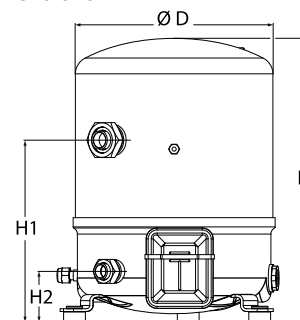
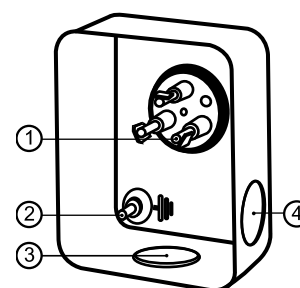


General Characteristics

Model number (on compressor nameplate)		MTZ50HK3BVE
Code number for Singlepack*		MTZ50-3VI
Code number for Industrial pack**		MTZ50-3VM
Drawing number		8502012g
Suction and discharge connections		Rotolock
Suction connection		1-3/4 " Rotolock
Discharge connection		1-1/4 " Rotolock
Suction connection with supplied sleeve		7/8 " ODF
Discharge connection with supplied sleeve		3/4 " 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	2	
Swept volume	5.23 in3/rev	
Displacement @ Nominal speed	635 cfh @ 3500 rpm	
Net weight	77 lbs	
Oil charge	61 oz, POE - 175PZ	
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	11 lbs	
Approved refrigerants	R404A,R134a,R407A/C/F,R448A,R449A,R452A,R513A	

Dimensions


D=11.3 inch, H=16.3 inch,
H1=10.4 inch, H2=2.9 inch, H3=- 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	200-230V/3/60Hz
Voltage range	180-253 V
Winding resistance (between phases) +/- 7% at 77°F	0.74 Ω
Maximum Continuous Current (MCC)	25 A
Locked Rotor Amps (LRA)	115 A
Motor protection	Internal overload protector

Recommended Installation torques

Oil sight glass	37 ft.lbs
Power connections / Earth connection	1 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), -

*Singlepack: Compressor in cardboard box

**Industrial pack: 6 Unboxed compressors on pallet (order per multiples of 6)

Rotolock accessories, suction side

Code no.

Solder sleeve, P07 (1-3/4" Rotolock, 7/8" ODF)	8153013
Rotolock valve, V07 (1-3/4" Rotolock, 7/8" ODF)	8168032
Gasket, 1-3/4"	8156132

Rotolock accessories, discharge side

Code no.

Solder sleeve, P04 (1-1/4" Rotolock, 3/4" ODF)	8153008
Rotolock valve, V04 (1-1/4" Rotolock, 3/4" ODF)	8168029
Gasket, 1-1/4"	8156131

Rotolock accessories, sets

Code no.

Valve set, V07 (1-3/4"~7/8"), V04 (1-1/4"~3/4")	7703006
Gasket set, 1", 1-1/4", 1-3/4", OSG gaskets black & white	8156009

Oil / lubricants

Code no.

POE lubricant, 175PZ, 1 liter can	120Z0638
POE lubricant, 175PZ, 2.5 liter can	120Z0639

Crankcase heaters

Code no.

PTC heater 27W, CE mark, UL	120Z0459
Belt type crankcase heater, 65 W, 110 V, CE mark, UL	7773109
Belt type crankcase heater, 65 W, 230 V, CE mark, UL	7773107

Miscellaneous accessories

Code no.

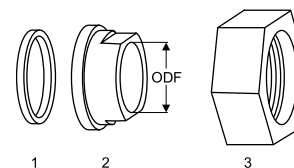
Acoustic hood for 2 cylinder compressor	120Z0472
Oil equalisation nut	8153127

Spare parts

Code no.

