ENGINEERING TOMORROW



Datasheets

# Danfoss Reciprocating compressors MT / MTZ / NTZ



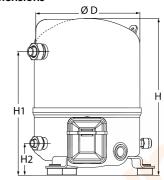


#### Datasheet, technical data

#### **General Characteristics**

Certeral enalacteristics			
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		30 bar / 8 bar	
Cylinders	1	l	
Swept volume	67,89 cm3/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 - 160PZ		
Maximum system test pressure Low Side / High side	25 bar(g) / 30 bar(g)		
Maximum differential test pressure	30 bar		
Maximum number of starts per hour	12		
Refrigerant charge limit	2,5	2,5 kg	
Approved refrigerants	R404A, R507A, R134a, R407C, R407A, R407F		

#### **Dimensions**



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

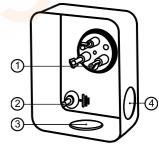
#### **Electrical Characteristics**

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°C	4.56 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		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)



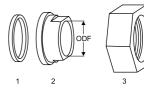
#### Datasheet, accessories and spare parts

## Maneurop reciprocating compressor, MTZ040-4

Rotolock accessories, suction side	Code no.
Solder sleeve, P09 (1-1/4" Rotolock, 5/8" ODF)	8153011
Angle adapter, C09 (1-1/4" Rotolock, 5/8" ODF)	8168009
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
Angle adapter, C06 (1" Rotolock, 1/2" ODF)	8168007
Rotolock valve, V06 (1" Rotolock, 1/2" ODF)	8168031
Gasket, 1"	8156130



Rotolock accessories, sets	Code no.
Angle adapter set, C09 (1-1/4"~5/8"), C06 (1"~1/2")	7703012
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

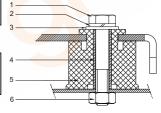
1: Gasket
2: Solder sleeve
3: Rotolock nut

Oil / lubricants	Code no.
POE lubricant, 160PZ, 1 litre can	7754019
POE lubricant, 160PZ, 2.5 litre can	120Z0573

Crankcase heaters	Code no.	Mounting kit
PTC heater 27W CF mark III	12070459	

Belt type crankcase heater, 54 W, 400 V, UL	7773013
Belt type crankcase heater, 54 W, 230 V, CE mark, UL	7773106
PTC heater 27W,CE mark, UL	120Z0459

Miscellaneous accessories	Code no.
Electronic soft start kit, MCI 15 C	7705006
Acoustic hood for 1 cylinder compressor	120Z0471
Oil equalisation nut	8153127



Spare parts	Code no.
Mounting kit for 1 and 2 cylinder compressor, including 3 grommets, 3 bolts	8156001
Oil sight glass with gaskets (black & white)	8156019
Gasket for oil sight glass (black chloroprene)	8156145
Service kit for terminal box 80 x 96 mm, including 1 cover, 1 clamp	8156134

1: Bolt (3x) 2: Lock washer (3x) 3: Flat washer (3x)

4: Sleeve (3x)

5: Grommet (3x)

6: Nut (3x)





## 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		
L	-	-	-		-		-	Į.	
Cooling capacity	/ in W								
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			1	T	T				
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	7.47	-	-
60	-	-	-	6.64	7.14	7.59	7.98	-	-
65	-	-	-	6.88	7.48	8.02	8.51	1	-
Mass flow in kg/	h								
35	93	119	149	183	223	267	317	-	_
40	90	116	145	179	217	261	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	-	-
				.I	ı			Į.	
Coefficient of pe	rformance (C.O	).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	-	-

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)	١
Minimum LP switch setting	0.2	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)

