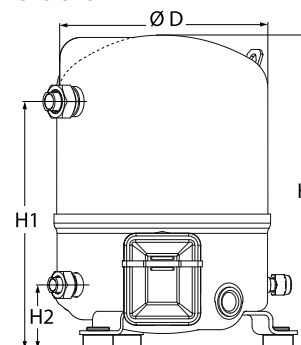


General Characteristics

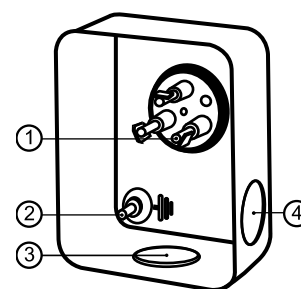
Model number (on compressor nameplate)		MTZ22JC1BVE
Code number for Singlepack*		MTZ22-1VI
Code number for Industrial pack**		MTZ22-1VM
Drawing number		8501022e
Suction and discharge connections		Rotolock
Suction connection		1-1/4" Rotolock
Discharge connection		1" Rotolock
Suction connection with supplied 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		None
Cylinders		1
Swept volume		2.33 in ³ /rev
Displacement @ Nominal speed		283 cfh @ 3500 rpm
Net weight		46 lbs
Oil charge		32 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		6 lbs
Approved refrigerants		R404A, R134a, R407A/C/F, R448A, R449A, R452A, R513A

Dimensions



D=8.8 inch, H=13.1 inch,
H1=10.4 inch, H2=2.7 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	208-230V/1/60Hz
Voltage range	187-253 V
Winding resistance (main / start) at 25°C	1.2 Ω / 2.31 Ω
Run capacitors A + C	30 uF + 15 uF
Start capacitor B	100 uF
Start relay	RVA-6AMKL
Maximum Continuous Current (MCC)	17 A
Locked Rotor Amps (LRA)	49.3 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: 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
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
Rotolock valve, V06 (1" Rotolock, 1/2" ODF)	8168031
Gasket, 1"	8156130

Rotolock accessories, sets
Code no.

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

Crankcase heaters
Code no.

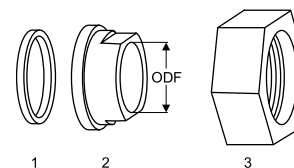
PTC heater 27W, CE mark, UL	120Z0459
Belt type crankcase heater, 54 W, 230 V, CE mark, UL	7773106

Miscellaneous accessories
Code no.

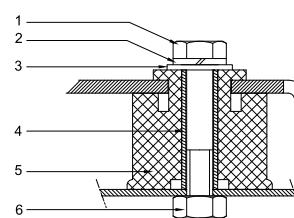
PSC starting kit, 30 µF, 15 µF	7701035
CSR starting kit, 30 µF, 15 µF, 98 µF	7701038
CSR starting kit, prewired box, 30 µF, 15 µF, 98 µF	7701147
Acoustic hood for 1 cylinder compressor	120Z0575
Oil equalisation nut	8153127

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

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	2 739	4 299	6 333	8 932	12 187	16 188	21 026	26 791	30 049
110	2 290	3 756	5 644	8 047	11 057	14 763	19 258	24 630	27 674
120	1 824	3 194	4 936	7 143	9 905	13 316	17 465	22 445	25 274
130	-	-	4 220	6 228	8 743	11 856	15 659	20 244	22 858
140	-	-	-	5 313	7 578	10 393	13 850	18 040	20 438
150	-	-	-	-	-	8 937	12 045	15 840	18 023
160	-	-	-	-	-	-	10 256	13 654	15 622
165	-	-	-	-	-	-	9 370	12 570	14 431

Power input in W

100	677	801	921	1 033	1 128	1 202	1 248	1 260	1 251
110	688	820	951	1 076	1 188	1 281	1 349	1 386	1 391
120	685	826	970	1 110	1 241	1 355	1 448	1 512	1 531
130	-	-	977	1 135	1 286	1 423	1 542	1 635	1 671
140	-	-	-	1 150	1 322	1 485	1 632	1 756	1 808
150	-	-	-	-	-	1 540	1 717	1 874	1 943
160	-	-	-	-	-	-	1 795	1 987	2 075
165	-	-	-	-	-	-	1 831	2 042	2 139

