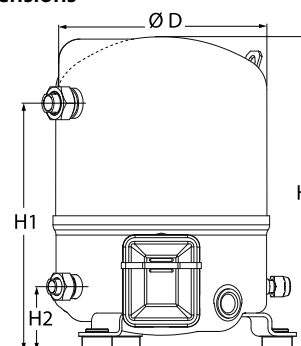


General Characteristics

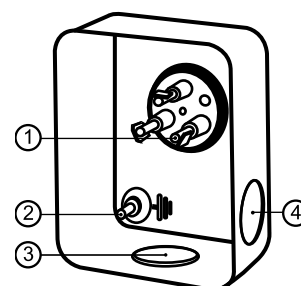
Model number (on compressor nameplate)		MTZ22JC5VE
Code number for Singlepack*		MTZ22-5VI
Code number for Industrial pack**		MTZ22-5VM
Drawing number		8501021e
Suction and discharge connections		Rotolock
Suction connection		1 " Rotolock
Discharge connection		1 " Rotolock
Suction connection with supplied sleeve		1/2 " ODF
Discharge connection with supplied sleeve		3/8 " ODF
Oil sight glass		Threaded
Oil equalisation connection		3/8" flare SAE
Oil drain connection		None
LP gauge port		Schrader
IPR valve		None
Cylinders	1	
Swept volume	38.12 cm ³ /rev	
Displacement @ Nominal speed	6.6 m ³ /h @ 2900 rpm	
Net weight	21 kg	
Oil charge	0.95 litre, POE - 160PZ	
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	R404A, R507A, R134a, R407C, R407A, R407F	

Dimensions


D=224 mm
 H=333 mm
 H1=263 mm
 H2=68 mm
 H3= mm

Electrical Characteristics

Nominal voltage	220-240V/1/50Hz
Voltage range	220-240 V
Winding resistance (main / start) at 25°C	1.35 Ω / 3.83 Ω
Run capacitors A + C	20 µF + 10 µF
Start capacitor B	100 µF
Start relay	RVA-6AMKL
Maximum Continuous Current (MCC)	15 A
Locked Rotor Amps (LRA)	41 A
Motor protection	Internal overload protector

Terminal box

Recommended Installation torques

Oil sight glass	50 Nm
Power connections / Earth connection	2 Nm / 2 Nm
Mounting bolts	15 Nm

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")

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, -, CCC certified

*Singlepack: Compressor in cardboard box

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

Datasheet, performance data

Maneurop reciprocating compressor. MTZ022-5

Performance data at 50 Hz, EN 12900 rating conditions

R407C

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)							
	-15	-10	-5	0	5	10	15	

Cooling capacity in W

35	2 000	2 757	3 672	4 762	6 046	7 543	9 269	-	-
40	1 776	2 482	3 334	4 350	5 548	6 947	8 564	-	-
45	1 559	2 214	3 002	3 943	5 055	6 355	7 862	-	-
50	-	1 955	2 679	3 544	4 568	5 769	7 166	-	-
55	-	-	2 367	3 155	4 091	5 192	6 477	-	-
60	-	-	-	2 779	3 625	4 626	5 798	-	-
65	-	-	-	2 416	3 173	4 072	5 132	-	-

Power input in W

35	1 054	1 173	1 272	1 351	1 409	1 445	1 458	-	-
40	1 075	1 212	1 331	1 430	1 508	1 565	1 598	-	-
45	1 088	1 246	1 386	1 506	1 606	1 684	1 740	-	-
50	-	1 274	1 436	1 579	1 702	1 804	1 884	-	-
55	-	-	1 483	1 650	1 798	1 925	2 030	-	-
60	-	-	-	1 718	1 892	2 045	2 177	-	-
65	-	-	-	1 784	1 985	2 167	2 327	-	-

Current consumption in A

35	5.26	5.70	6.08	6.40	6.64	6.79	6.85	-	-
40	5.35	5.84	6.28	6.67	6.98	7.20	7.34	-	-
45	5.44	6.00	6.51	6.97	7.36	7.67	7.90	-	-
50	-	6.14	6.74	7.28	7.77	8.18	8.51	-	-
55	-	-	6.95	7.59	8.18	8.71	9.15	-	-
60	-	-	-	7.88	8.59	9.23	9.81	-	-
65	-	-	-	8.12	8.96	9.74	10.45	-	-

Mass flow in kg/h

35	43	59	77	98	123	151	184	-	-
40	41	56	73	94	118	146	178	-	-
45	38	52	70	90	113	140	171	-	-
50	-	49	66	86	108	135	165	-	-
55	-	-	62	81	103	129	158	-	-
60	-	-	-	76	98	123	151	-	-
65	-	-	-	72	92	116	144	-	-

Coefficient of performance (C.O.P.)