All performance data +/- 5%





## Maneurop reciprocating compressor. MTZ040-4

## Performance data at 50 Hz, ARI rating conditions

**R407C** 

Cond. temp. in				Evapora	ting temperature	in °C (to)			
°C (tc)	-15	-10	-5	0	5	10	15		
		1		1	· · · · · · · · · · · · · · · · · · ·			LL	
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	-	-
Dannan immust im V	v								
Power input in V 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	<u> </u>	2 567	2 999	3 330	3 624	3 880	4 099	-	
60		_	2 999	3 489	3 840	4 150	4 420		-
65		_		3 632	4 045	4 417	4 746	-	
65	<u> </u>		_	3 632	4 045	4417	4 /40	-	
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	7.47	-	-
60	-	-	-	6.64	7.14	7.59	7.98	-	-
65	-	-	-	6.88	7.48	8.02	8.51	-	-
		140	140	100	004	000	040		
35	92	118	148	182	221	266	316	-	-
35 40	92 89	115	144	178	216	259	307	-	-
35 40 45	92 89 85	115 111	144 140	178 173	216 210	259 252	307 299	-	-
35 40 45 50	92 89	115 111 106	144 140 135	178 173 168	216 210 204	259 252 245	307 299 291	-	-
35 40 45 50 55	92 89 85 -	115 111 106	144 140 135 130	178 173 168 162	216 210 204 198	259 252 245 238	307 299 291 282		- - -
35 40 45 50 55 60	92 89 85 - -	115 111 106 -	144 140 135 130	178 173 168 162 155	216 210 204 198 191	259 252 245 238 230	307 299 291 282 273		- - - -
35 40 45 50 55	92 89 85 -	115 111 106	144 140 135 130	178 173 168 162	216 210 204 198	259 252 245 238	307 299 291 282		- - -
35 40 45 50 55 60 65	92 89 85 - - -	115 111 106 - -	144 140 135 130	178 173 168 162 155	216 210 204 198 191	259 252 245 238 230	307 299 291 282 273		- - - -
35 40 45 50 55 60 65	92 89 85 - - -	115 111 106 - -	144 140 135 130	178 173 168 162 155	216 210 204 198 191	259 252 245 238 230	307 299 291 282 273		- - - -
35 40 45 50 55 60 65	92 89 85 - - - - -	115 111 106 - - -	144 140 135 130 -	178 173 168 162 155 148	216 210 204 198 191 183	259 252 245 238 230 221	307 299 291 282 273 263		- - - - -
35 40 45 50 55 60 65 Coefficient of pe	92 89 85 - - - - - 2erformance (C.O	115 111 106 - - - - - - - - - 2.P.)	144 140 135 130 - - - 3.12	178 173 168 162 155 148 3.65 3.19	216 210 204 198 191 183	259 252 245 238 230 221 4.99 4.31	307 299 291 282 273 263 5.84 5.01		
35 40 45 50 55 60 65 <b>Coefficient of pe</b> 35 40	92 89 85 - - - - erformance (C.O 2.26 2.01	115 111 106 - - - - - - - - - - - 2.P.) 2.66 2.35 2.07	144 140 135 130 - - - 3.12 2.74 2.40	178 173 168 162 155 148 3.65 3.19 2.78	216 210 204 198 191 183 4.27 3.70 3.21	259 252 245 238 230 221 4.99 4.31 3.71	307 299 291 282 273 263 5.84 5.01 4.29		
35 40 45 50 55 60 65 <b>Coefficient of pe</b> 35 40 45	92 89 85 - - - - - erformance (C.O 2.26 2.01 1.78	115 111 106 - - - - - 2.P.) 2.66 2.35	144 140 135 130 - - - 3.12 2.74 2.40 2.10	178 173 168 162 155 148 3.65 3.19 2.78 2.42	216 210 204 198 191 183 4.27 3.70 3.21 2.77	259 252 245 238 230 221 4.99 4.31 3.71 3.18	307 299 291 282 273 263 5.84 5.01 4.29 3.66		
40 45 50 55 60 65 <b>Coefficient of pe</b> 35 40	92 89 85 - - - - 2.26 2.01 1.78	115 111 106	144 140 135 130 - - - 3.12 2.74 2.40	178 173 168 162 155 148 3.65 3.19 2.78	216 210 204 198 191 183 4.27 3.70 3.21	259 252 245 238 230 221 4.99 4.31 3.71	307 299 291 282 273 263 5.84 5.01 4.29		