Current consumption in A

100	6.17	6.37	6.58	6.78	6.96	7.14	7.29	7.42	7.47
110	6.18	6.40	6.63	6.86	7.09	7.32	7.52	7.71	7.80
120	6.16	6.41	6.67	6.94	7.22	7.49	7.76	8.01	8.13
130	-	-	6.69	7.00	7.33	7.66	7.99	8.32	8.48
140	-	-	-	7.05	7.44	7.83	8.23	8.63	8.83
150	-	-	-	-	-	7.99	8.47	8.95	9.20
160	-	-	-	-	-	-	8.70	9.27	9.56
165	-	-	-	-	-	-	8.82	9.44	9.75

Mass flow in lbs/h

100	42	65	93	128	170	221	281	353	392
110	37	59	87	121	162	212	271	340	378
120	31	53	81	114	154	202	259	326	363
130	-	-	73	105	144	190	245	310	346
140	-	-	-	95	133	177	230	293	328
150	-	-	-	-	-	163	214	274	308
160	-	-	-	-	-	-	196	253	286
165	-	-	-	-	-	-	186	242	274

Energy Efficiency Ratio (E.E.R.)

100	4.05	5.37	6.87	8.65	10.80	13.47	16.85	21.27	24.02
110	3.33	4.58	5.93	7.48	9.31	11.52	14.27	17.77	19.89
120	2.66	3.87	5.09	6.43	7.98	9.83	12.07	14.85	16.50
130	-	-	4.32	5.49	6.80	8.33	10.15	12.38	13.68
140	-	-	-	4.62	5.73	7.00	8.49	10.27	11.30
150	-	-	-	-	-	5.80	7.02	8.45	9.27
160	-	-	-	-	-	-	5.71	6.87	7.53
165	-	-	-	-	-	-	5.12	6.16	6.75

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

Cooling capacity	13 666	Btu/h	Current consumption	7.83	A
Power input	1 486	W	Mass flow	217	lbs/h
E.E.R.	9.20				

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. MTZ022-1
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	4 632	6 797	9 525	12 902	17 013	21 945	27 784	31 070	34 615
100	4 027	6 074	8 635	11 795	15 641	20 259	25 735	28 821	32 154
110	3 353	5 247	7 606	10 516	14 062	18 331	23 409	26 278	29 381
120	2 641	4 347	6 470	9 094	12 306	16 191	20 837	23 471	26 327
130	-	3 406	5 257	7 561	10 403	13 871	18 049	20 431	23 024
140	-	2 452	3 997	5 946	8 385	11 400	15 076	17 190	19 500

Power input in W

90	1 117	1 293	1 449	1 584	1 700	1 795	1 870	1 900	1 925
100	1 136	1 339	1 522	1 684	1 826	1 947	2 048	2 091	2 128
110	1 132	1 366	1 579	1 772	1 943	2 094	2 223	2 280	2 332
120	1 102	1 370	1 616	1 842	2 046	2 229	2 391	2 464	2 532
130	-	1 346	1 629	1 891	2 131	2 350	2 548	2 638	2 723
140	-	1 289	1 612	1 914	2 194	2 452	2 688	2 797	2 901

Current consumption in A

90	6.87	7.32	7.78	8.21	8.60	8.93	9.16	9.24	9.28
100	6.93	7.46	7.99	8.51	8.98	9.40	9.72	9.84	9.93
110	6.92	7.55	8.18	8.80	9.38	9.90	10.33	10.50	10.65
120	6.82	7.56	8.31	9.05	9.75	10.39	10.95	11.19	11.40
130	-	7.44	8.33	9.20	10.04	10.83	11.53	11.85	12.13
140	-	7.15	8.19	9.23	10.23	11.18	12.05	12.45	12.82

Mass flow in lbs/h

90	96	137	186	245	314	395	489	541	597
100	91	133	183	242	311	393	487	539	595
110	83	125	175	235	304	385	479	531	587
120	73	115	165	224	293	374	467	518	574
130	-	102	151	209	277	357	449	500	554
140	-	86	134	191	257	335	425	476	529

Energy Efficiency Ratio (E.E.R.)

