCI 15 C	7705006
Acoustic hood for 1 cylinder compressor	7755001
Oil equalisation nut	8153127

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

Gaskets, sleeves and nuts


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

Mounting kit


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

Performance data at 60 Hz, ARI rating conditions

R407C

Cond. temp. in °F (tc)	Evaporating temperature in °F (to)							
	10	20	25	30	35	40	45	50

Cooling capacity in Btu/h

100	15 736	20 881	23 887	27 214	30 883	34 916	39 338	44 169	49 434
110	14 624	19 433	22 227	25 311	28 708	32 439	36 529	40 999	45 872
120	-	17 903	20 488	23 332	26 460	29 894	33 655	37 767	42 252
130	-	16 289	18 668	21 277	24 140	27 278	30 714	34 472	38 573
140	-	-	16 768	19 145	21 745	24 591	27 706	31 112	34 832
150	-	-	-	-	19 275	21 832	24 629	27 687	31 029

Power input in W

100	1 918	2 113	2 204	2 289	2 369	2 444	2 512	2 575	2 631
110	2 035	2 263	2 369	2 470	2 566	2 656	2 740	2 818	2 889
120	-	2 403	2 528	2 647	2 761	2 868	2 970	3 065	3 154
130	-	2 531	2 677	2 816	2 950	3 077	3 199	3 313	3 422
140	-	-	2 811	2 973	3 129	3 279	3 422	3 559	3 689
150	-	-	-	-	3 295	3 470	3 637	3 798	3 952

Current consumption in A

100	3.29	3.50	3.60	3.69	3.79	3.87	3.96	4.03	4.10
110	3.43	3.68	3.80	3.91	4.02	4.12	4.22	4.30	4.38
120	-	3.85	3.99	4.13	4.26	4.39	4.50	4.61	4.70
130	-	3.99	4.17	4.34	4.51	4.66	4.80	4.93	5.05
140	-	-	4.33	4.54	4.74	4.93	5.10	5.26	5.41
150	-	-	-	-	4.95	5.18	5.40	5.60	5.79

Mass flow in lbs/h

100	207	270	306	346	389	437	488	544	604
110	202	264	299	338	380	426	476	530	588
120	-	257	291	329	370	414	462	514	571
130	-	248	282	318	357	400	447	497	551
140	-	-	270	305	343	384	429	477	529
150	-	-	-	-	327	366	409	455	505

Energy Efficiency Ratio (E.E.R.)

100	8.21	9.88	10.84	11.89	13.04	14.29	15.66	17.15	18.79
110	7.19	8.59	9.38	10.25	11.19	12.21	13.33	14.55	15.88
120	-	7.45	8.10	8.81	9.58	10.42	11.33	12.32	13.40
130	-	6.43	6.97	7.56	8.18	8.86	9.60	10.40	11.27
140	-	-	5.96	6.44	6.95	7.50	8.10	8.74	9.44
150	-	-	-	-	5.85	6.29	6.77	7.29	7.85

Nominal performance at to = 45 °F, tc = 130 °F

Cooling capacity	30 714	Btu/h	Current consumption	4.80	A
Power input	3 199	W	Mass flow	447	lbs/h
E.E.R.	9.60				

Pressure switch settings

Maximum HP switch setting	426	psi(g)
Minimum LP switch setting	3	psi(g)
LP pump down setting	19	psi(g)

T 0 : Evaporating temperature at dew point

T C : Condensing temperature at dew point

Rating conditions : Superheat = 20 °F , Subcooling = 15 °F

All performance data +/- 5%

Sound power data

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

Performance data at 60 Hz, ARI rating conditions

R134a

Cond. temp. in °F (tc)	Evaporating temperature in °F (to)								
	10	20	30	40	45	50	55	60	65

Cooling capacity in Btu/h

100	9 268	13 086	17 714	23 251	26 393	29 798	33 481	37 454	41 729
110	8 694	12 282	16 629	21 836	24 794	28 003	31 477	35 229	39 270
120	8 025	11 349	15 384	20 229	22 986	25 983	29 232	32 746	36 537
130	7 241	10 270	13 959	18 409	20 949	23 718	26 725	29 986	33 510
140	-	9 024	12 336	16 357	18 666	21 189	23 939	26 929	30 172
150	-	-	-	14 055	16 114	18 376	20 853	23 557	26 500
160	-	-	-	-	-	15 261	17 448	19 849	22 478

Power input in W

100	1 422	1 626	1 804	1 944	1 997	2 036	2 061	2 070	2 061
110	1 472	1 695	1 897	2 065	2 133	2 190	2 232	2 260	2 271
120	1 508	1 754	1 981	2 180	2 266	2 340	2 401	2 449	2 481
130	1 528	1 798	2 055	2 288	2 391	2 485	2 567	2 636	2 691
140	-	1 827	2 116	2 384	2 507	2 622	2 725	2 817	2 896
150	-	-	-	2 467	2 611	2 748	2 875	2 991	3 095
160	-	-	-	-	-	2 860	3 012	3 154	3 284