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

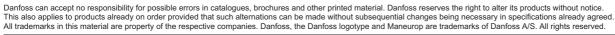
Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 K

Pressure switch settings

Maximum HP switch setting	29.4	bar(g)	
Minimum LP switch setting	0.2	bar(g)	
LP pump down setting	1.3	bar(q)	

Sound power data

Sound power level	74	dB(A)
With accoustic hood	69	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)	-15	-10	-5	0	5	10	15	20	
Cooling capacity	ı in W								
35	2 832	3 614	4 531	5 599	6 830	8 240	9 843	11 651	
40	2 642	3 394	4 274	5 298	6 479	7 831	9 368	11 105	
45	2 446	3 163	4 002	4 978	6 103	7 393	8 861	10 521	
50	2 241	2 920	3 713	4 636	5 703	6 926	8 320	9 899	
55	2 027	2 662	3 406	4 272	5 275	6 427	7 743	9 237	
60	-	2 389	3 079	3 884	4 818	5 895	7 129	8 532	
65	_	-	-	3 470	4 331	5 328	6 475	7 784	_
70		_	_	-	-	4 726	5 780	6 990	
			1			20	0.00	0 000	
Power input in V		1	1	T	1	1			
35	1 325	1 445	1 555	1 653	1 733	1 791	1 824	1 827	-
40	1 400	1 531	1 656	1 771	1 872	1 954	2 013	2 046	-
45	1 465	1 610	1 752	1 887	2 010	2 118	2 205	2 269	-
50	1 520	1 681	1 842	1 998	2 145	2 280	2 398	2 495	-
55	1 564	1 742	1 923	2 103	2 276	2 440	2 590	2 722	-
60	-	1 791	1 995	2 200	2 402	2 597	2 780	2 949	-
65	-	-	-	2 287	2 519	2 747	2 967	3 174	-
70	-	-	-	-	-	2 891	3 149	3 397	-
35	3.51	3.65	3.79	3.91	4.01	4.10	4.16	4.20	
40	3.57	3.73	3.89	4.04	4.19	4.31	4.43	4.52	
45	3.62	3.81	4.00	4.19	4.19	4.55	4.43	4.86	
50	3.68	3.90	4.00	4.19	4.58	4.80	5.02	5.23	<u> </u>
55	3.74	3.99	4.12	4.52	4.80	5.08	5.35	5.62	
60		4.08	4.23	4.70	5.03	5.37	5.71	6.05	
65		-	4.59	4.70	5.28	5.68	6.08	6.49	
70		-	-	-	-	6.01	6.48	6.97	
70						0.01	0.10	0.07	
Mass flow in kg/	h								
35	69	86	105	127	152	180	212	246	-
40	67	85	104	126	151	179	211	245	-
45	66	83	103	125	150	178	209	244	-
50	64	81	101	123	148	176	207	241	-
55	62	79	98	120	145	173	203	237	-
60	-	76	95	117	142	169	199	233	-
65	-	-	-	113	138	164	194	228	-
70	-	-	-	-	-	159	189	221	-
2									
Coefficient of pe	,	1	2.04	2.20	2.04	4.00	E 40	6.20	
35	2.14	2.50	2.91	3.39	3.94	4.60	5.40	6.38	-
40	1.89	2.22	2.58	2.99	3.46	4.01	4.65	5.43	-
45	1.67	1.96	2.28	2.64	3.04	3.49	4.02	4.64	-
50 55	1.47	1.74	2.02	2.32	2.66	3.04	3.47	3.97	-
55	1.30	1.53	1.77	2.03	2.32	2.63	2.99	3.39	-
60	-	1.33	1.54	1.77	2.01	2.27	2.56	2.89	-
65	-	-	-	1.52	1.72	1.94	2.18	2.45	-
70	-	-	-	-	-	1.63	1.84	2.06	-

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

rtommar portormanoc acto o o, to	00 0	
Cooling capacity	5 703	W
Power input	2 145	W
Current consumption	4.58	Α
Mass flow	148	kg/h
C.O.P.	2.66	