90	4.15	5.26	6.57	8.14	10.01	12.22	14.85	16.35	17.98
100	3.55	4.54	5.67	7.00	8.57	10.40	12.56	13.78	15.11
110	2.96	3.84	4.82	5.94	7.24	8.76	10.53	11.52	12.60
120	2.40	3.17	4.00	4.94	6.01	7.26	8.71	9.52	10.40
130	-	2.53	3.23	4.00	4.88	5.90	7.08	7.75	8.46
140	-	1.90	2.48	3.11	3.82	4.65	5.61	6.15	6.72

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

Cooling capacity	12 306	Btu/h	Current consumption	9.75	A
Power input	2 046	W	Mass flow	293	lbs/h
E.E.R.	6.01				

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	77	dB(A)
With acoustic hood	71	dB(A)

Datasheet, performance data
Maneurop reciprocating compressor. MTZ022-1
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	3 358	5 393	8 031	11 356	15 451	20 401	26 287	29 608	33 194
100	2 765	4 631	7 063	10 145	13 959	18 590	24 120	27 249	30 633
110	2 194	3 876	6 085	8 906	12 423	16 718	21 875	24 803	27 978
120	-	3 149	5 119	7 664	10 866	14 809	19 577	22 296	25 253
130	-	-	4 191	6 441	9 312	12 887	17 249	19 751	22 482
140	-	-	-	5 264	7 787	10 976	14 915	17 192	19 688

Power input in W

90	866	1 051	1 222	1 374	1 501	1 597	1 655	1 668	1 670
100	844	1 048	1 243	1 423	1 583	1 715	1 814	1 849	1 873
110	808	1 034	1 255	1 465	1 658	1 829	1 970	2 028	2 076
120	-	1 007	1 256	1 498	1 727	1 938	2 123	2 205	2 278
130	-	-	1 244	1 520	1 787	2 040	2 272	2 378	2 478
140	-	-	-	1 531	1 838	2 134	2 414	2 546	2 672

Current consumption in A

90	6.81	7.23	7.65	8.05	8.41	8.70	8.89	8.95	8.98
100	6.84	7.27	7.72	8.17	8.60	8.97	9.28	9.40	9.49
110	6.82	7.29	7.80	8.32	8.84	9.32	9.75	9.94	10.11
120	-	7.25	7.84	8.46	9.09	9.71	10.29	10.55	10.81
130	-	-	7.82	8.55	9.32	10.09	10.84	11.21	11.55
140	-	-	-	8.57	9.50	10.45	11.39	11.86	12.32

Mass flow in lbs/h

90	52	82	120	166	221	287	363	406	452
100	46	75	112	157	211	276	352	395	440
110	39	67	103	147	200	264	339	381	426
120	-	58	93	135	187	250	324	365	410
130	-	-	82	123	173	234	306	347	391
140	-	-	-	110	158	217	288	327	370

Energy Efficiency Ratio (E.E.R.)

90	3.88	5.13	6.57	8.26	10.29	12.78	15.88	17.75	19.88
100	3.28	4.42	5.68	7.13	8.82	10.84	13.30	14.74	16.35
110	2.71	3.75	4.85	6.08	7.49	9.14	11.10	12.23	13.47
120	-	3.13	4.08	5.12	6.29	7.64	9.22	10.11	11.08
130	-	-	3.37	4.24	5.21	6.32	7.59	8.30	9.07
140	-	-	-	3.44	4.24	5.14	6.18	6.75	7.37

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

Cooling capacity	10 866	Btu/h	Current consumption	9.09	A
Power input	1 727	W	Mass flow	187	lbs/h
E.E.R.	6.29				

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	76	dB(A)
With acoustic hood	70	dB(A)

Datasheet, performance data
Maneurop reciprocating compressor. MTZ022-1
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	10 709	14 623	16 879	19 351	22 054	25 000	28 203	31 675	35 431
110	9 758	13 400	15 485	17 763	20 248	22 954	25 892	29 077	32 522
120	-	12 183	14 107	16 202	18 480	20 954	23 639	26 547	29 692
130	-	10 960	12 734	14 655	16 736	18 991	21 432	24 073	26 927
140	-	-	11 356	13 113	15 008	17 052	19 260	21 645	24 219
150	-	-	-	-	13 282	15 127	17 112	19 250	21 554

