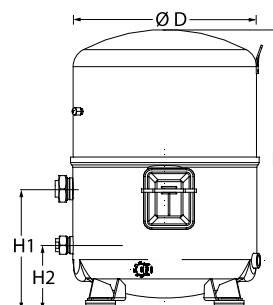


General Characteristics

Model number (on compressor nameplate)		MTZ100HS4VE
Code number for Singlepack*		MTZ100-4VI
Code number for Industrial pack**		MTZ100-4VM
Drawing number		8504010f
Suction and discharge connections		Rotolock
Suction connection		1-3/4" Rotolock
Discharge connection		1-1/4" Rotolock
Suction connection with supplied sleeve		1-1/8" ODF
Discharge connection with supplied sleeve		3/4" ODF
Oil sight glass		Threaded
Oil equalisation connection		3/8" flare SAE
Oil drain connection		None
LP gauge port		Schrader
IPR valve		30 bar / 8 bar
Cylinders	4	
Swept volume	171.26 cm ³ /rev	
Displacement @ Nominal speed	29.8 m ³ /h @ 2900 rpm - 36.0 m ³ /h @ 3500 rpm	
Net weight	60 kg	
Oil charge	3.9 litre, POE - 175PZ	
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	10 kg	
Approved refrigerants	R404A, R134a, R407C, R407A/F, R448A, R449A, R452A	

Dimensions


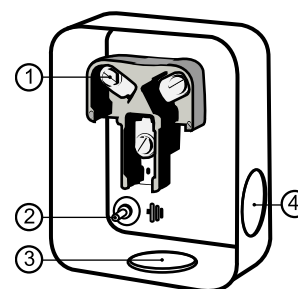
D=352 mm

H=519 mm

H1=233 mm

H2=125 mm

H3=- mm

Terminal box


IP54 (with cable gland)

1: Screw connectors 10-32 UNF x 9.5

2: Earth M4-12

3: Knock-out Ø 29 mm (1.14")

4: Knock-out Ø 25.5 mm (1.00")

Electrical Characteristics

Nominal voltage	380-400V/3/50Hz - 460V/3/60Hz
Voltage range	340-440 V @ 50Hz - 414-506 V @ 60Hz
Winding resistance (between phases) +/- 7% at 25°C	1.85 Ω
Maximum Continuous Current (MCC)	22 A
Locked Rotor Amps (LRA)	90 A
Motor protection	Internal overload protector

Recommended Installation torques

Oil sight glass	50 Nm
Power connections / Earth connection	3 Nm / 2 Nm
Mounting bolts	50 Nm

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)

Datasheet, performance data

Maneurop reciprocating compressor. MTZ100-4

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	9 186	12 506	16 495	21 229	26 784	33 239	40 670	-	-
40	8 185	11 303	15 045	19 488	24 708	30 783	37 790	-	-
45	7 201	10 105	13 588	17 729	22 602	28 287	34 858	-	-
50	-	8 927	12 141	15 968	20 484	25 766	31 891	-	-
55	-	-	10 720	14 221	18 368	23 237	28 904	-	-
60	-	-	-	12 506	16 273	20 717	25 915	-	-
65	-	-	-	10 839	14 213	18 221	22 940	-	-

Power input in W

35	4 578	5 036	5 412	5 720	5 973	6 184	6 366	-	-
40	4 724	5 279	5 743	6 129	6 449	6 719	6 949	-	-
45	4 805	5 472	6 038	6 517	6 920	7 263	7 557	-	-
50	-	5 605	6 289	6 875	7 377	7 808	8 181	-	-
55	-	-	6 486	7 194	7 809	8 344	8 810	-	-
60	-	-	-	7 466	8 209	8 862	9 437	-	-
65	-	-	-	7 682	8 568	9 353	10 053	-	-

Current consumption in A

35	9.96	10.40	10.81	11.17	11.44	11.63	11.70	-	-
40	10.08	10.63	11.13	11.59	11.97	12.25	12.41	-	-
45	10.15	10.81	11.44	12.01	12.51	12.91	13.19	-	-
50	-	10.95	11.71	12.42	13.05	13.59	14.00	-	-
55	-	-	11.93	12.80	13.59	14.27	14.84	-	-
60	-	-	-	13.13	14.09	14.95	15.69	-	-
65	-	-	-	13.39	14.55	15.60	16.53	-	-

Mass flow in kg/h

35	199	267	346	439	545	667	805	-	-
40	187	253	332	422	527	647	784	-	-
45	174	239	316	405	507	625	760	-	-
50	-	224	298	386	486	602	733	-	-
55	-	-	281	365	463	576	704	-	-
60	-	-	-	344	439	549	674	-	-
65	-	-	-	322	414	520	642	-	-

Coefficient of performance (C.O.P.)

