ENGINEERING TOMORROW



Datasheets

Danfoss Reciprocating compressors MT / MTZ / NTZ





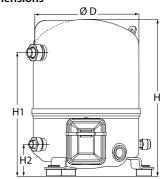


Datasheet, technical data

General Characteristics

Model number (on compressor nameplate)		MTZ40JH4AVE	
Code number for Singlepack*		MTZ40-4VI	
Code number for Industrial pack**		MTZ40-4VM	
Drawing number		8501025f	
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 equalisation connection		3/8" flare SAE	
Oil drain connection		None	
LP gauge port		Schrader	
IPR valve		None	
Cylinders	1		
Swept volume	67.89 c	m3/rev	
Displacement @ Nominal speed	11.8 m3/h @ 2900 rpm -	14.3 m3/h @ 3500 rpm	
Net weight	26	kg	
Oil charge	0.95 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	2.5 kg		
Approved refrigerants	R404A,R134a,R407A/C/F,R	448A,R449A,R452A,R513A	

Dimensions



D=224 mm H=356 mm H1=263 mm H2=68 mm H3=- mm

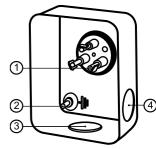
Electrical Characteristics

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℃	4.05 Ω
Maximum Continuous Current (MCC)	10 A
Locked Rotor Amps (LRA)	38 A
Motor protection	Internal overload protector

Recommended Installation torques

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

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")

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), CCC certified

*Singlepack: Compressor in cardboard box

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



Datasheet, accessories and spare parts

Maneurop reciprocating compressor, MTZ040-4

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	Gaskets, sleeves and nuts
Rotolock accessories, discharge side	Code no.	
Solder sleeve, P06 (1" Rotolock, 1/2" ODF)	8153007	
Rotolock valve, V06 (1" Rotolock, 1/2" ODF)	8168031	() ODF ()
Gasket, 1"	8156130	
Rotolock accessories, sets	Code no.	
·		1 2 3
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	1: Gasket
		2: Solder sleeve
Oil / lubricants	Code no.	3: Rotolock nut
POE lubricant, 175PZ, 1 litre can	120Z0638	
POE lubricant, 175PZ, 2.5 litre 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	
Belt type crankcase heater, 54 W, 400 V, UL	7773013	Mounting kit
Miscellaneous accessories	Code no.	1
Electronic soft start kit, MCI 15 C	7705006	2
Acoustic hood for 1 cylinder compressor	120Z0575	3
Oil equalisation nut	8153127	
		4

1: Bolt (3x)

Code no.

8156001

8156019

8156145

8156134

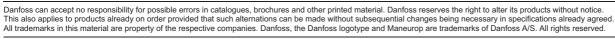
2: Lock washer (3x)

3: Flat washer (3x)

4: Sleeve (3x)

5: Grommet (3x)

6: Nut (3x)





Spare parts

Oil sight glass with gaskets (black & white)

Gasket for oil sight glass (black chloroprene)

Mounting kit for 1 and 2 cylinder compressor, including 3 grommets, 3 bolts

Service kit for terminal box 80 x 96 mm, including 1 cover, 1 clamp



Maneurop reciprocating compressor. MTZ040-4

Performance data at 50 Hz, EN 12900 rating conditions

R407C

Cond. temp. in				Evapora	ting temperature	in °C (to)			
°C (tc)	-15	-10	-5	0	5	10	15		
Cooling capacity	y in W	•	•		T	1	•	1	•
35	4 283	5 574	7 096	8 876	10 939	13 312	16 019	-	-
40	3 928	5 152	6 585	8 252	10 179	12 392	14 916	-	-
45	3 557	4 719	6 067	7 625	9 420	11 477	13 822	-	-
50	-	4 271	5 537	6 991	8 658	10 564	12 734	-	-
55	-	-	4 992	6 345	7 889	9 647	11 647	-	-
60	-	-	-	5 683	7 108	8 723	10 556	-	-
65	-	-	-	5 001	6 310	7 787	9 458	-	-
Power input in V			T			1		1	1
35	2 036	2 254	2 445	2 609	2 746	2 854	2 935	-	-
40	2 119	2 373	2 597	2 793	2 959	3 094	3 198	-	-
45	2 182	2 479	2 744	2 977	3 179	3 348	3 483	-	-
50	-	2 567	2 879	3 158	3 402	3 611	3 785	-	-
55	-	-	2 999	3 330	3 624	3 880	4 099	-	-
60	-	-	-	3 489	3 840	4 150	4 420	-	-
65	-	-	-	3 632	4 045	4 417	4 746	-	-
Current consum	ption in A								
35	4.68	4.93	5.15	5.34	5.51	5.64	5.73	-	-
40	4.78	5.08	5.36	5.60	5.81	5.98	6.11	-	-
45	4.85	5.22	5.56	5.86	6.13	6.35	6.52	-	-
50	-	5.34	5.76	6.13	6.46	6.74	6.98	-	-
55	-	-	5.94	6.39	6.80	7.16	7.46	-	-
60	-	-	-	6.64	7.14	7.59	7.98	-	-
65	-	-	-	6.88	7.48	8.02	8.51	-	-
Mass flow in kg/	h								
35	93	119	149	183	223	267	317	_	_
40	90	116	145	179	217	260	309	_	_
45	86	112	141	174	212	254	301	_	_
50	-	107	136	169	206	247	293	_	_
55	-	-	131	163	199	239	284	_	_
60	-	_	-	156	192	231	275	_	_
65	-	-	-	149	184	222	265	-	-
L				-		1		1	
Coefficient of pe	erformance (C.C).P.)							
35	2.10	2.47	2.90	3.40	3.98	4.66	5.46	-	-
40	1.85	2.17	2.54	2.95	3.44	4.01	4.66	-	-
45	1.63	1.90	2.21	2.56	2.96	3.43	3.97	-	-
50	-	1.66	1.92	2.21	2.55	2.93	3.36	-	-
55	-	-	1.66	1.91	2.18	2.49	2.84	-	-
60	-	-	-	1.63	1.85	2.10	2.39	-	-
65	-	-	-	1.38	1.56	1.76	1.99	-	-

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

Cooling capacity	8 658	W
Power input	3 402	W
Current consumption	6.46	Α
Mass flow	206	kg/h
C.O.P.	2.55	

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)	ı
Minimum LP switch setting	1.4	bar(g)	ı
LP pump down setting	1.7	bar(g)	

Sound power data

Sound p	oower level	74	dB(A)
With ac	coustic hood	69	dB(A)

Tolerance according EN12900





Maneurop reciprocating compressor. MTZ040-4

Performance data at 50 Hz, ARI rating conditions

R407C

Cond. temp. in				Evapora	ating temperature	in °C (to)			
°C (tc)	-15	-10	-5	0	5	10	15		
Į.		<u> </u>		<u> </u>	L	1		I.	l
Cooling capacity	y in W								
35	4 610	5 992	7 619	9 520	11 720	14 247	17 128	-	-
40	4 251	5 568	7 107	8 895	10 959	13 326	16 023	-	-
45	3 874	5 132	6 588	8 268	10 201	12 412	14 930	-	-
50	-	4 678	6 056	7 633	9 439	11 500	13 843	-	-
55	-	-	5 506	6 986	8 670	10 585	12 759	-	-
60	-	-	-	6 321	7 889	9 664	11 674	-	-
65	-	-	-	5 635	7 093	8 734	10 585	-	-
Power input in V		T	T	1	T	1	1	1	
35	2 036	2 254	2 445	2 609	2 746	2 854	2 935	-	-
40	2 119	2 373	2 597	2 793	2 959	3 094	3 198	-	-
45	2 182	2 479	2 744	2 977	3 179	3 348	3 483	-	-
50	-	2 567	2 879	3 158	3 402	3 611	3 785	-	-
55	-	-	2 999	3 330	3 624	3 880	4 099	-	-
60	-	-	-	3 489	3 840	4 150	4 420	-	-
65	-	-	-	3 632	4 045	4 417	4 746	-	-
Current consum	notion in A								
35	4.68	4.93	5.15	5.34	5.51	5.64	5.73	_	_
40	4.78	5.08	5.36	5.60	5.81	5.98	6.11	_	_
45	4.85	5.22	5.56	5.86	6.13	6.35	6.52	-	-
50	-	5.34	5.76	6.13	6.46	6.74	6.98	-	-
55	-	-	5.94	6.39	6.80	7.16	7.46	-	-
60	-	-	-	6.64	7.14	7.59	7.98	-	-
65	-	-	-	6.88	7.48	8.02	8.51	-	-
								•	
Mass flow in kg/	/h								_
35	93	118	148	182	221	266	316	-	-
40	89	115	144	178	216	259	307	-	-
45	85	111	140	173	210	252	299	-	-
50	-	107	135	168	204	245	291	-	-
55	-	-	130	162	198	238	282	-	-
60	-	-	-	156	191	230	273	-	-
65	-	-	-	148	183	221	263	-	-
Coefficient of pe	erformance (C.C) P)							
35	2.26	2.66	3.12	3.65	4.27	4.99	5.84	-	-
33		2.35	2.74	3.19	3.70	4.31	5.01	-	-
40	2.01	2.00		i		+	1	+	_
40	2.01 1.78	2.07	2.40	2.78	3.21	3.71	4.29	-	-
40 45			2.40 2.10	2.78 2.42	3.21 2.77	3.71 3.18	4.29 3.66	-	-
40	1.78	2.07	+		1			_	
40 45 50	1.78 -	2.07 1.82	2.10	2.42	2.77	3.18	3.66	-	-

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

Cooling capacity	9 582	W
Power input	3 712	W
Current consumption	6.92	Α
Mass flow	216	kg/h
C.O.P.	2.58	

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(q)	

Sound power data

Sound power level	74	dB(A)
With accoustic hood	69	dB(A)

Tolerance according EN12900





Maneurop reciprocating compressor. MTZ040-4

Performance data at 50 Hz, EN 12900 rating conditions

R134a

Cond. temp. in				Evapora	ting temperature	in °C (to)			
°C (tc)	-25	-20	-10	-5	0	5	10	15	20
Cooling consoit	r in M								
Cooling capacity 35	1 476	2 005	3 456	4 429	5 601	6 996	8 640	10 559	12 777
40	1 306	1 810	3 185	4 106	5 216	6 541	8 106	9 936	12 056
45	1 138	1 618	2 914	3 781	4 829	6 082	7 566	9 306	11 327
50	976	1 428	2 643	3 456	4 440	5 620	7 022	8 670	10 590
55	-	-	2 374	3 131	4 050	5 156	6 474	8 030	9 848
60	-	_	-	2 808	3 661	4 691	5 924	7 386	9 101
65	-	_	_	-	3 273	4 227	5 374	6 740	8 351
75	_	_	_	_	-	-	4 275	5 447	6 845
		l	l		L			<u> </u>	
Power input in V				T	1	T	1	1	1
35	1 076	1 201	1 445	1 555	1 653	1 733	1 791	1 824	1 827
40	1 136	1 266	1 531	1 656	1 771	1 872	1 954	2 013	2 046
45	1 182	1 321	1 610	1 752	1 887	2 010	2 118	2 205	2 269
50	1 215	1 364	1 681	1 842	1 998	2 145	2 280	2 398	2 495
55	-	-	1 742	1 923	2 103	2 276	2 440	2 590	2 722
60	-	-	-	1 995	2 200	2 402	2 597	2 780	2 949
65	-	-	-	-	2 287	2 519	2 747	2 967	3 174
75	-	-	-	-	-	-	3 026	3 324	3 614
Current consum	ntion in A								
35	3.22	3.37	3.65	3.79	3.91	4.01	4.10	4.16	4.20
40	3.25	3.40	3.73	3.89	4.04	4.19	4.31	4.43	4.52
45	3.27	3.44	3.81	4.00	4.19	4.37	4.55	4.71	4.86
50	3.28	3.47	3.90	4.12	4.35	4.58	4.80	5.02	5.23
55	-	-	3.99	4.25	4.52	4.80	5.08	5.35	5.62
60	_	_	-	4.39	4.70	5.03	5.37	5.71	6.05
65	_	_	_	-	4.90	5.28	5.68	6.08	6.49
75	_	_	_	_	-	-	6.36	6.91	7.47
		1	<u> </u>		I		1		
Mass flow in kg/l	h						•	T	•
35	37	50	82	103	127	156	189	227	271
40	35	48	80	100	125	153	186	224	267
45	33	45	77	97	122	150	182	220	263
50	30	42	74	94	118	146	179	216	259
55	-	-	71	91	114	142	174	212	254
60	-	-	-	87	111	138	170	207	249
65	-	-	-	-	106	134	165	202	244
75	-	-	-	-	-	-	155	191	232
Coefficient of pe	rformance (C.C).P.)							
35	1.37	1.67	2.39	2.85	3.39	4.04	4.82	5.79	6.99
40	1.15	1.43	2.08	2.48	2.94	3.49	4.15	4.93	5.89
45	0.96	1.22	1.81	2.16	2.56	3.03	3.57	4.22	4.99
50	0.80	1.05	1.57	1.88	2.22	2.62	3.08	3.62	4.25
55	-	-	1.36	1.63	1.93	2.26	2.65	3.10	3.62
60	-	-	-	1.41	1.66	1.95	2.28	2.66	3.09
65	-	-	-	-	1.43	1.68	1.96	2.27	2.63
75	-	-	-	-	-	-	1.41	1.64	1.89

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

Cooling capacity	5 620	W
Power input	2 145	W
Current consumption	4.58	Α
Mass flow	146	kg/h
C.O.P.	2.62	

to: Evaporating temperature at dew point

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

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)

Tolerance according EN12900



tc: Condensing temperature at dew point



Maneurop reciprocating compressor. MTZ040-4

Performance data at 50 Hz, ARI rating conditions

R134a

-25	-20	-10	-5	0	_	1		
			-5	0	5	10	15	20
in W	ı	1	T	T	T	1	ı	1
1 604	2 175	3 737	4 781	6 036	7 529	9 285	11 332	13 694
1 427	1 975	3 462	4 455	5 650	7 073	8 751	10 711	12 977
1 253	1 776	3 186	4 126	5 260	6 612	8 211	10 082	12 251
-	1 580	2 910	3 796	4 867	6 147	7 665	9 447	11 519
-	-	2 635	3 466	4 472	5 680	7 116	8 807	10 780
-	-	-	3 137	4 078	5 212	6 565	8 165	10 038
-	-	-	-	-	4 744	6 014	7 522	9 295
-	-	-	-	-	-	4 919	6 243	7 815
_								
				T				
								1 827
			1	1	1	1		2 046
								2 269
-	1 364		1		2 145			2 495
-	-		1	†		1		2 722
-	-	-						2 949
-	-	-				1		3 174
-	-	-	-	-	-	3 026	3 324	3 614
		1		T		1		
			1	1		1		4.20
			1					4.52
			1		1			4.86
-	3.47							5.23
								5.62
		-				1		6.05
								6.49
-	-	-	-	-	-	6.36	6.91	7.47
_								
	50	00	102	407	455	100	220	200
			1					269 266
			1	1				
			1					262 258
		1	1	†		1		258
				1				248
				-				243
-	-	-	_	_	_	104	190	231
rformance (C O	P)							
· · · · · · · · · · · · · · · · · · ·	1	2 50	3.07	3.65	4 35	5 18	6.21	7.49
			1	1				6.34
								5.40
			1	1				4.62
				1				3.96
			1		1			3.40
			1	1				2.93
<u> </u>	-	-	-	-	1.88	1.63	1.88	2.93
	1 427 1 253	1 427	1 427	1 427 1 975 3 462 4 455 1 253 1 776 3 186 4 126 - 1 580 2 910 3 796 - - 2 635 3 466 - - - 3 137 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -	1 427	1	1 427	1 1427

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

Nominal performance at to 7:2 0, to	04.4		
Cooling capacity	6 342	W	
Power input	2 333	W	
Current consumption	4.89	Α	
Mass flow	156	kg/h	
C.O.P.	2.72		

to: Evaporating temperature at dew point

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)

Tolerance according EN12900



tc: Condensing temperature at dew point

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



Maneurop reciprocating compressor. MTZ040-4

Performance data at 50 Hz, EN 12900 rating conditions

R404A

Cond. temp. in				Evapora	iting temperature	in °C (to)			
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
Cooling capacit									
30	2 448	3 330	4 396	5 669	7 172	8 925	10 953	13 277	15 919
35	2 168	2 997	3 993	5 177	6 573	8 202	10 087	12 250	14 713
40	1 885	2 659	3 581	4 674	5 959	7 461	9 200	11 200	13 482
45	1 601	2 316	3 161	4 159	5 333	6 704	8 294	10 128	12 225
50	1 314	1 968	2 734	3 635	4 693	5 930	7 370	9 033	10 944
55	-	1 616	2 300	3 101	4 040	5 141	6 427	7 918	9 638
60	-	1 262	1 860	2 557	3 376	4 338	5 466	6 782	8 308
Power input in \	N								
30	1 685	1 940	2 176	2 393	2 590	2 766	2 921	3 056	3 169
35	1 696	1 977	2 237	2 477	2 697	2 896	3 073	3 229	3 363
40	1 703	2 013	2 302	2 571	2 818	3 043	3 247	3 429	3 587
45	1 702	2 046	2 368	2 669	2 948	3 205	3 439	3 650	3 839
50	1 689	2 070	2 430	2 767	3 083	3 375	3 644	3 890	4 112
55	-	2 082	2 483	2 862	3 218	3 550	3 859	4 144	4 404
60	-	2 077	2 524	2 949	3 349	3 726	4 079	4 406	4 709
Current consum	-	T	T	T	T	T	T	T	I
30	4.20	4.48	4.76	5.03	5.29	5.52	5.71	5.87	5.98
35	4.27	4.58	4.89	5.20	5.49	5.76	6.00	6.21	6.36
40	4.30	4.65	5.00	5.35	5.68	6.00	6.29	6.55	6.76
45	4.30	4.69	5.09	5.48	5.87	6.24	6.59	6.90	7.17
50	4.27	4.72	5.17	5.62	6.06	6.49	6.89	7.27	7.61
55	-	4.73	5.24	5.75	6.25	6.75	7.22	7.66	8.07
60	-	4.74	5.31	5.89	6.46	7.02	7.57	8.09	8.57
Mass flow in kg	/h								
30	77	103	132	166	204	249	299	355	419
35	73	99	128	162	200	243	293	348	410
40	69	95	124	157	195	238	286	340	401
45	64	90	119	152	189	231	278	331	391
50	59	85	113	146	182	224	270	322	380
55	-	78	107	139	175	215	261	311	368
60	-	71	100	131	167	206	250	300	355
Coefficient of po	erformance (C.C).P.)							
30	1.45	1.72	2.02	2.37	2.77	3.23	3.75	4.34	5.02
35	1.28	1.52	1.78	2.09	2.44	2.83	3.28	3.79	4.38
40	1.11	1.32	1.56	1.82	2.11	2.45	2.83	3.27	3.76
45	0.94	1.13	1.33	1.56	1.81	2.09	2.41	2.77	3.18
50	0.78	0.95	1.13	1.31	1.52	1.76	2.02	2.32	2.66
55	-	0.78	0.93	1.08	1.26	1.45	1.67	1.91	2.19