35	1.90	2.35	2.89	3.53	4.29	5.22	6.36	-	-
40	1.65	2.05	2.50	3.04	3.68	4.44	5.36	-	-
45	1.43	1.78	2.17	2.62	3.15	3.77	4.52	-	-
50	-	1.53	1.87	2.24	2.68	3.20	3.80	-	-
55	-	-	1.60	1.91	2.28	2.70	3.19	-	-
60	-	-	-	1.62	1.92	2.26	2.66	-	-
65	-	-	-	1.35	1.60	1.88	2.21	-	-

Nominal performance at to = 5 °C, tc = 50 °C

Cooling capacity	4 568	W
Power input	1 702	W
Current consumption	7.77	A
Mass flow	108	kg/h
C.O.P.	2.68	



to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Superheat = 10 K , Subcooling = 0 K

Pressure switch settings

Maximum HP switch setting	29.4	bar(g)
Minimum LP switch setting	1.4	bar(g)
LP pump down setting	1.7	bar(g)

Sound power data

Sound power level	73	dB(A)
With acoustic hood	67	dB(A)

Tolerance according EN12900

Performance data at 50 Hz, ARI rating conditions
R407C

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)							
	-15	-10	-5	0	5	10	15	

Cooling capacity in W

35	2 153	2 964	3 943	5 108	6 478	8 073	9 911	-	-
40	1 922	2 682	3 598	4 689	5 974	7 471	9 200	-	-
45	1 698	2 407	3 260	4 276	5 473	6 873	8 492	-	-
50	-	2 141	2 930	3 870	4 980	6 280	7 790	-	-
55	-	-	2 610	3 474	4 496	5 697	7 095	-	-
60	-	-	-	3 090	4 024	5 125	6 412	-	-
65	-	-	-	2 723	3 567	4 567	5 743	-	-

Power input in W

35	1 054	1 173	1 272	1 351	1 409	1 445	1 458	-	-
40	1 075	1 212	1 331	1 430	1 508	1 565	1 598	-	-
45	1 088	1 246	1 386	1 506	1 606	1 684	1 740	-	-
50	-	1 274	1 436	1 579	1 702	1 804	1 884	-	-
55	-	-	1 483	1 650	1 798	1 925	2 030	-	-
60	-	-	-	1 718	1 892	2 045	2 177	-	-
65	-	-	-	1 784	1 985	2 167	2 327	-	-

Current consumption in A

35	5.26	5.70	6.08	6.40	6.64	6.79	6.85	-	-
40	5.35	5.84	6.28	6.67	6.98	7.20	7.34	-	-
45	5.44	6.00	6.51	6.97	7.36	7.67	7.90	-	-
50	-	6.14	6.74	7.28	7.77	8.18	8.51	-	-
55	-	-	6.95	7.59	8.18	8.71	9.15	-	-
60	-	-	-	7.88	8.59	9.23	9.81	-	-
65	-	-	-	8.12	8.96	9.74	10.45	-	-

Mass flow in kg/h

35	43	59	77	98	122	150	182	-	-
40	40	55	73	94	118	145	177	-	-
45	37	52	69	89	113	140	170	-	-
50	-	49	66	85	108	134	164	-	-
55	-	-	62	81	103	128	157	-	-
60	-	-	-	76	97	122	150	-	-
65	-	-	-	71	92	116	143	-	-

Coefficient of performance (C.O.P.)

35	2.04	2.53	3.10	3.78	4.60	5.59	6.80	-	-
40	1.79	2.21	2.70	3.28	3.96	4.78	5.76	-	-
45	1.56	1.93	2.35	2.84	3.41	4.08	4.88	-	-
50	-	1.68	2.04	2.45	2.93	3.48	4.13	-	-
55	-	-	1.76	2.11	2.50	2.96	3.50	-	-
60	-	-	-	1.80	2.13	2.51	2.94	-	-
65	-	-	-	1.53	1.80	2.11	2.47	-	-

Nominal performance at to = 7.2 °C, tc = 54.4 °C

Cooling capacity	5 064	W
Power input	1 844	W
Current consumption	8.36	A
Mass flow	114	kg/h
C.O.P.	2.75	

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 K

Pressure switch settings

Maximum HP switch setting	29.4	bar(g)
Minimum LP switch setting	1.4	bar(g)
LP pump down setting	1.7	bar(g)

Sound power data

Sound power level	73	dB(A)
With acoustic hood	67	dB(A)

Tolerance according EN12900

Performance data at 50 Hz, EN 12900 rating conditions
R134a

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)								
	-25	-20	-10	-5	0	5	10	15	20

Cooling capacity in W

35	574	869	1 732	2 329	3 059	3 935	4 974	6 191	7 600
40	487	766	1 572	2 128	2 807	3 624	4 595	5 735	7 059
45	396	660	1 408	1 922	2 550	3 308	4 211	5 274	6 513
50	304	552	1 242	1 714	2 291	2 990	3 825	4 811	5 964
55	-	-	1 075	1 505	2 032	2 671	3 437	4 346	5 414
60	-	-	-	1 298	1 773	2 352	3 050	3 882	4 864
65	-	-	-	-	1 518	2 037	2 666	3 421	4 317
75	-	-	-	-	-	-	1 912	2 512	3 235

Power input in W

35	528	620	794	869	932	978	1 004	1 005	978
40	541	636	824	909	982	1 041	1 081	1 099	1 090
45	544	645	848	942	1 028	1 101	1 157	1 192	1 203
50	537	644	864	971	1 070	1 157	1 230	1 284	1 316
55	-	-	874	993	1 106	1 210	1 301	1 375	1 428
60	-	-	-	1 008	1 137	1 259	1 369	1 464	1 540
65	-	-	-	-	1 162	1 302	1 433	1 550	1 650
75	-	-	-	-	-	-	1 548	1 713	1 864

