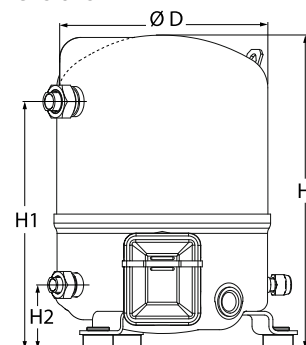
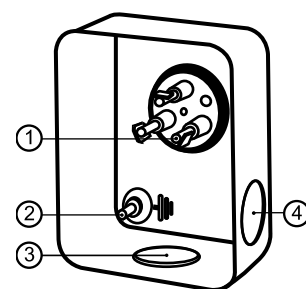


General Characteristics

Model number (on compressor nameplate)		MTZ18JA1AVE
Code number for Singlepack*		MTZ18-1VI
Code number for Industrial pack**		MTZ18-1VM
Drawing number		8501021e
Suction and discharge connections		Rotolock
Suction connection		1 " Rotolock
Discharge connection		1 " Rotolock
Suction connection with supplied sleeve		1/2 " ODF
Discharge connection with supplied sleeve		3/8 " 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		1.84 in3/rev
Displacement @ Nominal speed		224 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		7 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	1.35 Ω / 4.25 Ω
Run capacitors A + C	15 uF + 10 uF
Start capacitor B	100 uF
Start relay	RVA-6AMKL
Maximum Continuous Current (MCC)	13 A
Locked Rotor Amps (LRA)	51 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, P06 (1" Rotolock, 1/2" ODF)	8153007
Rotolock valve, V06 (1" Rotolock, 1/2" ODF)	8168031
Gasket, 1"	8156130

Rotolock accessories, discharge side

Code no.

Solder sleeve, P01 (1" Rotolock, 3/8" ODF)	8153010
Rotolock valve, V01 (1" Rotolock, 3/8" ODF)	8168027
Gasket, 1"	8156130

Rotolock accessories, sets

Code no.

Valve set, V06 (1"~1/2"), V01 (1"~3/8")	7703004
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.

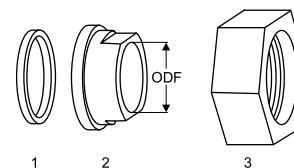
PSC starting kit, 15 µF, 10 µF	7701025
CSR starting kit, 15 µF, 10 µF, 98 µF	7701021
Acoustic hood for 1 cylinder compressor	120Z0575
Oil equalisation nut	8153127

Spare parts

Code no.

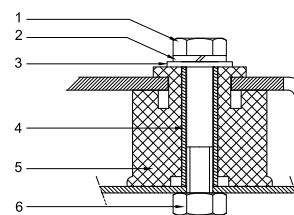
Mounting kit for 1 and 2 cylinder compressor, including 3 grommets, 3 bolts	8156001
Oil sight glass with gaskets (black & white)	8156019
Gasket for oil sight glass (black chloroprene)	8156145
Service kit for terminal box 80 x 96 mm, including 1 cover, 1 clamp	8156134

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	1 945	3 233	4 899	6 998	9 589	12 727	16 470	20 873	23 340
110	1 563	2 761	4 296	6 224	8 603	11 490	14 941	19 014	21 301
120	1 176	2 285	3 688	5 444	7 611	10 245	13 405	17 146	19 252
130	-	-	3 086	4 670	6 623	9 004	11 871	15 280	17 205
140	-	-	-	3 913	5 652	7 779	10 351	13 427	15 172
150	-	-	-	-	-	6 580	8 858	11 599	13 162
160	-	-	-	-	-	-	7 400	9 807	11 188
165	-	-	-	-	-	-	6 688	8 927	10 217

Power input in W

100	593	689	781	864	932	981	1 005	1 000	984
110	602	705	806	902	985	1 052	1 098	1 116	1 113
120	596	708	822	931	1 032	1 119	1 187	1 231	1 242
130	-	-	825	951	1 071	1 179	1 271	1 342	1 368
140	-	-	-	958	1 099	1 231	1 350	1 449	1 491
150	-	-	-	-	-	1 273	1 420	1 550	1 608
160	-	-	-	-	-	-	1 480	1 643	1 718
165	-	-	-	-	-	-	1 506	1 686	1 770