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

	,	
Cooling capacity	5 333	W
Power input	2 948	W
Current consumption	5.87	Α
Mass flow	189	kg/h
C.O.P.	1.81	

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

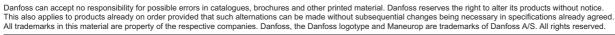


Pressure switch settings

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 po	wer level	70	dB(A)
With acco	oustic hood	65	dB(A)







Maneurop reciprocating compressor. MTZ040-4

Performance data at 50 Hz, ARI rating conditions

R404A

Cond. temp. in				Evapora	iting temperature	in °C (to)			
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
S W									
30	2 725	3 697	4 868	6 262	7 904	9 815	12 020	14 541	17 402
35	2 439	3 361	4 465	5 773	7 309	9 098	11 163	13 526	16 212
40	2 149	3 020	4 052	5 271	6 701	8 364	10 286	12 489	14 997
45	1 855	2 671	3 631	4 759	6 079	7 615	9 391	11 431	13 760
50	1 557	2 318	3 203	4 237	5 445	6 851	8 481	10 357	12 504
55	-	1 959	2 768	3 707	4 802	6 078	7 560	9 271	11 237
60		1 595	2 329	3 174	4 157	5 303	6 638	8 186	9 974
Power input in V	N	. 000	2 020			0 000	0 000	0 .00	
30	1 685	1 940	2 176	2 393	2 590	2 766	2 921	3 056	3 169
35	1 696	1 977	2 237	2 477	2 697	2 896	3 073	3 229	3 363
40	1 703	2 013	2 302	2 571	2 818	3 043	3 247	3 429	3 587
45	1 702	2 046	2 368	2 669	2 948	3 205	3 439	3 650	3 839
50	1 689	2 070	2 430	2 767	3 083	3 375	3 644	3 890	4 112
55	-	2 082	2 483	2 862	3 218	3 550	3 859	4 144	4 404
60	-	2 077	2 524	2 949	3 349	3 726	4 079	4 406	4 709
Current consum		1	I	I	T	1	I	I	T
30	4.20	4.48	4.76	5.03	5.29	5.52	5.71	5.87	5.98
35	4.27	4.58	4.89	5.20	5.49	5.76	6.00	6.21	6.36
40	4.30	4.65	5.00	5.35	5.68	6.00	6.29	6.55	6.76
45	4.30	4.69	5.09	5.48	5.87	6.24	6.59	6.90	7.17
50	4.27	4.72	5.17	5.62	6.06	6.49	6.89	7.27	7.61
55	-	4.73	5.24	5.75	6.25	6.75	7.22	7.66	8.07
60	-	4.74	5.31	5.89	6.46	7.02	7.57	8.09	8.57
Mass flow in kg	/h								
30	77	102	131	165	203	247	297	353	416
35	73	98	127	161	199	242	291	346	408
40	69	94	123	156	194	236	284	338	398
45	64	90	118	151	188	230	277	329	388
50	59	84	113	145	181	222	268	320	377
55	-	78	106	138	174	214	259	309	365
60	-	71	99	131	166	205	249	298	352
Coefficient of pe	erformance (C.C).P.)							
30	1.62	1.91	2.24	2.62	3.05	3.55	4.11	4.76	5.49
35	1.44	1.70	2.00	2.33	2.71	3.14	3.63	4.19	4.82
40	1.26	1.50	1.76	2.05	2.38	2.75	3.17	3.64	4.18
45	1.09	1.31	1.53	1.78	2.06	2.38	2.73	3.13	3.58
50	0.92	1.12	1.32	1.53	1.77	2.03	2.33	2.66	3.04
55	-	0.94	1.11	1.30	1.49	1.71	1.96	2.24	2.55
60	-	0.77	0.92	1.08	1.24	1.42	1.63	1.86	2.12

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

Cooling capacity	6 079	W
Power input	2 948	W
Current consumption	5.87	Α
Mass flow	188	kg/h
C.O.P.	2.06	

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	27.7	bar(g)	٦
Minimum LP switch setting	1	bar(g)	
LP pump down setting	1.3	bar(g)	

Sound power data

Sound power level	70	dB(A)
With accoustic hood	65	dB(A)

Tolerance according EN12900





Maneurop reciprocating compressor. MTZ040-4

Performance data at 50 Hz, EN 12900 rating conditions

R407A

Cond. temp. in Evaporating temperature in °C (to)									
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
Cooling capacity		0.040	0.050	1.040	0.050	7.005	0.044	40.000	44.545
30	1 794	2 640	3 650	4 848	6 258	7 905	9 814	12 009	14 515
35	1 562	2 381	3 348	4 487	5 823	7 382	9 186	11 262	13 633
40	1 321	2 108	3 028	4 105	5 364	6 830	8 526	10 479	12 711
45	1 074	1 826	2 696	3 707	4 885	6 255	7 840	9 665	11 755
50	-	1 542	2 357	3 299	4 393	5 662	7 132	8 827	10 771
55	-	-	2 018	2 887	3 892	5 058	6 409	7 970	9 765
60	-	-	-	2 475	3 388	4 447	5 675	7 098	8 740
Power input in W	ı								
30	1 261	1 532	1 784	2 016	2 227	2 415	2 582	2 724	2 841
35	1 246	1 542	1 820	2 077	2 313	2 528	2 719	2 887	3 030
40	1 227	1 552	1 858	2 144	2 408	2 651	2 871	3 067	3 239
45	1 206	1 562	1 900	2 217	2 513	2 787	3 039	3 266	3 469
50	-	1 574	1 945	2 297	2 628	2 936	3 222	3 484	3 722
55	-	-	1 996	2 385	2 753	3 100	3 423	3 723	3 998
60	-	-	-	2 483	2 891	3 278	3 642	3 982	4 298
Current consum		1	1	T	1	T	ı	1	Т
30	3.88	4.13	4.39	4.63	4.86	5.07	5.26	5.42	5.55
35	3.86	4.15	4.44	4.73	5.00	5.27	5.51	5.73	5.92
40	3.84	4.16	4.49	4.82	5.14	5.46	5.76	6.04	6.29
45	3.82	4.17	4.54	4.91	5.28	5.65	6.01	6.35	6.67
50	-	4.21	4.61	5.02	5.44	5.86	6.27	6.67	7.06
55	-	-	4.71	5.16	5.63	6.10	6.56	7.02	7.47
60	-	-	-	5.34	5.85	6.37	6.89	7.41	7.93
Mass flow in kg/l	h								
30	43	62	84	109	138	171	210	253	302
35	39	59	81	106	135	168	206	249	297
40	35	55	77	103	131	164	201	244	291
45	30	50	73	98	127	159	196	237	284
50	-	46	68	93	122	154	190	230	276
55	-	-	63	88	116	147	182	222	267
60	-	-	-	82	109	140	175	213	257
Coefficient of per	rformance (C.O).P.)							
30	1.42	1.72	2.05	2.41	2.81	3.27	3.80	4.41	5.11
35	1.25	1.54	1.84	2.16	2.52	2.92	3.38	3.90	4.50
40	1.08	1.36	1.63	1.91	2.23	2.58	2.97	3.42	3.92
45	0.89	1.17	1.42	1.67	1.94	2.24	2.58	2.96	3.39
50	-	0.98	1.21	1.44	1.67	1.93	2.21	2.53	2.89
		-	1.01	1.21	1.41	1.63	1.87	2.14	2.44
55	-								

Nominal performance at to = -10 °C, tc = 45 °C	3
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Cooling capacity	4 885	W
Power input	2 513	W
Current consumption	5.28	Α
Mass flow	127	kg/h
C.O.P.	1.94	

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

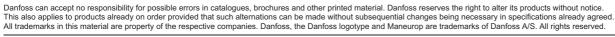
Rating conditions : Superheat = 10 K , Subcooling = 0 K

Pressure switch settings

Maximum HP switch setting	25.8	bar(g)	
Minimum LP switch setting	0.9	bar(g)	
LP pump down setting	1.2	bar(g)	

Sound power data

Sound power level	69	dB(A)
With accoustic hood	64	dB(A)







Maneurop reciprocating compressor. MTZ040-4

Performance data at 50 Hz, ARI rating conditions

R407A

Cond. temp. in		I			ting temperature		I	T	
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
cooling capacity	y in W								
30	1 940	2 851	3 936	5 221	6 731	8 492	10 530	12 871	15 540
35	1 700	2 586	3 630	4 858	6 296	7 970	9 906	12 129	14 665
40	1 447	2 305	3 305	4 473	5 835	7 418	9 247	11 349	13 748
45	1 187	2 013	2 965	4 069	5 353	6 841	8 560	10 537	12 796
50	-	1 716	2 617	3 654	4 855	6 245	7 851	9 700	11 816
55	-	-	2 266	3 233	4 348	5 637	7 127	8 844	10 814
60	-	-	-	2 813	3 839	5 023	6 394	7 977	9 799
Power input in V	v								
30	1 261	1 532	1 784	2 016	2 227	2 415	2 582	2 724	2 841
35	1 246	1 542	1 820	2 077	2 313	2 528	2 719	2 887	3 030
40	1 227	1 552	1 858	2 144	2 408	2 651	2 871	3 067	3 239
45	1 206	1 562	1 900	2 217	2 513	2 787	3 039	3 266	3 469
50	-	1 574	1 945	2 297	2 628	2 936	3 222	3 484	3 722
55	-	-	1 996	2 385	2 753	3 100	3 423	3 723	3 998
60	-	-	-	2 483	2 891	3 278	3 642	3 982	4 298
Current consum	ption in A					_			•
30	3.88	4.13	4.39	4.63	4.86	5.07	5.26	5.42	5.55
35	3.86	4.15	4.44	4.73	5.00	5.27	5.51	5.73	5.92
40	3.84	4.16	4.49	4.82	5.14	5.46	5.76	6.04	6.29
45	3.82	4.17	4.54	4.91	5.28	5.65	6.01	6.35	6.67
50	-	4.21	4.61	5.02	5.44	5.86	6.27	6.67	7.06
55	-	-	4.71	5.16	5.63	6.10	6.56	7.02	7.47
60	-	-	-	5.34	5.85	6.37	6.89	7.41	7.93
Mass flow in kg/	'h								
30	42	61	83	108	137	171	208	251	300
35	39	58	80	106	134	167	205	247	295
40	35	54	77	102	131	163	200	242	289
45	30	50	73	98	126	158	195	236	282
50	-	45	68	93	121	153	189	229	274
55	-	-	63	87	115	146	181	221	265
60	-	-	-	81	109	139	174	212	255
Coefficient of pe	erformance (C.C	D.P.)							
30	1.54	1.86	2.21	2.59	3.02	3.52	4.08	4.73	5.47
35	1.36	1.68	2.00	2.34	2.72	3.15	3.64	4.20	4.84
40	1.18	1.48	1.78	2.09	2.42	2.80	3.22	3.70	4.24
45	0.98	1.29	1.56	1.84	2.13	2.45	2.82	3.23	3.69
50	-	1.09	1.35	1.59	1.85	2.13	2.44	2.78	3.17
		-	1.14	1.36	1.58	1.82	2.08	2.38	2.70
55	-	_	1.17						

Nominal performance at to = -10 °C, tc = 45 °C	3
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Cooling capacity	5 353	W
Power input	2 513	W
Current consumption	5.28	Α
Mass flow	126	kg/h
C.O.P.	2.13	

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	25.8	bar(g)	٦
Minimum LP switch setting	0.9	bar(g)	
LP pump down setting	1.2	bar(g)	

Sound power data

Sound power level	69	dB(A)
With accoustic hood	64	dB(A)

Tolerance according EN12900





Maneurop reciprocating compressor. MTZ040-4

Performance data at 50 Hz, EN 12900 rating conditions

R407F

Cond. temp. in			Г		ting temperature		Г		1
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
cooling capacity	in W								
30	-	2 875	4 006	5 358	6 959	8 836	11 015	13 524	16 391
35	-	2 517	3 562	4 804	6 271	7 991	9 989	12 295	14 934
40	-	2 207	3 180	4 328	5 678	7 256	9 090	11 208	13 636
45	-	1 930	2 848	3 918	5 166	6 619	8 304	10 250	12 482
50	-	-	2 552	3 560	4 721	6 065	7 618	9 407	11 460
55	-	-	-	3 240	4 331	5 582	7 018	8 667	10 556
60	-	-	-	-	-	-	-	-	-
Power input in V	ı								
30	-	1 634	1 891	2 131	2 346	2 528	2 666	2 753	2 779
35	-	1 647	1 925	2 193	2 442	2 663	2 847	2 986	3 069
40	-	1 669	1 966	2 259	2 539	2 797	3 024	3 211	3 350
45	-	1 710	2 024	2 339	2 648	2 940	3 207	3 440	3 631
50	-	-	2 108	2 443	2 777	3 101	3 406	3 682	3 922
55	-	-	-	2 582	2 938	3 291	3 630	3 948	4 234
60	-	-	-	-	-	-	-	-	-
Current consum	ption in A								
30	-	4.04	4.34	4.63	4.91	5.16	5.36	5.49	5.55
35	-	4.16	4.47	4.80	5.11	5.41	5.66	5.86	5.99
40	-	4.22	4.56	4.92	5.28	5.62	5.93	6.20	6.41
45	-	4.25	4.63	5.03	5.43	5.83	6.21	6.55	6.85
50	-	-	4.70	5.14	5.60	6.06	6.52	6.94	7.32
55	-	-	-	5.29	5.81	6.35	6.88	7.39	7.86
60	-	-	-	-	-	-	-	-	-
Mass flow in kg/	h								
30	-	59	82	108	138	172	212	257	309
35	-	55	76	101	130	163	201	244	293
40	-	50	71	96	123	155	192	233	280
45	-	47	68	91	118	149	185	224	269
50	-	-	64	88	115	145	179	218	261
55	-	-	-	86	112	142	175	213	255
60	-	-	-	-	-	-	-	-	-
Coefficient of pe	rformance (C.)	O P)							
30	-	1.76	2.12	2.51	2.97	3.50	4.13	4.91	5.90
35	_	1.53	1.85	2.19	2.57	3.00	3.51	4.12	4.87
40	_	1.32	1.62	1.92	2.24	2.59	3.01	3.49	4.07
45	_	1.13	1.41	1.67	1.95	2.25	2.59	2.98	3.44
50	_	-	1.21	1.46	1.70	1.96	2.24	2.55	2.92
			+	1	1.47	+	1	1	2.49
55	_	-	-	1.25	14/	1.70	1.93	2.20	7 Δu

Nominal performance at to = -10 °C, tc = 45 °C	С
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Cooling capacity	5 166	W
Power input	2 648	W
Current consumption	5.43	Α
Mass flow	118	kg/h
C.O.P.	1.95	

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

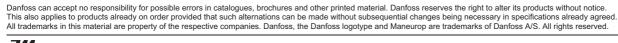
Rating conditions : Superheat = 10 K , Subcooling = 0 K

Pressure switch settings

Maximum HP switch setting	24	bar(g)	
Minimum LP switch setting	1	bar(g)	
LP pump down setting	1.26	bar(q)	

Sound power data

Sound power level	69	dB(A)
With accoustic hood	64	dB(A)







Maneurop reciprocating compressor. MTZ040-4

Performance data at 50 Hz, ARI rating conditions

R407F

Cond. temp. in				Evapora	iting temperature	in °C (to)			
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
		•	•						
Cooling capacit		T		1	1	T	1	1	1
30	-	3 081	4 289	5 731	7 436	9 433	11 749	14 413	17 453
35	-	2 711	3 831	5 161	6 730	8 567	10 699	13 156	15 966
40	-	2 389	3 439	4 674	6 124	7 817	9 783	12 049	14 645
45	-	2 103	3 099	4 257	5 605	7 172	8 988	11 081	13 479
50	-	-	2 798	3 896	5 160	6 618	8 302	10 238	12 457
55	-	-	-	3 579	4 777	6 145	7 714	9 512	11 570
60	-	-	-	-	-	-	-	-	-
Power input in \	W								
30	-	1 634	1 891	2 131	2 346	2 528	2 666	2 753	2 779
35	-	1 647	1 925	2 193	2 442	2 663	2 847	2 986	3 069
40	-	1 669	1 966	2 259	2 539	2 797	3 024	3 211	3 350
45	-	1 710	2 024	2 339	2 648	2 940	3 207	3 440	3 631
50	-	-	2 108	2 443	2 777	3 101	3 406	3 682	3 922
55	-	-	-	2 582	2 938	3 291	3 630	3 948	4 234
60	-	-	-	-	-	-	-	-	-
Current consum 30	nption in A	4.04	4.34	4.63	4.91	5.16	5.36	5.49	5.55
35	_	4.16	4.47	4.80	5.11	5.41	5.66	5.86	5.99
40	_	4.22	4.56	4.92	5.28	5.62	5.93	6.20	6.41
45	_	4.25	4.63	5.03	5.43	5.83	6.21	6.55	6.85
50	-	-	4.70	5.14	5.60	6.06	6.52	6.94	7.32
55	-	-	-	5.29	5.81	6.35	6.88	7.39	7.86
60	-	_	_	-	-	-	-	-	-
		<u> </u>		1	1		1		I
Mass flow in kg				1	1		1	1	1
30	-	59	81	107	137	171	211	256	307
35	-	54	76	100	129	162	200	243	291
40	-	50	71	95	123	154	191	232	278
45	-	46	67	91	118	148	183	223	268
50	-	-	64	87	114	144	178	216	260
55	-	-	-	85	111	141	174	212	254
60	-	-	-	-	-	-	-	-	-
Coefficient of p	erformance (C.	O.P.)							
30	-	1.89	2.27	2.69	3.17	3.73	4.41	5.24	6.28
35	-	1.65	1.99	2.35	2.76	3.22	3.76	4.41	5.20
40	-	1.43	1.75	2.07	2.41	2.79	3.23	3.75	4.37
45	-	1.23	1.53	1.82	2.12	2.44	2.80	3.22	3.71
50	-	-	1.33	1.59	1.86	2.13	2.44	2.78	3.18
55	_	_	-	1.39	1.63	1.87	2.12	2.41	2.73
55			1						