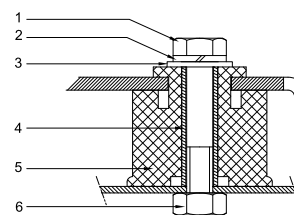
Mounting kit for 1 and 2 cylinder compressor, including 3 grommets, 3 bolts	8156001
Oil sight glass with gaskets (black & white)	8156019
Gasket for oil sight glass (black chloroprene)	8156145
Service kit for terminal box 80 x 96 mm, including 1 cover, 1 clamp	8156134

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
R134a

Cond. temp. in °F (tc)	Evaporating temperature in °F (to)								
	-10	0	10	20	30	40	50	60	65

Cooling capacity in Btu/h

100	6 991	10 589	15 277	21 306	28 923	38 374	49 906	63 762	71 638
110	5 915	9 256	13 562	19 084	26 072	34 772	45 433	58 299	65 636
120	4 877	8 007	11 976	17 035	23 437	31 430	41 263	53 183	60 002
130	-	-	10 481	15 123	20 984	28 315	37 364	48 382	54 706
140	-	-	-	13 313	18 679	25 392	33 704	43 866	49 718
150	-	-	-	-	-	22 629	30 252	39 606	45 010
160	-	-	-	-	-	-	26 978	35 576	40 559
165	-	-	-	-	-	-	25 400	33 641	38 424

Power input in W

100	1 495	1 838	2 130	2 373	2 570	2 722	2 831	2 899	2 918
110	1 441	1 834	2 174	2 464	2 705	2 898	3 047	3 151	3 188
120	1 356	1 806	2 202	2 544	2 835	3 077	3 271	3 420	3 478
130	-	-	2 204	2 606	2 954	3 251	3 498	3 697	3 779
140	-	-	-	2 641	3 053	3 411	3 718	3 974	4 084
150	-	-	-	-	-	3 551	3 923	4 243	4 384
160	-	-	-	-	-	-	4 107	4 497	4 672
165	-	-	-	-	-	-	4 187	4 615	4 809

Current consumption in A

100	7.53	8.39	9.10	9.66	10.09	10.41	10.64	10.79	10.85
110	7.61	8.56	9.34	9.96	10.44	10.81	11.07	11.24	11.31
120	7.40	8.47	9.36	10.09	10.66	11.11	11.45	11.68	11.77
130	-	-	9.23	10.10	10.81	11.38	11.83	12.17	12.30
140	-	-	-	10.04	10.93	11.66	12.26	12.75	12.95
150	-	-	-	-	-	12.01	12.80	13.47	13.76
160	-	-	-	-	-	-	13.50	14.39	14.79
165	-	-	-	-	-	-	13.92	14.94	15.40

Mass flow in lbs/h

100	107	159	224	304	403	524	668	839	936
110	96	147	209	287	383	499	638	804	897
120	84	134	195	271	363	476	611	771	862
130	-	-	181	255	345	454	585	741	829
140	-	-	-	239	327	433	561	712	798
150	-	-	-	-	-	414	538	686	769
160	-	-	-	-	-	-	516	660	742
165	-	-	-	-	-	-	506	648	729

Energy Efficiency Ratio (E.E.R.)

100	4.68	5.76	7.17	8.98	11.25	14.10	17.63	22.00	24.55
110	4.11	5.05	6.24	7.75	9.64	12.00	14.91	18.50	20.59
120	3.60	4.43	5.44	6.70	8.27	10.21	12.61	15.55	17.25
130	-	-	4.76	5.80	7.10	8.71	10.68	13.09	14.48
140	-	-	-	5.04	6.12	7.44	9.07	11.04	12.17
150	-	-	-	-	-	6.37	7.71	9.33	10.27
160	-	-	-	-	-	-	6.57	7.91	8.68
165	-	-	-	-	-	-	6.07	7.29	7.99

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

Cooling capacity	32 609	Btu/h	Current consumption	11.62	A
Power input	3 380	W	Mass flow	517	lbs/h
E.E.R.	9.65				

Pressure switch settings

Maximum HP switch setting	293	psi(g)
Minimum LP switch setting	1	psi(g)
LP pump down setting	6	psi(g)

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T₀ : Evaporating temperature at dew point
T_C : Condensing temperature at dew point
Rating conditions : Superheat = 20 °F , Subcooling = 15 °F
Tolerance according EN12900

Sound power data

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

Datasheet, performance data
Maneurop reciprocating compressor. MTZ050-3
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	11 931	17 100	23 442	31 134	40 350	51 266	64 058	71 212	78 900
100	10 042	14 901	20 845	28 050	36 691	46 943	58 982	65 726	72 983
110	8 120	12 609	18 094	24 751	32 755	42 282	53 507	59 811	66 605
120	6 215	10 272	15 236	21 284	28 590	37 331	47 680	53 514	59 815
130	-	7 939	12 322	17 699	24 246	32 139	41 552	46 884	52 662
140	-	5 660	9 400	14 045	19 772	26 755	35 171	39 971	45 194