Current consumption in A

100	5.68	5.79	5.91	6.03	6.16	6.30	6.45	6.61	6.69
110	5.67	5.79	5.93	6.08	6.24	6.42	6.62	6.83	6.94
120	5.64	5.79	5.95	6.13	6.33	6.55	6.80	7.06	7.20
130	-	-	5.96	6.18	6.42	6.69	6.99	7.31	7.48
140	-	-	-	6.22	6.51	6.83	7.18	7.57	7.78
150	-	-	-	-	-	6.97	7.38	7.84	8.08
160	-	-	-	-	-	-	7.58	8.11	8.38
165	-	-	-	-	-	-	7.68	8.24	8.54

Mass flow in lbs/h

100	30	48	72	100	134	174	221	275	305
110	25	44	66	94	126	165	210	262	291
120	20	38	60	87	118	155	199	249	276
130	-	-	53	79	109	145	186	234	260
140	-	-	-	70	99	133	172	218	243
150	-	-	-	-	-	120	157	201	225
160	-	-	-	-	-	-	141	182	205
165	-	-	-	-	-	-	133	172	194

Energy Efficiency Ratio (E.E.R.)

100	3.28	4.69	6.27	8.10	10.29	12.98	16.39	20.88	23.71
110	2.60	3.92	5.33	6.90	8.73	10.92	13.61	17.04	19.13
120	1.97	3.23	4.49	5.85	7.37	9.15	11.29	13.93	15.51
130	-	-	3.74	4.91	6.19	7.64	9.34	11.38	12.58
140	-	-	-	4.08	5.14	6.32	7.67	9.26	10.18
150	-	-	-	-	-	5.17	6.24	7.48	8.19
160	-	-	-	-	-	-	5.00	5.97	6.51
165	-	-	-	-	-	-	4.44	5.29	5.77

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

Cooling capacity	10 373	Btu/h	Current consumption	6.84	A
Power input	1 228	W	Mass flow	165	lbs/h
E.E.R.	8.45				

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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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	0	dB(A)
With accoustic hood	0	dB(A)

Datasheet, performance data
Maneurop reciprocating compressor. MTZ018-1
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	2 811	4 654	6 936	9 718	13 063	17 033	21 690	24 295	27 095
100	2 219	3 944	6 072	8 663	11 781	15 486	19 842	22 282	24 909
110	1 624	3 211	5 164	7 543	10 412	13 833	17 866	20 132	22 575
120	1 048	2 476	4 233	6 380	8 980	12 095	15 786	17 867	20 115
130	-	1 761	3 301	5 196	7 506	10 294	13 622	15 507	17 551
140	-	1 087	2 390	4 011	6 011	8 451	11 395	13 075	14 904

Power input in W

90	988	1 189	1 343	1 457	1 534	1 582	1 604	1 608	1 608
100	942	1 182	1 371	1 515	1 621	1 693	1 737	1 750	1 758
110	872	1 153	1 381	1 561	1 698	1 798	1 867	1 892	1 910
120	773	1 099	1 369	1 588	1 761	1 894	1 991	2 029	2 060
130	-	1 017	1 333	1 594	1 807	1 975	2 106	2 158	2 203
140	-	900	1 267	1 575	1 830	2 039	2 206	2 276	2 337

Current consumption in A

90	5.42	6.02	6.48	6.81	7.04	7.17	7.23	7.23	7.22
100	5.36	6.05	6.59	7.00	7.29	7.47	7.57	7.59	7.59
110	5.18	5.99	6.64	7.15	7.53	7.79	7.96	8.01	8.05
120	4.84	5.81	6.60	7.24	7.74	8.11	8.37	8.47	8.54
130	-	5.47	6.43	7.22	7.87	8.38	8.77	8.93	9.06
140	-	4.94	6.10	7.08	7.90	8.58	9.12	9.35	9.55

Mass flow in lbs/h

90	58	94	136	185	241	307	382	424	468
100	50	86	128	177	234	300	375	417	461
110	40	77	119	168	225	291	366	407	451
120	29	66	108	157	214	279	354	395	438
130	-	53	95	144	200	265	339	379	423
140	-	38	80	129	184	248	321	362	404

Energy Efficiency Ratio (E.E.R.)