Nominal performance at to = -10 °C, tc = 45 °C	С
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Cooling capacity	5 605	W
Power input	2 648	W
Current consumption	5.43	Α
Mass flow	118	kg/h
C.O.P.	2.12	

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

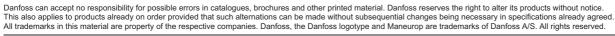
Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 K

Pressure switch settings

			_
Maximum HP switch setting	24	bar(g)	1
Minimum LP switch setting	1	bar(g)	ı
LP pump down setting	1.26	bar(g)	ı

Sound power data

Sound power level	69	dB(A)
With accoustic hood	64	dB(A)







Maneurop reciprocating compressor. MTZ040-4

Performance data at 50 Hz, EN 12900 rating conditions

R134a

Cond. temp. in				Evapora	ting temperature	in °C (to)			
°C (tc)	-25	-20	-10	-5	0	5	10	15	20
Cooling consoit	r in M								
Cooling capacity 35	1 476	2 005	3 456	4 429	5 601	6 996	8 640	10 559	12 777
40	1 306	1 810	3 185	4 106	5 216	6 541	8 106	9 936	12 056
45	1 138	1 618	2 914	3 781	4 829	6 082	7 566	9 306	11 327
50	976	1 428	2 643	3 456	4 440	5 620	7 022	8 670	10 590
55	-	-	2 374	3 131	4 050	5 156	6 474	8 030	9 848
60	-	_	-	2 808	3 661	4 691	5 924	7 386	9 101
65	-	_	_	-	3 273	4 227	5 374	6 740	8 351
75	_	_	_	_	-	-	4 275	5 447	6 845
		l	l		L			<u> </u>	
Power input in V				T	1	T	1	1	1
35	1 076	1 201	1 445	1 555	1 653	1 733	1 791	1 824	1 827
40	1 136	1 266	1 531	1 656	1 771	1 872	1 954	2 013	2 046
45	1 182	1 321	1 610	1 752	1 887	2 010	2 118	2 205	2 269
50	1 215	1 364	1 681	1 842	1 998	2 145	2 280	2 398	2 495
55	-	-	1 742	1 923	2 103	2 276	2 440	2 590	2 722
60	-	-	-	1 995	2 200	2 402	2 597	2 780	2 949
65	-	-	-	-	2 287	2 519	2 747	2 967	3 174
75	-	-	-	-	-	-	3 026	3 324	3 614
Current consum	ntion in A								
35	3.22	3.37	3.65	3.79	3.91	4.01	4.10	4.16	4.20
40	3.25	3.40	3.73	3.89	4.04	4.19	4.31	4.43	4.52
45	3.27	3.44	3.81	4.00	4.19	4.37	4.55	4.71	4.86
50	3.28	3.47	3.90	4.12	4.35	4.58	4.80	5.02	5.23
55	-	-	3.99	4.25	4.52	4.80	5.08	5.35	5.62
60	_	_	-	4.39	4.70	5.03	5.37	5.71	6.05
65	_	_	_	-	4.90	5.28	5.68	6.08	6.49
75	_	_	_	_	-	-	6.36	6.91	7.47
		1	<u> </u>		I		1		
Mass flow in kg/l	h						•		•
35	37	50	82	103	127	156	189	227	271
40	35	48	80	100	125	153	186	224	267
45	33	45	77	97	122	150	182	220	263
50	30	42	74	94	118	146	179	216	259
55	-	-	71	91	114	142	174	212	254
60	-	-	-	87	111	138	170	207	249
65	-	-	-	-	106	134	165	202	244
75	-	-	-	-	-	-	155	191	232
Coefficient of pe	rformance (C.C).P.)							
35	1.37	1.67	2.39	2.85	3.39	4.04	4.82	5.79	6.99
40	1.15	1.43	2.08	2.48	2.94	3.49	4.15	4.93	5.89
45	0.96	1.22	1.81	2.16	2.56	3.03	3.57	4.22	4.99
50	0.80	1.05	1.57	1.88	2.22	2.62	3.08	3.62	4.25
55	-	-	1.36	1.63	1.93	2.26	2.65	3.10	3.62
60	-	-	-	1.41	1.66	1.95	2.28	2.66	3.09
65	-	-	-	-	1.43	1.68	1.96	2.27	2.63
75	-	-	-	-	-	-	1.41	1.64	1.89

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

Cooling capacity	5 620	W
Power input	2 145	W
Current consumption	4.58	Α
Mass flow	146	kg/h
C.O.P.	2.62	

to: Evaporating temperature at dew point

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

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)

Tolerance according EN12900



tc: Condensing temperature at dew point



Maneurop reciprocating compressor. MTZ040-4

Performance data at 50 Hz, ARI rating conditions

R134a

-25	-20	-10	-5	0	_	1		
			-5	0	5	10	15	20
in W	ı	1	T	T	T	1	ı	1
1 604	2 175	3 737	4 781	6 036	7 529	9 285	11 332	13 694
1 427	1 975	3 462	4 455	5 650	7 073	8 751	10 711	12 977
1 253	1 776	3 186	4 126	5 260	6 612	8 211	10 082	12 251
-	1 580	2 910	3 796	4 867	6 147	7 665	9 447	11 519
-	-	2 635	3 466	4 472	5 680	7 116	8 807	10 780
-	-	-	3 137	4 078	5 212	6 565	8 165	10 038
-	-	-	-	-	4 744	6 014	7 522	9 295
-	-	-	-	-	-	4 919	6 243	7 815
_								
				T				
								1 827
			1	1	1	1		2 046
								2 269
-	1 364		1		2 145			2 495
-	-		1	†		1		2 722
-	-	-						2 949
-	-	-				1		3 174
-	-	-	-	-	-	3 026	3 324	3 614
		1		T		1		
			1	1		1		4.20
			1					4.52
			1		1			4.86
-	3.47							5.23
								5.62
		-				1		6.05
								6.49
-	-	-	-	-	-	6.36	6.91	7.47
_								
	50	00	102	407	455	100	220	200
			1					269 266
			1	1				
			1					262 258
		1	1	†		1		258
				1				248
				-				243
-	-	-		_	_	104	190	231
rformance (C O	P)							
· · · · · · · · · · · · · · · · · · ·	1	2 50	3.07	3.65	4 35	5 18	6.21	7.49
			1	1				6.34
								5.40
			1	1				4.62
				1				3.96
			1		1			3.40
			1	1				2.93
<u> </u>	-	-	-	-	1.88	1.63	1.88	2.93
	1 427 1 253	1 427	1 427	1 427 1 975 3 462 4 455 1 253 1 776 3 186 4 126 - 1 580 2 910 3 796 - - 2 635 3 466 - - - 3 137 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -	1 427	1	1 427	1 1427

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

Nominal performance at to 7:2 0, to	04.4		
Cooling capacity	6 342	W	
Power input	2 333	W	
Current consumption	4.89	Α	
Mass flow	156	kg/h	
C.O.P.	2.72		

to: Evaporating temperature at dew point

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)

Tolerance according EN12900



tc: Condensing temperature at dew point

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



Maneurop reciprocating compressor. MTZ040-4

Performance data at 50 Hz, EN 12900 rating conditions

R407C

Cond. temp. in Evaporating temperature in °C (to)									
°C (tc)	-15	-10	-5	0	5	10	15		
Cooling capacity	y in W	•	•		T	1	•	1	•
35	4 283	5 574	7 096	8 876	10 939	13 312	16 019	-	-
40	3 928	5 152	6 585	8 252	10 179	12 392	14 916	-	-
45	3 557	4 719	6 067	7 625	9 420	11 477	13 822	-	-
50	-	4 271	5 537	6 991	8 658	10 564	12 734	-	-
55	-	-	4 992	6 345	7 889	9 647	11 647	-	-
60	-	-	-	5 683	7 108	8 723	10 556	-	-
65	-	-	-	5 001	6 310	7 787	9 458	-	-
Power input in V			T			1		1	1
35	2 036	2 254	2 445	2 609	2 746	2 854	2 935	-	-
40	2 119	2 373	2 597	2 793	2 959	3 094	3 198	-	-
45	2 182	2 479	2 744	2 977	3 179	3 348	3 483	-	-
50	-	2 567	2 879	3 158	3 402	3 611	3 785	-	-
55	-	-	2 999	3 330	3 624	3 880	4 099	-	-
60	-	-	-	3 489	3 840	4 150	4 420	-	-
65	-	-	-	3 632	4 045	4 417	4 746	-	-
Current consum	ption in A								
35	4.68	4.93	5.15	5.34	5.51	5.64	5.73	-	-
40	4.78	5.08	5.36	5.60	5.81	5.98	6.11	-	-
45	4.85	5.22	5.56	5.86	6.13	6.35	6.52	-	-
50	-	5.34	5.76	6.13	6.46	6.74	6.98	-	-
55	-	-	5.94	6.39	6.80	7.16	7.46	-	-
60	-	-	-	6.64	7.14	7.59	7.98	-	-
65	-	-	-	6.88	7.48	8.02	8.51	-	-
Mass flow in kg/	h								
35	93	119	149	183	223	267	317	_	_
40	90	116	145	179	217	260	309	_	_
45	86	112	141	174	212	254	301	_	_
50	-	107	136	169	206	247	293	_	_
55	-	-	131	163	199	239	284	_	_
60	-	_	-	156	192	231	275	_	_
65	-	-	-	149	184	222	265	-	-
L				-		1		1	
Coefficient of pe	erformance (C.C).P.)							
35	2.10	2.47	2.90	3.40	3.98	4.66	5.46	-	-
40	1.85	2.17	2.54	2.95	3.44	4.01	4.66	-	-
45	1.63	1.90	2.21	2.56	2.96	3.43	3.97	-	-
50	-	1.66	1.92	2.21	2.55	2.93	3.36	-	-
55	-	-	1.66	1.91	2.18	2.49	2.84	-	-
60	-	-	-	1.63	1.85	2.10	2.39	-	-
65	-	-	-	1.38	1.56	1.76	1.99	-	-

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

Cooling capacity	8 658	W
Power input	3 402	W
Current consumption	6.46	Α
Mass flow	206	kg/h
C.O.P.	2.55	

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)	ı
Minimum LP switch setting	1.4	bar(g)	ı
LP pump down setting	1.7	bar(g)	

Sound power data

Sound p	oower level	74	dB(A)
With ac	coustic hood	69	dB(A)

Tolerance according EN12900





Maneurop reciprocating compressor. MTZ040-4

Performance data at 50 Hz, ARI rating conditions

R407C

Cond. temp. in				Evapora	ating temperature	in °C (to)			
°C (tc)	-15	-10	-5	0	5	10	15		
Į.		<u> </u>		<u> </u>	L	1		I.	l
Cooling capacity	y in W								
35	4 610	5 992	7 619	9 520	11 720	14 247	17 128	-	-
40	4 251	5 568	7 107	8 895	10 959	13 326	16 023	-	-
45	3 874	5 132	6 588	8 268	10 201	12 412	14 930	-	-
50	-	4 678	6 056	7 633	9 439	11 500	13 843	-	-
55	-	-	5 506	6 986	8 670	10 585	12 759	-	-
60	-	-	-	6 321	7 889	9 664	11 674	-	-
65	-	-	-	5 635	7 093	8 734	10 585	-	-
Power input in V		T	T	1	T	1	1	1	
35	2 036	2 254	2 445	2 609	2 746	2 854	2 935	-	-
40	2 119	2 373	2 597	2 793	2 959	3 094	3 198	-	-
45	2 182	2 479	2 744	2 977	3 179	3 348	3 483	-	-
50	-	2 567	2 879	3 158	3 402	3 611	3 785	-	-
55	-	-	2 999	3 330	3 624	3 880	4 099	-	-
60	-	-	-	3 489	3 840	4 150	4 420	-	-
65	-	-	-	3 632	4 045	4 417	4 746	-	-
Current consum	notion in A								
35	4.68	4.93	5.15	5.34	5.51	5.64	5.73	_	_
40	4.78	5.08	5.36	5.60	5.81	5.98	6.11	_	_
45	4.85	5.22	5.56	5.86	6.13	6.35	6.52	-	-
50	-	5.34	5.76	6.13	6.46	6.74	6.98	-	-
55	-	-	5.94	6.39	6.80	7.16	7.46	-	-
60	-	-	-	6.64	7.14	7.59	7.98	-	-
65	-	-	-	6.88	7.48	8.02	8.51	-	-
								•	
Mass flow in kg/	/h								_
35	93	118	148	182	221	266	316	-	-
40	89	115	144	178	216	259	307	-	-
45	85	111	140	173	210	252	299	-	-
50	-	107	135	168	204	245	291	-	-
55	-	-	130	162	198	238	282	-	-
60	-	-	-	156	191	230	273	-	-
65	-	-	-	148	183	221	263	-	-
Coefficient of pe	erformance (C.C) P)							
35	2.26	2.66	3.12	3.65	4.27	4.99	5.84	-	-
33		2.35	2.74	3.19	3.70	4.31	5.01	-	-
40	2.01	2.00		i		+	1	+	_
40	2.01 1.78	2.07	2.40	2.78	3.21	3.71	4.29	-	-
40 45			2.40 2.10	2.78 2.42	3.21 2.77	3.71 3.18	4.29 3.66	-	-
40	1.78	2.07	+		1			_	
40 45 50	1.78 -	2.07 1.82	2.10	2.42	2.77	3.18	3.66	-	-

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

Cooling capacity	9 582	W
Power input	3 712	W
Current consumption	6.92	Α
Mass flow	216	kg/h
C.O.P.	2.58	

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(q)	

Sound power data

Sound power level	74	dB(A)
With accoustic hood	69	dB(A)

Tolerance according EN12900





Maneurop reciprocating compressor. MTZ040-4

Performance data at 50 Hz, EN 12900 rating conditions, Suction temp. = 20 °C

R448A

Cond. temp. in	Evaporating temperature in °C (to)								
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
Cooling capacity i	n W								
10	-	3 715	4 939	6 437	8 234	-	-	-	-
20	-	3 230	4 345	5 706	7 338	9 264	11 514	-	-
30	-	2 748	3 745	4 959	6 413	8 133	10 143	12 472	15 154
40	-	-	3 149	4 205	5 473	6 975	8 735	10 778	13 133
50	-	-	-	3 458	4 529	5 804	7 303	9 050	11 070
60	-	-	-	-	3 593	4 631	5 861	7 303	8 977
Power input in W									
10	-	1 315	1 423	1 495	1 524	_	-	-	-
20	-	1 501	1 662	1 798	1 901	1 965	1 982	-	-
30	-	1 635	1 847	2 044	2 218	2 363	2 471	2 537	2 551
40	-	-	1 993	2 249	2 491	2 714	2 911	3 074	3 197
50	-	-	-	2 427	2 736	3 035	3 317	3 576	3 805
60	-	-	-	-	2 967	3 340	3 705	4 057	4 389
Current consumpt	tion in A	3.75	3.85	3.92	3.91	_	T -	_	_
20	-	4.38	4.55	4.72	4.83	4.87	4.81	-	_
30		4.67	4.90	5.15	5.38	5.56	5.66	5.65	5.50
40	-	-	5.06	5.39	5.73	6.04	6.30	6.47	6.52
50	-	-	-	5.59	6.02	6.46	6.87	7.22	7.48
60	-	_	-	_	6.43	6.99	7.54	8.06	8.51
Mass flow in kg/h						•			•
10	-	61	80	105	134	-	-	-	-
20	-	57	77	101	130	165	207	-	-
30	-	52	72	95	124	158	199	247	305
40	-	-	66	88	116	149	188	235	291
50	-	-	-	81	107	138	176	221	274
60	-	-	-	-	97	126	162	204	255
Coefficient of perf	ormance (C.C	1			1	1	1	ı	1
10	-	2.82	3.47	4.31	5.40	-	-	-	-
20	-	2.15	2.61	3.17	3.86	4.72	5.81	-	-
30	-	1.68	2.03	2.43	2.89	3.44	4.10	4.92	5.94
40	-	-	1.58	1.87	2.20	2.57	3.00	3.51	4.11
50	-	-	-	1.42	1.66	1.91	2.20	2.53	2.91
60	-	-	_	_	1.21	1.39	1.58	1.80	2.05

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

Cooling capacity	5 001	W
Power input	2 616	W
Current consumption	5.87	Α
Mass flow	111	kg/h
C.O.P.	1.91	

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Suction gas temp. = 20 $^{\circ}\text{C}$, Subcooling = 0 K

Pressure switch settings

Ma	aximum HP switch setting	27.7	bar(g)
Mi	nimum LP switch setting	1	bar(g)
LF	pump down setting	1.3	bar(g)

Sound power data

Sound power level	73	dB(A)
With accoustic hood	68	dB(A)





Maneurop reciprocating compressor. MTZ040-4

Performance data at 50 Hz, EN 12900 rating conditions, Superheat = 10 K

R448A

Cond. temp. in				Evapora	ating temperature	in °C (to)			
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
Cooling capacity	y in W								_
10	2 752	3 733	4 967	6 476	8 287	-	-	-	-
20	2 316	3 209	4 327	5 695	7 336	9 275	11 536	-	-
30	1 899	2 693	3 684	4 899	6 360	8 092	10 119	12 465	15 154
40	1 513	2 197	3 052	4 102	5 372	6 886	8 668	10 742	13 133
50	-	1 734	2 442	3 317	4 386	5 671	7 197	8 989	11 070
60	-	-	1 868	2 558	3 413	4 459	5 719	7 217	8 977
Power input in V	v								
10	1 179	1 315	1 423	1 495	1 524	_	_	_	-
20	1 321	1 501	1 662	1 798	1 901	1 965	1 982	-	-
30	1 414	1 635	1 847	2 044	2 218	2 363	2 471	2 537	2 551
40	1 472	1 732	1 993	2 249	2 491	2 714	2 911	3 074	3 197
50	-	1 808	2 116	2 427	2 736	3 035	3 317	3 576	3 805
60	-	-	2 230	2 595	2 967	3 340	3 705	4 057	4 389
			•		1	1		•	
Current consum	ption in A								
10	3.64	3.75	3.85	3.92	3.91	-	-	-	-
20	4.23	4.38	4.55	4.72	4.83	4.87	4.81	_	-
30	4.48	4.67	4.90	5.15	5.38	5.56	5.66	5.65	5.50
40	4.56	4.78	5.06	5.39	5.73	6.04	6.30	6.47	6.52
50	-	4.86	5.19	5.59	6.02	6.46	6.87	7.22	7.48
60	-	-	5.44	5.91	6.43	6.99	7.54	8.06	8.51
Mass flow in kg/	'h								
10	53	70	92	117	148	-	-	-	-
20	48	66	87	113	143	178	218	-	-
30	44	61	82	107	136	170	209	254	305
40	39	55	75	99	127	160	198	242	291
50	-	50	68	91	117	149	185	227	274
60	-	-	61	82	106	136	170	210	255
Coefficient of pe	•	1	1	1			T		
10	2.33	2.84	3.49	4.33	5.44	-	-	-	-
20	1.75	2.14	2.60	3.17	3.86	4.72	5.82	-	-
30	1.34	1.65	1.99	2.40	2.87	3.42	4.09	4.91	5.94
40	1.03	1.27	1.53	1.82	2.16	2.54	2.98	3.49	4.11
50	-	0.96	1.15	1.37	1.60	1.87	2.17	2.51	2.91
60	-	-	0.84	0.99	1.15	1.34	1.54	1.78	2.05
Nominal perforn	nance at to = -1	0 °C, tc = 45 °C			_	Pressure switch	settings		

C.O.P.		