Current consumption in A

35	5.12	5.26	5.55	5.69	5.81	5.92	6.02	6.10	6.15
40	5.13	5.29	5.61	5.77	5.92	6.06	6.19	6.31	6.40
45	5.12	5.29	5.65	5.84	6.02	6.20	6.37	6.53	6.67
50	5.10	5.29	5.69	5.90	6.12	6.34	6.55	6.75	6.94
55	-	-	5.72	5.96	6.21	6.47	6.73	6.98	7.22
60	-	-	-	6.01	6.30	6.60	6.90	7.21	7.51
65	-	-	-	-	6.38	6.73	7.08	7.44	7.80
75	-	-	-	-	-	-	7.44	7.92	8.40

Mass flow in kg/h

35	15	22	41	54	70	88	109	133	161
40	13	20	39	52	67	85	105	129	157
45	11	18	37	50	64	81	102	125	151
50	9	16	35	47	61	78	97	120	146
55	-	-	32	44	58	74	93	115	140
60	-	-	-	40	54	69	88	109	133
65	-	-	-	-	49	64	82	102	126
75	-	-	-	-	-	-	69	88	110

Coefficient of performance (C.O.P.)

35	1.09	1.40	2.18	2.68	3.28	4.02	4.96	6.16	7.77
40	0.90	1.20	1.91	2.34	2.86	3.48	4.25	5.22	6.47
45	0.73	1.02	1.66	2.04	2.48	3.01	3.64	4.43	5.42
50	0.57	0.86	1.44	1.77	2.14	2.58	3.11	3.75	4.53
55	-	-	1.23	1.52	1.84	2.21	2.64	3.16	3.79
60	-	-	-	1.29	1.56	1.87	2.23	2.65	3.16
65	-	-	-	-	1.31	1.56	1.86	2.21	2.62
75	-	-	-	-	-	-	1.24	1.47	1.74

Nominal performance at to = 5 °C, tc = 50 °C

Cooling capacity	2 990	W
Power input	1 157	W
Current consumption	6.34	A
Mass flow	78	kg/h
C.O.P.	2.58	

Pressure switch settings

Maximum HP switch setting	20.2	bar(g)
Minimum LP switch setting	0.1	bar(g)
LP pump down setting	0.4	bar(g)

Sound power data

Sound power level	0	dB(A)
With acoustic hood	0	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
R134a

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)								
	-25	-20	-10	-5	0	5	10	15	20

Cooling capacity in W

35	624	943	1 872	2 515	3 297	4 235	5 346	6 644	8 146
40	532	836	1 708	2 308	3 040	3 919	4 961	6 182	7 599
45	436	725	1 539	2 097	2 777	3 596	4 570	5 714	7 045
50	-	611	1 367	1 882	2 511	3 270	4 175	5 242	6 487
55	-	-	1 193	1 666	2 244	2 942	3 778	4 767	5 927
60	-	-	-	1 450	1 976	2 614	3 380	4 292	5 365
65	-	-	-	-	-	2 286	2 984	3 818	4 804
75	-	-	-	-	-	-	2 200	2 879	3 694

Power input in W

35	528	620	794	869	932	978	1 004	1 005	978
40	541	636	824	909	982	1 041	1 081	1 099	1 090
45	544	645	848	942	1 028	1 101	1 157	1 192	1 203
50	-	644	864	971	1 070	1 157	1 230	1 284	1 316
55	-	-	874	993	1 106	1 210	1 301	1 375	1 428
60	-	-	-	1 008	1 137	1 259	1 369	1 464	1 540
65	-	-	-	-	-	1 302	1 433	1 550	1 650
75	-	-	-	-	-	-	1 548	1 713	1 864

Current consumption in A

35	5.12	5.26	5.55	5.69	5.81	5.92	6.02	6.10	6.15
40	5.13	5.29	5.61	5.77	5.92	6.06	6.19	6.31	6.40
45	5.12	5.29	5.65	5.84	6.02	6.20	6.37	6.53	6.67
50	-	5.29	5.69	5.90	6.12	6.34	6.55	6.75	6.94
55	-	-	5.72	5.96	6.21	6.47	6.73	6.98	7.22
60	-	-	-	6.01	6.30	6.60	6.90	7.21	7.51
65	-	-	-	-	-	6.73	7.08	7.44	7.80
75	-	-	-	-	-	-	7.44	7.92	8.40

Mass flow in kg/h

35	15	22	41	54	69	87	108	133	160
40	13	20	39	52	67	84	105	129	156
45	11	18	37	49	64	81	101	124	151
50	-	16	35	47	61	77	97	119	145
55	-	-	32	43	57	73	92	114	139
60	-	-	-	40	53	69	87	108	132
65	-	-	-	-	-	64	82	102	125
75	-	-	-	-	-	-	69	88	109

Coefficient of performance (C.O.P.)