Power input in W

100	1 347	1 497	1 562	1 620	1 673	1 720	1 762	1 801	1 835
110	1 416	1 599	1 677	1 749	1 813	1 871	1 922	1 969	2 011
120	-	1 694	1 790	1 877	1 957	2 028	2 093	2 150	2 202
130	-	1 772	1 889	1 996	2 093	2 182	2 262	2 335	2 400
140	-	-	1 964	2 093	2 213	2 322	2 421	2 511	2 594
150	-	-	-	-	2 304	2 436	2 558	2 670	2 772

Current consumption in A

100	7.34	7.77	7.97	8.14	8.31	8.46	8.59	8.71	8.81
110	7.56	8.08	8.32	8.55	8.76	8.95	9.12	9.28	9.41
120	-	8.39	8.68	8.96	9.22	9.47	9.69	9.90	10.08
130	-	8.65	9.02	9.36	9.68	9.99	10.27	10.54	10.78
140	-	-	9.29	9.71	10.10	10.48	10.84	11.17	11.48
150	-	-	-	-	10.46	10.92	11.35	11.76	12.15

Mass flow in lbs/h

100	141	189	216	246	278	313	350	390	433
110	135	182	209	237	268	301	337	376	417
120	-	175	201	228	258	290	325	361	401
130	-	167	192	219	248	279	312	347	385
140	-	-	183	209	237	267	298	332	368
150	-	-	-	-	225	254	284	317	351

Energy Efficiency Ratio (E.E.R.)

100	7.95	9.77	10.81	11.94	13.19	14.54	16.00	17.59	19.30
110	6.89	8.38	9.23	10.16	11.17	12.27	13.47	14.77	16.18
120	-	7.19	7.88	8.63	9.44	10.33	11.30	12.35	13.48
130	-	6.19	6.74	7.34	8.00	8.70	9.47	10.31	11.22
140	-	-	5.78	6.26	6.78	7.35	7.96	8.62	9.34
150	-	-	-	-	5.77	6.21	6.69	7.21	7.78

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

Cooling capacity	21 432	Btu/h	Current consumption	10.27	A
Power input	2 262	W	Mass flow	312	lbs/h
E.E.R.	9.47				

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	76	dB(A)
With acoustic hood	70	dB(A)

Datasheet, performance data
Maneurop reciprocating compressor. MTZ022-1
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	-	5 787	8 699	12 372	16 908	22 412	28 983	32 702	36 726
100	-	4 868	7 481	10 790	14 898	19 907	25 919	29 333	33 037
110	-	4 105	6 456	9 438	13 153	17 704	23 194	26 323	29 725
120	-	-	5 598	8 289	11 648	15 779	20 782	23 644	26 762
130	-	-	-	7 316	10 357	14 103	18 658	21 270	24 123
140	-	-	-	-	-	-	-	-	-

Power input in W

90	-	1 120	1 292	1 446	1 572	1 660	1 702	1 702	1 687
100	-	1 124	1 318	1 501	1 664	1 798	1 892	1 921	1 936
110	-	1 130	1 342	1 552	1 748	1 923	2 066	2 122	2 167
120	-	-	1 373	1 605	1 832	2 045	2 233	2 315	2 387
130	-	-	-	1 670	1 924	2 171	2 401	2 507	2 604
140	-	-	-	-	-	-	-	-	-

Current consumption in A

90	-	7.30	7.76	8.20	8.59	8.88	9.04	9.06	9.04
100	-	7.39	7.88	8.38	8.84	9.23	9.51	9.61	9.66
110	-	7.42	7.97	8.54	9.10	9.61	10.04	10.22	10.36
120	-	-	8.04	8.71	9.39	10.05	10.65	10.92	11.17
130	-	-	-	8.91	9.74	10.57	11.37	11.74	12.10
140	-	-	-	-	-	-	-	-	-

Mass flow in lbs/h

90	-	78	115	161	217	283	361	405	452
100	-	69	105	148	201	265	339	381	427
110	-	62	96	137	188	249	321	361	405
120	-	-	88	128	177	235	305	344	386
130	-	-	-	121	168	225	292	330	371
140	-	-	-	-	-	-	-	-	-

Energy Efficiency Ratio (E.E.R.)