35	2.01	2.48	3.05	3.71	4.48	5.38	6.39	-	-
40	1.73	2.14	2.62	3.18	3.83	4.58	5.44	-	-
45	1.50	1.85	2.25	2.72	3.27	3.89	4.61	-	-
50	-	1.59	1.93	2.32	2.78	3.30	3.90	-	-
55	-	-	1.65	1.98	2.35	2.79	3.28	-	-
60	-	-	-	1.68	1.98	2.34	2.75	-	-
65	-	-	-	1.41	1.66	1.95	2.28	-	-

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

Cooling capacity	20 484	W
Power input	7 377	W
Current consumption	13.05	A
Mass flow	486	kg/h
C.O.P.	2.78	



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	87	dB(A)
With acoustic hood	81	dB(A)

Tolerance according EN12900

Datasheet, performance data

Maneurop reciprocating compressor. MTZ100-4

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	9 887	13 445	17 712	22 769	28 696	35 574	43 484	-	-
40	8 859	12 216	16 239	21 007	26 602	33 105	40 596	-	-
45	7 843	10 988	14 755	19 223	24 475	30 590	37 651	-	-
50	-	9 779	13 277	17 434	22 330	28 048	34 668	-	-
55	-	-	11 824	15 657	20 187	25 495	31 664	-	-
60	-	-	-	13 910	18 062	22 951	28 658	-	-
65	-	-	-	12 215	15 978	20 436	25 673	-	-

Power input in W

35	4 578	5 036	5 412	5 720	5 973	6 184	6 366	-	-
40	4 724	5 279	5 743	6 129	6 449	6 719	6 949	-	-
45	4 805	5 472	6 038	6 517	6 920	7 263	7 557	-	-
50	-	5 605	6 289	6 875	7 377	7 808	8 181	-	-
55	-	-	6 486	7 194	7 809	8 344	8 810	-	-
60	-	-	-	7 466	8 209	8 862	9 437	-	-
65	-	-	-	7 682	8 568	9 353	10 053	-	-

Current consumption in A

35	9.96	10.40	10.81	11.17	11.44	11.63	11.70	-	-
40	10.08	10.63	11.13	11.59	11.97	12.25	12.41	-	-
45	10.15	10.81	11.44	12.01	12.51	12.91	13.19	-	-
50	-	10.95	11.71	12.42	13.05	13.59	14.00	-	-
55	-	-	11.93	12.80	13.59	14.27	14.84	-	-
60	-	-	-	13.13	14.09	14.95	15.69	-	-
65	-	-	-	13.39	14.55	15.60	16.53	-	-

Mass flow in kg/h

35	198	266	344	436	542	663	801	-	-
40	186	252	330	420	524	643	779	-	-
45	173	238	314	402	505	622	755	-	-
50	-	223	297	383	483	598	729	-	-
55	-	-	279	363	461	572	700	-	-
60	-	-	-	342	437	545	670	-	-
65	-	-	-	320	412	517	638	-	-

Coefficient of performance (C.O.P.)

35	2.16	2.67	3.27	3.98	4.80	5.75	6.83	-	-
40	1.88	2.31	2.83	3.43	4.12	4.93	5.84	-	-
45	1.63	2.01	2.44	2.95	3.54	4.21	4.98	-	-
50	-	1.74	2.11	2.54	3.03	3.59	4.24	-	-
55	-	-	1.82	2.18	2.58	3.06	3.59	-	-
60	-	-	-	1.86	2.20	2.59	3.04	-	-
65	-	-	-	1.59	1.86	2.18	2.55	-	-

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

Cooling capacity	22 699	W
Power input	7 997	W
Current consumption	13.83	A
Mass flow	511	kg/h
C.O.P.	2.84	