35	1.18	1.52	2.36	2.89	3.54	4.33	5.33	6.61	8.33
40	0.98	1.31	2.07	2.54	3.10	3.76	4.59	5.63	6.97
45	0.80	1.12	1.82	2.23	2.70	3.27	3.95	4.79	5.86
50	-	0.95	1.58	1.94	2.35	2.83	3.39	4.08	4.93
55	-	-	1.37	1.68	2.03	2.43	2.90	3.47	4.15
60	-	-	-	1.44	1.74	2.08	2.47	2.93	3.48
65	-	-	-	-	-	1.76	2.08	2.46	2.91
75	-	-	-	-	-	-	1.42	1.68	1.98

Nominal performance at to = 7.2 °C, tc = 54.4 °C

Cooling capacity	3 335	W
Power input	1 245	W
Current consumption	6.56	A
Mass flow	82	kg/h
C.O.P.	2.68	

Pressure switch settings

Maximum HP switch setting	20.2	bar(g)
Minimum LP switch setting	0.1	bar(g)
LP pump down setting	0.4	bar(g)

Sound power data

Sound power level	0	dB(A)
With accoustic hood	0	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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Datasheet, performance data

Maneurop reciprocating compressor. MTZ022-5

Performance data at 50 Hz, EN 12900 rating conditions

R404A

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)								
	-30	-25	-20	-15	-10	-5	0	5	10

Cooling capacity in W

30	1 070	1 535	2 125	2 856	3 744	4 804	6 052	7 504	9 176
35	918	1 342	1 882	2 552	3 368	4 347	5 504	6 854	8 413
40	774	1 156	1 643	2 251	2 995	3 891	4 954	6 201	7 647
45	639	978	1 411	1 955	2 625	3 436	4 405	5 547	6 878
50	515	809	1 187	1 665	2 259	2 985	3 857	4 892	6 106
55	-	650	971	1 382	1 899	2 537	3 311	4 239	5 334
60	-	503	765	1 108	1 545	2 094	2 769	3 587	4 563

Power input in W

30	893	1 017	1 128	1 224	1 305	1 369	1 414	1 440	1 443
35	890	1 029	1 156	1 270	1 370	1 454	1 521	1 570	1 599
40	879	1 032	1 176	1 309	1 428	1 534	1 624	1 697	1 752
45	859	1 029	1 190	1 342	1 482	1 610	1 724	1 822	1 904
50	832	1 019	1 198	1 370	1 532	1 683	1 821	1 945	2 054
55	-	1 002	1 201	1 393	1 577	1 752	1 916	2 067	2 204
60	-	980	1 199	1 413	1 620	1 819	2 009	2 188	2 354

Current consumption in A

30	6.03	6.34	6.63	6.91	7.16	7.37	7.52	7.61	7.62
35	6.07	6.39	6.71	7.02	7.31	7.56	7.76	7.90	7.98
40	6.08	6.44	6.80	7.15	7.48	7.79	8.06	8.27	8.41
45	6.05	6.45	6.86	7.27	7.67	8.05	8.39	8.69	8.92
50	5.95	6.41	6.89	7.38	7.86	8.32	8.75	9.14	9.48
55	-	6.31	6.87	7.44	8.02	8.58	9.11	9.62	10.07
60	-	6.14	6.79	7.46	8.14	8.81	9.47	10.10	10.68

Mass flow in kg/h

30	34	47	64	84	107	134	165	200	241
35	31	44	60	80	102	129	160	195	235
40	28	41	57	76	98	124	154	189	228
45	26	38	53	71	93	118	148	182	220
50	23	35	49	67	88	112	141	174	212
55	-	32	45	62	82	106	134	167	204
60	-	28	41	57	76	100	127	158	194

Coefficient of performance (C.O.P.)

30	1.20	1.51	1.88	2.33	2.87	3.51	4.28	5.21	6.36
35	1.03	1.30	1.63	2.01	2.46	2.99	3.62	4.37	5.26
40	0.88	1.12	1.40	1.72	2.10	2.54	3.05	3.65	4.36
45	0.74	0.95	1.19	1.46	1.77	2.13	2.56	3.04	3.61
50	0.62	0.79	0.99	1.22	1.47	1.77	2.12	2.52	2.97
55	-	0.65	0.81	0.99	1.20	1.45	1.73	2.05	2.42
60	-	0.51	0.64	0.78	0.95	1.15	1.38	1.64	1.94

Nominal performance at to = -10 °C, tc = 45 °C

Cooling capacity	2 625	W
Power input	1 482	W
Current consumption	7.67	A
Mass flow	93	kg/h
C.O.P.	1.77	

Pressure switch settings

Maximum HP switch setting	27.7	bar(g)
Minimum LP switch setting	1	bar(g)
LP pump down setting	1.3	bar(g)

Sound power data

Sound power level	74	dB(A)
With acoustic hood	68	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

Performance data at 50 Hz, ARI rating conditions
R404A

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)								
	-30	-25	-20	-15	-10	-5	0	5	10

Cooling capacity in W

30	1 191	1 704	2 353	3 155	4 126	5 283	6 642	8 219	10 031
35	1 033	1 505	2 104	2 845	3 746	4 822	6 091	7 568	9 270
40	882	1 313	1 860	2 539	3 368	4 362	5 539	6 915	8 506
45	741	1 128	1 621	2 237	2 992	3 903	4 987	6 261	7 741
50	610	953	1 391	1 941	2 621	3 448	4 438	5 609	6 977
55	-	788	1 169	1 653	2 257	2 999	3 895	4 963	6 219
60	-	635	958	1 375	1 903	2 560	3 363	4 330	5 477