Cooling capacity

Current consumption

Power input

Mass flow

to: Evaporating temperature at dew point tc: Condensing temperature at dew point

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

4 878

2 616

5.87

122 1.86 W

W

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

Sound power data

Sound power level	73	dB(A)
With accoustic hood	68	dB(A)





Maneurop reciprocating compressor. MTZ040-4

Performance data at 50 Hz, EN 12900 rating conditions, Suction temp. = 20 °C

R449A

Cond. temp. in	Evaporating temperature in °C (to)								
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
Cooling capacity		T	1	1	1		T		1
10	-	3 722	4 946	6 445	8 242	-	-	-	-
20	-	3 237	4 353	5 715	7 346	9 272	11 521	-	-
30	-	2 755	3 753	4 967	6 422	8 141	10 149	12 476	15 154
40	-	-	3 157	4 214	5 482	6 984	8 742	10 782	13 133
50	-	-	-	3 467	4 538	5 812	7 310	9 055	11 070
60	-	-	-	-	3 603	4 639	5 868	7 307	8 977
Power input in W	ı								
10	_	1 315	1 423	1 495	1 524	_	-	-	_
20	-	1 501	1 662	1 798	1 901	1 965	1 982	-	-
30	-	1 635	1 847	2 044	2 218	2 363	2 471	2 537	2 551
40	-	-	1 993	2 249	2 491	2 714	2 911	3 074	3 197
50	-	-	-	2 427	2 736	3 035	3 317	3 576	3 805
60	-	-	-	-	2 967	3 340	3 705	4 057	4 389
		- I	1	1			1		
Current consump	otion in A								
10	-	3.75	3.85	3.92	3.91	-	-	-	-
20	-	4.38	4.55	4.72	4.83	4.87	4.81	-	-
30	-	4.67	4.90	5.15	5.38	5.56	5.66	5.65	5.50
40	-	-	5.06	5.39	5.73	6.04	6.30	6.47	6.52
50	-	-	-	5.59	6.02	6.46	6.87	7.22	7.48
60	-	-	-	-	6.43	6.99	7.54	8.06	8.51
Mara - 61 a.u. !u. lau/l									
Mass flow in kg/h	-	62	82	108	138	_	_	_	_
20	_	58	78	103	133	169	211	_	_
30		53	73	97	126	161	203	252	311
40	_	-	67	90	118	152	192	240	297
50		_	-	83	109	141	180	225	280
60	_	-	-	-	99	129	165	209	261
00				1	33	123	100	203	201
Coefficient of per	formance (C.0	D.P.)							
10	-	2.83	3.48	4.31	5.41	-	-	-	-
20	-	2.16	2.62	3.18	3.86	4.72	5.81	-	-
30	-	1.69	2.03	2.43	2.90	3.45	4.11	4.92	5.94
40	-	-	1.58	1.87	2.20	2.57	3.00	3.51	4.11
50	-	_	-	1.43	1.66	1.92	2.20	2.53	2.91
30		1	1			1			

Nominal perform	nance at to =	-10 °C, t	c = 45 °C

Cooling capacity	5 010	W
Power input	2 616	W
Current consumption	5.87	Α
Mass flow	114	kg/h
C.O.P.	1.92	

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Suction gas temp. = 20 $^{\circ}\text{C}$, 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	75	dB(A)
With accoustic hood	70	dB(A)





Maneurop reciprocating compressor. MTZ040-4

Performance data at 50 Hz, EN 12900 rating conditions, Superheat = 10 K

R449A

Cond. temp. in				Evapora	iting temperature	in °C (to)			
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
Cooling capacit	y in W								,
10	2 752	3 733	4 967	6 476	8 287	-	-	-	-
20	2 316	3 209	4 327	5 695	7 336	9 275	11 536	-	-
30	1 899	2 693	3 684	4 899	6 360	8 092	10 119	12 465	15 154
40	1 513	2 197	3 052	4 102	5 372	6 886	8 668	10 742	13 133
50	-	1 734	2 442	3 317	4 386	5 671	7 197	8 989	11 070
60	-	-	1 868	2 558	3 413	4 459	5 719	7 217	8 977
Power input in V	v								
10	1 179	1 315	1 423	1 495	1 524	_	-	_	_
20	1 321	1 501	1 662	1 798	1 901	1 965	1 982	-	-
30	1 414	1 635	1 847	2 044	2 218	2 363	2 471	2 537	2 551
40	1 472	1 732	1 993	2 249	2 491	2 714	2 911	3 074	3 197
50	-	1 808	2 116	2 427	2 736	3 035	3 317	3 576	3 805
60	-	-	2 230	2 595	2 967	3 340	3 705	4 057	4 389
					•	•			1
Current consum	ption in A								
10	3.64	3.75	3.85	3.92	3.91	-	-	-	-
20	4.23	4.38	4.55	4.72	4.83	4.87	4.81	-	-
30	4.48	4.67	4.90	5.15	5.38	5.56	5.66	5.65	5.50
40	4.56	4.78	5.06	5.39	5.73	6.04	6.30	6.47	6.52
50	-	4.86	5.19	5.59	6.02	6.46	6.87	7.22	7.48
60	-	-	5.44	5.91	6.43	6.99	7.54	8.06	8.51
Maaa flaw in ka	la.								
Mass flow in kg/ 10	53	72	94	120	151	T -	_	-	_
20	49	67	89	115	146	182	222	_	_
30	44	62	83	109	139	173	213	259	311
40	40	56	77	101	130	163	202	246	297
50	-	51	70	93	120	152	189	232	280
60	_	-	63	84	109	139	174	215	261
00		I	- 55	01	100	100		210	201
Coefficient of pe	erformance (C.C	D.P.)							
10	2.33	2.84	3.49	4.33	5.44	-	-	-	-
20	1.75	2.14	2.60	3.17	3.86	4.72	5.82	-	-
30	1.34	1.65	1.99	2.40	2.87	3.42	4.09	4.91	5.94
40	1.03	1.27	1.53	1.82	2.16	2.54	2.98	3.49	4.11
50	-	0.96	1.15	1.37	1.60	1.87	2.17	2.51	2.91
60	-	-	0.84	0.99	1.15	1.34	1.54	1.78	2.05
	nance at to = -1	0.00 4 45.00				Pressure switch			

to: Evaporating	temperature	at daw	noin

Cooling capacity

Current consumption Mass flow

Power input

C.O.P.

tc: Condensing temperature at dew point

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

4 878

2 616

5.87

125

1.86

W

W

kg/h

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	13	dB(A)
With accoustic hood	70	dB(A)





Maneurop reciprocating compressor. MTZ040-4

Performance data at 50 Hz, EN 12900 rating conditions, Suction temp. = 20 °C

R452A

Cond. temp. in	Evaporating temperature in °C (to)								
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
Cooling canacity	in W								
Cooling capacity 10	-	3 813	4 902	6 278	7 971	-	_	_	_
20		3 620	4 652	5 935	7 497	9 368	11 580	_	_
30		3 283	4 233	5 397	6 802	8 476	10 449	12 754	15 429
40		2 825	3 668	4 688	5 910	7 362	9 071	11 066	13 378
50	_	-	2 980	3 829	4 844	6 049	7 471	9 132	11 059
60		_	-	2 843	3 626	4 563	5 674	6 980	8 499
				20.0	0 020		0 0	0 000	0 .00
Power input in W	,								
10	-	1 442	1 553	1 631	1 672	-	-	-	-
20	-	1 689	1 840	1 964	2 056	2 113	2 133		-
30	-	1 889	2 092	2 272	2 425	2 550	2 641	2 696	2 712
40	-	2 013	2 279	2 527	2 754	2 956	3 131	3 275	3 384
50	-	-	2 375	2 703	3 014	3 306	3 575	3 818	4 032
60	-	-	-	2 771	3 179	3 572	3 947	4 301	4 631
Current consump	otion in A	_							1
10	-	2.57	2.52	2.44	2.31	-	-	-	-
20	-	4.17	4.26	4.34	4.38	4.37	4.27	-	-
30	-	4.82	5.04	5.26	5.46	5.62	5.70	5.70	5.58
40	-	4.94	5.27	5.62	5.96	6.26	6.52	6.70	6.78
50	-	-	5.35	5.81	6.27	6.71	7.12	7.46	7.72
60	-	-	-	6.23	6.80	7.36	7.91	8.40	8.82
Mass flow in kg/h	1								
10	-	78	100	127	162	-	-		-
20	-	80	103	132	167	210	262		-
30	-	80	103	132	168	210	262	324	399
40	-	76	100	128	163	204	255	316	389
50	-	-	92	119	152	192	241	299	369
60	-	-	-	106	137	174	220	275	341
Coefficient of per	formance (C.C	D.P.)	1	1	,	1	1		
10	-	2.64	3.16	3.85	4.77	-	-	-	-
20	-	2.14	2.53	3.02	3.65	4.43	5.43	-	-
30	-	1.74	2.02	2.38	2.80	3.32	3.96	4.73	5.69
40	-	1.40	1.61	1.85	2.15	2.49	2.90	3.38	3.95
50	-	-	1.25	1.42	1.61	1.83	2.09	2.39	2.74
60	-	-	-	1.03	1.14	1.28	1.44	1.62	1.84
						_			
Nominal perform	ance at to = -1	0 °C, tc = 45 °C	14/	_		Pressure switch		07.7	h = =(=)

Cooling capacity	5 39

Cooling capacity	5 397	W
Power input	2 894	W
Current consumption	6.11	Α
Mass flow	158	kg/h
C.O.P.	1.86	

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Suction gas temp. = $20 \, ^{\circ}\text{C}$, Subcooling = $0 \, \text{K}$

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	72	dB(A)	_
With accoustic hood	67	dB(A)	





Maneurop reciprocating compressor. MTZ040-4

Performance data at 50 Hz, EN 12900 rating conditions, Superheat = 10 K

R452A

**C (Ic)	Cond. temp. in				Evapora	ating temperature	in °C (to)			
10	°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
10										
20	Cooling capacity	/ in W			•		_			
30	10	2 887	3 712	4 799	6 180	7 887	-	-	-	-
40	20	2 667	3 465	4 489	5 772	7 346	9 241	11 491	-	-
Formula Form	30	2 332	3 076	4 011	5 170	6 584	8 284	10 304	12 675	15 429
Power input in W Power input in W 10 1 301 1 442 1 553 1 631 1 672 - - - 20 1 513 1 689 1 840 1 964 2 056 2 113 2 133 30 1 666 1 889 2 092 2 272 2 425 2 550 2 641 40 1 732 2 013 2 279 2 527 2 754 2 956 3 131 50 1 684 2 035 2 375 2 703 3 014 3 306 3 575 60 - 1 927 2 353 2 771 3 179 3 572 3 947 Current consumption in A 10 2.61 2.57 2.52 2.44 2.31 - - - 20 4.08 4.17 4.26 4.34 4.38 4.37 4.27 30 4.62 4.82 5.04 5.26 5.46 5.62 5.70 40 4.65 4.93	40	1 909	2 574	3 394	4 401	5 629	7 109	8 872	10 951	13 378
Power input in W 10	50	1 429	1 986	2 665	3 496	4 511	5 743	7 224	8 985	11 059
10	60	-	1 343	1 853	2 481	3 258	4 216	5 388	6 805	8 499
10	Dower innut in V									
20 1 513 1 689 1 840 1 964 2 056 2 113 2 133 30 1 666 1 889 2 092 2 272 2 425 2 550 2 641 40 1 732 2 013 2 279 2 527 2 754 2 956 3 131 50 1 684 2 035 2 375 2 703 3 014 3 306 3 575 60 - 1 927 2 353 2 771 3 179 3 572 3 947 Current consumption in A 10 2 61 2 .57 2 .52 2 .44 2 .31 - - - 20 4 .08 4 .17 4 .26 4 .34 4 .38 4 .37 4 .27 30 4 .62 4 .82 5 .04 5 .26 5 .96 6 .26 6 .52 50 4 .56 4 .94 5 .27 5 .62 5 .96 6 .26 6 .52 50 4 .56 4 .93 5 .35 5 .81 6 .27 6 .71 <td>· 1</td> <td></td> <td>1 442</td> <td>1 553</td> <td>1 631</td> <td>1 672</td> <td><u> </u></td> <td>_</td> <td>_</td> <td>_</td>	· 1		1 442	1 553	1 631	1 672	<u> </u>	_	_	_
30								+	_	_
40			1	1	-	1			2 696	2 712
50 1 684 2 035 2 375 2 703 3 014 3 306 3 575 60 - 1 927 2 353 2 771 3 179 3 572 3 947 Current consumption in A 10 2.61 2.57 2.52 2.44 2.31 - - - 20 4.08 4.17 4.26 4.34 4.38 4.37 4.27 30 4.62 4.82 5.04 5.26 5.46 5.62 5.70 40 4.65 4.94 5.27 5.62 5.96 6.26 6.52 50 4.56 4.93 5.35 5.81 6.27 6.71 7.12 60 - 5.19 5.69 6.23 6.80 7.36 7.91 Mass flow in kg/h 10 72 91 114 143 178 - - - 20 73 94 118 149 184 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>3 275</td><td>3 384</td></t<>									3 275	3 384
Current consumption in A 10			1	1					3 818	4 032
Current consumption in A 10								•	4 301	4 631
10	00		1 027	2 000	2771	0 170	0072	0017	1 001	1 001
20 4.08 4.17 4.26 4.34 4.38 4.37 4.27 30 4.62 4.82 5.04 5.26 5.46 5.62 5.70 40 4.65 4.94 5.27 5.62 5.96 6.26 6.52 50 4.56 4.93 5.35 5.81 6.27 6.71 7.12 60 - 5.19 5.69 6.23 6.80 7.36 7.91 Mass flow in kg/h 10 72 91 114 143 178 - - - 20 73 94 118 148 184 227 276 30 72 93 118 149 184 227 276 40 68 89 114 144 179 220 269 50 61 81 105 134 168 207 254 60 - 70 9	Current consum	ption in A								
30	10	2.61	2.57	2.52	2.44	2.31	-	-	-	-
40	20	4.08	4.17	4.26	4.34	4.38	4.37	4.27	-	-
50 4.56 4.93 5.35 5.81 6.27 6.71 7.12 60 - 5.19 5.69 6.23 6.80 7.36 7.91 Mass flow in kg/h 10 72 91 114 143 178 - - - 20 73 94 118 148 184 227 276 30 72 93 118 149 184 227 276 40 68 89 114 144 179 220 269 50 61 81 105 134 168 207 254 60 - 70 92 119 150 188 231 Coefficient of performance (C.O.P.) 10 2.22 2.57 3.09 3.79 4.72 - - - 20 1.76 2.05 2.44 2.94 3.57 4.37 5.39 <	30	4.62	4.82	5.04	5.26	5.46	5.62	5.70	5.70	5.58
Mass flow in kg/h 10 72 91 114 143 178 20 73 94 118 148 184 227 276 30 72 93 118 149 184 227 276 40 68 89 114 144 179 220 269 50 61 81 105 134 168 207 254 60 - 70 92 119 150 188 231 Coefficient of performance (C.O.P.) 10 2.22 2.57 3.09 3.79 4.72 20 1.76 2.05 2.44 2.94 3.57 4.37 5.39 30 1.40 1.63 1.92 2.28 2.71 3.25 3.90 40 1.10 1.28 1.49 1.74 2.04 2.40 2.83 50 0.85 0.98 1.12 1.29 1.50 1.74 2.02	40	4.65	4.94	5.27	5.62	5.96	6.26	6.52	6.70	6.78
Mass flow in kg/h 10 72 91 114 143 178 20 73 94 118 148 184 227 276 30 72 93 118 149 184 227 276 40 68 89 114 144 179 220 269 50 61 81 105 134 168 207 254 60 - 70 92 119 150 188 231 Coefficient of performance (C.O.P.) 10 2.22 2.57 3.09 3.79 4.72 20 1.76 2.05 2.44 2.94 3.57 4.37 5.39 30 1.40 1.63 1.92 2.28 2.71 3.25 3.90 40 1.10 1.28 1.49 1.74 2.04 2.40 2.83 50 0.85 0.98 1.12 1.29 1.50 1.74 2.02	50	4.56	4.93	5.35	5.81	6.27	6.71	7.12	7.46	7.72
10 72 91 114 143 178 - - 20 73 94 118 148 184 227 276 30 72 93 118 149 184 227 276 40 68 89 114 144 179 220 269 50 61 81 105 134 168 207 254 60 - 70 92 119 150 188 231 Coefficient of performance (C.O.P.) 10 2.22 2.57 3.09 3.79 4.72 - - - 20 1.76 2.05 2.44 2.94 3.57 4.37 5.39 30 1.40 1.63 1.92 2.28 2.71 3.25 3.90 40 1.10 1.28 1.49 1.74 2.04 2.40 2.83 50 0.85 0.98	60	-	5.19	5.69	6.23	6.80	7.36	7.91	8.40	8.82
10 72 91 114 143 178 - - 20 73 94 118 148 184 227 276 30 72 93 118 149 184 227 276 40 68 89 114 144 179 220 269 50 61 81 105 134 168 207 254 60 - 70 92 119 150 188 231 Coefficient of performance (C.O.P.) 10 2.22 2.57 3.09 3.79 4.72 - - - 20 1.76 2.05 2.44 2.94 3.57 4.37 5.39 30 1.40 1.63 1.92 2.28 2.71 3.25 3.90 40 1.10 1.28 1.49 1.74 2.04 2.40 2.83 50 0.85 0.98										
20 73 94 118 148 184 227 276 30 72 93 118 149 184 227 276 40 68 89 114 144 179 220 269 50 61 81 105 134 168 207 254 60 - 70 92 119 150 188 231 Coefficient of performance (C.O.P.) 10 2.22 2.57 3.09 3.79 4.72 - - - 20 1.76 2.05 2.44 2.94 3.57 4.37 5.39 30 1.40 1.63 1.92 2.28 2.71 3.25 3.90 40 1.10 1.28 1.49 1.74 2.04 2.40 2.83 50 0.85 0.98 1.12 1.29 1.50 1.74 2.02	1			144	1 440	170	1	1	1	
30 72 93 118 149 184 227 276 40 68 89 114 144 179 220 269 50 61 81 105 134 168 207 254 60 - 70 92 119 150 188 231 Coefficient of performance (C.O.P.) 10 2.22 2.57 3.09 3.79 4.72 - - - 20 1.76 2.05 2.44 2.94 3.57 4.37 5.39 30 1.40 1.63 1.92 2.28 2.71 3.25 3.90 40 1.10 1.28 1.49 1.74 2.04 2.40 2.83 50 0.85 0.98 1.12 1.29 1.50 1.74 2.02			1		1	1	1		-	-
40 68 89 114 144 179 220 269 50 61 81 105 134 168 207 254 60 - 70 92 119 150 188 231 Coefficient of performance (C.O.P.) 10 2.22 2.57 3.09 3.79 4.72 - - - 20 1.76 2.05 2.44 2.94 3.57 4.37 5.39 30 1.40 1.63 1.92 2.28 2.71 3.25 3.90 40 1.10 1.28 1.49 1.74 2.04 2.40 2.83 50 0.85 0.98 1.12 1.29 1.50 1.74 2.02	-			1	-	1	+	1	-	-
50 61 81 105 134 168 207 254 60 - 70 92 119 150 188 231 Coefficient of performance (C.O.P.) 10 2.22 2.57 3.09 3.79 4.72 - - - - 2.0 2.05 2.44 2.94 3.57 4.37 5.39 3.0 1.40 1.63 1.92 2.28 2.71 3.25 3.90 40 1.10 1.28 1.49 1.74 2.04 2.40 2.83 50 0.85 0.98 1.12 1.29 1.50 1.74 2.02			1	1				+	333	399
60 - 70 92 119 150 188 231 Coefficient of performance (C.O.P.) 10 2.22 2.57 3.09 3.79 4.72 - - - - 2.05 2.44 2.94 3.57 4.37 5.39 3.90 3.09 3.09 2.28 2.71 3.25 3.90 3.90 4.0 1.10 1.28 1.49 1.74 2.04 2.40 2.83 50 0.85 0.98 1.12 1.29 1.50 1.74 2.02			1	1	1	1			324	389
Coefficient of performance (C.O.P.) 10 2.22 2.57 3.09 3.79 4.72 - - - 20 1.76 2.05 2.44 2.94 3.57 4.37 5.39 30 1.40 1.63 1.92 2.28 2.71 3.25 3.90 40 1.10 1.28 1.49 1.74 2.04 2.40 2.83 50 0.85 0.98 1.12 1.29 1.50 1.74 2.02			+	1	1	1			308	369
10 2.22 2.57 3.09 3.79 4.72 - - 20 1.76 2.05 2.44 2.94 3.57 4.37 5.39 30 1.40 1.63 1.92 2.28 2.71 3.25 3.90 40 1.10 1.28 1.49 1.74 2.04 2.40 2.83 50 0.85 0.98 1.12 1.29 1.50 1.74 2.02	60	-	70	92	119	150	188	231	282	341
10 2.22 2.57 3.09 3.79 4.72 - - 20 1.76 2.05 2.44 2.94 3.57 4.37 5.39 30 1.40 1.63 1.92 2.28 2.71 3.25 3.90 40 1.10 1.28 1.49 1.74 2.04 2.40 2.83 50 0.85 0.98 1.12 1.29 1.50 1.74 2.02	Coefficient of ne	erformance (C.C) P)							
20 1.76 2.05 2.44 2.94 3.57 4.37 5.39 30 1.40 1.63 1.92 2.28 2.71 3.25 3.90 40 1.10 1.28 1.49 1.74 2.04 2.40 2.83 50 0.85 0.98 1.12 1.29 1.50 1.74 2.02		· · · · · ·	1	3.09	3.79	4.72	-	-	-	_
30 1.40 1.63 1.92 2.28 2.71 3.25 3.90 40 1.10 1.28 1.49 1.74 2.04 2.40 2.83 50 0.85 0.98 1.12 1.29 1.50 1.74 2.02			1	1	-	1	4.37	5.39	-	-
40 1.10 1.28 1.49 1.74 2.04 2.40 2.83 50 0.85 0.98 1.12 1.29 1.50 1.74 2.02			†	1				+	4.70	5.69
50 0.85 0.98 1.12 1.29 1.50 1.74 2.02									3.34	3.95
			1	1					2.35	2.74
									1.58	1.84
			1	1		1	1	1	1	
tc = 45 °C Pressure switch settings	nance at to = -10 °C,					1				