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	87	dB(A)
With acoustic hood	81	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	2 843	4 175	7 996	10 611	13 779	17 565	22 032	27 243	33 261
40	2 461	3 722	7 307	9 757	12 730	16 290	20 499	25 421	31 119
45	2 082	3 271	6 617	8 902	11 678	15 010	18 960	23 592	28 969
50	1 711	2 825	5 931	8 048	10 627	13 729	17 419	21 760	26 815
55	-	-	5 252	7 201	9 580	12 452	15 880	19 929	24 661
60	-	-	-	6 363	8 542	11 182	14 348	18 103	22 510
65	-	-	-	-	7 516	9 924	12 826	16 286	20 367
75	-	-	-	-	-	-	9 829	12 695	16 120

Power input in W

35	2 336	2 699	3 384	3 675	3 912	4 080	4 162	4 143	4 008
40	2 407	2 785	3 524	3 854	4 137	4 357	4 500	4 549	4 490
45	2 443	2 842	3 645	4 018	4 351	4 630	4 838	4 960	4 981
50	2 443	2 868	3 744	4 165	4 554	4 895	5 173	5 374	5 480
55	-	-	3 818	4 291	4 741	5 150	5 504	5 787	5 983
60	-	-	-	4 395	4 909	5 391	5 825	6 196	6 488
65	-	-	-	-	5 057	5 616	6 135	6 599	6 991
75	-	-	-	-	-	-	6 710	7 373	7 980

Current consumption in A

35	7.67	7.97	8.52	8.75	8.94	9.08	9.16	9.16	9.08
40	7.67	7.99	8.60	8.88	9.13	9.33	9.48	9.56	9.57
45	7.65	7.98	8.67	9.00	9.31	9.58	9.81	9.98	10.08
50	7.59	7.96	8.74	9.12	9.49	9.84	10.15	10.41	10.61
55	-	-	8.78	9.23	9.68	10.10	10.50	10.85	11.16
60	-	-	-	9.34	9.86	10.37	10.86	11.32	11.74
65	-	-	-	-	10.03	10.64	11.23	11.79	12.33
75	-	-	-	-	-	-	11.98	12.79	13.57

Mass flow in kg/h

35	72	104	190	247	313	392	482	586	705
40	66	98	183	238	304	381	470	573	690
45	59	91	175	229	294	370	457	558	673
50	52	83	166	220	283	357	443	542	656
55	-	-	156	209	271	344	428	525	637
60	-	-	-	197	258	329	412	507	616
65	-	-	-	-	244	314	395	488	595
75	-	-	-	-	-	-	356	445	547

Coefficient of performance (C.O.P.)

35	1.22	1.55	2.36	2.89	3.52	4.31	5.29	6.58	8.30
40	1.02	1.34	2.07	2.53	3.08	3.74	4.56	5.59	6.93
45	0.85	1.15	1.82	2.22	2.68	3.24	3.92	4.76	5.82
50	0.70	0.99	1.58	1.93	2.33	2.80	3.37	4.05	4.89
55	-	-	1.38	1.68	2.02	2.42	2.89	3.44	4.12
60	-	-	-	1.45	1.74	2.07	2.46	2.92	3.47
65	-	-	-	-	1.49	1.77	2.09	2.47	2.91
75	-	-	-	-	-	-	1.46	1.72	2.02

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

Cooling capacity	13 729	W
Power input	4 895	W
Current consumption	9.84	A
Mass flow	357	kg/h
C.O.P.	2.80	

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	3 090	4 530	8 646	11 454	14 852	18 904	23 678	29 237	35 649
40	2 691	4 062	7 942	10 586	13 788	17 614	22 130	27 403	33 497
45	2 292	3 592	7 236	9 714	12 719	16 317	20 575	25 559	31 334
50	-	3 126	6 530	8 841	11 647	15 017	19 015	23 709	29 165
55	-	-	5 829	7 971	10 578	13 717	17 455	21 859	26 994
60	-	-	-	7 109	9 516	12 423	15 900	20 012	24 827
65	-	-	-	-	-	11 139	14 354	18 175	22 669
75	-	-	-	-	-	-	11 310	14 550	18 407

Power input in W

35	2 336	2 699	3 384	3 675	3 912	4 080	4 162	4 143	4 008
40	2 407	2 785	3 524	3 854	4 137	4 357	4 500	4 549	4 490
45	2 443	2 842	3 645	4 018	4 351	4 630	4 838	4 960	4 981
50	-	2 868	3 744	4 165	4 554	4 895	5 173	5 374	5 480
55	-	-	3 818	4 291	4 741	5 150	5 504	5 787	5 983
60	-	-	-	4 395	4 909	5 391	5 825	6 196	6 488
65	-	-	-	-	-	5 616	6 135	6 599	6 991
75	-	-	-	-	-	-	6 710	7 373	7 980