Power input in W

90	2 513	2 896	3 224	3 498	3 720	3 893	4 016	4 060	4 093
100	2 502	2 955	3 351	3 691	3 977	4 211	4 395	4 468	4 530
110	2 438	2 969	3 441	3 855	4 213	4 517	4 768	4 875	4 969
120	2 312	2 929	3 484	3 980	4 417	4 799	5 125	5 269	5 399
130	-	2 822	3 469	4 054	4 579	5 045	5 456	5 640	5 811
140	-	2 639	3 384	4 067	4 687	5 247	5 748	5 977	6 192

Current consumption in A

90	9.17	10.05	10.87	11.61	12.26	12.82	13.28	13.47	13.62
100	9.20	10.23	11.19	12.07	12.84	13.51	14.06	14.29	14.48
110	9.07	10.30	11.45	12.49	13.42	14.24	14.92	15.21	15.46
120	8.74	10.21	11.58	12.83	13.96	14.96	15.82	16.19	16.52
130	-	9.92	11.55	13.05	14.42	15.64	16.71	17.18	17.61
140	-	9.38	11.31	13.10	14.74	16.23	17.54	18.14	18.69

Mass flow in lbs/h

90	247	345	459	592	746	924	1 128	1 241	1 361
100	226	325	441	575	730	910	1 115	1 228	1 349
110	201	301	417	552	709	889	1 095	1 209	1 330
120	172	272	389	524	681	861	1 068	1 182	1 303
130	-	239	355	490	647	827	1 034	1 148	1 269
140	-	200	316	450	606	786	992	1 105	1 226

Energy Efficiency Ratio (E.E.R.)

90	4.75	5.91	7.27	8.90	10.85	13.17	15.95	17.54	19.28
100	4.01	5.04	6.22	7.60	9.23	11.15	13.42	14.71	16.11
110	3.33	4.25	5.26	6.42	7.77	9.36	11.22	12.27	13.41
120	2.69	3.51	4.37	5.35	6.47	7.78	9.30	10.16	11.08
130	-	2.81	3.55	4.37	5.30	6.37	7.62	8.31	9.06
140	-	2.15	2.78	3.45	4.22	5.10	6.12	6.69	7.30

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

Cooling capacity	28 590	Btu/h	Current consumption	13.96	A
Power input	4 417	W	Mass flow	681	lbs/h
E.E.R.	6.47				

Pressure switch settings

Maximum HP switch setting	402	psi(g)
Minimum LP switch setting	15	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 = 0 °F

Tolerance according EN12900

Sound power data

Sound power level	84	dB(A)
With acoustic hood	78	dB(A)

Performance data at 60 Hz, ARI rating conditions
R407A

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	8 586	13 379	19 479	27 077	36 364	47 530	60 766	68 219	76 262
100	7 134	11 552	17 176	24 197	32 805	43 191	55 545	62 520	70 059
110	5 741	9 774	14 911	21 344	29 262	38 857	50 320	56 811	63 840
120	-	8 071	12 711	18 544	25 762	34 555	45 115	51 117	57 631
130	-	-	10 601	15 824	22 331	30 312	39 958	45 465	51 460
140	-	-	-	13 211	18 996	26 154	34 876	39 883	45 353

Power input in W

90	1 843	2 224	2 574	2 886	3 155	3 375	3 539	3 598	3 641
100	1 809	2 233	2 630	2 992	3 316	3 593	3 818	3 909	3 985
110	1 754	2 225	2 671	3 087	3 467	3 805	4 094	4 219	4 329
120	-	2 198	2 697	3 169	3 610	4 011	4 368	4 528	4 674
130	-	-	2 708	3 240	3 743	4 212	4 640	4 836	5 020
140	-	-	-	3 299	3 869	4 407	4 908	5 143	5 366

Current consumption in A

90	8.31	9.02	9.71	10.36	10.94	11.43	11.80	11.94	12.03
100	8.35	9.09	9.83	10.55	11.23	11.83	12.34	12.55	12.73
110	8.36	9.15	9.96	10.77	11.55	12.29	12.95	13.25	13.52
120	-	9.16	10.06	10.97	11.89	12.77	13.60	13.99	14.36
130	-	-	10.10	11.14	12.20	13.25	14.26	14.75	15.23
140	-	-	-	11.24	12.45	13.68	14.91	15.51	16.10

Mass flow in lbs/h

90	134	204	291	396	521	668	840	936	1 038
100	118	187	272	374	497	642	811	905	1 006
110	102	169	251	352	472	614	780	872	972
120	-	150	230	327	445	583	746	837	934
130	-	-	208	302	416	551	710	799	895
140	-	-	-	276	386	518	673	759	853

Energy Efficiency Ratio (E.E.R.)