to: Evaporating	tamparatura	at	dow	noin

Cooling capacity

Current consumption Mass flow

Power input

C.O.P.

tc: Condensing temperature at dew point

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

5 089

2 894

6.11

174

1.76

W

W

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

Sound power data

Sound power level	72	dB(A)
With accoustic hood	67	dB(A)





Maneurop reciprocating compressor. MTZ040-4

Performance data at 60 Hz, EN 12900 rating conditions

R407C

Cond. temp. in	p. in Evaporating temperature in °C (to)								
°C (tc)	-15	-10	-5	0	5	10	15		
Cooling capacity		1	1	I		1	1	1	1
35	4 858	6 487	8 415	10 681	13 321	16 373	19 876	-	-
40	4 409	5 952	7 771	9 904	12 387	15 259	18 556	-	-
45	3 960	5 417	7 126	9 125	11 451	14 141	17 233	-	-
50	-	4 884	6 482	8 347	10 515	13 023	15 909	-	-
55	-	-	5 842	7 572	9 581	11 906	14 584	-	-
60	-	-	-	6 800	8 649	10 790	13 259	-	-
65	-	-	-	6 034	7 721	9 676	11 935	-	-
-									
Power input in V		2.044	2.045	2.407	2.440	2.050	2.040	1	T
35	2 305	2 614	2 915	3 197	3 448	3 656	3 810	-	-
40 45	2 381 2 455	2 716 2 811	3 052 3 178	3 378 3 544	3 683 3 897	3 954 4 226	4 180 4 520	-	-
						1	1	†	-
50 55	-	2 906	3 299 3 422	3 700 3 854	4 098 4 291	4 480 4 723	4 837 5 137	-	<u>-</u>
		1							
60	-	-	-	4 011	4 484	4 960	5 428	-	-
65	-	-	-	4 179	4 682	5 198	5 715	-	-
Current consum	ption in A								
35	4.20	4.52	4.85	5.17	5.47	5.72	5.91	-	-
40	4.29	4.63	5.00	5.37	5.72	6.03	6.29	-	-
45	4.38	4.75	5.15	5.57	5.98	6.36	6.69	-	-
50	-	4.85	5.30	5.76	6.23	6.68	7.09	-	-
55	-	-	5.44	5.96	6.49	7.01	7.50	-	-
60	-	-	-	6.14	6.74	7.34	7.91	-	-
65	-	-	-	6.30	6.97	7.65	8.31	-	-
Mass flow in kg/	n 105	138	177	221	271	329	394	1	1
35		1	177					-	-
40 45	101 95	133 128	171 165	215 208	264 257	321 313	385 375	-	-
50	- 95	128	159	208	257	304	366	-	-
55	<u> </u>	- 122	153	194	242	295	355	-	-
60	-	-	-	187	233	295	345	-	-
65		<u> </u>	-	179	235	276	334	-	-
00				173	223	210	004		
Coefficient of pe	erformance (C.C).P.)							
35	2.11	2.48	2.89	3.34	3.86	4.48	5.22	-	-
40	1.85	2.19	2.55	2.93	3.36	3.86	4.44	-	-
45	1.61	1.93	2.24	2.58	2.94	3.35	3.81	-	-
50	-	1.68	1.96	2.26	2.57	2.91	3.29	-	-
55	-	-	1.71	1.96	2.23	2.52	2.84	-	-
60	-	-	-	1.70	1.93	2.18	2.44	-	-
65	-	-	-	1.44	1.65	1.86	2.09	-	-

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

Cooling capacity	10 515	W
Power input	4 098	W
Current consumption	6.23	Α
Mass flow	250	kg/h
C.O.P.	2.57	

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	77	dB(A)
With accoustic hood	72	dB(A)

Tolerance according EN12900





Maneurop reciprocating compressor. MTZ040-4

Performance data at 60 Hz, ARI rating conditions

R407C

Cond. temp. in				Evapora	ating temperature	in °C (to)			
°C (tc)	-15	-10	-5	0	5	10	15		
•		1	•		1				l .
Cooling capacity	y in W								
35	5 229	6 974	9 036	11 456	14 272	17 524	21 251	-	-
40	4 771	6 433	8 388	10 676	13 337	16 410	19 934	-	-
45	4 313	5 891	7 738	9 894	12 400	15 293	18 614	-	-
50	-	5 350	7 089	9 114	11 463	14 177	17 294	-	-
55	-	-	6 443	8 336	10 529	13 063	15 976	-	-
60	-	-	-	7 564	9 600	11 954	14 663	-	-
65	-	-	-	6 799	8 680	10 852	13 357	-	-
Power input in V			,	1		1	,	T	ı
35	2 305	2 614	2 915	3 197	3 448	3 656	3 810	-	-
40	2 381	2 716	3 052	3 378	3 683	3 954	4 180	-	-
45	2 455	2 811	3 178	3 544	3 897	4 226	4 520	-	-
50	-	2 906	3 299	3 700	4 098	4 480	4 837	-	-
55	-	-	3 422	3 854	4 291	4 723	5 137	-	-
60	-	-	-	4 011	4 484	4 960	5 428	-	-
65	-	-	-	4 179	4 682	5 198	5 715	-	-
Current consum	-		T	T		1	T	Γ	ı
35	4.20	4.52	4.85	5.17	5.47	5.72	5.91	-	-
40	4.29	4.63	5.00	5.37	5.72	6.03	6.29	-	-
45	4.38	4.75	5.15	5.57	5.98	6.36	6.69	-	-
50	-	4.85	5.30	5.76	6.23	6.68	7.09	-	-
55	-	-	5.44	5.96	6.49	7.01	7.50	-	-
60	-	-	-	6.14	6.74	7.34	7.91	-	-
65	-	-	-	6.30	6.97	7.65	8.31	-	-
	_								
Mass flow in kg/		100	170	040	070	1 007	1 004		1
35	105	138	176	219	270	327	391	-	-
40	100	133	170	213	263	319	382	-	-
45	95	127	165	207	256	311	373	-	-
50	-	122	158	200	248	302	363	-	-
55	-	-	152	193	240	293	353	-	-
60	-	-	-	186	232	284	343	-	-
65	-	-	-	178	223	274	332	-	-
O 661 - 1 4 - 5		.							
Coefficient of pe			2.40	2.50	4.44	4.70	5.50		I
35	2.27	2.67	3.10 2.75	3.58	4.14	4.79	5.58	-	-
40	2.00	2.37		3.16	3.62	4.15	4.77	-	-
45	1.76	2.10	2.44	2.79	3.18	3.62	4.12	-	-
50	-	1.84	2.15	2.46	2.80	3.16	3.58	-	-
55	-	-	1.88	2.16	2.45	2.77	3.11	-	-
60	-	-	-	1.89	2.14	2.41	2.70	-	-
65	-	-	-	1.63	1.85	2.09	2.34	-	-

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

Cooling capacity	11 721	W
Power input	4 457	W
Current consumption	6.69	Α
Mass flow	264	kg/h
C.O.P.	2.63	

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	77	dB(A)
With accoustic hood	72	dB(A)

Tolerance according EN12900





Maneurop reciprocating compressor. MTZ040-4

Performance data at 60 Hz, EN 12900 rating conditions

R134a

Cond. temp. in	Evaporating temperature in °C (to)									
°C (tc)	-25	-20	-10	-5	0	5	10	15	20	
Cooling canacity	ı in W									
Cooling capacity 35	1 771	2 406	4 148	5 315	6 721	8 395	10 368	12 670	15 332	
40	1 567	2 172	3 822	4 928	6 260	7 850	9 727	11 923	14 467	
45	1 366	1 941	3 497	4 538	5 795	7 299	9 079	11 167	13 592	
50	1 171	1 714	3 171	4 147	5 328	6 744	8 426	10 404	12 709	
55	- 1 171	-	2 849	3 757	4 860	6 187	7 769	9 636	11 818	
60		-	-	3 370	4 393	5 629	7 109	8 863	10 921	
65		-	_	-	3 928	5 072	6 448	8 088	10 021	
75		_	_	_	-	-	5 130	6 536	8 213	
				1		I	0 .00	0 000	02.0	
Power input in W	<i>I</i>	1	1		1	·		1	ı	
35	1 291	1 441	1 734	1 866	1 983	2 079	2 150	2 189	2 193	
40	1 363	1 520	1 837	1 988	2 126	2 246	2 345	2 416	2 455	
45	1 419	1 585	1 932	2 103	2 264	2 412	2 541	2 646	2 723	
50	1 458	1 636	2 017	2 210	2 397	2 575	2 736	2 878	2 994	
55	-	-	2 090	2 308	2 523	2 732	2 928	3 108	3 266	
60	-	-	-	2 394	2 640	2 882	3 116	3 337	3 539	
65	-	-	-	-	2 745	3 023	3 297	3 561	3 809	
75	-	-	-	-	-	-	3 632	3 988	4 337	
Current consum	ntion in A									
35	3.36	3.51	3.81	3.95	4.08	4.19	4.28	4.34	4.38	
40	3.38	3.55	3.89	4.06	4.22	4.37	4.50	4.62	4.71	
45	3.41	3.59	3.97	4.17	4.37	4.56	4.74	4.91	5.07	
50	3.42	3.62	4.06	4.30	4.54	4.77	5.01	5.24	5.45	
55	-	-	4.16	4.43	4.71	5.00	5.29	5.58	5.87	
60	-	_	-	4.57	4.91	5.25	5.60	5.95	6.31	
65	-	_	_	_	5.11	5.51	5.92	6.35	6.77	
75	-	-	-	-	-	-	6.63	7.20	7.79	
		1	1			· U	•			
Mass flow in kg/l	n	T	T	1	1	1		1	1	
35	45	60	99	124	153	187	227	273	325	
40	42	57	96	121	150	184	223	269	321	
45	39	54	92	117	146	180	219	264	316	
50	36	51	89	113	142	175	214	259	311	
55	-	-	85	109	137	171	209	254	305	
60	-	-	-	105	133	166	204	248	299	
65	-	-	-	-	128	160	198	242	293	
75	-	-	-	-	-	-	186	229	279	
Coefficient of pe	rformance (C.C	D.P.)								
35	1.37	1.67	2.39	2.85	3.39	4.04	4.82	5.79	6.99	
40	1.15	1.43	2.08	2.48	2.94	3.49	4.15	4.93	5.89	
45	0.96	1.22	1.81	2.16	2.56	3.03	3.57	4.22	4.99	
50	0.80	1.05	1.57	1.88	2.22	2.62	3.08	3.62	4.25	
55	-	-	1.36	1.63	1.93	2.26	2.65	3.10	3.62	
60	-	-	-	1.41	1.66	1.95	2.28	2.66	3.09	
65	-	-	-	-	1.43	1.68	1.96	2.27	2.63	
75	_	-	-	-	-	-	1.41	1.64	1.89	

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

	•••	
Cooling capacity	6 744	W
Power input	2 575	W
Current consumption	4.77	Α
Mass flow	175	kg/h
C.O.P.	2.62	

to: Evaporating temperature at dew point

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)

Tolerance according EN12900



tc: Condensing temperature at dew point

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



Maneurop reciprocating compressor. MTZ040-4

Performance data at 60 Hz, ARI rating conditions

R134a

Cond. temp. in				Evapora	iting temperature	in °C (to)			
°C (tc)	-25	-20	-10	-5	0	5	10	15	20
		1				1			I
Cooling capacit	y in W								
35	1 925	2 611	4 485	5 738	7 244	9 035	11 142	13 598	16 433
40	1 713	2 370	4 155	5 346	6 780	8 488	10 501	12 853	15 573
45	1 504	2 132	3 823	4 952	6 311	7 935	9 853	12 098	14 702
50	-	1 896	3 492	4 556	5 840	7 377	9 198	11 336	13 822
55	-	-	3 162	4 159	5 367	6 816	8 539	10 569	12 936
60	-	-	-	3 765	4 894	6 254	7 878	9 798	12 046
65	-	-	-	-	-	5 693	7 217	9 026	11 153
75	-	-	-	-	-	-	5 903	7 491	9 378
Power input in \		T				1			
35	1 291	1 441	1 734	1 866	1 983	2 079	2 150	2 189	2 193
40	1 363	1 520	1 837	1 988	2 126	2 246	2 345	2 416	2 455
45	1 419	1 585	1 932	2 103	2 264	2 412	2 541	2 646	2 723
50	-	1 636	2 017	2 210	2 397	2 575	2 736	2 878	2 994
55	-	-	2 090	2 308	2 523	2 732	2 928	3 108	3 266
60	-	-	-	2 394	2 640	2 882	3 116	3 337	3 539
65	-	-	-	-	-	3 023	3 297	3 561	3 809
75	-	-	-	-	-	-	3 632	3 988	4 337
Current consum	•	0.54	0.04	0.05	4.00	1.40	1.00	4.04	4.00
35	3.36	3.51	3.81	3.95	4.08	4.19	4.28	4.34	4.38
40	3.38	3.55	3.89	4.06	4.22	4.37	4.50	4.62	4.71
45	3.41	3.59	3.97	4.17	4.37	4.56	4.74	4.91	5.07
50	-	3.62	4.06	4.30	4.54	4.77	5.01	5.24	5.45
55	-	-	4.16	4.43	4.71	5.00	5.29	5.58	5.87
60	-	-	-	4.57	4.91	5.25	5.60	5.95	6.31
65	-	-	-	-	-	5.51	5.92	6.35	6.77
75	-	-	-	-	-	-	6.63	7.20	7.79
Mass flow in kg	/h								
35	45	60	98	123	152	186	226	271	323
40	42	57	95	120	149	183	222	267	319
45	39	54	92	116	145	179	218	263	314
50	-	50	88	113	141	175	213	258	309
55	-	-	84	108	137	170	208	253	303
60	-	-	-	104	132	165	203	247	298
65	-	_	-	-	-	160	197	241	291
75	_	_	-	-	-	-	185	228	277
		1				1			
Coefficient of pe	erformance (C.C).P.)							
35	1.49	1.81	2.59	3.07	3.65	4.35	5.18	6.21	7.49
40	1.26	1.56	2.26	2.69	3.19	3.78	4.48	5.32	6.34
45	1.06	1.34	1.98	2.35	2.79	3.29	3.88	4.57	5.40
50	-	1.16	1.73	2.06	2.44	2.87	3.36	3.94	4.62
55	-	-	1.51	1.80	2.13	2.50	2.92	3.40	3.96
60	-	-	-	1.57	1.85	2.17	2.53	2.94	3.40
65	-	-	-	-	-	1.88	2.19	2.53	2.93
	-	-	-	-	-	-	1.63	1.88	2.16