Current consumption in A

35	7.67	7.97	8.52	8.75	8.94	9.08	9.16	9.16	9.08
40	7.67	7.99	8.60	8.88	9.13	9.33	9.48	9.56	9.57
45	7.65	7.98	8.67	9.00	9.31	9.58	9.81	9.98	10.08
50	-	7.96	8.74	9.12	9.49	9.84	10.15	10.41	10.61
55	-	-	8.78	9.23	9.68	10.10	10.50	10.85	11.16
60	-	-	-	9.34	9.86	10.37	10.86	11.32	11.74
65	-	-	-	-	-	10.64	11.23	11.79	12.33
75	-	-	-	-	-	-	11.98	12.79	13.57

Mass flow in kg/h

35	72	104	189	246	312	390	480	583	701
40	66	97	182	237	303	379	468	570	686
45	59	90	174	228	292	368	455	555	669
50	-	83	165	219	282	355	441	539	652
55	-	-	156	208	270	342	426	522	633
60	-	-	-	196	257	328	410	504	613
65	-	-	-	-	-	312	392	485	591
75	-	-	-	-	-	-	354	443	544

Coefficient of performance (C.O.P.)

35	1.32	1.68	2.56	3.12	3.80	4.63	5.69	7.06	8.89
40	1.12	1.46	2.25	2.75	3.33	4.04	4.92	6.02	7.46
45	0.94	1.26	1.99	2.42	2.92	3.52	4.25	5.15	6.29
50	-	1.09	1.74	2.12	2.56	3.07	3.68	4.41	5.32
55	-	-	1.53	1.86	2.23	2.66	3.17	3.78	4.51
60	-	-	-	1.62	1.94	2.30	2.73	3.23	3.83
65	-	-	-	-	-	1.98	2.34	2.75	3.24
75	-	-	-	-	-	-	1.69	1.97	2.31

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

Cooling capacity	15 453	W
Power input	5 279	W
Current consumption	10.24	A
Mass flow	379	kg/h
C.O.P.	2.93	

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 = 11.1 K , Subcooling = 8.3 K

Tolerance according EN12900

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Datasheet, performance data

Maneurop reciprocating compressor. MTZ100-4

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	5 175	7 247	9 826	12 976	16 759	21 239	26 480	32 545	39 497
35	4 560	6 501	8 892	11 797	15 279	19 402	24 229	29 823	36 248
40	3 917	5 730	7 937	10 602	13 787	17 556	21 973	27 101	33 003
45	3 242	4 932	6 959	9 387	12 279	15 698	19 709	24 373	29 756
50	2 532	4 102	5 953	8 148	10 751	13 824	17 432	21 638	26 505
55	-	3 238	4 916	6 883	9 200	11 931	15 140	18 891	23 246
60	-	2 336	3 846	5 587	7 622	10 015	12 829	16 129	19 976

Power input in W

30	3 997	4 532	5 003	5 409	5 750	6 025	6 233	6 374	6 447
35	4 062	4 676	5 223	5 704	6 117	6 461	6 736	6 942	7 077
40	4 069	4 769	5 401	5 963	6 456	6 877	7 227	7 505	7 710
45	4 008	4 802	5 526	6 178	6 758	7 265	7 697	8 055	8 338
50	3 869	4 766	5 590	6 340	7 015	7 614	8 137	8 583	8 951
55	-	4 653	5 584	6 439	7 217	7 917	8 538	9 079	9 541
60	-	4 452	5 499	6 467	7 355	8 163	8 890	9 535	10 098

Current consumption in A

30	9.31	9.80	10.28	10.72	11.12	11.45	11.70	11.84	11.87
35	9.35	9.91	10.47	11.00	11.48	11.89	12.22	12.45	12.57
40	9.34	10.00	10.65	11.27	11.85	12.36	12.79	13.12	13.33
45	9.27	10.04	10.80	11.52	12.21	12.83	13.37	13.81	14.14
50	9.11	10.00	10.87	11.72	12.53	13.27	13.94	14.50	14.96
55	-	9.84	10.85	11.84	12.78	13.66	14.46	15.17	15.76
60	-	9.56	10.71	11.84	12.93	13.96	14.91	15.77	16.51

Mass flow in kg/h

30	163	223	294	379	477	592	724	875	1 047
35	154	215	285	368	464	575	703	848	1 013
40	144	205	275	356	450	558	682	822	981
45	130	192	263	343	435	541	660	796	950
50	113	176	247	328	419	522	638	770	919
55	-	157	229	309	399	500	614	742	886
60	-	132	206	287	376	476	588	713	852

Coefficient of performance (C.O.P.)