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	22.6	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	0.5	bar(g)

## Sound power data

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

All performance data +/- 5%





## Maneurop reciprocating compressor. MTZ040-4

## Performance data at 50 Hz, ARI rating conditions

R134a

Cond. temp. in				Evapora	iting temperature	in °C (to)			
°C (tc)	-15	-10	-5	0	5	10	15	20	
	•		•	•	•				
Cooling capacit	ty in W								
35	3 068	3 907	4 891	6 034	7 351	8 856	10 563	12 488	-
40	2 878	3 689	4 637	5 738	7 006	8 454	10 099	11 953	-
45	2 680	3 458	4 367	5 421	6 635	8 023	9 600	11 380	-
50	2 474	3 214	4 079	5 082	6 238	7 561	9 066	10 767	-
55	2 256	2 955	3 771	4 718	5 811	7 064	8 493	10 111	
60	-	2 677	3 440	4 327	5 353	6 533	7 880	9 411	-
65	-	-	-	3 907	4 862	5 963	7 225	8 664	-
70	-	-	-	-	-	5 354	6 526	7 868	-
Power input in	w		•						
35	1 325	1 445	1 555	1 653	1 733	1 791	1 824	1 827	-
40	1 400	1 531	1 656	1 771	1 872	1 954	2 013	2 046	-
45	1 465	1 610	1 752	1 887	2 010	2 118	2 205	2 269	-
50	1 520	1 681	1 842	1 998	2 145	2 280	2 398	2 495	-
55	1 564	1 742	1 923	2 103	2 276	2 440	2 590	2 722	-
60	-	1 791	1 995	2 200	2 402	2 597	2 780	2 949	-
65	-	-	-	2 287	2 519	2 747	2 967	3 174	-
70	-	-	-	-	-	2 891	3 149	3 397	-
Current consur	nption in A	•	_	,					
35	3.51	3.65	3.79	3.91	4.01	4.10	4.16	4.20	-
40	3.57	3.73	3.89	4.04	4.19	4.31	4.43	4.52	-
45	3.62	3.81	4.00	4.19	4.37	4.55	4.71	4.86	-
50	3.68	3.90	4.12	4.35	4.58	4.80	5.02	5.23	-
55	3.74	3.99	4.25	4.52	4.80	5.08	5.35	5.62	-
60	-	4.08	4.39	4.70	5.03	5.37	5.71	6.05	-
65	-	-	-	4.90	5.28	5.68	6.08	6.49	-
70	-	-	-	-	-	6.01	6.48	6.97	-
Mass flow in kg	ı/h				_			1	
35	68	85	105	127	151	179	210	245	-
40	67	84	104	126	151	178	210	244	-
45	66	83	102	124	149	177	208	242	-
50	64	81	100	122	147	175	206	240	-
55	61	79	98	120	144	172	202	236	-
60	-	76	95	117	141	168	198	232	-
65	-	-	-	113	137	164	193	226	-
70	-	-	-	-	-	158	188	220	-
<del> '</del>	erformance (C.C	· '	1	T				, · · · · · · · · · · · · · · · · · · ·	
35	2.31	2.70	3.15	3.65	4.24	4.94	5.79	6.83	-
40	2.06	2.41	2.80	3.24	3.74	4.33	5.02	5.84	-
45	1.83	2.15	2.49	2.87	3.30	3.79	4.35	5.02	-
50	1.63	1.91	2.21	2.54	2.91	3.32	3.78	4.32	-
55	1.44	1.70	1.96	2.24	2.55	2.89	3.28	3.71	-
60	-	1.49	1.72	1.97	2.23	2.52	2.83	3.19	-
65	-	-	-	1.71	1.93	2.17	2.44	2.73	-
	_	-	_	_	_	1.85	2.07	2.32	-

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

Homman portormanoo at to	<b>_</b> 0, to	U-1		
Cooling capacity		6 398	W	
Power input		2 333	W	
Current consumption		4.89	Α	
Mass flow		156	kg/h	
C.O.P.		2.74		

to: Evaporating temperature at dew point

Pressure switch settings

Maximum HP switch setting	22.6	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	0.5	bar(g)