90	2.85	3.91	5.16	6.67	8.51	10.77	13.52	15.11	16.85
100	2.36	3.34	4.43	5.72	7.27	9.15	11.42	12.73	14.17
110	1.86	2.78	3.74	4.83	6.13	7.69	9.57	10.64	11.82
120	1.36	2.25	3.09	4.02	5.10	6.39	7.93	8.81	9.77
130	-	1.73	2.48	3.26	4.15	5.21	6.47	7.18	7.97
140	-	1.21	1.89	2.55	3.28	4.14	5.17	5.75	6.38

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

Cooling capacity	8 980	Btu/h	Current consumption	7.74	A
Power input	1 761	W	Mass flow	214	lbs/h
E.E.R.	5.10				

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	76	dB(A)
With acoustic hood	68	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	2 078	3 587	5 568	8 092	11 231	15 055	19 637	22 233	25 046
100	1 728	3 118	4 938	7 258	10 151	13 688	17 939	20 356	22 977
110	1 383	2 649	4 303	6 416	9 059	12 304	16 222	18 455	20 884
120	-	2 191	3 675	5 576	7 965	10 913	14 493	16 542	18 775
130	-	-	3 063	4 747	6 878	9 527	12 764	14 626	16 662
140	-	-	-	3 941	5 810	8 154	11 045	12 718	14 554

Power input in W

90	688	850	1 001	1 137	1 251	1 339	1 396	1 410	1 415
100	671	845	1 012	1 166	1 302	1 415	1 499	1 529	1 549
110	649	836	1 018	1 191	1 349	1 487	1 599	1 644	1 680
120	-	822	1 021	1 213	1 393	1 556	1 696	1 756	1 809
130	-	-	1 021	1 232	1 434	1 622	1 791	1 867	1 935
140	-	-	-	1 250	1 475	1 688	1 886	1 977	2 062

Current consumption in A

90	5.82	6.37	6.87	7.32	7.72	8.05	8.30	8.40	8.47
100	5.95	6.45	6.92	7.37	7.77	8.13	8.43	8.55	8.66
110	6.06	6.53	7.00	7.46	7.89	8.29	8.65	8.82	8.97
120	-	6.60	7.07	7.56	8.03	8.50	8.95	9.16	9.36
130	-	-	7.11	7.64	8.18	8.73	9.28	9.54	9.81
140	-	-	-	7.68	8.31	8.96	9.62	9.95	10.29

Mass flow in lbs/h

90	32	55	83	118	161	211	271	305	341
100	29	50	78	112	154	203	262	295	330
110	24	46	73	106	146	194	251	283	318
120	-	41	66	98	137	184	240	271	304
130	-	-	60	91	128	173	227	257	289
140	-	-	-	82	118	162	213	242	274

Energy Efficiency Ratio (E.E.R.)

90	3.02	4.22	5.56	7.12	8.98	11.24	14.07	15.77	17.70
100	2.58	3.69	4.88	6.23	7.80	9.67	11.97	13.31	14.83
110	2.13	3.17	4.23	5.39	6.72	8.28	10.15	11.23	12.43
120	-	2.66	3.60	4.60	5.72	7.02	8.55	9.42	10.38
130	-	-	3.00	3.85	4.80	5.87	7.13	7.84	8.61
140	-	-	-	3.15	3.94	4.83	5.86	6.43	7.06

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

Cooling capacity	7 965	Btu/h	Current consumption	8.03	A
Power input	1 393	W	Mass flow	137	lbs/h
E.E.R.	5.72				

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	75	dB(A)
With acoustic hood	67	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	8 363	11 578	13 408	15 399	17 562	19 907	22 443	25 181	28 131
110	7 410	10 477	12 217	14 107	16 157	18 379	20 780	23 373	26 166
120	-	9 321	10 965	12 749	14 683	16 776	19 038	21 480	24 112
130	-	8 122	9 667	11 340	13 151	15 111	17 230	19 517	21 982
140	-	-	8 333	9 890	11 575	13 397	15 367	17 494	19 789
150	-	-	-	-	9 967	11 647	13 464	15 426	17 545

