

ENGINEERING TOMORROW

Datasheets

# Danfoss Reciprocating compressors **MT / MTZ / NTZ**



FRCC.UD.180316.101711

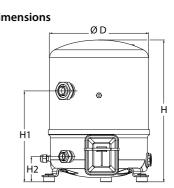
#### Datasheet, technical data

## Maneurop reciprocating compressor, MT072-4

Dantoss

#### **General Characteristics**

Model number (on compressor nameplate)	MT72HN4AV
Code number for Singlepack*	MT72-4VI
Code number for Industrial pack**	MT72-4VM
Drawing number	8502012g
Suction and discharge connections	Rotolock
Suction connection	1-3/4 " Rotolock
Discharge connection	1-1/4 " Rotolock
Suction connection with supplied sleeve	7/8 " ODF
Discharge connection with supplied sleeve	3/4 " ODF
Oil sight glass	Threaded
Oil equalisation connection	3/8" flare SAE
Oil drain connection	None
LP gauge port	Schrader
IPR valve	30 bar / 8 bar
Cylinders	2
Swept volume	120.94 cm3/rev
Displacement @ Nominal speed	21.0 m3/h @ 2900 rpm - 25.4 m3/h @ 3500 rpn
Net weight	40 kg
Oil charge	1.8 litre, Mineral - 160P
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	5 kg
Approved refrigerants	R22, R417A-160PZ



288 mm 413 mm =265 mm =74 mm =- mm

erminal box

#### **Electrical Characteristics**

Nominal voltage	380-400V/3/50Hz - 460V/3/60Hz
Voltage range	340-440 V @ 50Hz - 414-506 V @ 60Hz
Winding resistance (between phases) +/- 7% at 25°C	1.9 Ω
Maximum Continuous Current (MCC)	17 A
Locked Rotor Amps (LRA)	80 A
Motor protection	Internal overload protector

# ᠿ 2 4 3

## **Recommended Installation torques**

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

#### Parts shipped with compressor

Mounting kit with grommets, bolts, nuts, sleeves and washers

Suction & Discharge solder sleeves, rotolock nuts and gaskets (shipped with rotolock version only) Initial oil charge

Installation instructions

Approvals : CE certified, UL certified (file SA6873), -

\*Singlepack: Compressor in cardboard box

\*\*Industrial pack: 6 Unboxed compressors on pallet (order per multiples of 6)

IP55 (with cable gland)

- 1: Spade connectors 1/4" 2:
  - Earth M4-12
- Knock-out Ø 21 mm (0.83") 3:
- 4: Hole Ø 21 mm (0.83'')





#### Datasheet, accessories and spare parts

Maneurop reciprocating compressor, MT072-4

6: Nut (3x)