#### Sound power data

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

All performance data +/- 5%



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 capacity				Т	T			T	1
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 W	v								
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
00		2 0//	2 021	2010	0010	0.120	1070	1 100	1700
Current consum	ption in A								
30	4.20	4.48	4.76	5.03	5.29	5.52	5.71	5.87	5.98
35	4.26	4.58	4.89	5.20	5.49	5.76	6.00	6.21	6.36
40	4.29	4.64	5.00	5.35	5.68	6.00	6.29	6.55	6.76
45	4.29	4.69	5.09	5.48	5.87	6.24	6.59	6.90	7.17
50	4.27	4.71	5.16	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	5.88	6.46	7.02	7.57	8.09	8.57
Mass flow in kg/l		102	422	100	204	240	299	255	440
30	77 73		132 128	166 162	200	249	293	355	419 410
35	69	99 95			l	243		348	401
40 45	64	95	124 119	157 152	195 189	238 231	286 278	340 331	391
		85				+			
50	59		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 pe	rformance (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
			0.00	1.00	1.20	1.70	1.51	1.01	

|--|

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	0.2	bar(g)
LP pump down setting	0.9	bar(g)

Sound power data

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

All performance data +/- 5%





## Maneurop reciprocating compressor. MTZ040-4

## Performance data at 50 Hz, ARI rating conditions

# **R404A**

Cond. temp. in				Evapora	ating temperature	in °C (to)			
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
•		•							
Cooling capacity	in W	1	_					•	1
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 W	,								
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	ption in A								
30	4.20	4.48	4.76	5.03	5.29	5.52	5.71	5.87	5.98
35	4.26	4.58	4.89	5.20	5.49	5.76	6.00	6.21	6.36
40	4.29	4.64	5.00	5.35	5.68	6.00	6.29	6.55	6.76
45	4.29	4.69	5.09	5.48	5.87	6.24	6.59	6.90	7.17
50	4.27	4.71	5.16	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	5.88	6.46	7.02	7.57	8.09	8.57
lass flow in kg/l		100	101	105	1 000	0.17			140
30	77	102	131	165	203	247	297	353	416
35	73	98	127	161	199	242	291	346	408
40	69 64	94	123	156	194	236	284	338 329	398
45 50	59	90	118 113	151	188	230 222	277 268		388
-	- 59	84		145	181	+ +		320	377
55 60	-	78 71	106 99	138 131	174 166	214 205	259 249	309 298	365 352
60	-	/1	99	131	100	205	249	298	352
Coefficient of pe	rformance (C.O	.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	<del>-</del>	0.94	1.11	1.30	1.49	1.71	1.96	2.24	2.55
		+	+	+	<b>-</b>			<b></b>	1

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

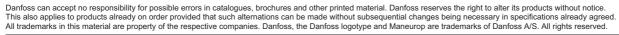
Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 K

Pressure switch settings

Maximum HP switch setting	27.7	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	0.9	bar(g)

Sound power data

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







## Maneurop reciprocating compressor. MTZ040-4

## Performance data at 60 Hz, EN 12900 rating conditions

**R407C** 

Cond. temp. in				Evapora	ating temperature	in °C (to)			
°C (tc)	-15	-10	-5	0	5	10	15		
			•		1	•		•	
Cooling capacity	in W								
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		1	1	1		<b>,</b>	1		
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	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	6.69	7.10	-	-
55	-	-	5.44	5.96	6.49	7.01	7.51	-	_
60	-	-	-	6.14	6.74	7.34	7.91	-	_
65	-	-	-	6.30	6.97	7.65	8.31	-	-
/lass flow in kg/l	•								
35	105	138	177	221	271	329	394	-	_
40	101	133	171	215	264	321	385	-	_
45	95	128	165	208	257	313	375	-	
50	-	122	159	202	250	304	366	_	
55		-	153	194	242	295	355	_	_
60	-	-	-	187	233	286	345	-	_
65	-	_	_	179	225	276	334	-	_
55				1		1 2.0	00.	I	
coefficient of pe	rformance (C.O	.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	-	-
		_		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