Power input in W

100	1 092	1 200	1 240	1 274	1 300	1 321	1 336	1 348	1 356
110	1 125	1 269	1 326	1 374	1 414	1 447	1 473	1 494	1 510
120	-	1 319	1 395	1 461	1 517	1 565	1 605	1 638	1 666
130	-	1 344	1 442	1 529	1 604	1 670	1 727	1 776	1 818
140	-	-	1 463	1 573	1 672	1 759	1 836	1 903	1 962
150	-	-	-	-	1 715	1 826	1 925	2 014	2 093

Current consumption in A

100	5.95	6.19	6.28	6.36	6.43	6.48	6.53	6.58	6.62
110	6.03	6.37	6.51	6.62	6.72	6.81	6.88	6.95	7.01
120	-	6.52	6.71	6.87	7.02	7.15	7.26	7.36	7.44
130	-	6.59	6.85	7.08	7.29	7.47	7.63	7.78	7.90
140	-	-	6.91	7.22	7.49	7.75	7.97	8.17	8.35
150	-	-	-	-	7.61	7.94	8.24	8.52	8.77

Mass flow in lbs/h

100	110	150	172	196	221	249	278	310	344
110	103	142	165	188	214	241	271	302	336
120	-	134	156	180	205	232	261	292	326
130	-	124	146	169	195	222	251	281	314
140	-	-	134	158	183	209	238	268	301
150	-	-	-	-	169	196	224	254	286

Energy Efficiency Ratio (E.E.R.)

100	7.66	9.65	10.81	12.09	13.51	15.07	16.80	18.69	20.75
110	6.59	8.26	9.21	10.27	11.43	12.70	14.11	15.64	17.32
120	-	7.07	7.86	8.73	9.68	10.72	11.86	13.11	14.47
130	-	6.05	6.70	7.42	8.20	9.05	9.97	10.99	12.09
140	-	-	5.70	6.29	6.92	7.62	8.37	9.19	10.09
150	-	-	-	-	5.81	6.38	6.99	7.66	8.38

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

Cooling capacity	17 230	Btu/h	Current consumption	7.63	A
Power input	1 727	W	Mass flow	251	lbs/h
E.E.R.	9.97				

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	75	dB(A)
With acoustic hood	67	dB(A)

Datasheet, performance data
Maneurop reciprocating compressor. MTZ018-1
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	-	3 820	6 010	8 784	12 215	16 378	21 345	24 153	27 189
100	-	3 248	5 220	7 726	10 839	14 634	19 182	21 761	24 556
110	-	2 776	4 549	6 805	9 618	13 061	17 207	19 568	22 131
120	-	-	3 986	6 009	8 539	11 649	15 412	17 561	19 901
130	-	-	-	5 329	7 593	10 387	13 784	15 731	17 856
140	-	-	-	-	-	-	-	-	-

Power input in W

90	-	907	1 059	1 197	1 310	1 388	1 422	1 419	1 402
100	-	909	1 074	1 232	1 371	1 483	1 557	1 576	1 582
110	-	918	1 092	1 265	1 426	1 567	1 676	1 716	1 745
120	-	-	1 117	1 301	1 481	1 646	1 787	1 845	1 894
130	-	-	-	1 347	1 540	1 726	1 895	1 969	2 035
140	-	-	-	-	-	-	-	-	-

Current consumption in A

90	-	6.42	6.96	7.44	7.85	8.16	8.36	8.41	8.43
100	-	6.55	7.07	7.56	7.99	8.35	8.63	8.73	8.80
110	-	6.64	7.15	7.65	8.12	8.55	8.91	9.07	9.20
120	-	-	7.25	7.78	8.30	8.80	9.26	9.48	9.67
130	-	-	-	7.98	8.56	9.15	9.73	10.00	10.27
140	-	-	-	-	-	-	-	-	-

Mass flow in lbs/h

90	-	52	80	115	157	207	266	299	335
100	-	46	73	106	146	194	251	283	317
110	-	42	67	99	137	183	238	268	301
120	-	-	63	93	130	174	226	255	287
130	-	-	-	88	123	166	216	244	275
140	-	-	-	-	-	-	-	-	-

Energy Efficiency Ratio (E.E.R.)