Current consumption in A

100	3.01	3.18	3.32	3.44	3.49	3.53	3.56	3.58	3.59
110	3.04	3.22	3.40	3.55	3.62	3.68	3.73	3.77	3.80
120	3.06	3.27	3.47	3.66	3.75	3.83	3.91	3.97	4.03
130	3.08	3.32	3.55	3.78	3.89	4.00	4.09	4.19	4.27
140	-	3.37	3.64	3.92	4.05	4.18	4.30	4.42	4.53
150	-	-	-	4.06	4.22	4.37	4.52	4.67	4.81
160	-	-	-	-	-	4.59	4.77	4.94	5.12

Mass flow in lbs/h

100	135	186	247	317	356	399	444	492	543
110	133	184	244	313	352	393	437	485	535
120	130	180	238	305	343	384	427	473	523
130	125	172	229	294	331	370	412	457	506
140	-	162	216	279	314	352	393	436	483
150	-	-	-	259	293	329	368	410	455
160	-	-	-	-	-	301	338	378	420

Energy Efficiency Ratio (E.E.R.)

100	6.52	8.05	9.82	11.96	13.22	14.63	16.24	18.09	20.24
110	5.91	7.24	8.77	10.57	11.62	12.79	14.10	15.59	17.29
120	5.32	6.47	7.76	9.28	10.14	11.10	12.17	13.37	14.73
130	4.74	5.71	6.79	8.05	8.76	9.54	10.41	11.38	12.45
140	-	4.94	5.83	6.86	7.44	8.08	8.78	9.56	10.42
150	-	-	-	5.70	6.17	6.69	7.25	7.88	8.56
160	-	-	-	-	-	5.34	5.79	6.29	6.84

Nominal performance at to = 45 °F, tc = 130 °F

Cooling capacity	20 949	Btu/h	Current consumption	3.89	A
Power input	2 391	W	Mass flow	331	lbs/h
E.E.R.	8.76				

Pressure switch settings

Maximum HP switch setting	328	psi(g)
Minimum LP switch setting	3	psi(g)
LP pump down setting	7	psi(g)

T 0 : Evaporating temperature at dew point

T C : Condensing temperature at dew point

Rating conditions : Superheat = 20 °F , Subcooling = 15 °F

All performance data +/- 5%

Sound power data

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

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Performance data at 60 Hz, ARI rating conditions
R404A

Cond. temp. in °F (tc)	Evaporating temperature in °F (to)								
	-20	-10	0	10	20	30	40	45	50

Cooling capacity in Btu/h

90	7 072	10 128	13 994	18 787	24 628	31 634	39 924	44 588	49 617
100	6 230	9 053	12 587	16 951	22 263	28 643	36 208	40 472	45 078
110	5 356	7 951	11 158	15 096	19 885	25 642	32 487	36 354	40 538
120	4 439	6 809	9 694	13 211	17 480	22 620	28 748	32 221	35 985
130	-	5 616	8 182	11 282	15 036	19 563	24 979	28 059	31 405
140	-	4 357	6 609	9 298	12 541	16 458	21 167	23 856	26 787

Power input in W

90	1 544	1 821	2 080	2 314	2 516	2 679	2 795	2 833	2 857
100	1 576	1 884	2 176	2 444	2 683	2 883	3 039	3 098	3 142
110	1 593	1 934	2 261	2 566	2 842	3 082	3 280	3 360	3 427
120	1 588	1 964	2 327	2 670	2 986	3 268	3 509	3 611	3 701
130	-	1 964	2 365	2 749	3 107	3 432	3 718	3 844	3 957
140	-	1 927	2 368	2 794	3 195	3 566	3 899	4 049	4 187

Current consumption in A

90	2.91	3.16	3.44	3.72	3.99	4.21	4.38	4.43	4.45
100	2.94	3.23	3.54	3.86	4.17	4.43	4.63	4.70	4.75
110	2.97	3.30	3.65	4.02	4.36	4.67	4.91	5.01	5.08
120	2.97	3.34	3.75	4.16	4.56	4.92	5.21	5.33	5.42
130	-	3.35	3.82	4.28	4.73	5.15	5.50	5.64	5.77
140	-	3.30	3.82	4.35	4.86	5.34	5.75	5.93	6.09

Mass flow in lbs/h

90	147	204	273	356	455	570	705	779	860
100	140	198	266	347	443	554	684	756	834
110	133	190	258	337	430	539	664	733	808
120	123	181	248	326	417	522	643	710	782
130	-	169	236	313	402	504	621	686	756
140	-	154	221	297	384	484	598	661	728

Energy Efficiency Ratio (E.E.R.)