90	4.66	6.02	7.57	9.38	11.52	14.08	17.17	18.96	20.95
100	3.94	5.17	6.53	8.09	9.89	12.02	14.55	15.99	17.58
110	3.27	4.39	5.58	6.91	8.44	10.21	12.29	13.47	14.75
120	-	3.67	4.71	5.85	7.14	8.61	10.33	11.29	12.33
130	-	-	3.91	4.88	5.97	7.20	8.61	9.40	10.25
140	-	-	-	4.00	4.91	5.93	7.11	7.75	8.45

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

Cooling capacity	25 762	Btu/h	Current consumption	11.89	A
Power input	3 610	W	Mass flow	445	lbs/h
E.E.R.	7.14				

Pressure switch settings

Maximum HP switch setting	374	psi(g)
Minimum LP switch setting	13	psi(g)
LP pump down setting	17	psi(g)

T 0 : Evaporating temperature at dew point

T C : Condensing temperature at dew point

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

Tolerance according EN12900

Sound power data

Sound power level	85	dB(A)
With acoustic hood	78	dB(A)

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	55

Cooling capacity in Btu/h

100	24 320	32 721	37 624	43 046	49 024	55 595	62 797	70 667	79 243
110	22 103	29 967	34 541	39 593	45 159	51 279	57 989	65 326	73 328
120	-	27 142	31 388	36 071	41 229	46 898	53 117	59 923	67 353
130	-	24 253	28 173	32 489	37 239	42 461	48 191	54 467	61 326
140	-	-	24 904	28 855	33 199	37 974	43 216	48 964	55 255
150	-	-	-	-	29 116	33 446	38 202	43 424	49 148

Power input in W

100	2 970	3 279	3 412	3 532	3 639	3 733	3 815	3 885	3 943
110	3 113	3 491	3 657	3 807	3 943	4 065	4 173	4 267	4 348
120	-	3 671	3 875	4 063	4 234	4 390	4 530	4 654	4 764
130	-	3 808	4 057	4 287	4 500	4 695	4 873	5 034	5 179
140	-	-	4 188	4 468	4 728	4 969	5 192	5 396	5 582
150	-	-	-	-	4 907	5 200	5 473	5 727	5 960

Current consumption in A

100	11.12	11.97	12.36	12.73	13.07	13.38	13.65	13.87	14.04
110	11.51	12.51	12.98	13.41	13.82	14.18	14.51	14.78	15.00
120	-	13.04	13.60	14.13	14.62	15.07	15.48	15.83	16.13
130	-	13.46	14.15	14.80	15.41	15.97	16.49	16.94	17.34
140	-	-	14.54	15.34	16.09	16.80	17.45	18.04	18.57
150	-	-	-	-	16.60	17.47	18.28	19.04	19.72

Mass flow in lbs/h

100	320	423	482	547	618	695	779	870	969
110	306	407	465	529	598	673	755	844	941
120	-	390	446	508	576	649	729	816	910
130	-	370	425	486	551	623	701	785	876
140	-	-	401	460	524	594	669	751	840
150	-	-	-	-	494	562	635	714	800

Energy Efficiency Ratio (E.E.R.)