30	1.29	1.60	1.96	2.40	2.91	3.53	4.25	5.11	6.13
35	1.12	1.39	1.70	2.07	2.50	3.00	3.60	4.30	5.12
40	0.96	1.20	1.47	1.78	2.14	2.55	3.04	3.61	4.28
45	0.81	1.03	1.26	1.52	1.82	2.16	2.56	3.03	3.57
50	0.65	0.86	1.06	1.29	1.53	1.82	2.14	2.52	2.96
55	-	0.70	0.88	1.07	1.27	1.51	1.77	2.08	2.44
60	-	0.52	0.70	0.86	1.04	1.23	1.44	1.69	1.98

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

Cooling capacity	12 279	W
Power input	6 758	W
Current consumption	12.21	A
Mass flow	435	kg/h
C.O.P.	1.82	



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	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	85	dB(A)
With acoustic hood	79	dB(A)

Tolerance according EN12900

Datasheet, performance data

Maneurop reciprocating compressor. MTZ100-4

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	5 761	8 046	10 881	14 333	18 469	23 356	29 059	35 644	43 177
35	5 131	7 291	9 943	13 154	16 992	21 523	26 814	32 931	39 941
40	4 465	6 507	8 982	11 958	15 502	19 682	24 566	30 220	36 712
45	3 757	5 690	7 994	10 740	13 996	17 832	22 314	27 511	33 491
50	2 999	4 831	6 973	9 498	12 474	15 971	20 060	24 808	30 283
55	-	3 924	5 916	8 229	10 935	14 105	17 810	22 119	27 102
60	-	2 953	4 816	6 935	9 386	12 245	15 582	19 470	23 979

Power input in W

30	3 997	4 532	5 003	5 409	5 750	6 025	6 233	6 374	6 447
35	4 062	4 676	5 223	5 704	6 117	6 461	6 736	6 942	7 077
40	4 069	4 769	5 401	5 963	6 456	6 877	7 227	7 505	7 710
45	4 008	4 802	5 526	6 178	6 758	7 265	7 697	8 055	8 338
50	3 869	4 766	5 590	6 340	7 015	7 614	8 137	8 583	8 951
55	-	4 653	5 584	6 439	7 217	7 917	8 538	9 079	9 541
60	-	4 452	5 499	6 467	7 355	8 163	8 890	9 535	10 098

Current consumption in A

30	9.31	9.80	10.28	10.72	11.12	11.45	11.70	11.84	11.87
35	9.35	9.91	10.47	11.00	11.48	11.89	12.22	12.45	12.57
40	9.34	10.00	10.65	11.27	11.85	12.36	12.79	13.12	13.33
45	9.27	10.04	10.80	11.52	12.21	12.83	13.37	13.81	14.14
50	9.11	10.00	10.87	11.72	12.53	13.27	13.94	14.50	14.96
55	-	9.84	10.85	11.84	12.78	13.66	14.46	15.17	15.76
60	-	9.56	10.71	11.84	12.93	13.96	14.91	15.77	16.51

Mass flow in kg/h

30	162	222	293	376	475	588	720	869	1 040
35	154	213	284	366	461	572	698	843	1 006
40	143	203	273	354	448	555	677	817	975
45	130	191	261	341	433	537	656	791	944
50	112	175	246	326	416	518	634	765	912
55	-	156	228	307	397	497	610	737	880
60	-	132	205	285	374	473	584	708	846

Coefficient of performance (C.O.P.)