Power input in W

30	893	1 017	1 128	1 224	1 305	1 369	1 414	1 440	1 443
35	890	1 029	1 156	1 270	1 370	1 454	1 521	1 570	1 599
40	879	1 032	1 176	1 309	1 428	1 534	1 624	1 697	1 752
45	859	1 029	1 190	1 342	1 482	1 610	1 724	1 822	1 904
50	832	1 019	1 198	1 370	1 532	1 683	1 821	1 945	2 054
55	-	1 002	1 201	1 393	1 577	1 752	1 916	2 067	2 204
60	-	980	1 199	1 413	1 620	1 819	2 009	2 188	2 354

Current consumption in A

30	6.03	6.34	6.63	6.91	7.16	7.37	7.52	7.61	7.62
35	6.07	6.39	6.71	7.02	7.31	7.56	7.76	7.90	7.98
40	6.08	6.44	6.80	7.15	7.48	7.79	8.06	8.27	8.41
45	6.05	6.45	6.86	7.27	7.67	8.05	8.39	8.69	8.92
50	5.95	6.41	6.89	7.38	7.86	8.32	8.75	9.14	9.48
55	-	6.31	6.87	7.44	8.02	8.58	9.11	9.62	10.07
60	-	6.14	6.79	7.46	8.14	8.81	9.47	10.10	10.68

Mass flow in kg/h

30	33	47	63	83	106	133	164	199	239
35	31	44	60	79	102	128	159	193	233
40	28	41	57	75	97	123	153	187	226
45	26	38	53	71	92	118	147	181	219
50	23	35	49	66	87	112	140	173	211
55	-	31	45	62	82	106	133	165	202
60	-	28	41	57	76	99	126	157	193

Coefficient of performance (C.O.P.)

30	1.33	1.68	2.09	2.58	3.16	3.86	4.70	5.71	6.95
35	1.16	1.46	1.82	2.24	2.74	3.32	4.00	4.82	5.80
40	1.00	1.27	1.58	1.94	2.36	2.84	3.41	4.07	4.85
45	0.86	1.10	1.36	1.67	2.02	2.42	2.89	3.44	4.07
50	0.73	0.94	1.16	1.42	1.71	2.05	2.44	2.88	3.40
55	-	0.79	0.97	1.19	1.43	1.71	2.03	2.40	2.82
60	-	0.65	0.80	0.97	1.17	1.41	1.67	1.98	2.33

Nominal performance at to = -10 °C, tc = 45 °C

Cooling capacity	2 992	W
Power input	1 482	W
Current consumption	7.67	A
Mass flow	92	kg/h
C.O.P.	2.02	

Pressure switch settings

Maximum HP switch setting	27.7	bar(g)
Minimum LP switch setting	1	bar(g)
LP pump down setting	1.3	bar(g)

Sound power data

Sound power level	74	dB(A)
With acoustic hood	68	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

Datasheet, performance data

Maneurop reciprocating compressor. MTZ022-5

Performance data at 50 Hz, EN 12900 rating conditions

R134a

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)								
	-25	-20	-10	-5	0	5	10	15	20

Cooling capacity in W

35	574	869	1 732	2 329	3 059	3 935	4 974	6 191	7 600
40	487	766	1 572	2 128	2 807	3 624	4 595	5 735	7 059
45	396	660	1 408	1 922	2 550	3 308	4 211	5 274	6 513
50	304	552	1 242	1 714	2 291	2 990	3 825	4 811	5 964
55	-	-	1 075	1 505	2 032	2 671	3 437	4 346	5 414
60	-	-	-	1 298	1 773	2 352	3 050	3 882	4 864
65	-	-	-	-	1 518	2 037	2 666	3 421	4 317
75	-	-	-	-	-	-	1 912	2 512	3 235

Power input in W

35	528	620	794	869	932	978	1 004	1 005	978
40	541	636	824	909	982	1 041	1 081	1 099	1 090
45	544	645	848	942	1 028	1 101	1 157	1 192	1 203
50	537	644	864	971	1 070	1 157	1 230	1 284	1 316
55	-	-	874	993	1 106	1 210	1 301	1 375	1 428
60	-	-	-	1 008	1 137	1 259	1 369	1 464	1 540
65	-	-	-	-	1 162	1 302	1 433	1 550	1 650
75	-	-	-	-	-	-	1 548	1 713	1 864

Current consumption in A

35	5.12	5.26	5.55	5.69	5.81	5.92	6.02	6.10	6.15
40	5.13	5.29	5.61	5.77	5.92	6.06	6.19	6.31	6.40
45	5.12	5.29	5.65	5.84	6.02	6.20	6.37	6.53	6.67
50	5.10	5.29	5.69	5.90	6.12	6.34	6.55	6.75	6.94
55	-	-	5.72	5.96	6.21	6.47	6.73	6.98	7.22
60	-	-	-	6.01	6.30	6.60	6.90	7.21	7.51
65	-	-	-	-	6.38	6.73	7.08	7.44	7.80
75	-	-	-	-	-	-	7.44	7.92	8.40

Mass flow in kg/h

35	15	22	41	54	70	88	109	133	161
40	13	20	39	52	67	85	105	129	157
45	11	18	37	50	64	81	102	125	151
50	9	16	35	47	61	78	97	120	146
55	-	-	32	44	58	74	93	115	140
60	-	-	-	40	54	69	88	109	133
65	-	-	-	-	49	64	82	102	126
75	-	-	-	-	-	-	69	88	110

Coefficient of performance (C.O.P.)