90	-	5.17	6.73	8.56	10.76	13.50	17.03	19.21	21.77
100	-	4.33	5.68	7.19	8.95	11.07	13.70	15.27	17.06
110	-	3.63	4.81	6.08	7.52	9.21	11.23	12.40	13.72
120	-	-	4.08	5.16	6.36	7.72	9.31	10.21	11.21
130	-	-	-	4.38	5.38	6.50	7.77	8.49	9.26
140	-	-	-	-	-	-	-	-	-

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

Cooling capacity	11 648	Btu/h	Current consumption	9.39	A
Power input	1 832	W	Mass flow	177	lbs/h
E.E.R.	6.36				

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	76	dB(A)
With acoustic hood	70	dB(A)

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	5 855	8 794	12 575	17 285	-	-	-	-	-
60	5 404	8 252	11 889	16 401	21 877	-	-	-	-
70	4 834	7 583	11 067	15 373	20 590	26 805	-	-	-
80	4 162	6 803	10 126	14 219	19 168	25 062	31 987	-	-
100	2 583	4 985	7 961	11 601	15 990	21 217	27 370	30 821	34 536
120	-	2 938	5 535	8 688	12 484	17 012	22 359	25 368	28 613
140	-	-	-	-	8 792	12 587	17 096	19 645	22 405

Power input in W

50	1 088	1 217	1 296	1 319	-	-	-	-	-
60	1 059	1 217	1 331	1 391	1 388	-	-	-	-
70	1 027	1 214	1 361	1 458	1 498	1 470	-	-	-
80	986	1 203	1 383	1 519	1 600	1 618	1 565	-	-
100	871	1 147	1 394	1 606	1 771	1 882	1 929	1 925	1 903
120	-	1 023	1 338	1 625	1 875	2 078	2 226	2 277	2 310
140	-	-	-	-	1 887	2 183	2 432	2 537	2 626

Current consumption in A

50	5.34	5.98	6.40	6.61	-	-	-	-	-
60	5.02	5.72	6.23	6.54	6.61	-	-	-	-
70	4.79	5.57	6.18	6.59	6.78	6.75	-	-	-
80	4.62	5.49	6.20	6.72	7.05	7.17	7.04	-	-
100	4.25	5.33	6.28	7.08	7.71	8.15	8.39	8.42	8.39
120	-	4.91	6.15	7.26	8.24	9.06	9.70	9.94	10.14
140	-	-	-	-	8.30	9.54	10.62	11.10	11.54

Mass flow in lbs/h

50	78	113	156	210	-	-	-	-	-
60	73	108	151	204	267	-	-	-	-
70	67	102	145	198	260	334	-	-	-
80	60	95	139	191	253	325	409	-	-
100	41	78	122	173	234	305	387	432	481
120	-	53	97	148	208	277	357	401	449
140	-	-	-	-	173	241	319	362	408

Energy Efficiency Ratio (E.E.R.)

50	5.38	7.23	9.70	13.11	-	-	-	-	-
60	5.10	6.78	8.93	11.80	15.76	-	-	-	-
70	4.71	6.25	8.13	10.54	13.75	18.24	-	-	-
80	4.22	5.66	7.32	9.36	11.98	15.49	20.44	-	-
100	2.97	4.35	5.71	7.23	9.03	11.28	14.19	16.01	18.15
120	-	2.87	4.14	5.35	6.66	8.19	10.04	11.14	12.39
140	-	-	-	-	4.66	5.77	7.03	7.74	8.53

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

Cooling capacity	12 484	Btu/h	Current consumption	8.24	A
Power input	1 875	W	Mass flow	208	lbs/h
E.E.R.	6.66				

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	77	dB(A)
With acoustic hood	71	dB(A)

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Datasheet, performance data
Maneurop reciprocating compressor. MTZ022-1
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	5 855	8 795	12 576	17 286	-	-	-	-	-
60	5 405	8 253	11 890	16 402	21 879	-	-	-	-
70	4 834	7 583	11 068	15 374	20 592	26 806	-	-	-
80	4 162	6 804	10 127	14 220	19 170	25 064	31 989	-	-
100	2 583	4 985	7 962	11 602	15 992	21 219	27 373	30 823	34 538
120	-	2 938	5 536	8 689	12 486	17 014	22 362	25 370	28 616
140	-	-	-	-	8 793	12 589	17 098	19 647	22 408