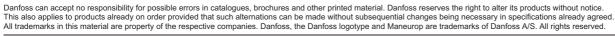
Rating conditions : Superheat = 10 K , Subcooling = 0 K

Pressure switch settings

Maximum HP switch setting	29.4	bar(g)	
Minimum LP switch setting	0.2	bar(g)	
LP pump down setting	1.3	bar(g)	

Sound power data

Sound power level	77	dB(A)
With accoustic hood	72	dB(A)







## 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		
L		1		1		1			
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	V		1	1		·			
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	ption in A	1	1	T					
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	6.69	7.10	-	-
55	-	-	5.44	5.96	6.49	7.01	7.51	-	-
60	-	-	-	6.14	6.74	7.34	7.91	-	-
65	-	-	-	6.30	6.97	7.65	8.31	-	-
Mass flow in kg/		1		_		Т			
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	159	200	248	302	363	-	-
55	-	-	152	193	240	293	353	-	-
60	-	-	-	186	232	284	343	-	-
65	-	-	-	178	224	274	332	-	-
Coefficient of pe	· ·	1	2.40	2.50	4.44	4.70	F F0		
35	2.27	2.67	3.10	3.58	4.14	4.79	5.58	-	-
40	2.00	2.37	2.75	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

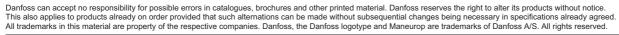
Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 K

Pressure switch settings

Maximum HP switch setting	29.4	bar(g)	
Minimum LP switch setting	0.2	bar(g)	
LP pump down setting	1.3	bar(g)	

Sound power data

Sound power level	77	dB(A)
With accoustic hood	72	dB(A)







## Maneurop reciprocating compressor. MTZ040-4

## Performance data at 60 Hz, EN 12900 rating conditions

R134a

Cond. temp. in				Evapora	iting temperature	in °C (to)			
°C (tc)	-15	-10	-5	0	5	10	15	20	
		-	1		-	1	-	-	
Cooling capacit	ty in W								
35	3 842	4 891	6 127	7 572	9 244	11 167	13 359	15 843	-
40	3 330	4 349	5 547	6 947	8 569	10 433	12 560	14 972	-
45	2 846	3 829	4 987	6 338	7 904	9 705	11 763	14 098	-
50	2 399	3 343	4 454	5 752	7 258	8 993	10 976	13 229	-
55	1 999	2 899	3 959	5 200	6 641	8 304	10 208	12 375	-
60	-	2 506	3 511	4 689	6 061	7 647	9 468	11 544	-
65	-	-	-	4 229	5 527	7 031	8 763	10 742	-
70	-	-	-	-	-	6 462	8 099	9 976	-
		•							
ower input in \	W								
35	1 672	1 941	2 196	2 427	2 626	2 782	2 888	2 934	-
40	1 689	1 974	2 249	2 503	2 729	2 917	3 058	3 143	-
45	1 684	1 988	2 284	2 565	2 820	3 042	3 220	3 347	-
50	1 654	1 979	2 300	2 610	2 897	3 155	3 374	3 544	-
55	1 598	1 946	2 294	2 635	2 957	3 254	3 515	3 732	-
60	-	1 886	2 264	2 638	2 998	3 335	3 642	3 907	-
65	-	-	-	2 616	3 016	3 397	3 751	4 068	
70	-	-	-	-	-	3 437	3 841	4 213	-
urrent consun	nption in A	•	1	,					
35	3.08	3.39	3.69	3.98	4.25	4.48	4.68	4.83	-
40	3.10	3.42	3.74	4.05	4.34	4.60	4.83	5.02	-
45	3.10	3.44	3.77	4.11	4.42	4.72	4.98	5.20	-
50	3.08	3.43	3.80	4.15	4.50	4.82	5.12	5.38	-
55	3.04	3.42	3.80	4.19	4.57	4.93	5.26	5.56	-
60	-	3.38	3.80	4.21	4.62	5.02	5.39	5.74	-
65	-	-	-	4.22	4.67	5.10	5.52	5.91	-
70	-	-	-	-	-	5.18	5.64	6.08	-
lass flow in kg									
35	93	116	142	172	206	244	287	335	-
40	85	108	135	166	200	239	282	331	-
45	77	101	128	159	194	233	277	326	-
50	68	93	121	153	188	228	273	322	-
55	61	86	115	147	183	223	268	318	-
60	-	80	109	141	178	219	265	315	-
65	-	-	-	137	174	216	262	313	-
70	-	-	-	-	-	213	260	311	-
	erformance (C.C	1	Т	T	T	<del>                                     </del>		<del>                                     </del>	
35	2.30	2.52	2.79	3.12	3.52	4.01	4.63	5.40	-
40	1.97	2.20	2.47	2.78	3.14	3.58	4.11	4.76	-
45	1.69	1.93	2.18	2.47	2.80	3.19	3.65	4.21	-
50	1.45	1.69	1.94	2.20	2.51	2.85	3.25	3.73	-
55	1.25	1.49	1.73	1.97	2.25	2.55	2.90	3.32	-
60	-	1.33	1.55	1.78	2.02	2.29	2.60	2.95	-
65	-	-	-	1.62	1.83	2.07	2.34	2.64	-
70	-	-	-	-	-	1.88	2.11	2.37	-