30	1.44	1.78	2.18	2.65	3.21	3.88	4.66	5.59	6.70
35	1.26	1.56	1.90	2.31	2.78	3.33	3.98	4.74	5.64
40	1.10	1.36	1.66	2.01	2.40	2.86	3.40	4.03	4.76
45	0.94	1.18	1.45	1.74	2.07	2.45	2.90	3.42	4.02
50	0.78	1.01	1.25	1.50	1.78	2.10	2.47	2.89	3.38
55	-	0.84	1.06	1.28	1.52	1.78	2.09	2.44	2.84
60	-	0.66	0.88	1.07	1.28	1.50	1.75	2.04	2.37

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

Cooling capacity	13 996	W
Power input	6 758	W
Current consumption	12.21	A
Mass flow	433	kg/h
C.O.P.	2.07	

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	85	dB(A)
With acoustic hood	79	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

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	2 843	4 175	7 996	10 611	13 779	17 565	22 032	27 243	33 261
40	2 461	3 722	7 307	9 757	12 730	16 290	20 499	25 421	31 119
45	2 082	3 271	6 617	8 902	11 678	15 010	18 960	23 592	28 969
50	1 711	2 825	5 931	8 048	10 627	13 729	17 419	21 760	26 815
55	-	-	5 252	7 201	9 580	12 452	15 880	19 929	24 661
60	-	-	-	6 363	8 542	11 182	14 348	18 103	22 510
65	-	-	-	-	7 516	9 924	12 826	16 286	20 367
75	-	-	-	-	-	-	9 829	12 695	16 120

Power input in W

35	2 336	2 699	3 384	3 675	3 912	4 080	4 162	4 143	4 008
40	2 407	2 785	3 524	3 854	4 137	4 357	4 500	4 549	4 490
45	2 443	2 842	3 645	4 018	4 351	4 630	4 838	4 960	4 981
50	2 443	2 868	3 744	4 165	4 554	4 895	5 173	5 374	5 480
55	-	-	3 818	4 291	4 741	5 150	5 504	5 787	5 983
60	-	-	-	4 395	4 909	5 391	5 825	6 196	6 488
65	-	-	-	-	5 057	5 616	6 135	6 599	6 991
75	-	-	-	-	-	-	6 710	7 373	7 980

Current consumption in A

35	7.67	7.97	8.52	8.75	8.94	9.08	9.16	9.16	9.08
40	7.67	7.99	8.60	8.88	9.13	9.33	9.48	9.56	9.57
45	7.65	7.98	8.67	9.00	9.31	9.58	9.81	9.98	10.08
50	7.59	7.96	8.74	9.12	9.49	9.84	10.15	10.41	10.61
55	-	-	8.78	9.23	9.68	10.10	10.50	10.85	11.16
60	-	-	-	9.34	9.86	10.37	10.86	11.32	11.74
65	-	-	-	-	10.03	10.64	11.23	11.79	12.33
75	-	-	-	-	-	-	11.98	12.79	13.57

Mass flow in kg/h

35	72	104	190	247	313	392	482	586	705
40	66	98	183	238	304	381	470	573	690
45	59	91	175	229	294	370	457	558	673
50	52	83	166	220	283	357	443	542	656
55	-	-	156	209	271	344	428	525	637
60	-	-	-	197	258	329	412	507	616
65	-	-	-	-	244	314	395	488	595
75	-	-	-	-	-	-	356	445	547

Coefficient of performance (C.O.P.)

35	1.22	1.55	2.36	2.89	3.52	4.31	5.29	6.58	8.30
40	1.02	1.34	2.07	2.53	3.08	3.74	4.56	5.59	6.93
45	0.85	1.15	1.82	2.22	2.68	3.24	3.92	4.76	5.82
50	0.70	0.99	1.58	1.93	2.33	2.80	3.37	4.05	4.89
55	-	-	1.38	1.68	2.02	2.42	2.89	3.44	4.12
60	-	-	-	1.45	1.74	2.07	2.46	2.92	3.47
65	-	-	-	-	1.49	1.77	2.09	2.47	2.91
75	-	-	-	-	-	-	1.46	1.72	2.02

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

Cooling capacity	13 729	W
Power input	4 895	W
Current consumption	9.84	A
Mass flow	357	kg/h
C.O.P.	2.80	

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	3 090	4 530	8 646	11 454	14 852	18 904	23 678	29 237	35 649
40	2 691	4 062	7 942	10 586	13 788	17 614	22 130	27 403	33 497
45	2 292	3 592	7 236	9 714	12 719	16 317	20 575	25 559	31 334
50	-	3 126	6 530	8 841	11 647	15 017	19 015	23 709	29 165
55	-	-	5 829	7 971	10 578	13 717	17 455	21 859	26 994
60	-	-	-	7 109	9 516	12 423	15 900	20 012	24 827
65	-	-	-	-	-	11 139	14 354	18 175	22 669
75	-	-	-	-	-	-	11 310	14 550	18 407