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

	,	• •		
Cooling capacity		7 611	W	
Power input		2 800	W	
Current consumption		5.10	Α	
Mass flow		187	kg/h	
C.O.P.		2.72		

to: Evaporating temperature at dew point

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

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)

Tolerance according EN12900



tc: Condensing temperature at dew point



Maneurop reciprocating compressor. MTZ040-4

Performance data at 60 Hz, EN 12900 rating conditions

R404A

Cond. temp. in				Evapora	ting temperature	in °C (to)			
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
Cooling capacit		2.755	5.075	0.005	0.555	40.775	42.257	40.004	40.700
30	2 674	3 755	5 075	6 665	8 555	10 775	13 357	16 331	19 728
35	2 323	3 332	4 559	6 035	7 789	9 854	12 259	15 034	18 212
40	1 987	2 921	4 051	5 409	7 026	8 931	11 155	13 730	16 686
45	1 665	2 519	3 550	4 788	6 263	8 006	10 047	12 417	15 147
50	1 355	2 127	3 056	4 170	5 500	7 078	8 933	11 095	13 597
55	-	1 745	2 567	3 555	4 737	6 146	7 811	9 764	12 033
60	-	1 370	2 083	2 941	3 973	5 210	6 683	8 421	10 455
Power input in \	N	_	_	1			_		_
30	1 942	2 238	2 526	2 808	3 084	3 356	3 625	3 892	4 159
35	1 940	2 260	2 572	2 877	3 176	3 471	3 763	4 053	4 342
40	1 942	2 290	2 630	2 963	3 291	3 614	3 933	4 251	4 567
45	1 934	2 316	2 689	3 055	3 415	3 771	4 122	4 472	4 820
50	1 904	2 323	2 735	3 138	3 536	3 929	4 318	4 704	5 089
55	-	2 301	2 755	3 201	3 641	4 076	4 507	4 935	5 362
60	-	2 236	2 737	3 230	3 717	4 199	4 677	5 151	5 624
Current consum	nption in A					_			
30	3.85	4.05	4.31	4.60	4.91	5.21	5.49	5.72	5.89
35	3.93	4.16	4.46	4.79	5.14	5.49	5.81	6.10	6.33
40	3.95	4.22	4.55	4.92	5.32	5.72	6.10	6.44	6.73
45	3.92	4.23	4.60	5.02	5.46	5.91	6.35	6.75	7.10
50	3.86	4.21	4.62	5.08	5.58	6.08	6.58	7.05	7.46
55	-	4.17	4.63	5.14	5.69	6.25	6.81	7.34	7.82
60	-	4.12	4.63	5.20	5.80	6.42	7.04	7.64	8.20
/lass flow in kg/	/h								
30	84	116	152	195	244	300	364	437	519
35	79	110	146	189	237	292	356	427	508
40	73	104	140	182	230	284	347	417	496
45	67	98	134	175	222	276	337	406	485
50	61	92	127	167	214	267	327	395	472
55	-	85	120	160	205	257	317	384	459
60	-	77	112	151	196	248	306	372	446
Coefficient of po	erformance (C.C	D.P.)							
30	1.38	1.68	2.01	2.37	2.77	3.21	3.68	4.20	4.74
35	1.20	1.47	1.77	2.10	2.45	2.84	3.26	3.71	4.19
40	1.02	1.28	1.54	1.83	2.13	2.47	2.84	3.23	3.65
45	0.86	1.09	1.32	1.57	1.83	2.12	2.44	2.78	3.14
50	0.71	0.92	1.12	1.33	1.56	1.80	2.07	2.36	2.67
			0.93	1.11	1.30	1.51	1.73	1.98	2.24
55	-	0.76	0.33	1.11		1.51	1.70		

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

Cooling capacity	6 263	W
Power input	3 415	W
Current consumption	5.46	Α
Mass flow	222	kg/h
C.O.P.	1.83	

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

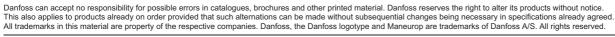
Rating conditions : Superheat = 10 K , Subcooling = 0 K

Pressure switch settings

27.7	bar(g)
1	bar(g)
1.3	bar(g)
	1

Sound power data

Sound power level	72	dB(A)
With accoustic hood	67	dB(A)







Maneurop reciprocating compressor. MTZ040-4

Performance data at 60 Hz, ARI rating conditions

R404A

Cond. temp. in				Evapora	iting temperature	in °C (to)			
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
0 11 14	!								
30	2 976	4 168	5 620	7 362	9 428	11 849	14 658	17 886	21 567
35	2 614	3 737	5 098	6 729	8 662	10 931	13 566	16 601	20 067
40	2 265	3 317	4 584	6 101	7 900	10 931	12 472	15 310	18 561
45	1 929	2 906	4 078	5 478	7 139	9 094	11 375	14 016	17 049
50	1 605	2 506	3 580	4 861	6 382	8 177	10 279	12 721	15 535
55	-	2 114	3 089	4 250	5 631	7 266	9 189	11 432	14 029
60		1 732	2 609	3 651	4 893	6 370	8 116	10 165	12 551
Power input in V	Λ/	1702	2 000	0 001	1 000	0010	0 110	10 100	12 001
30	1 942	2 238	2 526	2 808	3 084	3 356	3 625	3 892	4 159
35	1 940	2 260	2 572	2 877	3 176	3 471	3 763	4 053	4 342
40	1 942	2 290	2 630	2 963	3 291	3 614	3 933	4 251	4 567
45	1 934	2 316	2 689	3 055	3 415	3 771	4 122	4 472	4 820
50	1 904	2 323	2 735	3 138	3 536	3 929	4 318	4 704	5 089
55	-	2 301	2 755	3 201	3 641	4 076	4 507	4 935	5 362
60	-	2 236	2 737	3 230	3 717	4 199	4 677	5 151	5 624
Current consum	nption in A								
30	3.85	4.05	4.31	4.60	4.91	5.21	5.49	5.72	5.89
35	3.93	4.16	4.46	4.79	5.14	5.49	5.81	6.10	6.33
40	3.95	4.22	4.55	4.92	5.32	5.72	6.10	6.44	6.73
45	3.92	4.23	4.60	5.02	5.46	5.91	6.35	6.75	7.10
50	3.86	4.21	4.62	5.08	5.58	6.08	6.58	7.05	7.46
55	-	4.17	4.63	5.14	5.69	6.25	6.81	7.34	7.82
60	-	4.12	4.63	5.20	5.80	6.42	7.04	7.64	8.20
Mass flow in kg/	/h								
30	84	115	151	194	242	298	362	434	515
35	78	110	146	187	236	291	353	424	504
40	73	104	140	181	228	283	344	414	493
45	67	98	133	174	221	274	335	404	481
50	61	91	126	166	213	265	325	393	469
55	-	84	119	159	204	256	315	381	456
60	-	77	111	150	195	246	304	369	443
Coefficient of pe	erformance (C.C).P.)							
30	1.53	1.86	2.22	2.62	3.06	3.53	4.04	4.60	5.19
35	1.35	1.65	1.98	2.34	2.73	3.15	3.60	4.10	4.62
40	1.17	1.45	1.74	2.06	2.40	2.77	3.17	3.60	4.06
45	1.00	1.26	1.52	1.79	2.09	2.41	2.76	3.13	3.54
50	0.84	1.08	1.31	1.55	1.80	2.08	2.38	2.70	3.05
55	-	0.92	1.12	1.33	1.55	1.78	2.04	2.32	2.62
60	-	0.77	0.95	1.13	1.32	1.52	1.74	1.97	2.23

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

Cooling capacity	7 139	W
Power input	3 415	W
Current consumption	5.46	Α
Mass flow	221	kg/h
C.O.P.	2.09	

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

27.7	bar(g)
1	bar(g)
1.3	bar(g)
	1

Sound power data

Sound power level	72	dB(A)
With accoustic hood	67	dB(A)

Tolerance according EN12900





Maneurop reciprocating compressor. MTZ040-4

Performance data at 60 Hz, EN 12900 rating conditions

R407A

Cond. temp. in Evaporating temperature in °C (to)									
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
Cooling capacity		0.400	4.000	5.047	7.500	0.400	44 777	44.444	47.440
30	2 153	3 168	4 380	5 817	7 509	9 486	11 777	14 411	17 418
35	1 875	2 857	4 017	5 384	6 988	8 858	11 023	13 514	16 359
40	1 585 1 289	2 529	3 633 3 235	4 926	6 437	8 195	10 231	12 574	15 253
45	1 289	2 192	1	4 449	5 862	7 505	9 408	11 598	14 107
50		1 850	2 829	3 959	5 271	6 795	8 558	10 592	12 926
55	-	-	2 421	3 464	4 670	6 069	7 690	9 563	11 718
60	-	-	-	2 970	4 066	5 336	6 811	8 518	10 489
Power input in W	ı								
30	1 513	1 838	2 140	2 419	2 672	2 899	3 098	3 269	3 410
35	1 495	1 851	2 184	2 492	2 776	3 033	3 263	3 464	3 636
40	1 473	1 863	2 229	2 572	2 890	3 181	3 445	3 681	3 887
45	1 448	1 875	2 279	2 660	3 015	3 345	3 646	3 920	4 163
50	-	1 889	2 334	2 756	3 153	3 524	3 867	4 181	4 466
55	-	-	2 396	2 862	3 304	3 720	4 108	4 467	4 798
60	-	-	-	2 979	3 470	3 934	4 371	4 779	5 158
Current consum	ption in A								
30	4.04	4.31	4.57	4.83	5.07	5.29	5.49	5.66	5.79
35	4.02	4.33	4.63	4.93	5.22	5.49	5.75	5.98	6.18
40	4.00	4.34	4.68	5.02	5.36	5.69	6.00	6.30	6.56
45	3.98	4.35	4.74	5.12	5.51	5.89	6.26	6.62	6.95
50	-	4.39	4.81	5.24	5.68	6.11	6.54	6.96	7.36
55	-	-	4.91	5.38	5.87	6.36	6.84	7.33	7.79
60	-	-	-	5.57	6.10	6.64	7.19	7.73	8.27
Mass flow in kg/l	h								
30	51	74	100	131	166	206	251	303	362
35	47	70	97	127	162	202	247	298	356
40	42	66	93	123	158	197	242	292	349
45	37	61	88	118	152	191	235	285	341
50	-	55	82	112	146	184	227	276	331
55	-	-	75	105	139	177	219	267	320
60	-	-	-	98	131	168	209	256	308
Coefficient of per	rformance (C.O).P.)							
30	1.42	1.72	2.05	2.41	2.81	3.27	3.80	4.41	5.11
35	1.25	1.54	1.84	2.16	2.52	2.92	3.38	3.90	4.50
40	1.08	1.36	1.63	1.91	2.23	2.58	2.97	3.42	3.92
45	0.89	1.17	1.42	1.67	1.94	2.24	2.58	2.96	3.39
50	-	0.98	1.21	1.44	1.67	1.93	2.21	2.53	2.89
		†	1		1.41	1.63	1.87	2.14	2.44
55	-	-	1.01	1.21	1,41	1.03	1.07	2.14	2.44

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

Cooling capacity	5 862	W
Power input	3 015	W
Current consumption	5.51	Α
Mass flow	152	kg/h
C.O.P.	1.94	

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

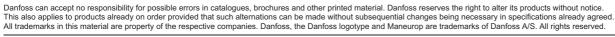
Rating conditions : Superheat = 10 K , Subcooling = 0 K

Pressure switch settings

Maximum HP switch setting	25.8	bar(g)	٦
Minimum LP switch setting	0.9	bar(g)	
LP pump down setting	1.2	bar(g)	

Sound power data

Sound power level	72	dB(A)
With accoustic hood	67	dB(A)







Maneurop reciprocating compressor. MTZ040-4

Performance data at 60 Hz, ARI rating conditions

R407A

Cond. temp. in				Evapora	iting temperature	in °C (to)			
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
Cooling capacit		T	I	T		T			
30	2 328	3 422	4 723	6 265	8 077	10 191	12 636	15 445	18 648
35	2 040	3 103	4 356	5 830	7 556	9 564	11 887	14 554	17 598
40	1 736	2 766	3 966	5 367	7 002	8 901	11 097	13 618	16 498
45	1 424	2 415	3 558	4 883	6 423	8 209	10 272	12 644	15 356
50	-	2 059	3 140	4 385	5 826	7 494	9 422	11 639	14 179
55	-	-	2 719	3 880	5 218	6 764	8 552	10 612	12 977
60	-	-	-	3 375	4 606	6 028	7 673	9 572	11 759
Power input in \	N								
30	1 513	1 838	2 140	2 419	2 672	2 899	3 098	3 269	3 410
35	1 495	1 851	2 184	2 492	2 776	3 033	3 263	3 464	3 636
40	1 473	1 863	2 229	2 572	2 890	3 181	3 445	3 681	3 887
45	1 448	1 875	2 279	2 660	3 015	3 345	3 646	3 920	4 163
50	-	1 889	2 334	2 756	3 153	3 524	3 867	4 181	4 466
55	-	-	2 396	2 862	3 304	3 720	4 108	4 467	4 798
60	-	-	-	2 979	3 470	3 934	4 371	4 779	5 158
Current consum	nption in A							T.	
30	4.04	4.31	4.57	4.83	5.07	5.29	5.49	5.66	5.79
35	4.02	4.33	4.63	4.93	5.22	5.49	5.75	5.98	6.18
40	4.00	4.34	4.68	5.02	5.36	5.69	6.00	6.30	6.56
45	3.98	4.35	4.74	5.12	5.51	5.89	6.26	6.62	6.95
50	-	4.39	4.81	5.24	5.68	6.11	6.54	6.96	7.36
55	-	-	4.91	5.38	5.87	6.36	6.84	7.33	7.79
60	-	-	-	5.57	6.10	6.64	7.19	7.73	8.27
Mass flow in kg	/h								
30	51	74	100	130	165	205	250	302	360
35	47	70	96	127	161	201	246	297	354
40	42	66	92	122	157	196	240	291	347
45	37	60	87	117	151	190	234	283	339
50	-	55	81	111	145	183	226	275	329
55	-	-	75	105	138	176	218	265	318
60	-	-	-	98	130	167	208	255	306
Coefficient of pe	erformance (C.O).P.)							
30	1.54	1.86	2.21	2.59	3.02	3.52	4.08	4.73	5.47
35	1.36	1.68	2.00	2.34	2.72	3.15	3.64	4.20	4.84
40	1.18	1.48	1.78	2.09	2.42	2.80	3.22	3.70	4.24
45	0.98	1.29	1.56	1.84	2.13	2.45	2.82	3.23	3.69
50	-	1.09	1.35	1.59	1.85	2.13	2.44	2.78	3.17
55	-	-	1.14	1.36	1.58	1.82	2.08	2.38	2.70
		+	-		1.33	+	+	+	2.28

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

Cooling capacity	6 423	W
Power input	3 015	W
Current consumption	5.51	Α
Mass flow	151	kg/h
C.O.P.	2.13	

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	25.8	bar(g)	
Minimum LP switch setting	0.9	bar(g)	
LP pump down setting	1.2	bar(g)	

Sound power data

Sound power level	72	dB(A)
With accoustic hood	67	dB(A)

Tolerance according EN12900





Maneurop reciprocating compressor. MTZ040-4

Performance data at 60 Hz, EN 12900 rating conditions

R407F

Cond. temp. in Evaporating temperature in °C (to)									
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
Cooling capacity	in W								
30	-	3 450	4 807	6 430	8 351	10 603	13 218	16 229	19 669
35	-	3 021	4 274	5 765	7 525	9 589	11 987	14 754	17 921
40	-	2 648	3 816	5 194	6 813	8 707	10 908	13 449	16 363
45	-	2 316	3 418	4 702	6 199	7 942	9 965	12 300	14 979
50	-	-	3 063	4 271	5 666	7 278	9 142	11 289	13 752
55	-	-	-	3 887	5 198	6 698	8 421	10 400	12 667
60	-	-	-	-	-	-	-	-	-
Power input in W									
30	_	1 961	2 269	2 557	2 816	3 033	3 200	3 303	3 335
35	-	1 976	2 310	2 632	2 931	3 196	3 417	3 583	3 683
40	-	2 003	2 359	2 711	3 047	3 357	3 629	3 854	4 020
45	-	2 052	2 429	2 807	3 177	3 528	3 848	4 128	4 357
50	-	-	2 530	2 932	3 333	3 721	4 087	4 419	4 706
55	-	-	-	3 098	3 526	3 949	4 356	4 737	5 081
60	-	-	-	-	-	_	-	-	-
Current consump	ation in A								
30		4.21	4.52	4.83	5.12	5.38	5.58	5.73	5.79
35		4.33	4.66	5.00	5.33	5.63	5.90	6.11	6.25
40		4.40	4.76	5.13	5.50	5.86	6.19	6.47	6.68
45		4.43	4.82	5.24	5.66	6.08	6.47	6.83	7.13
50		-	4.89	5.35	5.83	6.32	6.79	7.23	7.63
55	_	_	-	5.51	6.05	6.61	7.16	7.69	8.19
60	-	_	_	-	-	-	-	-	-
•			1		<u>I</u>	1			<u> </u>
Mass flow in kg/h				I	1		I	I	
30	-	71	98	129	165	207	255	309	370
35	-	66	91	121	156	196	241	293	352
40	-	61	86	115	148	187	230	280	336
45	-	56	81	110	142	179	222	269	323
50	-	-	78	106	138	174	215	261	314
55	-	-	-	103	135	171	211	256	307
60	-	-	-	-	-	-	-	-	-
Coefficient of per	formance (C.C	D.P.)							
30	-	1.76	2.12	2.51	2.97	3.50	4.13	4.91	5.90
35	-	1.53	1.85	2.19	2.57	3.00	3.51	4.12	4.87
40	-	1.32	1.62	1.92	2.24	2.59	3.01	3.49	4.07
45	-	1.13	1.41	1.67	1.95	2.25	2.59	2.98	3.44
50	-	-	1.21	1.46	1.70	1.96	2.24	2.55	2.92
55	-	-	-	1.25	1.47	1.70	1.93	2.20	2.49
60	_	_	_	-	_	_	_	_	_