35	1.09	1.40	2.18	2.68	3.28	4.02	4.96	6.16	7.77
40	0.90	1.20	1.91	2.34	2.86	3.48	4.25	5.22	6.47
45	0.73	1.02	1.66	2.04	2.48	3.01	3.64	4.43	5.42
50	0.57	0.86	1.44	1.77	2.14	2.58	3.11	3.75	4.53
55	-	-	1.23	1.52	1.84	2.21	2.64	3.16	3.79
60	-	-	-	1.29	1.56	1.87	2.23	2.65	3.16
65	-	-	-	-	1.31	1.56	1.86	2.21	2.62
75	-	-	-	-	-	-	1.24	1.47	1.74

Nominal performance at to = 5 °C, tc = 50 °C

Cooling capacity	2 990	W
Power input	1 157	W
Current consumption	6.34	A
Mass flow	78	kg/h
C.O.P.	2.58	

Pressure switch settings

Maximum HP switch setting	20.2	bar(g)
Minimum LP switch setting	0.1	bar(g)
LP pump down setting	0.4	bar(g)

Sound power data

Sound power level	0	dB(A)
With accoustic hood	0	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
R134a

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)								
	-25	-20	-10	-5	0	5	10	15	20

Cooling capacity in W

35	624	943	1 872	2 515	3 297	4 235	5 346	6 644	8 146
40	532	836	1 708	2 308	3 040	3 919	4 961	6 182	7 599
45	436	725	1 539	2 097	2 777	3 596	4 570	5 714	7 045
50	-	611	1 367	1 882	2 511	3 270	4 175	5 242	6 487
55	-	-	1 193	1 666	2 244	2 942	3 778	4 767	5 927
60	-	-	-	1 450	1 976	2 614	3 380	4 292	5 365
65	-	-	-	-	-	2 286	2 984	3 818	4 804
75	-	-	-	-	-	-	2 200	2 879	3 694

Power input in W

35	528	620	794	869	932	978	1 004	1 005	978
40	541	636	824	909	982	1 041	1 081	1 099	1 090
45	544	645	848	942	1 028	1 101	1 157	1 192	1 203
50	-	644	864	971	1 070	1 157	1 230	1 284	1 316
55	-	-	874	993	1 106	1 210	1 301	1 375	1 428
60	-	-	-	1 008	1 137	1 259	1 369	1 464	1 540
65	-	-	-	-	-	1 302	1 433	1 550	1 650
75	-	-	-	-	-	-	1 548	1 713	1 864

Current consumption in A

35	5.12	5.26	5.55	5.69	5.81	5.92	6.02	6.10	6.15
40	5.13	5.29	5.61	5.77	5.92	6.06	6.19	6.31	6.40
45	5.12	5.29	5.65	5.84	6.02	6.20	6.37	6.53	6.67
50	-	5.29	5.69	5.90	6.12	6.34	6.55	6.75	6.94
55	-	-	5.72	5.96	6.21	6.47	6.73	6.98	7.22
60	-	-	-	6.01	6.30	6.60	6.90	7.21	7.51
65	-	-	-	-	-	6.73	7.08	7.44	7.80
75	-	-	-	-	-	-	7.44	7.92	8.40

Mass flow in kg/h

35	15	22	41	54	69	87	108	133	160
40	13	20	39	52	67	84	105	129	156
45	11	18	37	49	64	81	101	124	151
50	-	16	35	47	61	77	97	119	145
55	-	-	32	43	57	73	92	114	139
60	-	-	-	40	53	69	87	108	132
65	-	-	-	-	-	64	82	102	125
75	-	-	-	-	-	-	69	88	109

Coefficient of performance (C.O.P.)

35	1.18	1.52	2.36	2.89	3.54	4.33	5.33	6.61	8.33
40	0.98	1.31	2.07	2.54	3.10	3.76	4.59	5.63	6.97
45	0.80	1.12	1.82	2.23	2.70	3.27	3.95	4.79	5.86
50	-	0.95	1.58	1.94	2.35	2.83	3.39	4.08	4.93
55	-	-	1.37	1.68	2.03	2.43	2.90	3.47	4.15
60	-	-	-	1.44	1.74	2.08	2.47	2.93	3.48
65	-	-	-	-	-	1.76	2.08	2.46	2.91
75	-	-	-	-	-	-	1.42	1.68	1.98

Nominal performance at to = 7.2 °C, tc = 54.4 °C

Cooling capacity	3 335	W
Power input	1 245	W
Current consumption	6.56	A
Mass flow	82	kg/h
C.O.P.	2.68	

Pressure switch settings

Maximum HP switch setting	20.2	bar(g)
Minimum LP switch setting	0.1	bar(g)
LP pump down setting	0.4	bar(g)

Sound power data

Sound power level	0	dB(A)
With accoustic hood	0	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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Datasheet, performance data

Maneurop reciprocating compressor. MTZ022-5

Performance data at 50 Hz, EN 12900 rating conditions

R407C

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)							
	-15	-10	-5	0	5	10	15	