Rotolock accessories, suction side	Code no.	
Solder sleeve, P07 (1-3/4" Rotolock, 7/8" ODF)	8153013	
Angle adapter, C07 (1-3/4" Rotolock, 7/8" ODF)	8168008	
Rotolock valve, V07 (1-3/4" Rotolock, 7/8" ODF)	8168032	Gaskets, sleeves and nuts
Gasket, 1-3/4"	8156132	
Rotolock accessories, discharge side	Code no.	
Solder sleeve, P04 (1-1/4" Rotolock, 3/4" ODF)	8153008	
Angle adapter, C04 (1-1/4" Rotolock, 3/4" ODF)	8153008	
Rotolock valve, V04 (1-1/4" Rotolock, 3/4" ODF)	8168029	
Gasket, 1-1/4"	8156131	
	0150151	
Rotolock accessories, sets	Code no.	1: Gasket
Angle adapter set, C07 (1-3/4"~7/8"), C04 (1-1/4"~3/4")	7703013	2: Solder sleeve
Valve set, V07 (1-3/4"~7/8"), V04 (1-1/4"~3/4")	7703006	3: Rotolock nut
Gasket set, 1", 1-1/4", 1-3/4", OSG gaskets black & white	8156009	
Oil / lubricants	Code no.	
Mineral oil, 160P, 2 litre can	7754001	
Mineral oil, 160P, 5 litre can	7754002	
Crankcase heaters	Code no.	Mounting kit
PTC heater 27W,CE mark, UL		
	120Z0459	
Belt type crankcase heater, 65 W, 230 V, CE mark, UL	120Z0459 7773107	1
Belt type crankcase heater, 65 W, 230 V, CE mark, UL Belt type crankcase heater, 65 W, 400 V, CE mark, UL	7773107 7773117	
Belt type crankcase heater, 65 W, 230 V, CE mark, UL	7773107	
Belt type crankcase heater, 65 W, 230 V, CE mark, UL Belt type crankcase heater, 65 W, 400 V, CE mark, UL Belt type crankcase heater, 65 W, 460 V, CE mark, UL	7773107 7773117 120Z0466	
Belt type crankcase heater, 65 W, 230 V, CE mark, UL Belt type crankcase heater, 65 W, 400 V, CE mark, UL Belt type crankcase heater, 65 W, 460 V, CE mark, UL Miscellaneous accessories	7773107 7773117 120Z0466 <b>Code no.</b>	
Belt type crankcase heater, 65 W, 230 V, CE mark, UL Belt type crankcase heater, 65 W, 400 V, CE mark, UL Belt type crankcase heater, 65 W, 460 V, CE mark, UL Miscellaneous accessories Electronic soft start kit, MCI 15 C	7773107 7773117 120Z0466 Code no. 7705006	
Belt type crankcase heater, 65 W, 230 V, CE mark, UL Belt type crankcase heater, 65 W, 400 V, CE mark, UL Belt type crankcase heater, 65 W, 460 V, CE mark, UL Miscellaneous accessories Electronic soft start kit, MCI 15 C Acoustic hood for 2 cylinder compressor	7773107 7773117 120Z0466 Code no. 7705006 120Z0472	
Belt type crankcase heater, 65 W, 230 V, CE mark, UL Belt type crankcase heater, 65 W, 400 V, CE mark, UL Belt type crankcase heater, 65 W, 460 V, CE mark, UL Miscellaneous accessories Electronic soft start kit, MCI 15 C	7773107 7773117 120Z0466 Code no. 7705006	
Belt type crankcase heater, 65 W, 230 V, CE mark, UL Belt type crankcase heater, 65 W, 400 V, CE mark, UL Belt type crankcase heater, 65 W, 460 V, CE mark, UL Miscellaneous accessories Electronic soft start kit, MCI 15 C Acoustic hood for 2 cylinder compressor	7773107 7773117 120Z0466 Code no. 7705006 120Z0472	
Belt type crankcase heater, 65 W, 230 V, CE mark, UL Belt type crankcase heater, 65 W, 400 V, CE mark, UL Belt type crankcase heater, 65 W, 460 V, CE mark, UL Miscellaneous accessories Electronic soft start kit, MCI 15 C Acoustic hood for 2 cylinder compressor Oil equalisation nut	7773107 7773117 120Z0466 Code no. 7705006 120Z0472 8153127	1 2 3 4 5 6 1: Bolt (3x)
Belt type crankcase heater, 65 W, 230 V, CE mark, UL Belt type crankcase heater, 65 W, 400 V, CE mark, UL Belt type crankcase heater, 65 W, 460 V, CE mark, UL Miscellaneous accessories Electronic soft start kit, MCI 15 C Acoustic hood for 2 cylinder compressor Oil equalisation nut Spare parts	7773107 7773117 120Z0466 Code no. 7705006 120Z0472 8153127 Code no.	2: Lock washer (3x)
Belt type crankcase heater, 65 W, 230 V, CE mark, UL Belt type crankcase heater, 65 W, 400 V, CE mark, UL Belt type crankcase heater, 65 W, 460 V, CE mark, UL Miscellaneous accessories Electronic soft start kit, MCI 15 C Acoustic hood for 2 cylinder compressor Oil equalisation nut Spare parts Mounting kit for 1 and 2 cylinder compressor, including 3 grommets, 3 bolts	7773107 7773117 120Z0466 Code no. 7705006 120Z0472 8153127 Code no. 8156001	2: Lock washer (3x) 3: Flat washer (3x)
Belt type crankcase heater, 65 W, 230 V, CE mark, UL Belt type crankcase heater, 65 W, 400 V, CE mark, UL Belt type crankcase heater, 65 W, 460 V, CE mark, UL Miscellaneous accessories Electronic soft start kit, MCI 15 C Acoustic hood for 2 cylinder compressor Oil equalisation nut Spare parts Mounting kit for 1 and 2 cylinder compressor, including 3 grommets, 3 bolts Oil sight glass with gaskets (black & white)	7773107 7773117 120Z0466 Code no. 7705006 120Z0472 8153127 Code no. 8156001 8156019	2: Lock washer (3x)