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

tronima portormanos arto o o, to	•• •	
Cooling capacity	7 258	W
Power input	2 897	W
Current consumption	4.50	Α
Mass flow	188	kg/h
C.O.P.	2.51	

to: Evaporating temperature at dew point

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

Pressure switch settings

Maximum HP switch setting	22.6	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	0.5	bar(g)

## Sound power data

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

All performance data +/- 5%



tc: Condensing temperature at dew point



## 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)	-15	-10	-5	0	5	10	15	20	
Cooling capacity	v in W								
35	4 161	5 289	6 615	8 161	9 949	12 001	14 337	16 980	-
40	3 626	4 727	6 019	7 525	9 266	11 264	13 540	16 116	-
45	3 118	4 187	5 441	6 903	8 592	10 532	12 744	15 249	-
50	2 648	3 681	4 893	6 305	7 939	9 817	11 959	14 389	-
55	2 225	3 218	4 383	5 742	7 316	9 127	11 197	13 546	-
60	-	2 809	3 923	5 224	6 734	8 474	10 467	12 732	-
65	-	-	-	4 762	6 203	7 869	9 779	11 956	-
70	-	-	-	-	-	7 320	9 145	11 229	-
Bower input in V	v								
Power input in V	1 672	1 941	2 196	2 427	2 626	2 782	2 888	2 934	-
40	1 689	1 974	2 249	2 503	2 729	2 917	3 058	3 143	
45	1 684	1 988	2 249	2 565	2 820	3 042	3 220	3 347	
50	1 654	1 979	2 300	2 610	2 897	3 155	3 374	3 544	
55	1 598	1 946	2 294	2 635	2 957	3 254	3 515	3 732	-
60	-	1 886	2 264	2 638	2 998	3 335	3 642	3 907	_
65	-	-	-	2 616	3 016	3 397	3 751	4 068	
70	-	-	-	_	-	3 437	3 841	4 213	-
		•	•	•					
Current consum	ption in A								
35	3.08	3.39	3.69	3.98	4.25	4.48	4.68	4.83	-
40	3.10	3.42	3.74	4.05	4.34	4.60	4.83	5.02	-
45	3.10	3.44	3.77	4.11	4.42	4.72	4.98	5.20	-
50	3.08	3.43	3.80	4.15	4.50	4.82	5.12	5.38	-
55	3.04	3.42	3.80	4.19	4.57	4.93	5.26	5.56	-
60	-	3.38	3.80	4.21	4.62	5.02	5.39	5.74	-
65	-	-	-	4.22	4.67	5.10	5.52	5.91	-
70	-	-	-	- 4	-	5.18	5.64	6.08	-
Mass flow in kg/	h								
35	93	116	142	171	205	243	286	333	-
40	84	108	134	165	199	238	281	329	-
45	76	100	127	158	193	232	276	324	-
50	68	93	120	152	187	227	271	320	-
55	61	86	114	146	182	222	267	317	-
60	-	79	108	141	177	218	263	313	-
65	-	-	-	136	173	214	260	311	-
70		-	-	-	-	212	258	309	-
Coefficient of pe	erformance (C.C	D.P.)							
35	2.49	2.72	3.01	3.36	3.79	4.31	4.96	5.79	-
40	2.15	2.39	2.68	3.01	3.40	3.86	4.43	5.13	-
45	1.85	2.11	2.38	2.69	3.05	3.46	3.96	4.56	-
50	1.60	1.86	2.13	2.42	2.74	3.11	3.54	4.06	-
55	1.39	1.65	1.91	2.18	2.47	2.81	3.19	3.63	-
60	-	1.49	1.73	1.98	2.25	2.54	2.87	3.26	-
65	-	-	-	1.82	2.06	2.32	2.61	2.94	-
70	-	-	-	-	-	2.13	2.38	2.67	-