Power input in W

50	1 088	1 217	1 296	1 319	-	-	-	-	-
60	1 059	1 217	1 331	1 391	1 388	-	-	-	-
70	1 027	1 214	1 361	1 458	1 498	1 470	-	-	-
80	986	1 203	1 383	1 519	1 600	1 618	1 565	-	-
100	871	1 147	1 394	1 606	1 771	1 882	1 929	1 925	1 903
120	-	1 023	1 338	1 625	1 875	2 078	2 226	2 277	2 310
140	-	-	-	-	1 887	2 183	2 432	2 537	2 626

Current consumption in A

50	5.34	5.98	6.40	6.61	-	-	-	-	-
60	5.02	5.72	6.23	6.54	6.61	-	-	-	-
70	4.79	5.57	6.18	6.59	6.78	6.75	-	-	-
80	4.62	5.49	6.20	6.72	7.05	7.17	7.04	-	-
100	4.25	5.33	6.28	7.08	7.71	8.15	8.39	8.42	8.39
120	-	4.91	6.15	7.26	8.24	9.06	9.70	9.94	10.14
140	-	-	-	-	8.30	9.54	10.62	11.10	11.54

Mass flow in lbs/h

50	77	112	156	209	-	-	-	-	-
60	73	108	152	205	269	-	-	-	-
70	67	103	147	201	264	338	-	-	-
80	61	97	141	194	257	330	416	-	-
100	42	80	124	177	239	311	394	440	489
120	-	54	99	152	213	284	365	410	458
140	-	-	-	-	177	247	326	370	417

Energy Efficiency Ratio (E.E.R.)

50	5.38	7.23	9.70	13.11	-	-	-	-	-
60	5.10	6.78	8.94	11.80	15.76	-	-	-	-
70	4.71	6.25	8.13	10.54	13.75	18.24	-	-	-
80	4.22	5.66	7.32	9.36	11.98	15.49	20.45	-	-
100	2.97	4.35	5.71	7.23	9.03	11.28	14.19	16.01	18.15
120	-	2.87	4.14	5.35	6.66	8.19	10.04	11.14	12.39
140	-	-	-	-	4.66	5.77	7.03	7.75	8.53

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

Cooling capacity	12 486	Btu/h	Current consumption	8.24	A
Power input	1 875	W	Mass flow	213	lbs/h
E.E.R.	6.66				

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	77	dB(A)
With acoustic hood	71	dB(A)

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Datasheet, performance data
Maneurop reciprocating compressor. MTZ022-1
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	6 765	9 758	13 578	18 310	-	-	-	-	-
60	6 198	9 113	12 801	17 344	22 827	-	-	-	-
70	5 528	8 347	11 882	16 217	21 435	27 621	-	-	-
80	4 780	7 481	10 843	14 950	19 884	25 730	32 570	-	-
100	3 134	5 541	8 497	12 086	16 392	21 497	27 486	30 838	34 442
120	1 439	3 472	5 942	8 933	12 530	16 815	21 872	24 717	27 786
140	-	-	-	5 670	8 477	11 862	15 908	18 206	20 700

Power input in W

50	1 115	1 211	1 271	1 299	-	-	-	-	-
60	1 139	1 262	1 347	1 397	1 417	-	-	-	-
70	1 153	1 305	1 418	1 493	1 537	1 551	-	-	-
80	1 153	1 338	1 480	1 585	1 654	1 693	1 703	-	-
100	1 095	1 355	1 568	1 738	1 869	1 965	2 029	2 050	2 065
120	938	1 284	1 579	1 827	2 032	2 198	2 327	2 379	2 424
140	-	-	-	1 824	2 115	2 361	2 568	2 657	2 738

Current consumption in A

50	5.41	6.16	6.70	7.02	-	-	-	-	-
60	5.33	6.05	6.57	6.90	7.04	-	-	-	-
70	5.39	6.08	6.61	6.96	7.15	7.18	-	-	-
80	5.53	6.22	6.76	7.15	7.41	7.52	7.51	-	-
100	5.81	6.52	7.14	7.67	8.11	8.45	8.72	8.82	8.90
120	5.66	6.48	7.25	7.97	8.65	9.29	9.89	10.18	10.46
140	-	-	-	7.55	8.54	9.54	10.55	11.06	11.58

Mass flow in lbs/h

50	112	157	212	278	-	-	-	-	-
60	106	152	208	274	353	-	-	-	-
70	99	146	202	269	347	438	-	-	-
80	91	139	195	262	340	430	533	-	-
100	69	118	175	241	318	407	508	564	623
120	38	88	145	211	287	373	472	526	583
140	-	-	-	169	243	327	423	475	531

Energy Efficiency Ratio (E.E.R.)