100	8.19	9.98	11.03	12.19	13.47	14.89	16.46	18.19	20.10
110	7.10	8.58	9.45	10.40	11.45	12.61	13.90	15.31	16.87
120	-	7.39	8.10	8.88	9.74	10.68	11.73	12.87	14.14
130	-	6.37	6.95	7.58	8.28	9.04	9.89	10.82	11.84
140	-	-	5.95	6.46	7.02	7.64	8.32	9.07	9.90
150	-	-	-	-	5.93	6.43	6.98	7.58	8.25

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

Cooling capacity	48 191	Btu/h	Current consumption	16.49	A
Power input	4 873	W	Mass flow	701	lbs/h
E.E.R.	9.89				

Pressure switch settings

Maximum HP switch setting	426	psi(g)
Minimum LP switch setting	20	psi(g)
LP pump down setting	25	psi(g)

T 0 : Evaporating temperature at dew point

T C : Condensing temperature at dew point

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

Tolerance according EN12900

Sound power data

Sound power level	87	dB(A)
With acoustic hood	80	dB(A)

Datasheet, performance data
Maneurop reciprocating compressor. MTZ050-3
Performance data at 60 Hz, ARI rating conditions
R407F

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	-	14 364	21 100	29 517	39 846	52 316	67 153	75 532	84 588
100	-	12 170	18 195	25 732	35 013	46 264	59 716	67 338	75 596
110	-	10 389	15 829	22 612	30 969	41 129	53 320	60 249	67 772
120	-	-	13 903	20 058	27 617	36 811	47 867	54 166	61 016
130	-	-	-	17 971	24 859	33 212	43 260	48 991	55 231
140	-	-	-	-	-	-	-	-	-

Power input in W

90	-	2 352	2 718	3 042	3 316	3 534	3 687	3 737	3 768
100	-	2 367	2 779	3 154	3 484	3 763	3 983	4 068	4 135
110	-	2 391	2 847	3 272	3 657	3 996	4 281	4 400	4 503
120	-	-	2 936	3 408	3 847	4 244	4 592	4 746	4 884
130	-	-	-	3 577	4 067	4 521	4 932	5 118	5 290
140	-	-	-	-	-	-	-	-	-

Current consumption in A

90	-	9.10	9.85	10.56	11.18	11.67	12.00	12.09	12.12
100	-	9.24	10.04	10.82	11.54	12.16	12.65	12.83	12.96
110	-	9.32	10.18	11.05	11.89	12.67	13.34	13.62	13.86
120	-	-	10.31	11.29	12.28	13.22	14.09	14.48	14.84
130	-	-	-	11.60	12.74	13.87	14.96	15.47	15.95
140	-	-	-	-	-	-	-	-	-

Mass flow in lbs/h

90	-	194	280	385	511	661	837	935	1 041
100	-	173	254	353	473	615	782	875	976
110	-	157	234	329	442	578	737	826	923
120	-	-	219	310	420	549	702	788	881
130	-	-	-	298	404	530	678	761	850
140	-	-	-	-	-	-	-	-	-

Energy Efficiency Ratio (E.E.R.)

90	-	6.11	7.76	9.70	12.02	14.80	18.21	20.21	22.45
100	-	5.14	6.55	8.16	10.05	12.29	14.99	16.55	18.28
110	-	4.35	5.56	6.91	8.47	10.29	12.46	13.69	15.05
120	-	-	4.74	5.89	7.18	8.67	10.42	11.41	12.49
130	-	-	-	5.02	6.11	7.35	8.77	9.57	10.44
140	-	-	-	-	-	-	-	-	-

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

Cooling capacity	27 617	Btu/h	Current consumption	12.28	A
Power input	3 847	W	Mass flow	420	lbs/h
E.E.R.	7.18				

Pressure switch settings

Maximum HP switch setting	348	psi(g)
Minimum LP switch setting	15	psi(g)
LP pump down setting	18	psi(g)

T 0 : Evaporating temperature at dew point

T C : Condensing temperature at dew point

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

Tolerance according EN12900

Sound power data

Sound power level	85	dB(A)
With acoustic hood	78	dB(A)

Datasheet, performance data
Maneurop reciprocating compressor. MTZ050-3
Performance data at 60 Hz, ARI rating conditions
R448A

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

Cooling capacity in Btu/h

50	13 554	19 446	27 209	37 088	-	-	-	-	-
60	12 569	18 195	25 566	34 928	46 523	-	-	-	-
70	11 498	16 850	23 820	32 654	43 596	56 891	-	-	-
80	10 353	15 420	21 980	30 277	40 557	53 064	68 041	-	-
100	7 879	12 350	18 061	25 258	34 185	45 087	58 209	65 678	73 794
120	-	9 069	13 894	19 952	27 489	36 750	47 979	54 408	61 421
140	-	-	-	-	20 555	28 137	37 436	42 806	48 697