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

recinitial perioritianee at to	0,	U-1		
Cooling capacity		8 159	W	
Power input		3 083	W	
Current consumption		4.72	Α	
Mass flow		200	kg/h	
C.O.P.		2.65		

to: Evaporating temperature at dew point

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

Pressure switch settings

Maximum HP switch setting	22.6	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	0.5	bar(g)

#### Sound power data

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

All performance data +/- 5%



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 capacity						1			
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
ower input in V	٧								
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
urrent consum	ption in A								
30	3.85	4.05	4.31	4.60	4.91	5.21	5.49	5.72	5.89
35	3.93	4.17	4.46	4.79	5.14	5.49	5.82	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	7.11
50	3.87	4.21	4.62	5.09	5.58	6.09	6.58	7.05	7.47
55	-	4.17	4.63	5.15	5.69	6.26	6.81	7.34	7.83
60	-	4.13	4.64	5.21	5.81	6.43	7.05	7.65	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	91	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 no	erformance (C.C	IP)							
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
	0.7 1			1.11	1.30				2.24
55	-	0.76	0.93	1 1 1 1	1.50	1.51	1.73	1.98	/ /4

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

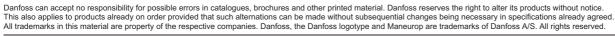
Rating conditions : Superheat = 10 K , Subcooling = 0 K

Pressure switch settings

			_
Maximum HP switch setting	27.7	bar(g)	
Minimum LP switch setting	0.2	bar(g)	
LP pump down setting	0.9	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, ARI rating conditions

# **R404A**

Cond. temp. in				Evapora	ating temperature	in °C (to)			
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
Cooling capacity		T	T =				I		
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	10 012	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 W	ı								
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
urrent consum	ption in A								
30	3.85	4.05	4.31	4.60	4.91	5.21	5.49	5.72	5.89
35	3.93	4.17	4.46	4.79	5.14	5.49	5.82	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	7.11
50	3.87	4.21	4.62	5.09	5.58	6.09	6.58	7.05	7.47
55	-	4.17	4.63	5.15	5.69	6.26	6.81	7.34	7.83
60	-	4.13	4.64	5.21	5.81	6.43	7.05	7.65	8.20
lass flow in kg/l	h								
30	84	115	151	194	242	298	362	434	515
35	78	109	146	187	236	291	353	424	504
40	73	104	139	181	228	283	344	414	493
45	67	97	133	174	221	274	335	404	481
50	60	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
Soefficient of pe	rformance (C.C 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	2.82	2.73	3.55	3.60	4.00	4.62
40	1.17	1.65	1.74	2.06	2.73	2.77	3.17	3.60	4.02
45	1.17	1.45	1.74	1.79	2.40	2.77	2.76	3.60	3.54
		1			+			1	1
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)
0.2	bar(g)
0.9	bar(g)
	0.2

Sound power data

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