Cooling capacity in W

35	2 000	2 757	3 672	4 762	6 046	7 543	9 269	-	-
40	1 776	2 482	3 334	4 350	5 548	6 947	8 564	-	-
45	1 559	2 214	3 002	3 943	5 055	6 355	7 862	-	-
50	-	1 955	2 679	3 544	4 568	5 769	7 166	-	-
55	-	-	2 367	3 155	4 091	5 192	6 477	-	-
60	-	-	-	2 779	3 625	4 626	5 798	-	-
65	-	-	-	2 416	3 173	4 072	5 132	-	-

Power input in W

35	1 054	1 173	1 272	1 351	1 409	1 445	1 458	-	-
40	1 075	1 212	1 331	1 430	1 508	1 565	1 598	-	-
45	1 088	1 246	1 386	1 506	1 606	1 684	1 740	-	-
50	-	1 274	1 436	1 579	1 702	1 804	1 884	-	-
55	-	-	1 483	1 650	1 798	1 925	2 030	-	-
60	-	-	-	1 718	1 892	2 045	2 177	-	-
65	-	-	-	1 784	1 985	2 167	2 327	-	-

Current consumption in A

35	5.26	5.70	6.08	6.40	6.64	6.79	6.85	-	-
40	5.35	5.84	6.28	6.67	6.98	7.20	7.34	-	-
45	5.44	6.00	6.51	6.97	7.36	7.67	7.90	-	-
50	-	6.14	6.74	7.28	7.77	8.18	8.51	-	-
55	-	-	6.95	7.59	8.18	8.71	9.15	-	-
60	-	-	-	7.88	8.59	9.23	9.81	-	-
65	-	-	-	8.12	8.96	9.74	10.45	-	-

Mass flow in kg/h

35	43	59	77	98	123	151	184	-	-
40	41	56	73	94	118	146	178	-	-
45	38	52	70	90	113	140	171	-	-
50	-	49	66	86	108	135	165	-	-
55	-	-	62	81	103	129	158	-	-
60	-	-	-	76	98	123	151	-	-
65	-	-	-	72	92	116	144	-	-

Coefficient of performance (C.O.P.)

35	1.90	2.35	2.89	3.53	4.29	5.22	6.36	-	-
40	1.65	2.05	2.50	3.04	3.68	4.44	5.36	-	-
45	1.43	1.78	2.17	2.62	3.15	3.77	4.52	-	-
50	-	1.53	1.87	2.24	2.68	3.20	3.80	-	-
55	-	-	1.60	1.91	2.28	2.70	3.19	-	-
60	-	-	-	1.62	1.92	2.26	2.66	-	-
65	-	-	-	1.35	1.60	1.88	2.21	-	-

Nominal performance at to = 5 °C, tc = 50 °C

Cooling capacity	4 568	W
Power input	1 702	W
Current consumption	7.77	A
Mass flow	108	kg/h
C.O.P.	2.68	



to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Superheat = 10 K , Subcooling = 0 K

Pressure switch settings

Maximum HP switch setting	29.4	bar(g)
Minimum LP switch setting	1.4	bar(g)
LP pump down setting	1.7	bar(g)

Sound power data

Sound power level	73	dB(A)
With acoustic hood	67	dB(A)

Tolerance according EN12900

Performance data at 50 Hz, ARI rating conditions
R407C

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)							
	-15	-10	-5	0	5	10	15	

Cooling capacity in W

35	2 153	2 964	3 943	5 108	6 478	8 073	9 911	-	-
40	1 922	2 682	3 598	4 689	5 974	7 471	9 200	-	-
45	1 698	2 407	3 260	4 276	5 473	6 873	8 492	-	-
50	-	2 141	2 930	3 870	4 980	6 280	7 790	-	-
55	-	-	2 610	3 474	4 496	5 697	7 095	-	-
60	-	-	-	3 090	4 024	5 125	6 412	-	-
65	-	-	-	2 723	3 567	4 567	5 743	-	-

Power input in W

35	1 054	1 173	1 272	1 351	1 409	1 445	1 458	-	-
40	1 075	1 212	1 331	1 430	1 508	1 565	1 598	-	-
45	1 088	1 246	1 386	1 506	1 606	1 684	1 740	-	-
50	-	1 274	1 436	1 579	1 702	1 804	1 884	-	-
55	-	-	1 483	1 650	1 798	1 925	2 030	-	-
60	-	-	-	1 718	1 892	2 045	2 177	-	-
65	-	-	-	1 784	1 985	2 167	2 327	-	-

Current consumption in A

35	5.26	5.70	6.08	6.40	6.64	6.79	6.85	-	-
40	5.35	5.84	6.28	6.67	6.98	7.20	7.34	-	-
45	5.44	6.00	6.51	6.97	7.36	7.67	7.90	-	-
50	-	6.14	6.74	7.28	7.77	8.18	8.51	-	-
55	-	-	6.95	7.59	8.18	8.71	9.15	-	-
60	-	-	-	7.88	8.59	9.23	9.81	-	-
65	-	-	-	8.12	8.96	9.74	10.45	-	-

Mass flow in kg/h

35	43	59	77	98	122	150	182	-	-
40	40	55	73	94	118	145	177	-	-
45	37	52	69	89	113	140	170	-	-
50	-	49	66	85	108	134	164	-	-
55	-	-	62	81	103	128	157	-	-
60	-	-	-	76	97	122	150	-	-
65	-	-	-	71	92	116	143	-	-

Coefficient of performance (C.O.P.)