Power input in W

50	1 621	1 802	1 916	1 944	-	-	-	-	-
60	1 731	1 971	2 152	2 256	2 267	-	-	-	-
70	1 819	2 117	2 364	2 543	2 638	2 633	-	-	-
80	1 884	2 237	2 549	2 802	2 980	3 066	3 043	-	-
100	1 930	2 390	2 827	3 223	3 562	3 827	4 002	4 050	4 069
120	-	2 407	2 964	3 497	3 992	4 431	4 797	4 948	5 074
140	-	-	-	-	4 248	4 855	5 407	5 657	5 887

Current consumption in A

50	7.59	8.15	8.58	8.83	-	-	-	-	-
60	8.25	8.82	9.30	9.63	9.74	-	-	-	-
70	8.78	9.35	9.88	10.30	10.54	10.53	-	-	-
80	9.16	9.76	10.35	10.86	11.23	11.40	11.29	-	-
100	9.58	10.24	10.96	11.69	12.35	12.88	13.21	13.28	13.28
120	-	10.33	11.22	12.18	13.15	14.07	14.87	15.20	15.48
140	-	-	-	-	13.72	15.06	16.35	16.96	17.53

Mass flow in lbs/h

50	170	239	326	435	-	-	-	-	-
60	163	232	319	427	558	-	-	-	-
70	156	225	311	417	546	702	-	-	-
80	147	216	301	406	533	686	868	-	-
100	126	193	276	378	500	648	822	921	1 027
120	-	162	243	340	458	599	767	861	963
140	-	-	-	-	404	539	698	788	886

Energy Efficiency Ratio (E.E.R.)

50	8.36	10.79	14.20	19.08	-	-	-	-	-
60	7.26	9.23	11.88	15.48	20.52	-	-	-	-
70	6.32	7.96	10.08	12.84	16.52	21.61	-	-	-
80	5.49	6.89	8.62	10.81	13.61	17.31	22.36	-	-
100	4.08	5.17	6.39	7.84	9.60	11.78	14.54	16.22	18.14
120	-	3.77	4.69	5.70	6.89	8.29	10.00	11.00	12.11
140	-	-	-	-	4.84	5.80	6.92	7.57	8.27

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

Cooling capacity	27 489	Btu/h	Current consumption	13.15	A
Power input	3 992	W	Mass flow	458	lbs/h
E.E.R.	6.89				

Pressure switch settings

Maximum HP switch setting	402	psi(g)
Minimum LP switch setting	15	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 = 0 °F

Tolerance according EN12900

Sound power data

Sound power level	86	dB(A)
With acoustic hood	80	dB(A)

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Datasheet, performance data
Maneurop reciprocating compressor. MTZ050-3
Performance data at 60 Hz, ARI rating conditions
R449A

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

Cooling capacity in Btu/h

50	13 555	19 447	27 210	37 090	-	-	-	-	-
60	12 570	18 196	25 568	34 930	46 526	-	-	-	-
70	11 499	16 851	23 822	32 656	43 599	56 895	-	-	-
80	10 354	15 421	21 982	30 280	40 560	53 068	68 046	-	-
100	7 880	12 351	18 063	25 260	34 188	45 091	58 214	65 684	73 800
120	-	9 070	13 896	19 955	27 493	36 754	47 984	54 414	61 427
140	-	-	-	-	20 558	28 141	37 441	42 811	48 703

Power input in W

50	1 621	1 802	1 916	1 944	-	-	-	-	-
60	1 731	1 971	2 152	2 256	2 267	-	-	-	-
70	1 819	2 117	2 364	2 543	2 638	2 633	-	-	-
80	1 884	2 237	2 549	2 802	2 980	3 066	3 043	-	-
100	1 930	2 390	2 827	3 223	3 562	3 827	4 002	4 050	4 069
120	-	2 407	2 964	3 497	3 992	4 431	4 797	4 948	5 074
140	-	-	-	-	4 248	4 855	5 407	5 657	5 887