### Maneurop reciprocating compressor. MT072-4

Danfoss

**R22** 

#### Performance data at 50 Hz, EN 12900 rating conditions

Cond. temp. in		T		-	ating temperature			T	
°C (tc)	-25	-20	-15	-10	-5	0	5	10	15
Cooling capacity		0.000		40.000	11.000	17 550	04,000	00.074	o
30	4 414	6 222	8 397	10 982	14 020	17 553	21 623	26 274	31 547
35	3 955	5 692	7 771	10 234	13 125	16 485	20 358	24 785	29 810
40	3 487	5 152	7 134	9 476	12 219	15 407	19 082	23 286	28 062
45	3 010	4 605	6 490	8 710	11 306	14 321	17 798	21 779	26 30
50	-	4 051	5 840	7 938	10 386	13 229	16 508	20 265	24 54
55	-	-	5 186	7 161	9 463	12 133	15 213	18 748	22 778
60	-	-	-	6 383	8 537	11 034	13 916	17 227	21 009
65	-	-	-	-	7 610	9 935	12 619	15 706	19 239
Power input in W		2.041	2.076	2 569	2 921	4.040	4 007	4 200	4 506
30 35	2 559	2 941 3 056	3 276 3 445	3 568 3 787	3 821 4 084	4 040	4 227 4 564	4 388 4 754	4 526 4 916
	2 614								
40	2 634	3 143	3 596	3 995	4 345	4 650	4 914	5 141	5 336
45	2 613	3 199	3 722	4 186	4 597	4 957	5 272	5 544	5 779
50	-	3 215	3 817	4 355	4 834	5 258	5 630	5 956	6 239
55	-		3 874	4 494	5 050	5 545	5 984	6 371	6 711
60	-	-	-	4 598	5 238	5 813	6 327	6 783	7 187
65	-	-	-	-	5 393	6 055	6 651	7 185	7 661
30	6.68	7.03	7.38	7.71	8.02	8.29	8.52	8.70	8.82
35	6.77	7.19	7.59	7.98	8.33	8.65	8.91	9.12	9.26
40	6.80	7.30	7.78	8.24	8.66	9.03	9.35	9.60	9.79
45	6.76	7.36	7.94	8.48	8.98	9.43	9.82	10.14	10.38
50	-	7.35	8.04	8.69	9.29	9.84	10.31	10.71	11.03
55	-	-	8.09	8.86	9.58	10.23	10.81	11.31	11.72
60	-	-	-	8.97	9.82	10.61	11.31	11.93	12.45
65	-	-	-	-	10.02	10.95	11.80	12.55	13.20
/lass flow in kg/l									
30	96	134	178	230	290	358	437	525	625
35	89	127	170	230	282	349	426	514	612
40	82	127	164	214	273	349	416	501	598
40	75	112	156	214	263	329	410	489	583
45 50	-	103	130	196	253	318	392	489	568
	-	103	147		233	306	379	475	552
55 60	-	-	-	186 175	242	293	365	460	535
	-	-	-	175				-	
65	-	-	-	-	218	280	350	429	517
Coefficient of pe	formanco (C C								
30	1.73	2.12	2.56	3.08	3.67	4.35	5.12	5.99	6.97
30	1.73	1.86	2.36	2.70	3.07	3.80	4.46	5.99	6.06
35 40	1.51	1.86	2.26	2.70	2.81		4.46 3.88	4.53	5.26
40	1.32	1.64	1.98	2.37	2.81	3.31 2.89	3.88	4.53 3.93	5.26 4.55
45 50	-	1.44	1.74	1.82	2.46	2.89	3.38 2.93	3.93	4.55 3.93
55	-	-	1.34	1.59	1.87	2.19	2.54	2.94	3.39
60	-	-	-	1.39	1.63	1.90	2.20	2.54	2.92
65	-	-	-	-	1.41	1.64	1.90	2.19	2.51
ominal porform	anco at to - E (	$^{\circ}$ C to = 50 °C				Pressure switch	eattinge		
lominal perform Cooling capacity	ance at 10 - 5	16 508	W			Maximum HP swit		27.9	bar(g)
Power input		5 630	Ŵ			Minimum LP switc	•	0.7	bar(g)
Current consumpt	ion	10.31	A			LP pump down se	•	0.9	bar(g)
Mass flow		392	kg/h				~		
		2.93				Sound power dat			
C.O.P.									
C.O.P.						Sound power leve With accoustic hor		76 69	dB(A) dB(A)