90	-	4.21	5.67	7.34	9.32	11.80	15.01	17.02	19.40
100	-	3.57	4.86	6.27	7.90	9.87	12.32	13.81	15.52
110	-	3.03	4.17	5.38	6.74	8.34	10.26	11.40	12.68
120	-	-	3.57	4.62	5.77	7.08	8.62	9.52	10.51
130	-	-	-	3.96	4.93	6.02	7.27	7.99	8.77
140	-	-	-	-	-	-	-	-	-

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

Cooling capacity	8 539	Btu/h	Current consumption	8.30	A
Power input	1 481	W	Mass flow	130	lbs/h
E.E.R.	5.77				

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	75	dB(A)
With acoustic hood	67	dB(A)

Datasheet, performance data
Maneurop reciprocating compressor. MTZ018-1
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	4 215	6 330	9 052	12 442	-	-	-	-	-
60	3 890	5 940	8 558	11 806	15 748	-	-	-	-
70	3 480	5 458	7 966	11 066	14 821	19 294	-	-	-
80	2 996	4 897	7 289	10 235	13 797	18 040	23 025	-	-
100	1 859	3 588	5 731	8 350	11 510	15 273	19 701	22 185	24 859
120	-	2 115	3 984	6 253	8 986	12 246	16 095	18 260	20 596
140	-	-	-	-	6 328	9 061	12 306	14 141	16 127

Power input in W

50	831	930	991	1 008	-	-	-	-	-
60	810	930	1 017	1 062	1 061	-	-	-	-
70	784	927	1 040	1 114	1 144	1 123	-	-	-
80	754	919	1 057	1 161	1 223	1 237	1 196	-	-
100	666	876	1 065	1 227	1 353	1 438	1 474	1 471	1 454
120	-	782	1 023	1 242	1 433	1 588	1 701	1 740	1 765
140	-	-	-	-	1 442	1 668	1 859	1 938	2 006

Current consumption in A

50	4.20	4.69	5.03	5.19	-	-	-	-	-
60	3.94	4.49	4.90	5.13	5.19	-	-	-	-
70	3.77	4.38	4.85	5.17	5.33	5.30	-	-	-
80	3.63	4.31	4.87	5.28	5.54	5.63	5.53	-	-
100	3.33	4.18	4.93	5.56	6.06	6.40	6.59	6.61	6.59
120	-	3.85	4.83	5.70	6.47	7.11	7.61	7.81	7.96
140	-	-	-	-	6.52	7.49	8.34	8.72	9.06

Mass flow in lbs/h

50	56	81	113	151	-	-	-	-	-
60	52	78	109	147	192	-	-	-	-
70	48	74	105	142	187	240	-	-	-
80	43	69	100	137	182	234	295	-	-
100	30	56	87	125	168	219	278	311	346
120	-	38	70	107	150	200	257	289	323
140	-	-	-	-	124	173	229	260	293

Energy Efficiency Ratio (E.E.R.)

50	5.07	6.81	9.14	12.35	-	-	-	-	-
60	4.81	6.39	8.42	11.11	14.85	-	-	-	-
70	4.44	5.89	7.66	9.93	12.95	17.18	-	-	-
80	3.97	5.33	6.90	8.82	11.28	14.59	19.26	-	-
100	2.79	4.10	5.38	6.81	8.51	10.62	13.37	15.08	17.10
120	-	2.71	3.90	5.04	6.27	7.71	9.46	10.50	11.67
140	-	-	-	-	4.39	5.43	6.62	7.30	8.04

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

Cooling capacity	8 986	Btu/h	Current consumption	6.47	A
Power input	1 433	W	Mass flow	150	lbs/h
E.E.R.	6.27				

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	75	dB(A)
With acoustic hood	67	dB(A)

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Datasheet, performance data
Maneurop reciprocating compressor. MTZ018-1
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	4 215	6 331	9 052	12 443	-	-	-	-	-
60	3 890	5 941	8 558	11 807	15 749	-	-	-	-
70	3 480	5 459	7 967	11 067	14 822	19 295	-	-	-
80	2 996	4 898	7 290	10 236	13 798	18 041	23 026	-	-
100	1 860	3 589	5 731	8 351	11 511	15 274	19 703	22 187	24 861
120	-	2 115	3 985	6 254	8 987	12 247	16 096	18 262	20 598
140	-	-	-	-	6 329	9 062	12 307	14 142	16 129