Current consumption in A

50	7.59	8.15	8.58	8.83	-	-	-	-	-
60	8.25	8.82	9.30	9.63	9.74	-	-	-	-
70	8.78	9.35	9.88	10.30	10.54	10.53	-	-	-
80	9.16	9.76	10.35	10.86	11.23	11.40	11.29	-	-
100	9.58	10.24	10.96	11.69	12.35	12.88	13.21	13.28	13.28
120	-	10.33	11.22	12.18	13.15	14.07	14.87	15.20	15.48
140	-	-	-	-	13.72	15.06	16.35	16.96	17.53

Mass flow in lbs/h

50	172	245	336	448	-	-	-	-	-
60	165	237	327	438	572	-	-	-	-
70	157	229	318	427	559	717	-	-	-
80	149	220	307	414	544	700	884	-	-
100	128	197	282	386	511	661	838	938	1 046
120	-	166	248	348	469	612	783	879	983
140	-	-	-	-	414	552	715	807	907

Energy Efficiency Ratio (E.E.R.)

50	8.36	10.79	14.20	19.08	-	-	-	-	-
60	7.26	9.23	11.88	15.48	20.52	-	-	-	-
70	6.32	7.96	10.08	12.84	16.52	21.61	-	-	-
80	5.50	6.89	8.63	10.81	13.61	17.31	22.36	-	-
100	4.08	5.17	6.39	7.84	9.60	11.78	14.55	16.22	18.14
120	-	3.77	4.69	5.71	6.89	8.29	10.00	11.00	12.11
140	-	-	-	-	4.84	5.80	6.92	7.57	8.27

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

Cooling capacity	27 493	Btu/h	Current consumption	13.15	A
Power input	3 992	W	Mass flow	469	lbs/h
E.E.R.	6.89				

Pressure switch settings

Maximum HP switch setting	402	psi(g)
Minimum LP switch setting	15	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 = 0 °F

Tolerance according EN12900

Sound power data

Sound power level	86	dB(A)
With acoustic hood	80	dB(A)

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Datasheet, performance data
Maneurop reciprocating compressor. MTZ050-3
Performance data at 60 Hz, ARI rating conditions
R452A

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

Cooling capacity in Btu/h

50	15 985	22 024	29 902	39 828	-	-	-	-	-
60	14 902	20 766	28 345	37 848	49 486	-	-	-	-
70	13 682	19 331	26 572	35 614	46 667	59 940	-	-	-
80	12 347	17 743	24 606	33 147	43 575	56 100	70 930	-	-
100	9 418	14 189	20 179	27 600	36 661	47 571	60 540	67 862	75 777
120	6 286	10 276	15 236	21 379	28 915	38 054	49 005	55 226	61 979
140	-	-	-	14 657	20 511	27 722	36 499	41 541	47 053

Power input in W

50	2 182	2 481	2 748	2 988	-	-	-	-	-
60	2 192	2 510	2 791	3 039	3 258	-	-	-	-
70	2 214	2 562	2 868	3 135	3 367	3 568	-	-	-
80	2 238	2 627	2 967	3 264	3 520	3 738	3 923	-	-
100	2 250	2 750	3 192	3 578	3 912	4 198	4 439	4 544	4 639
120	2 140	2 794	3 378	3 896	4 350	4 745	5 084	5 234	5 370
140	-	-	-	4 130	4 746	5 292	5 770	5 985	6 185

Current consumption in A

50	8.15	9.24	10.28	11.31	-	-	-	-	-
60	8.65	9.60	10.49	11.35	12.22	-	-	-	-
70	9.11	9.98	10.77	11.51	12.25	13.02	-	-	-
80	9.50	10.34	11.08	11.76	12.42	13.09	13.81	-	-
100	9.94	10.88	11.69	12.40	13.06	13.70	14.36	14.71	15.07
120	9.72	10.97	12.06	13.02	13.90	14.73	15.53	15.94	16.36
140	-	-	-	13.38	14.69	15.91	17.08	17.66	18.24

Mass flow in lbs/h

50	256	346	458	595	-	-	-	-	-
60	250	343	456	593	757	-	-	-	-
70	243	337	451	588	752	945	-	-	-
80	233	328	443	580	743	935	1 159	-	-
100	206	301	416	551	712	900	1 119	1 241	1 371
120	165	260	372	505	662	845	1 057	1 175	1 302
140	-	-	-	438	589	765	970	1 084	1 205

Energy Efficiency Ratio (E.E.R.)