Power input in W

35	2 336	2 699	3 384	3 675	3 912	4 080	4 162	4 143	4 008
40	2 407	2 785	3 524	3 854	4 137	4 357	4 500	4 549	4 490
45	2 443	2 842	3 645	4 018	4 351	4 630	4 838	4 960	4 981
50	-	2 868	3 744	4 165	4 554	4 895	5 173	5 374	5 480
55	-	-	3 818	4 291	4 741	5 150	5 504	5 787	5 983
60	-	-	-	4 395	4 909	5 391	5 825	6 196	6 488
65	-	-	-	-	-	5 616	6 135	6 599	6 991
75	-	-	-	-	-	-	6 710	7 373	7 980

Current consumption in A

35	7.67	7.97	8.52	8.75	8.94	9.08	9.16	9.16	9.08
40	7.67	7.99	8.60	8.88	9.13	9.33	9.48	9.56	9.57
45	7.65	7.98	8.67	9.00	9.31	9.58	9.81	9.98	10.08
50	-	7.96	8.74	9.12	9.49	9.84	10.15	10.41	10.61
55	-	-	8.78	9.23	9.68	10.10	10.50	10.85	11.16
60	-	-	-	9.34	9.86	10.37	10.86	11.32	11.74
65	-	-	-	-	-	10.64	11.23	11.79	12.33
75	-	-	-	-	-	-	11.98	12.79	13.57

Mass flow in kg/h

35	72	104	189	246	312	390	480	583	701
40	66	97	182	237	303	379	468	570	686
45	59	90	174	228	292	368	455	555	669
50	-	83	165	219	282	355	441	539	652
55	-	-	156	208	270	342	426	522	633
60	-	-	-	196	257	328	410	504	613
65	-	-	-	-	-	312	392	485	591
75	-	-	-	-	-	-	354	443	544

Coefficient of performance (C.O.P.)

35	1.32	1.68	2.56	3.12	3.80	4.63	5.69	7.06	8.89
40	1.12	1.46	2.25	2.75	3.33	4.04	4.92	6.02	7.46
45	0.94	1.26	1.99	2.42	2.92	3.52	4.25	5.15	6.29
50	-	1.09	1.74	2.12	2.56	3.07	3.68	4.41	5.32
55	-	-	1.53	1.86	2.23	2.66	3.17	3.78	4.51
60	-	-	-	1.62	1.94	2.30	2.73	3.23	3.83
65	-	-	-	-	-	1.98	2.34	2.75	3.24
75	-	-	-	-	-	-	1.69	1.97	2.31

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

Cooling capacity	15 453	W
Power input	5 279	W
Current consumption	10.24	A
Mass flow	379	kg/h
C.O.P.	2.93	

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 = 11.1 K , Subcooling = 8.3 K

Tolerance according EN12900

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Datasheet, performance data

Maneurop reciprocating compressor. MTZ100-4

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	9 186	12 506	16 495	21 229	26 784	33 239	40 670	-	-
40	8 185	11 303	15 045	19 488	24 708	30 783	37 790	-	-
45	7 201	10 105	13 588	17 729	22 602	28 287	34 858	-	-
50	-	8 927	12 141	15 968	20 484	25 766	31 891	-	-
55	-	-	10 720	14 221	18 368	23 237	28 904	-	-
60	-	-	-	12 506	16 273	20 717	25 915	-	-
65	-	-	-	10 839	14 213	18 221	22 940	-	-

Power input in W

35	4 578	5 036	5 412	5 720	5 973	6 184	6 366	-	-
40	4 724	5 279	5 743	6 129	6 449	6 719	6 949	-	-
45	4 805	5 472	6 038	6 517	6 920	7 263	7 557	-	-
50	-	5 605	6 289	6 875	7 377	7 808	8 181	-	-
55	-	-	6 486	7 194	7 809	8 344	8 810	-	-
60	-	-	-	7 466	8 209	8 862	9 437	-	-
65	-	-	-	7 682	8 568	9 353	10 053	-	-

Current consumption in A

35	9.96	10.40	10.81	11.17	11.44	11.63	11.70	-	-
40	10.08	10.63	11.13	11.59	11.97	12.25	12.41	-	-
45	10.15	10.81	11.44	12.01	12.51	12.91	13.19	-	-
50	-	10.95	11.71	12.42	13.05	13.59	14.00	-	-
55	-	-	11.93	12.80	13.59	14.27	14.84	-	-
60	-	-	-	13.13	14.09	14.95	15.69	-	-
65	-	-	-	13.39	14.55	15.60	16.53	-	-

Mass flow in kg/h

35	199	267	346	439	545	667	805	-	-
40	187	253	332	422	527	647	784	-	-
45	174	239	316	405	507	625	760	-	-
50	-	224	298	386	486	602	733	-	-
55	-	-	281	365	463	576	704	-	-
60	-	-	-	344	439	549	674	-	-
65	-	-	-	322	414	520	642	-	-

Coefficient of performance (C.O.P.)