50	6.07	8.06	10.68	14.09	-	-	-	-	-
60	5.44	7.22	9.51	12.41	16.11	-	-	-	-
70	4.79	6.40	8.38	10.86	13.95	17.81	-	-	-
80	4.15	5.59	7.32	9.43	12.02	15.20	19.12	-	-
100	2.86	4.09	5.42	6.95	8.77	10.94	13.55	15.04	16.68
120	1.53	2.70	3.76	4.89	6.17	7.65	9.40	10.39	11.47
140	-	-	-	3.11	4.01	5.02	6.19	6.85	7.56

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

Cooling capacity	12 530	Btu/h	Current consumption	8.65	A
Power input	2 032	W	Mass flow	287	lbs/h
E.E.R.	6.17				

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	77	dB(A)
With acoustic hood	71	dB(A)

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Datasheet, performance data
Maneurop reciprocating compressor. MTZ022-1
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	-	6 074	8 523	11 653	15 538	20 252	-	-	-
60	-	5 416	7 718	10 669	14 342	18 812	24 150	-	-
70	-	4 794	6 940	9 703	13 157	17 374	22 427	25 291	-
80	-	4 216	6 198	8 765	11 990	15 946	20 707	23 412	26 345
100	-	3 228	4 856	7 004	9 747	13 156	17 305	19 680	22 268
120	-	2 519	3 760	5 456	7 681	10 509	14 013	16 041	18 266
140	-	-	-	-	5 860	8 073	10 897	12 562	14 406

Power input in W

50	-	708	765	796	798	767	-	-	-
60	-	728	803	856	883	878	839	-	-
70	-	742	835	908	957	979	968	949	-
80	-	754	863	954	1 024	1 069	1 085	1 080	1 067
100	-	772	908	1 032	1 140	1 227	1 291	1 313	1 327
120	-	795	952	1 101	1 240	1 365	1 471	1 516	1 554
140	-	-	-	-	1 339	1 494	1 636	1 700	1 760

Current consumption in A

50	-	4.31	4.35	4.42	4.47	4.44	-	-	-
60	-	4.68	4.77	4.90	5.02	5.07	5.01	-	-
70	-	4.93	5.07	5.25	5.43	5.56	5.59	5.55	-
80	-	5.09	5.26	5.50	5.74	5.95	6.06	6.06	6.03
100	-	5.23	5.47	5.79	6.15	6.49	6.76	6.85	6.91
120	-	5.32	5.61	6.00	6.45	6.91	7.32	7.50	7.64
140	-	-	-	-	6.86	7.42	7.96	8.20	8.42

Mass flow in lbs/h

50	-	88	121	161	209	265	-	-	-
60	-	82	115	154	202	258	323	-	-
70	-	76	108	147	194	250	315	351	-
80	-	71	102	140	186	241	306	342	380
100	-	62	90	126	170	223	285	320	358
120	-	56	81	113	154	204	263	297	333
140	-	-	-	-	140	186	242	273	308

Energy Efficiency Ratio (E.E.R.)

50	-	8.58	11.14	14.64	19.47	26.41	-	-	-
60	-	7.44	9.61	12.46	16.25	21.42	28.78	-	-
70	-	6.46	8.31	10.68	13.74	17.76	23.18	26.65	-
80	-	5.59	7.18	9.19	11.71	14.91	19.09	21.67	24.69
100	-	4.18	5.35	6.79	8.55	10.72	13.40	14.99	16.78
120	-	3.17	3.95	4.95	6.19	7.70	9.53	10.58	11.75
140	-	-	-	-	4.38	5.40	6.66	7.39	8.18

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

Cooling capacity	7 681	Btu/h	Current consumption	6.45	A
Power input	1 240	W	Mass flow	154	lbs/h
E.E.R.	6.19				

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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