50	7.32	8.88	10.88	13.33	-	-	-	-	-
60	6.80	8.27	10.16	12.45	15.19	-	-	-	-
70	6.18	7.55	9.27	11.36	13.86	16.80	-	-	-
80	5.52	6.76	8.29	10.16	12.38	15.01	18.08	-	-
100	4.19	5.16	6.32	7.71	9.37	11.33	13.64	14.93	16.34
120	2.94	3.68	4.51	5.49	6.65	8.02	9.64	10.55	11.54
140	-	-	-	3.55	4.32	5.24	6.33	6.94	7.61

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

Cooling capacity	28 915	Btu/h	Current consumption	13.90	A
Power input	4 350	W	Mass flow	662	lbs/h
E.E.R.	6.65				

Pressure switch settings

Maximum HP switch setting	402	psi(g)
Minimum LP switch setting	15	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 = 0 °F

Tolerance according EN12900

Sound power data

Sound power level	86	dB(A)
With acoustic hood	80	dB(A)

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Datasheet, performance data
Maneurop reciprocating compressor. MTZ050-3
Performance data at 60 Hz, ARI rating conditions
R513A

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

Cooling capacity in Btu/h

50	-	13 200	18 175	24 617	32 716	42 665	-	-	-
60	-	11 917	16 539	22 528	30 076	39 374	50 612	-	-
70	-	10 719	15 002	20 552	27 562	36 222	46 723	52 724	-
80	-	9 599	13 555	18 680	25 164	33 200	42 977	48 579	54 687
100	-	7 553	10 897	15 209	20 683	27 509	35 878	40 701	45 981
120	-	5 707	8 491	12 045	16 561	22 229	29 243	33 314	37 793
140	-	-	-	-	12 725	17 290	23 001	26 346	30 050

Power input in W

50	-	1 434	1 555	1 652	1 712	1 727	-	-	-
60	-	1 472	1 609	1 723	1 802	1 837	1 818	-	-
70	-	1 524	1 683	1 819	1 922	1 982	1 989	1 970	-
80	-	1 580	1 765	1 929	2 061	2 152	2 191	2 188	2 168
100	-	1 662	1 916	2 152	2 358	2 526	2 645	2 682	2 703
120	-	1 640	1 984	2 311	2 613	2 879	3 098	3 187	3 260
140	-	-	-	-	2 746	3 130	3 471	3 621	3 757

Current consumption in A

50	-	9.27	9.47	9.64	9.73	9.68	-	-	-
60	-	9.27	9.50	9.72	9.87	9.92	9.79	-	-
70	-	9.30	9.56	9.84	10.06	10.19	10.18	10.10	-
80	-	9.35	9.65	9.98	10.28	10.51	10.60	10.58	10.51
100	-	9.49	9.88	10.32	10.78	11.19	11.51	11.62	11.69
120	-	9.62	10.10	10.67	11.28	11.89	12.45	12.69	12.89
140	-	-	-	-	11.72	12.54	13.34	13.71	14.06

Mass flow in lbs/h

50	-	190	257	340	440	561	-	-	-
60	-	180	245	325	423	540	680	-	-
70	-	171	234	312	406	521	656	733	-
80	-	162	223	299	391	502	634	708	789
100	-	145	203	274	361	465	590	661	738
120	-	128	183	250	332	431	550	617	690
140	-	-	-	-	304	398	510	574	643

Energy Efficiency Ratio (E.E.R.)

50	-	9.21	11.69	14.91	19.11	24.70	-	-	-
60	-	8.10	10.28	13.08	16.69	21.43	27.84	-	-
70	-	7.03	8.92	11.30	14.34	18.27	23.49	26.77	-
80	-	6.08	7.68	9.68	12.21	15.43	19.62	22.20	25.23
100	-	4.54	5.69	7.07	8.77	10.89	13.57	15.18	17.01
120	-	3.48	4.28	5.21	6.34	7.72	9.44	10.45	11.59
140	-	-	-	-	4.63	5.52	6.63	7.28	8.00

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

Cooling capacity	16 561	Btu/h	Current consumption	11.28	A
Power input	2 613	W	Mass flow	332	lbs/h
E.E.R.	6.34				

Pressure switch settings

Maximum HP switch setting	402	psi(g)
Minimum LP switch setting	15	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 = 0 °F

Tolerance according EN12900

Sound power data

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

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