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

Cooling capacity	6 199	W
Power input	3 177	W
Current consumption	5.66	Α
Mass flow	142	kg/h
C.O.P.	1.95	

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	24	bar(g)	
Minimum LP switch setting	1	bar(g)	
LP pump down setting	1.26	bar(q)	

Sound power data

Sound power level	72	dB(A)
With accoustic hood	67	dB(A)





Maneurop reciprocating compressor. MTZ040-4

Performance data at 60 Hz, ARI rating conditions

R407F

Cond. temp. in		1	T		ting temperature		T		1
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
cooling capacity	in W								
30	-	3 697	5 147	6 878	8 924	11 319	14 098	17 295	20 944
35	-	3 253	4 597	6 193	8 076	10 280	12 839	15 787	19 159
40	-	2 867	4 126	5 609	7 349	9 381	11 740	14 459	17 574
45	-	2 523	3 719	5 108	6 726	8 607	10 785	13 297	16 175
50	-	-	3 358	4 675	6 191	7 942	9 962	12 286	14 948
55	-	-	-	4 295	5 732	7 374	9 257	11 415	13 883
60	-	-	-	-	-	-	-	-	-
Power input in W	ı								
30	-	1 961	2 269	2 557	2 816	3 033	3 200	3 303	3 335
35	-	1 976	2 310	2 632	2 931	3 196	3 417	3 583	3 683
40	-	2 003	2 359	2 711	3 047	3 357	3 629	3 854	4 020
45	-	2 052	2 429	2 807	3 177	3 528	3 848	4 128	4 357
50	-	-	2 530	2 932	3 333	3 721	4 087	4 419	4 706
55	-	-	-	3 098	3 526	3 949	4 356	4 737	5 081
60	-	-	-	-	-	-	-	-	-
Current consum	ption in A								
30	-	4.21	4.52	4.83	5.12	5.38	5.58	5.73	5.79
35	-	4.33	4.66	5.00	5.33	5.63	5.90	6.11	6.25
40	-	4.40	4.76	5.13	5.50	5.86	6.19	6.47	6.68
45	-	4.43	4.82	5.24	5.66	6.08	6.47	6.83	7.13
50	-	-	4.89	5.35	5.83	6.32	6.79	7.23	7.63
55	-	-	-	5.51	6.05	6.61	7.16	7.69	8.19
60	-	-	-	-	-	-	-	-	-
/lass flow in kg/	h								
30	-	71	97	128	164	206	253	307	368
35	-	65	91	121	155	195	240	291	350
40	-	60	85	114	147	185	229	278	334
45	-	56	81	109	141	178	220	268	321
50	-	-	77	105	137	173	214	260	312
55	-	-	-	102	134	170	209	254	305
60	-	-	-	-	-	-	-	-	-
Coefficient of pe	rformance (C	O.P.)							
30	-	1.89	2.27	2.69	3.17	3.73	4.41	5.24	6.28
35	-	1.65	1.99	2.35	2.76	3.22	3.76	4.41	5.20
40	-	1.43	1.75	2.07	2.41	2.79	3.23	3.75	4.37
45	-	1.23	1.53	1.82	2.12	2.44	2.80	3.22	3.71
50	_	-	1.33	1.59	1.86	2.13	2.44	2.78	3.18
	_	_	-	1.39	1.63	1.87	2.12	2.41	2.73
55	-								

Nominal performance at to = -10 °C, tc = 45 °C	С
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Cooling capacity	6 726	W
Power input	3 177	W
Current consumption	5.66	Α
Mass flow	141	kg/h
C.O.P.	2.12	

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	24	bar(g)
Minimum LP switch setting	1	bar(g)
LP pump down setting	1.26	bar(g)

Sound power data

Sound power level	72	dB(A)
With accoustic hood	67	dB(A)

Tolerance according EN12900





Maneurop reciprocating compressor. MTZ040-4

Performance data at 60 Hz, EN 12900 rating conditions

R134a

Cond. temp. in				Evapora	ting temperature	in °C (to)			
°C (tc)	-25	-20	-10	-5	0	5	10	15	20
Cooling canacity	ı in W								
Cooling capacity 35	1 771	2 406	4 148	5 315	6 721	8 395	10 368	12 670	15 332
40	1 567	2 172	3 822	4 928	6 260	7 850	9 727	11 923	14 467
45	1 366	1 941	3 497	4 538	5 795	7 299	9 079	11 167	13 592
50	1 171	1 714	3 171	4 147	5 328	6 744	8 426	10 404	12 709
55	- 1 171	-	2 849	3 757	4 860	6 187	7 769	9 636	11 818
60		-	-	3 370	4 393	5 629	7 109	8 863	10 921
65		-	_	-	3 928	5 072	6 448	8 088	10 021
75		_	_	_	-	-	5 130	6 536	8 213
				1		I	0 .00	0 000	02.0
Power input in W	<i>I</i>	1	1		1	·		1	ı
35	1 291	1 441	1 734	1 866	1 983	2 079	2 150	2 189	2 193
40	1 363	1 520	1 837	1 988	2 126	2 246	2 345	2 416	2 455
45	1 419	1 585	1 932	2 103	2 264	2 412	2 541	2 646	2 723
50	1 458	1 636	2 017	2 210	2 397	2 575	2 736	2 878	2 994
55	-	-	2 090	2 308	2 523	2 732	2 928	3 108	3 266
60	-	-	-	2 394	2 640	2 882	3 116	3 337	3 539
65	-	-	-	-	2 745	3 023	3 297	3 561	3 809
75	-	-	-	-	-	-	3 632	3 988	4 337
Current consum	ntion in A								
35	3.36	3.51	3.81	3.95	4.08	4.19	4.28	4.34	4.38
40	3.38	3.55	3.89	4.06	4.22	4.37	4.50	4.62	4.71
45	3.41	3.59	3.97	4.17	4.37	4.56	4.74	4.91	5.07
50	3.42	3.62	4.06	4.30	4.54	4.77	5.01	5.24	5.45
55	-	-	4.16	4.43	4.71	5.00	5.29	5.58	5.87
60	-	_	-	4.57	4.91	5.25	5.60	5.95	6.31
65	-	_	_	_	5.11	5.51	5.92	6.35	6.77
75	-	-	-	-	-	-	6.63	7.20	7.79
		1	1			· U	•		
Mass flow in kg/l	n	T	T	1	1	1		1	1
35	45	60	99	124	153	187	227	273	325
40	42	57	96	121	150	184	223	269	321
45	39	54	92	117	146	180	219	264	316
50	36	51	89	113	142	175	214	259	311
55	-	-	85	109	137	171	209	254	305
60	-	-	-	105	133	166	204	248	299
65	-	-	-	-	128	160	198	242	293
75	-	-	-	-	-	-	186	229	279
Coefficient of pe	rformance (C.C	D.P.)							
35	1.37	1.67	2.39	2.85	3.39	4.04	4.82	5.79	6.99
40	1.15	1.43	2.08	2.48	2.94	3.49	4.15	4.93	5.89
45	0.96	1.22	1.81	2.16	2.56	3.03	3.57	4.22	4.99
50	0.80	1.05	1.57	1.88	2.22	2.62	3.08	3.62	4.25
55	-	-	1.36	1.63	1.93	2.26	2.65	3.10	3.62
60	-	-	-	1.41	1.66	1.95	2.28	2.66	3.09
65	-	-	-	-	1.43	1.68	1.96	2.27	2.63
75	_	-	-	-	-	-	1.41	1.64	1.89

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

	•••	
Cooling capacity	6 744	W
Power input	2 575	W
Current consumption	4.77	Α
Mass flow	175	kg/h
C.O.P.	2.62	

to: Evaporating temperature at dew point

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)

Tolerance according EN12900



tc: Condensing temperature at dew point

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



Maneurop reciprocating compressor. MTZ040-4

Performance data at 60 Hz, ARI rating conditions

R134a

Cond. temp. in				Evapora	iting temperature	in °C (to)			
°C (tc)	-25	-20	-10	-5	0	5	10	15	20
		1				1			I
Cooling capacit	y in W								
35	1 925	2 611	4 485	5 738	7 244	9 035	11 142	13 598	16 433
40	1 713	2 370	4 155	5 346	6 780	8 488	10 501	12 853	15 573
45	1 504	2 132	3 823	4 952	6 311	7 935	9 853	12 098	14 702
50	-	1 896	3 492	4 556	5 840	7 377	9 198	11 336	13 822
55	-	-	3 162	4 159	5 367	6 816	8 539	10 569	12 936
60	-	-	-	3 765	4 894	6 254	7 878	9 798	12 046
65	-	-	-	-	-	5 693	7 217	9 026	11 153
75	-	-	-	-	-	-	5 903	7 491	9 378
Power input in \		T				T			
35	1 291	1 441	1 734	1 866	1 983	2 079	2 150	2 189	2 193
40	1 363	1 520	1 837	1 988	2 126	2 246	2 345	2 416	2 455
45	1 419	1 585	1 932	2 103	2 264	2 412	2 541	2 646	2 723
50	-	1 636	2 017	2 210	2 397	2 575	2 736	2 878	2 994
55	-	-	2 090	2 308	2 523	2 732	2 928	3 108	3 266
60	-	-	-	2 394	2 640	2 882	3 116	3 337	3 539
65	-	-	-	-	-	3 023	3 297	3 561	3 809
75	-	-	-	-	-	-	3 632	3 988	4 337
Current consum	•	0.54	0.04	0.05	4.00	1.40	1.00	4.04	4.00
35	3.36	3.51	3.81	3.95	4.08	4.19	4.28	4.34	4.38
40	3.38	3.55	3.89	4.06	4.22	4.37	4.50	4.62	4.71
45	3.41	3.59	3.97	4.17	4.37	4.56	4.74	4.91	5.07
50	-	3.62	4.06	4.30	4.54	4.77	5.01	5.24	5.45
55	-	-	4.16	4.43	4.71	5.00	5.29	5.58	5.87
60	-	-	-	4.57	4.91	5.25	5.60	5.95	6.31
65	-	-	-	-	-	5.51	5.92	6.35	6.77
75	-	-	-	-	-	-	6.63	7.20	7.79
Mass flow in kg	/h								
35	45	60	98	123	152	186	226	271	323
40	42	57	95	120	149	183	222	267	319
45	39	54	92	116	145	179	218	263	314
50	-	50	88	113	141	175	213	258	309
55	-	-	84	108	137	170	208	253	303
60	-	-	-	104	132	165	203	247	298
65	-	_	-	-	-	160	197	241	291
75	_	_	-	-	-	-	185	228	277
		1				1			
Coefficient of pe	erformance (C.C).P.)							
35	1.49	1.81	2.59	3.07	3.65	4.35	5.18	6.21	7.49
40	1.26	1.56	2.26	2.69	3.19	3.78	4.48	5.32	6.34
45	1.06	1.34	1.98	2.35	2.79	3.29	3.88	4.57	5.40
50	-	1.16	1.73	2.06	2.44	2.87	3.36	3.94	4.62
55	-	-	1.51	1.80	2.13	2.50	2.92	3.40	3.96
60	-	-	-	1.57	1.85	2.17	2.53	2.94	3.40
65	-	-	-	-	-	1.88	2.19	2.53	2.93
	-	-	-	-	-	-	1.63	1.88	2.16

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

	,	• •		
Cooling capacity		7 611	W	
Power input		2 800	W	
Current consumption		5.10	Α	
Mass flow		187	kg/h	
C.O.P.		2.72		

to: Evaporating temperature at dew point

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

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)

Tolerance according EN12900



tc: Condensing temperature at dew point



Maneurop reciprocating compressor. MTZ040-4

Performance data at 60 Hz, EN 12900 rating conditions

R407C

Cond. temp. in	Evaporating temperature in °C (to)								
°C (tc)	-15	-10	-5	0	5	10	15		
Cooling capacity		1	1	I		1	1	1	1
35	4 858	6 487	8 415	10 681	13 321	16 373	19 876	-	-
40	4 409	5 952	7 771	9 904	12 387	15 259	18 556	-	-
45	3 960	5 417	7 126	9 125	11 451	14 141	17 233	-	-
50	-	4 884	6 482	8 347	10 515	13 023	15 909	-	-
55	-	-	5 842	7 572	9 581	11 906	14 584	-	-
60	-	-	-	6 800	8 649	10 790	13 259	-	-
65	-	-	-	6 034	7 721	9 676	11 935	-	-
-									
Power input in V		2.044	2.045	2.407	2.440	2.050	2.040	1	T
35	2 305	2 614	2 915	3 197	3 448	3 656	3 810	-	-
40 45	2 381 2 455	2 716 2 811	3 052 3 178	3 378 3 544	3 683 3 897	3 954 4 226	4 180 4 520	-	-
						1	1	†	-
50 55	-	2 906	3 299 3 422	3 700 3 854	4 098 4 291	4 480 4 723	4 837 5 137	-	<u>-</u>
		1							
60	-	-	-	4 011	4 484	4 960	5 428	-	-
65	-	-	-	4 179	4 682	5 198	5 715	-	-
Current consum	ption in A								
35	4.20	4.52	4.85	5.17	5.47	5.72	5.91	-	-
40	4.29	4.63	5.00	5.37	5.72	6.03	6.29	-	-
45	4.38	4.75	5.15	5.57	5.98	6.36	6.69	-	-
50	-	4.85	5.30	5.76	6.23	6.68	7.09	-	-
55	-	-	5.44	5.96	6.49	7.01	7.50	-	-
60	-	-	-	6.14	6.74	7.34	7.91	-	-
65	-	-	-	6.30	6.97	7.65	8.31	-	-
Mass flow in kg/	n 105	138	177	221	271	329	394	1	1
35		1	177					-	-
40 45	101 95	133 128	171 165	215 208	264 257	321 313	385 375	-	-
50	- 95	128	159	208	257	304	366	-	_
55	<u> </u>	- 122	153	194	242	295	355	-	-
60	-	-	-	187	233	295	345	-	-
65		<u> </u>	-	179	235	276	334	-	-
00				173	223	210	004		
Coefficient of pe	erformance (C.C).P.)							
35	2.11	2.48	2.89	3.34	3.86	4.48	5.22	-	-
40	1.85	2.19	2.55	2.93	3.36	3.86	4.44	-	-
45	1.61	1.93	2.24	2.58	2.94	3.35	3.81	-	-
50	-	1.68	1.96	2.26	2.57	2.91	3.29	-	-
55	-	-	1.71	1.96	2.23	2.52	2.84	-	-
60	-	-	-	1.70	1.93	2.18	2.44	-	-
65	-	-	-	1.44	1.65	1.86	2.09	-	-

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

Cooling capacity	10 515	W
Power input	4 098	W
Current consumption	6.23	Α
Mass flow	250	kg/h
C.O.P.	2.57	

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	77	dB(A)
With accoustic hood	72	dB(A)

Tolerance according EN12900





Maneurop reciprocating compressor. MTZ040-4

Performance data at 60 Hz, ARI rating conditions

R407C

Cond. temp. in				Evapora	ating temperature	in °C (to)			
°C (tc)	-15	-10	-5	0	5	10	15		
•		1			1				l .
Cooling capacity	y in W								
35	5 229	6 974	9 036	11 456	14 272	17 524	21 251	-	-
40	4 771	6 433	8 388	10 676	13 337	16 410	19 934	-	-
45	4 313	5 891	7 738	9 894	12 400	15 293	18 614	-	-
50	-	5 350	7 089	9 114	11 463	14 177	17 294	-	-
55	-	-	6 443	8 336	10 529	13 063	15 976	-	-
60	-	-	-	7 564	9 600	11 954	14 663	-	-
65	-	-	-	6 799	8 680	10 852	13 357	-	-
Power input in V			,	1		1	,	T	ı
35	2 305	2 614	2 915	3 197	3 448	3 656	3 810	-	-
40	2 381	2 716	3 052	3 378	3 683	3 954	4 180	-	-
45	2 455	2 811	3 178	3 544	3 897	4 226	4 520	-	-
50	-	2 906	3 299	3 700	4 098	4 480	4 837	-	-
55	-	-	3 422	3 854	4 291	4 723	5 137	-	-
60	-	-	-	4 011	4 484	4 960	5 428	-	-
65	-	-	-	4 179	4 682	5 198	5 715	-	-
Current consum	-		T	T		1	T	Γ	ı
35	4.20	4.52	4.85	5.17	5.47	5.72	5.91	-	-
40	4.29	4.63	5.00	5.37	5.72	6.03	6.29	-	-
45	4.38	4.75	5.15	5.57	5.98	6.36	6.69	-	-
50	-	4.85	5.30	5.76	6.23	6.68	7.09	-	-
55	-	-	5.44	5.96	6.49	7.01	7.50	-	-
60	-	-	-	6.14	6.74	7.34	7.91	-	-
65	-	-	-	6.30	6.97	7.65	8.31	-	-
	_								
Mass flow in kg/		100	170	040	070	1 007	1 004		1
35	105	138	176	219	270	327	391	-	-
40	100	133	170	213	263	319	382	-	-
45	95	127	165	207	256	311	373	-	-
50	-	122	158	200	248	302	363	-	-
55	-	-	152	193	240	293	353	-	-
60	-	-	-	186	232	284	343	-	-
65	-	-	-	178	223	274	332	-	-
O 661 - 1 4 - 5		.							
Coefficient of pe			2.40	2.50	4.44	4.70	5.50		I
35	2.27	2.67	3.10 2.75	3.58	4.14	4.79	5.58	-	-
40	2.00	2.37		3.16	3.62	4.15	4.77	-	-
45	1.76	2.10	2.44	2.79	3.18	3.62	4.12	-	-
50	-	1.84	2.15	2.46	2.80	3.16	3.58	-	-
55	-	-	1.88	2.16	2.45	2.77	3.11	-	-
60	-	-	-	1.89	2.14	2.41	2.70	-	-
65	-	-	-	1.63	1.85	2.09	2.34	-	-

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

Cooling capacity	11 721	W
Power input	4 457	W
Current consumption	6.69	Α
Mass flow	264	kg/h
C.O.P.	2.63	

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	77	dB(A)
With accoustic hood	72	dB(A)