35	2.01	2.48	3.05	3.71	4.48	5.38	6.39	-	-
40	1.73	2.14	2.62	3.18	3.83	4.58	5.44	-	-
45	1.50	1.85	2.25	2.72	3.27	3.89	4.61	-	-
50	-	1.59	1.93	2.32	2.78	3.30	3.90	-	-
55	-	-	1.65	1.98	2.35	2.79	3.28	-	-
60	-	-	-	1.68	1.98	2.34	2.75	-	-
65	-	-	-	1.41	1.66	1.95	2.28	-	-

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

Cooling capacity	20 484	W
Power input	7 377	W
Current consumption	13.05	A
Mass flow	486	kg/h
C.O.P.	2.78	



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	87	dB(A)
With acoustic hood	81	dB(A)

Tolerance according EN12900

Datasheet, performance data

Maneurop reciprocating compressor. MTZ100-4

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	9 887	13 445	17 712	22 769	28 696	35 574	43 484	-	-
40	8 859	12 216	16 239	21 007	26 602	33 105	40 596	-	-
45	7 843	10 988	14 755	19 223	24 475	30 590	37 651	-	-
50	-	9 779	13 277	17 434	22 330	28 048	34 668	-	-
55	-	-	11 824	15 657	20 187	25 495	31 664	-	-
60	-	-	-	13 910	18 062	22 951	28 658	-	-
65	-	-	-	12 215	15 978	20 436	25 673	-	-

Power input in W

35	4 578	5 036	5 412	5 720	5 973	6 184	6 366	-	-
40	4 724	5 279	5 743	6 129	6 449	6 719	6 949	-	-
45	4 805	5 472	6 038	6 517	6 920	7 263	7 557	-	-
50	-	5 605	6 289	6 875	7 377	7 808	8 181	-	-
55	-	-	6 486	7 194	7 809	8 344	8 810	-	-
60	-	-	-	7 466	8 209	8 862	9 437	-	-
65	-	-	-	7 682	8 568	9 353	10 053	-	-

Current consumption in A

35	9.96	10.40	10.81	11.17	11.44	11.63	11.70	-	-
40	10.08	10.63	11.13	11.59	11.97	12.25	12.41	-	-
45	10.15	10.81	11.44	12.01	12.51	12.91	13.19	-	-
50	-	10.95	11.71	12.42	13.05	13.59	14.00	-	-
55	-	-	11.93	12.80	13.59	14.27	14.84	-	-
60	-	-	-	13.13	14.09	14.95	15.69	-	-
65	-	-	-	13.39	14.55	15.60	16.53	-	-

Mass flow in kg/h

35	198	266	344	436	542	663	801	-	-
40	186	252	330	420	524	643	779	-	-
45	173	238	314	402	505	622	755	-	-
50	-	223	297	383	483	598	729	-	-
55	-	-	279	363	461	572	700	-	-
60	-	-	-	342	437	545	670	-	-
65	-	-	-	320	412	517	638	-	-

Coefficient of performance (C.O.P.)

35	2.16	2.67	3.27	3.98	4.80	5.75	6.83	-	-
40	1.88	2.31	2.83	3.43	4.12	4.93	5.84	-	-
45	1.63	2.01	2.44	2.95	3.54	4.21	4.98	-	-
50	-	1.74	2.11	2.54	3.03	3.59	4.24	-	-
55	-	-	1.82	2.18	2.58	3.06	3.59	-	-
60	-	-	-	1.86	2.20	2.59	3.04	-	-
65	-	-	-	1.59	1.86	2.18	2.55	-	-

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

Cooling capacity	22 699	W
Power input	7 997	W
Current consumption	13.83	A
Mass flow	511	kg/h
C.O.P.	2.84	

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	87	dB(A)
With acoustic hood	81	dB(A)

Tolerance according EN12900