90	4.58	5.56	6.73	8.12	9.79	11.81	14.29	15.74	17.37
100	3.95	4.81	5.78	6.93	8.30	9.93	11.92	13.07	14.34
110	3.36	4.11	4.94	5.88	7.00	8.32	9.91	10.82	11.83
120	2.80	3.47	4.17	4.95	5.85	6.92	8.19	8.92	9.72
130	-	2.86	3.46	4.10	4.84	5.70	6.72	7.30	7.94
140	-	2.26	2.79	3.33	3.92	4.62	5.43	5.89	6.40

Nominal performance at to = 20 °F, tc = 120 °F

Cooling capacity	17 480	Btu/h	Current consumption	4.56	A
Power input	2 986	W	Mass flow	417	lbs/h
E.E.R.	5.85				

Pressure switch settings

Maximum HP switch setting	402	psi(g)
Minimum LP switch setting	3	psi(g)
LP pump down setting	13	psi(g)

T 0 : Evaporating temperature at dew point

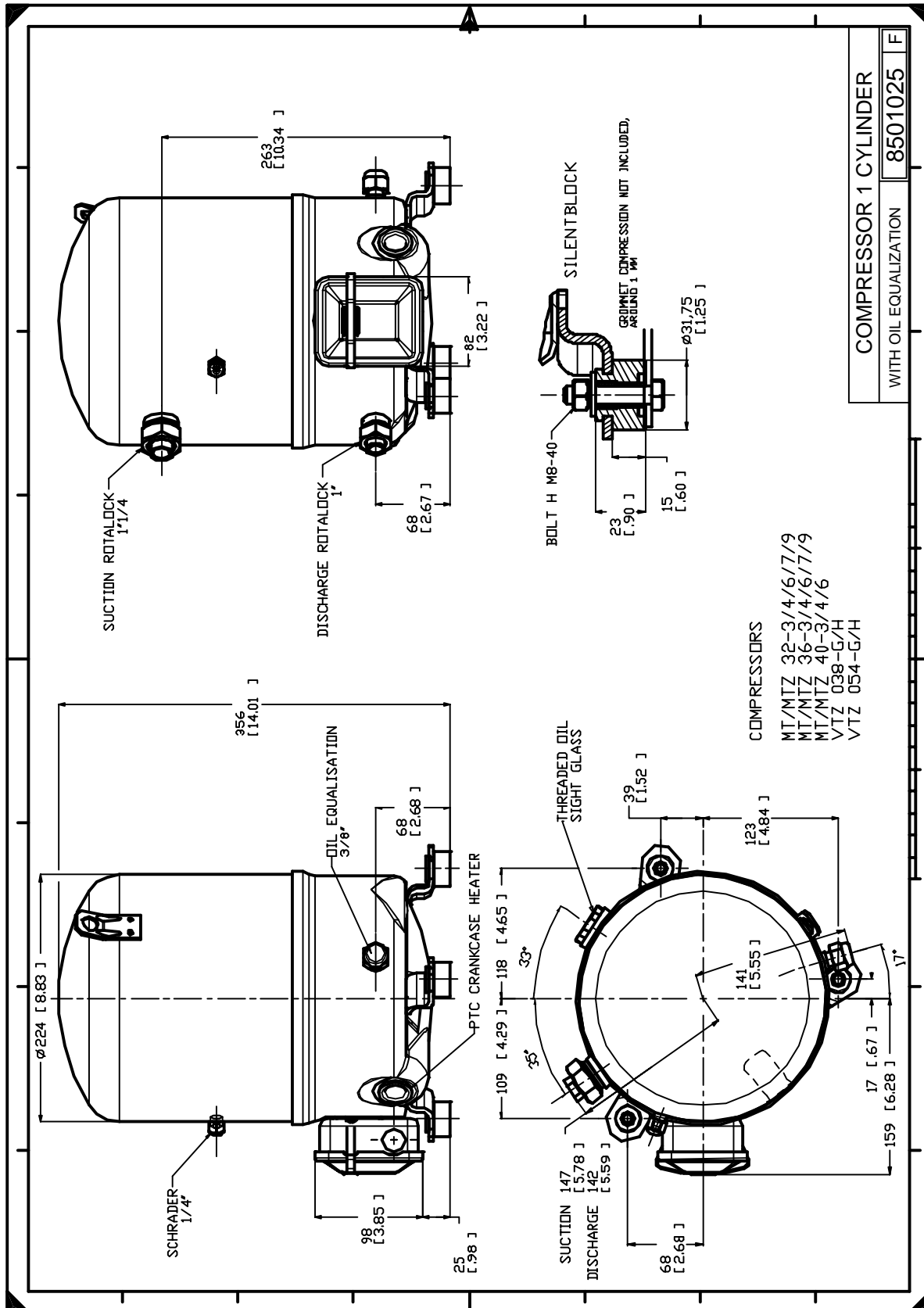
T C : Condensing temperature at dew point

Rating conditions : Superheat = 20 °F , Subcooling = 0 °F

All performance data +/- 5%

Sound power data

Sound power level	73	dB(A)
With acoustic hood	66	dB(A)



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