Tolerance according EN12900





Maneurop reciprocating compressor. MTZ040-4

Performance data at 60 Hz, EN 12900 rating conditions, Suction temp. = 20 °C

R448A

Cond. temp. in								1	
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
Cooling capacity i	n W								
10	-	4 458	5 927	7 724	9 881	-	-	-	-
20	-	3 876	5 214	6 848	8 805	11 117	13 817		-
30	-	3 298	4 493	5 950	7 696	9 759	12 171	14 966	18 185
40	-	-	3 779	5 046	6 568	8 370	10 482	12 933	15 760
50	-	-	-	4 150	5 435	6 965	8 764	10 860	13 284
60	-	-	-	-	4 312	5 557	7 033	8 764	10 773
Power input in W									
10	-	1 578	1 707	1 793	1 829	-	-	-	-
20	-	1 801	1 995	2 157	2 281	2 358	2 379	-	-
30	-	1 962	2 217	2 453	2 662	2 836	2 966	3 044	3 062
40	-	-	2 392	2 698	2 990	3 257	3 493	3 689	3 837
50	-	-	-	2 912	3 283	3 642	3 981	4 291	4 566
60	-	-	-	-	3 561	4 007	4 446	4 869	5 267
Current consump	tion in A	3.91	4.02	4.09	4.08	_	_	_	_
20	-	4.57	4.75	4.92	5.04	5.08	5.01	_	_
30		4.87	5.12	5.37	5.61	5.80	5.91	5.89	5.73
40	_	-	5.28	5.62	5.97	6.30	6.57	6.75	6.80
50	-	-	-	5.83	6.28	6.74	7.17	7.53	7.80
60	-	-	-	-	6.71	7.29	7.86	8.41	8.88
Mass flow in kg/h		-		1			•		•
10	-	73	97	126	161	-	-	-	-
20	-	68	92	121	156	198	248	-	-
30	-	63	86	114	149	190	239	297	366
40	-	-	79	106	139	179	226	282	349
50	-	-	-	97	128	166	211	265	329
60	-	-	-	-	116	152	194	245	306
Coefficient of perf	ormance (C.C	D.P.)				_	_		
10	-	2.82	3.47	4.31	5.40	-	-	-	-
20	-	2.15	2.61	3.17	3.86	4.72	5.81	-	-
30	-	1.68	2.03	2.43	2.89	3.44	4.10	4.92	5.94
40	-	-	1.58	1.87	2.20	2.57	3.00	3.51	4.11
50	-	-	-	1.42	1.66	1.91	2.20	2.53	2.91
			-	-	1.21	1.39	1.58	1.80	2.05

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

Cooling capacity	6 001	W
Power input	3 139	W
Current consumption	6.12	Α
Mass flow	134	kg/h
C.O.P.	1.91	

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Suction gas temp. = 20 $^{\circ}\text{C}$, 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	73	dB(A)	
With accoustic hood	68	dB(A)	





Maneurop reciprocating compressor. MTZ040-4

Performance data at 60 Hz, EN 12900 rating conditions, Superheat = 10 K

R448A

Cond. temp. in	np. in Evaporating temperature in °C (to)								
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
Cooling capacity	in W	•							
10	3 303	4 480	5 960	7 772	9 944	-	-	-	-
20	2 780	3 851	5 193	6 834	8 803	11 130	13 843	-	-
30	2 279	3 231	4 421	5 879	7 632	9 710	12 143	14 958	18 185
40	1 816	2 636	3 662	4 922	6 447	8 263	10 402	12 891	15 760
50	-	2 081	2 930	3 981	5 263	6 805	8 637	10 786	13 284
60	-	-	2 241	3 069	4 096	5 351	6 863	8 660	10 773
Power input in W	,								
10	1 415	1 578	1 707	1 793	1 829	-	-	-	-
20	1 585	1 801	1 995	2 157	2 281	2 358	2 379	-	-
30	1 696	1 962	2 217	2 453	2 662	2 836	2 966	3 044	3 062
40	1 766	2 078	2 392	2 698	2 990	3 257	3 493	3 689	3 837
50	-	2 170	2 539	2 912	3 283	3 642	3 981	4 291	4 566
60	-	-	2 676	3 114	3 561	4 007	4 446	4 869	5 267
•		•	•	•	•	•	•	•	•
Current consum	ption in A								
10	3.79	3.91	4.02	4.09	4.08	-	-	-	-
20	4.41	4.57	4.75	4.92	5.04	5.08	5.01	-	-
30	4.68	4.87	5.12	5.37	5.61	5.80	5.91	5.89	5.73
40	4.76	4.98	5.28	5.62	5.97	6.30	6.57	6.75	6.80
50	-	5.07	5.41	5.83	6.28	6.74	7.17	7.53	7.80
60	-	-	5.68	6.16	6.71	7.29	7.86	8.41	8.88
Mass flow in kg/l		1	T	1			T	T	
10	63	84	110	141	177	-	-	-	-
20	58	79	105	135	171	213	261	-	-
30	52	73	98	128	163	204	251	305	366
40	47	66	90	119	153	192	238	290	349
50	-	59	82	109	141	178	222	272	329
60	-	-	73	98	128	163	204	252	306
Coefficient of pe	rformance (C.0	D.P.)							
10	2.33	2.84	3.49	4.33	5.44	-	-	-	-
20	1.75	2.14	2.60	3.17	3.86	4.72	5.82	-	-
30	1.34	1.65	1.99	2.40	2.87	3.42	4.09	4.91	5.94
40	1.03	1.27	1.53	1.82	2.16	2.54	2.98	3.49	4.11
50	-	0.96	1.15	1.37	1.60	1.87	2.17	2.51	2.91
60	-	-	0.84	0.99	1.15	1.34	1.54	1.78	2.05
L							•	•	1
Nominal perform	nance at to = -1	0 °C, tc = 45 °C				Pressure switch	settings		
					Г				

C.O.P.		

Cooling capacity

Current consumption

Power input

Mass flow

to: Evaporating temperature at dew point tc: Condensing temperature at dew point

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

5 854

3 139

6.12

147 1.86 W

W

Ma	aximum HP switch setting	27.7	bar(g)
Mi	nimum LP switch setting	1	bar(g)
LF	pump down setting	1.3	bar(g)

Sound power data

Sound power level	73	dB(A)
With accoustic hood	68	dB(A)





Maneurop reciprocating compressor. MTZ040-4

Performance data at 60 Hz, EN 12900 rating conditions, Suction temp. = 20 °C

R449A

Cond. temp. in	Evaporating temperature in °C (to)								
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
Cooling canacity	in W								
Cooling capacity	III VV	4 466	5 936	7 733	9 890	-	_	T -	_
20		3 884	5 224	6 858	8 815	11 126	13 825		_
					7 706	9 769	12 179		
30 40	-	3 306	4 503	5 961		8 380		14 971	18 185 15 760
		-	3 788	5 057	6 579	+	10 490	12 938	
50 60	-	-	-	4 161	5 446	6 975	8 772 7 041	10 866	13 284
60		-	-	-	4 323	5 567	7 041	8 769	10 773
Power input in W									
10	-	1 578	1 707	1 793	1 829	-	-	-	-
20	-	1 801	1 995	2 157	2 281	2 358	2 379	-	-
30	-	1 962	2 217	2 453	2 662	2 836	2 966	3 044	3 062
40	-	-	2 392	2 698	2 990	3 257	3 493	3 689	3 837
50	-	-	-	2 912	3 283	3 642	3 981	4 291	4 566
60	-	-	-	-	3 561	4 007	4 446	4 869	5 267
10	otion in A	3.91	4.02	4.09	4.08	_	_	-	-
20	-	4.57	4.75	4.92	5.04	5.08	5.01	_	_
30	_	4.87	5.12	5.37	5.61	5.80	5.91	5.89	5.73
40	-	-	5.28	5.62	5.97	6.30	6.57	6.75	6.80
50	-	-	-	5.83	6.28	6.74	7.17	7.53	7.80
60	-	-	-	-	6.71	7.29	7.86	8.41	8.88
			1	· U		U			
Mass flow in kg/h		T	T	T	T	1	1	T	ı
10	-	73	99	130	167	-	-	-	-
20	-	69	94	124	160	203	254	-	-
30	-	64	88	117	152	194	244	303	373
40	-	-	81	108	142	182	231	288	356
50	-	-	-	99	131	169	216	271	336
60	-	-	-	-	119	155	199	251	314
Coefficient of per	formance (C.C	D.P.)							
10	-	2.83	3.48	4.31	5.41	-	-	-	-
20	-	2.16	2.62	3.18	3.86	4.72	5.81	-	-
30	-	1.69	2.03	2.43	2.90	3.45	4.11	4.92	5.94
40	-	-	1.58	1.87	2.20	2.57	3.00	3.51	4.11
	-	-	-	1.43	1.66	1.92	2.20	2.53	2.91
50									

Nominal p	performance	at to = -1	0 °C, to	= 45 °C

Cooling capacity	6 012	W
Power input	3 139	W
Current consumption	6.12	Α
Mass flow	137	kg/h
C.O.P.	1.92	

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Suction gas temp. = 20 $^{\circ}\text{C}$, Subcooling = 0 K

Pressure switch settings

Ma	aximum HP switch setting	27.7	bar(g)
Mi	nimum LP switch setting	1	bar(g)
LF	pump down setting	1.3	bar(g)

Sound power data

Sound power level	74	dB(A)
With accoustic hood	69	dB(A)





Maneurop reciprocating compressor. MTZ040-4

Performance data at 60 Hz, EN 12900 rating conditions, Superheat = 10 K

R449A

Cond. temp. in	Evaporating temperature in °C (to)								
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
Cooling capacity	y in W								
10	3 303	4 480	5 960	7 772	9 944	-	-	-	-
20	2 780	3 851	5 193	6 834	8 803	11 130	13 843	-	-
30	2 279	3 231	4 421	5 879	7 632	9 710	12 143	14 958	18 185
40	1 816	2 636	3 662	4 922	6 447	8 263	10 402	12 891	15 760
50	-	2 081	2 930	3 981	5 263	6 805	8 637	10 786	13 284
60	-	-	2 241	3 069	4 096	5 351	6 863	8 660	10 773
Power input in V	v								
10	1 415	1 578	1 707	1 793	1 829	-	-	-	-
20	1 585	1 801	1 995	2 157	2 281	2 358	2 379	-	-
30	1 696	1 962	2 217	2 453	2 662	2 836	2 966	3 044	3 062
40	1 766	2 078	2 392	2 698	2 990	3 257	3 493	3 689	3 837
50	-	2 170	2 539	2 912	3 283	3 642	3 981	4 291	4 566
60	-	-	2 676	3 114	3 561	4 007	4 446	4 869	5 267
Current consum	ption in A				_	T			T
10	3.79	3.91	4.02	4.09	4.08	-	-	-	-
20	4.41	4.57	4.75	4.92	5.04	5.08	5.01	-	-
30	4.68	4.87	5.12	5.37	5.61	5.80	5.91	5.89	5.73
40	4.76	4.98	5.28	5.62	5.97	6.30	6.57	6.75	6.80
50	-	5.07	5.41	5.83	6.28	6.74	7.17	7.53	7.80
60	-	-	5.68	6.16	6.71	7.29	7.86	8.41	8.88
Mass flow in kg/	h								
10	62	85	113	145	183	-	-	-	-
20	57	80	107	139	176	218	267	-	-
30	52	74	100	131	167	208	256	311	373
40	47	68	92	121	156	196	243	296	356
50	-	61	84	111	144	182	227	278	336
60	-	-	75	100	131	167	209	258	314
Coefficient of pe	erformance (C.C).P.)							
10	2.33	2.84	3.49	4.33	5.44	-	-	-	-
20	1.75	2.14	2.60	3.17	3.86	4.72	5.82	-	-
30	1.34	1.65	1.99	2.40	2.87	3.42	4.09	4.91	5.94
40	1.03	1.27	1.53	1.82	2.16	2.54	2.98	3.49	4.11
50	-	0.96	1.15	1.37	1.60	1.87	2.17	2.51	2.91
		†	0.84	0.99	1.15	1.34	1.54	1.78	2.05

 Cooling capacity
 5 854
 W

 Power input
 3 139
 W

 Current consumption
 6.12
 A

 Mass flow
 150
 kg/h

 C.O.P.
 1.86

to: Evaporating temperature at dew point

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

tc: Condensing temperature at dew point

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

Pressure switch settings

Maximum HP switch setting	27.7	bar(q)
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 accoustic hood	69	dB(A)





Maneurop reciprocating compressor. MTZ040-4

Performance data at 60 Hz, EN 12900 rating conditions, Suction temp. = 20 °C

R452A

Cond. temp. in	Evaporating temperature in °C (to)								
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
Cooling capacity i	n W								
10	-	4 576	5 882	7 533	9 565	-	-	-	-
20	-	4 344	5 583	7 122	8 996	11 241	13 896	-	-
30	-	3 940	5 080	6 476	8 162	10 171	12 539	15 305	18 514
40	-	3 390	4 402	5 625	7 092	8 834	10 885	13 279	16 054
50	-	-	3 576	4 595	5 812	7 259	8 965	10 958	13 270
60	-	-	-	3 412	4 351	5 475	6 809	8 376	10 198
Power input in W									
10	-	1 730	1 863	1 957	2 007	-	-	-	-
20	-	2 027	2 209	2 357	2 467	2 536	2 560	-	-
30	-	2 266	2 510	2 726	2 911	3 060	3 169	3 236	3 255
40	-	2 415	2 735	3 032	3 305	3 548	3 757	3 929	4 060
50	-	-	2 850	3 243	3 617	3 967	4 290	4 582	4 839
60	-	-	-	3 326	3 815	4 286	4 736	5 161	5 557
Current consumpt	tion in A	2.68	2.63	2.55	2.41	T -	_	_	_
20		4.35	4.44	4.53	4.57	4.55	4.45	-	_
30		5.03	5.26	5.49	5.70	5.86	5.95	5.94	5.82
40		5.15	5.50	5.86	6.21	6.53	6.80	6.98	7.07
50		-	5.58	6.06	6.54	7.00	7.42	7.78	8.05
60		_	-	6.50	7.09	7.68	8.25	8.76	9.20
•		1		0.00	7.00	7.00	0.20	0.70	0.20
Mass flow in kg/h		1	T	T	Т	T	T	T	1
10	-	93	120	153	194	-	-	-	-
20	-	96	124	159	201	252	315	-	-
30	-	96	124	159	201	252	314	389	479
40	-	92	120	154	195	245	306	379	467
50	-	-	110	143	183	231	289	359	443
60	-	-	-	127	164	209	264	330	409
Coefficient of perf	ormance (C.C				1			ı	1
10	-	2.64	3.16	3.85	4.77	-	-	-	-
20	-	2.14	2.53	3.02	3.65	4.43	5.43	-	-
30	-	1.74	2.02	2.38	2.80	3.32	3.96	4.73	5.69
40	-	1.40	1.61	1.85	2.15	2.49	2.90	3.38	3.95
50	-	-	1.25	1.42	1.61	1.83	2.09	2.39	2.74
60	-	_	_	1.03	1.14	1.28	1.44	1.62	1.84

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

6 476	W
3 473	W
6.37	Α
190	kg/h
1.86	
	3 473 6.37 190

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Suction gas temp. = 20 $^{\circ}\text{C}$, Subcooling = 0 K

Pressure switch settings

Max	kimum HP switch setting	27.7	bar(g)
Min	imum LP switch setting	1	bar(g)
LP	pump down setting	1.3	bar(g)

Sound power data

Sound power level	74	dB(A)
With accoustic hood	69	dB(A)





Maneurop reciprocating compressor. MTZ040-4

Performance data at 60 Hz, EN 12900 rating conditions, Superheat = 10 K

R452A

Cond. temp. in				Evapora	ating temperature	in °C (to)			
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
Cooling capacity	y in W								
10	3 464	4 455	5 759	7 416	9 464	-	-	-	-
20	3 200	4 158	5 387	6 927	8 815	11 089	13 789	-	-
30	2 798	3 691	4 814	6 204	7 900	9 941	12 365	15 210	18 514
40	2 291	3 088	4 072	5 282	6 755	8 531	10 647	13 142	16 054
50	1 714	2 384	3 197	4 195	5 413	6 892	8 669	10 782	13 270
60	-	1 611	2 223	2 977	3 909	5 059	6 465	8 165	10 198
Power input in V	v								
10	1 561	1 730	1 863	1 957	2 007	-	_	_	_
20	1 816	2 027	2 209	2 357	2 467	2 536	2 560	-	-
30	1 999	2 266	2 510	2 726	2 911	3 060	3 169	3 236	3 255
40	2 079	2 415	2 735	3 032	3 305	3 548	3 757	3 929	4 060
50	2 021	2 442	2 850	3 243	3 617	3 967	4 290	4 582	4 839
60	-	2 312	2 824	3 326	3 815	4 286	4 736	5 161	5 557
		•	•	•	•	•	•	•	•
Current consum	ption in A								
10	2.72	2.68	2.63	2.55	2.41	-	-	-	-
20	4.26	4.35	4.44	4.53	4.57	4.55	4.45	-	-
30	4.82	5.03	5.26	5.49	5.70	5.86	5.95	5.94	5.82
40	4.85	5.15	5.50	5.86	6.21	6.53	6.80	6.98	7.07
50	4.75	5.14	5.58	6.06	6.54	7.00	7.42	7.78	8.05
60	-	5.41	5.93	6.50	7.09	7.68	8.25	8.76	9.20
Mass flow in kg/	h								
10	86	109	137	172	214	_	_	_	_
20	88	112	142	178	221	272	332	_	_
30	86	112	142	178	221	272	331	400	479
40	81	107	137	172	215	264	322	389	467
50	73	97	126	161	201	249	304	369	443
60	-	84	111	142	180	225	278	339	409
Coefficient of pe	•	1	T	1		1	ı	T	T
10	2.22	2.57	3.09	3.79	4.72	-	-	-	-
20	1.76	2.05	2.44	2.94	3.57	4.37	5.39	-	-
30	1.40	1.63	1.92	2.28	2.71	3.25	3.90	4.70	5.69
40	1.10	1.28	1.49	1.74	2.04	2.40	2.83	3.34	3.95
50	0.85	0.98	1.12	1.29	1.50	1.74	2.02	2.35	2.74
60	-	0.70	0.79	0.90	1.02	1.18	1.37	1.58	1.84
						_			
Nominal perforn	nance at to = -1	0 °C, tc = 45 °C			-	Pressure switch	settings		

Cooling capacity

Current consumption Mass flow

Power input

to: Evaporating temperature at dew point tc: Condensing temperature at dew point

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

6 107

3 473

6.37

209 1.76 W

W

Max	kimum HP switch setting	27.7	bar(g)
Min	imum LP switch setting	1	bar(g)
LP	pump down setting	1.3	bar(g)

Sound power data

Sound power level	74	dB(A)
With accoustic hood	69	dB(A)