35	2.04	2.53	3.10	3.78	4.60	5.59	6.80	-	-
40	1.79	2.21	2.70	3.28	3.96	4.78	5.76	-	-
45	1.56	1.93	2.35	2.84	3.41	4.08	4.88	-	-
50	-	1.68	2.04	2.45	2.93	3.48	4.13	-	-
55	-	-	1.76	2.11	2.50	2.96	3.50	-	-
60	-	-	-	1.80	2.13	2.51	2.94	-	-
65	-	-	-	1.53	1.80	2.11	2.47	-	-

Nominal performance at to = 7.2 °C, tc = 54.4 °C

Cooling capacity	5 064	W
Power input	1 844	W
Current consumption	8.36	A
Mass flow	114	kg/h
C.O.P.	2.75	

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 K

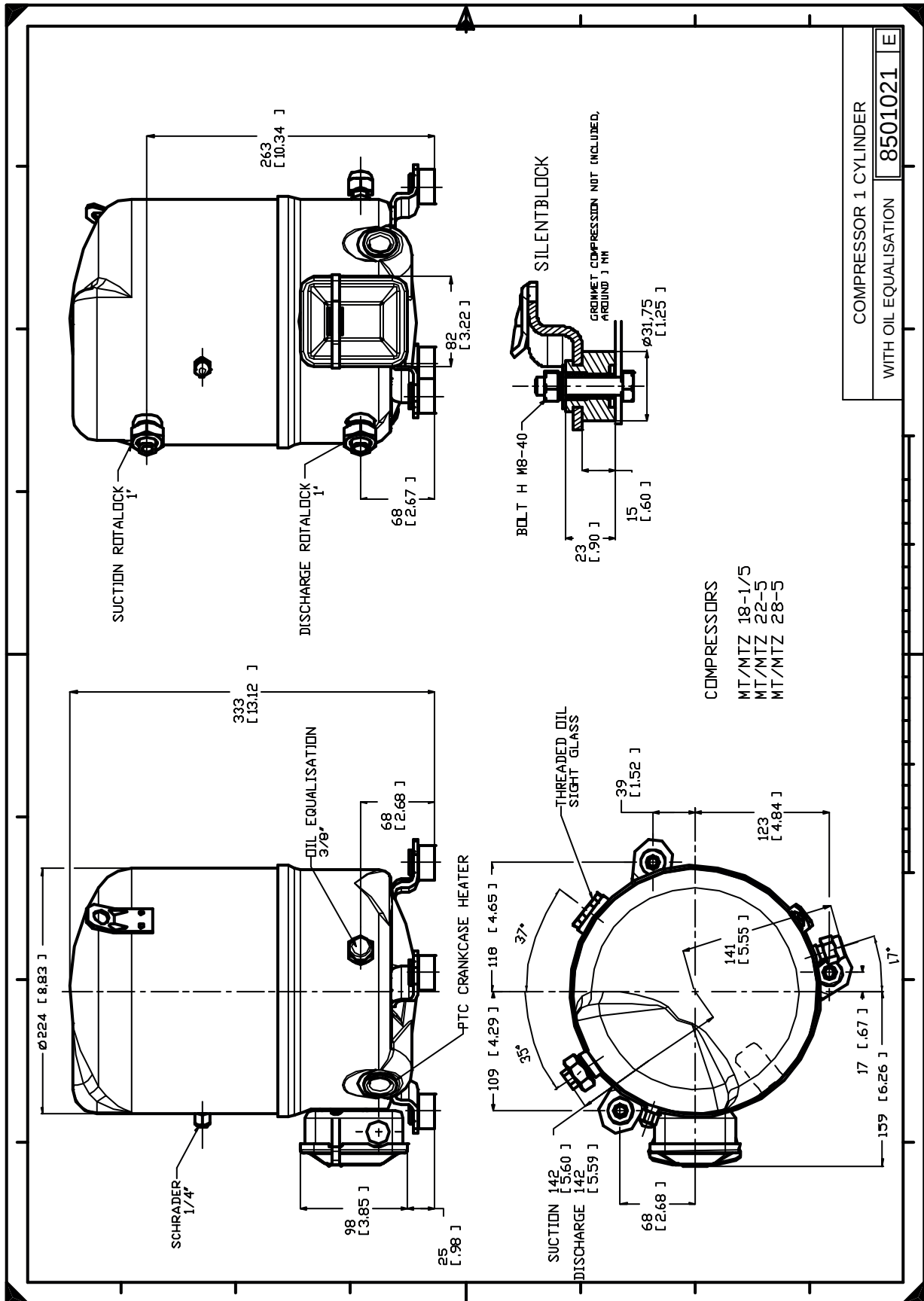
Pressure switch settings

Maximum HP switch setting	29.4	bar(g)
Minimum LP switch setting	1.4	bar(g)
LP pump down setting	1.7	bar(g)

Sound power data

Sound power level	73	dB(A)
With acoustic hood	67	dB(A)

Tolerance according EN12900



COMPRESSOR 1 CYLINDER
WITH OIL EQUALISATION **8501021** **E**