Power input in W

50	831	930	991	1 008	-	-	-	-	-
60	810	930	1 017	1 062	1 061	-	-	-	-
70	784	927	1 040	1 114	1 144	1 123	-	-	-
80	754	919	1 057	1 161	1 223	1 237	1 196	-	-
100	666	876	1 065	1 227	1 353	1 438	1 474	1 471	1 454
120	-	782	1 023	1 242	1 433	1 588	1 701	1 740	1 765
140	-	-	-	-	1 442	1 668	1 859	1 938	2 006

Current consumption in A

50	4.20	4.69	5.03	5.19	-	-	-	-	-
60	3.94	4.49	4.90	5.13	5.19	-	-	-	-
70	3.77	4.38	4.85	5.17	5.33	5.30	-	-	-
80	3.63	4.31	4.87	5.28	5.54	5.63	5.53	-	-
100	3.33	4.18	4.93	5.56	6.06	6.40	6.59	6.61	6.59
120	-	3.85	4.83	5.70	6.47	7.11	7.61	7.81	7.96
140	-	-	-	-	6.52	7.49	8.34	8.72	9.06

Mass flow in lbs/h

50	55	81	112	151	-	-	-	-	-
60	52	78	110	148	194	-	-	-	-
70	48	74	106	144	190	243	-	-	-
80	44	70	102	140	185	238	299	-	-
100	30	57	89	127	172	224	284	317	352
120	-	39	71	109	153	204	263	295	330
140	-	-	-	-	127	177	235	266	300

Energy Efficiency Ratio (E.E.R.)

50	5.07	6.81	9.14	12.35	-	-	-	-	-
60	4.81	6.39	8.42	11.11	14.85	-	-	-	-
70	4.44	5.89	7.66	9.93	12.95	17.18	-	-	-
80	3.98	5.33	6.90	8.82	11.29	14.59	19.26	-	-
100	2.79	4.10	5.38	6.81	8.51	10.62	13.37	15.08	17.10
120	-	2.71	3.90	5.04	6.27	7.71	9.46	10.50	11.67
140	-	-	-	-	4.39	5.43	6.62	7.30	8.04

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

Cooling capacity	8 987	Btu/h	Current consumption	6.47	A
Power input	1 433	W	Mass flow	153	lbs/h
E.E.R.	6.27				

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	73	dB(A)
With acoustic hood	65	dB(A)

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Datasheet, performance data
Maneurop reciprocating compressor. MTZ018-1
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	4 793	6 950	9 707	13 125	-	-	-	-	-
60	4 401	6 503	9 164	12 446	16 406	-	-	-	-
70	3 933	5 965	8 517	11 647	15 416	19 883	-	-	-
80	3 406	5 354	7 781	10 745	14 307	18 527	23 464	-	-
100	2 239	3 976	6 110	8 699	11 804	15 485	19 802	22 217	24 814
120	1 029	2 498	4 279	6 435	9 025	12 109	15 748	17 793	20 000
140	-	-	-	4 084	6 101	8 530	11 432	13 079	14 867

Power input in W

50	868	944	992	1 016	-	-	-	-	-
60	880	976	1 042	1 082	1 099	-	-	-	-
70	886	1 005	1 092	1 150	1 183	1 195	-	-	-
80	882	1 027	1 137	1 216	1 269	1 297	1 306	-	-
100	832	1 035	1 201	1 331	1 430	1 501	1 548	1 564	1 575
120	702	976	1 207	1 399	1 556	1 680	1 776	1 815	1 848
140	-	-	-	1 395	1 619	1 808	1 964	2 031	2 091

Current consumption in A

50	4.26	4.85	5.27	5.52	-	-	-	-	-
60	4.19	4.75	5.16	5.42	5.53	-	-	-	-
70	4.24	4.78	5.19	5.47	5.62	5.64	-	-	-
80	4.35	4.88	5.31	5.62	5.82	5.91	5.90	-	-
100	4.56	5.12	5.61	6.02	6.37	6.64	6.84	6.92	6.99
120	4.45	5.09	5.69	6.26	6.79	7.29	7.77	8.00	8.22
140	-	-	-	5.93	6.71	7.49	8.28	8.69	9.09

Mass flow in lbs/h

50	80	112	152	199	-	-	-	-	-
60	75	109	149	197	253	-	-	-	-
70	71	104	145	193	249	315	-	-	-
80	65	99	140	188	244	309	384	-	-
100	49	84	126	174	229	293	366	406	449
120	27	63	105	152	207	269	340	379	420
140	-	-	-	122	175	235	304	341	381

Energy Efficiency Ratio (E.E.R.)

50	5.52	7.36	9.78	12.92	-	-	-	-	-
60	5.00	6.66	8.79	11.50	14.93	-	-	-	-
70	4.44	5.94	7.80	10.13	13.03	16.64	-	-	-
80	3.86	5.22	6.84	8.83	11.28	14.28	17.96	-	-
100	2.69	3.84	5.09	6.54	8.26	10.32	12.79	14.21	15.76
120	1.47	2.56	3.54	4.60	5.80	7.21	8.87	9.80	10.82
140	-	-	-	2.93	3.77	4.72	5.82	6.44	7.11

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

Cooling capacity	9 025	Btu/h	Current consumption	6.79	A
Power input	1 556	W	Mass flow	207	lbs/h
E.E.R.	5.80				

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	76	dB(A)
With acoustic hood	68	dB(A)

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Datasheet, performance data
Maneurop reciprocating compressor. MTZ018-1
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	-	4 327	6 222	8 707	11 856	15 743	-	-	-
60	-	3 874	5 638	7 953	10 892	14 530	18 940	-	-
70	-	3 449	5 086	7 235	9 968	13 360	17 484	19 844	-
80	-	3 052	4 565	6 550	9 080	12 230	16 072	18 277	20 682
100	-	2 329	3 605	5 273	7 408	10 083	13 372	15 270	17 350
120	-	1 688	2 740	4 106	5 860	8 074	10 824	12 422	14 182
140	-	-	-	-	4 419	6 186	8 410	9 716	11 164

Power input in W

50	-	658	689	698	681	634	-	-	-
60	-	667	714	741	744	720	665	-	-
70	-	671	732	776	799	797	766	739	-
80	-	672	746	805	846	865	857	843	820
100	-	664	760	847	921	977	1 013	1 022	1 024
120	-	651	764	874	976	1 066	1 140	1 170	1 195
140	-	-	-	-	1 019	1 137	1 245	1 294	1 339

Current consumption in A

50	-	4.85	4.96	5.07	5.12	5.08	-	-	-
60	-	4.70	4.82	4.96	5.07	5.10	5.00	-	-
70	-	4.60	4.73	4.89	5.04	5.14	5.13	5.08	-
80	-	4.56	4.68	4.86	5.05	5.20	5.27	5.27	5.23
100	-	4.62	4.71	4.89	5.13	5.38	5.59	5.66	5.71
120	-	4.88	4.89	5.05	5.30	5.61	5.92	6.06	6.19
140	-	-	-	-	5.55	5.88	6.26	6.45	6.64

Mass flow in lbs/h

50	-	62	88	120	159	207	-	-	-
60	-	59	84	115	153	199	254	-	-
70	-	55	79	110	147	192	246	276	-
80	-	52	75	105	141	185	237	267	299
100	-	45	67	95	129	171	220	248	279
120	-	38	59	85	118	157	203	230	259
140	-	-	-	-	105	142	186	212	239

Energy Efficiency Ratio (E.E.R.)

50	-	6.58	9.03	12.47	17.41	24.84	-	-	-
60	-	5.81	7.90	10.73	14.63	20.17	28.48	-	-
70	-	5.14	6.94	9.32	12.48	16.76	22.82	26.85	-
80	-	4.54	6.12	8.14	10.73	14.14	18.75	21.69	25.22
100	-	3.51	4.74	6.23	8.05	10.32	13.20	14.94	16.94
120	-	2.59	3.59	4.70	6.01	7.58	9.50	10.62	11.87
140	-	-	-	-	4.34	5.44	6.75	7.51	8.34

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

Cooling capacity	5 860	Btu/h	Current consumption	5.30	A
Power input	976	W	Mass flow	118	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	dB(A)
With acoustic hood	dB(A)

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