#### Maneurop reciprocating compressor. MT072-4

Danfoss

#### of EO Line A Di rotio п 4.4 4:4:

Performanc	e data at 50	) Hz, ARI rati	ing conditio	ns					R22
Cond. temp. in				Evapora	ating temperatu	re in °C (to)			
°C (tc)	-25	-20	-15	-10	-5	0	5	10	15
0									
Cooling capacity 30	4 688	6 603	8 904	11 637	14 844	18 572	22 863	27 762	33 312
35	4 000	6 062	8 268	10 880	13 942	17 498	22 803	26 270	31 575
40	3 732	5 508	7 620	10 100	13 028	16 413	20 312	24 768	29 826
40	3 237	4 945	6 963	9 335	12 105	15 320	19 022	23 257	28 070
50	-	4 373	6 297	8 549	11 175	14 218	17 725	21 740	26 307
55	-	-	5 625	7 758	10 238	13 112	16 424	20 218	24 541
60	-	-	-	6 962	9 299	12 003	15 120	18 696	22 775
65	-	-	-	-	8 358	10 894	13 818	17 176	21 013
Dannan immud in M				·					
Power input in W 30	2 559	2 941	3 276	3 568	3 821	4 040	4 227	4 388	4 526
35	2 614	3 056	3 445	3 787	4 084	4 342	4 564	4 754	4 916
40	2 634	3 143	3 596	3 995	4 345	4 650	4 914	5 141	5 336
45	2 613	3 199	3 722	4 186	4 597	4 957	5 272	5 544	5 779
50	-	3 215	3 817	4 355	4 834	5 258	5 630	5 956	6 239
55	-	-	3 874	4 494	5 050	5 545	5 984	6 371	6 711
60	-	-	-	4 598	5 238	5 813	6 327	6 783	7 187
65	-	-	-	-	5 393	6 055	6 651	7 185	7 661
Current consum		7.02	7 20	7 71	8.02	8.20	9.50	9.70	0 00
30	6.68	7.03	7.38	7.71	8.02	8.29	8.52	8.70	8.82
35 40	6.77 6.80	7.19 7.30	7.59 7.78	7.98 8.24	8.33 8.66	8.65	8.91 9.35	9.12 9.60	9.26
40 45	6.76	7.36	7.94	8.48	8.98	9.03 9.43	9.82	9.60	9.79 10.38
50	-	7.35	8.04	8.69	9.29	9.84	10.31	10.14	11.03
55	-	-	8.04	8.86	9.29	10.23	10.31	11.31	11.03
60	-	-	-	8.97	9.82	10.61	11.31	11.93	12.45
65	-	-	_	-	10.02	10.95	11.80	12.55	13.20
		1	1	1	1			11	
Mass flow in kg/				1					
30	96	133	177	229	288	356	434	522	621
35	89	127	170	221	280	347	424	511	608
40	82	119	163	213	271	338	413	499	595
45	74	111	155	205	262	327	402	486	580
50	-	103	146	195	252	316	390	472	565
55 60	-	-	136 -	185 174	241 229	304 292	377 363	458 442	549 532
65	-	-	-	-	229	232	348	442	514
		1			210	210	010	120	011
Coefficient of pe 30	rformance (C.C 1.83	<b>2.25</b>	2.72	3.26	3.88	4.60	5.41	6.33	7.36
30	1.83	1.98	2.72	2.87	3.88	4.03	4.73	5.53	6.42
40	1.42	1.98	2.40	2.53	3.41	3.53	4.13	4.82	5.59
40	1.42	1.75	1.87	2.33	2.63	3.09	3.61	4.82	4.86
43 50	-	1.36	1.65	1.96	2.03	2.70	3.15	3.65	4.80
55	-	-	1.45	1.30	2.03	2.36	2.74	3.17	3.66
60	-	-	-	1.51	1.78	2.06	2.39	2.76	3.17
65	-	-	-	-	1.55	1.80	2.08	2.39	2.74
			1			•	1		
	nance at to = 7.2	2 °C, tc = 54.4 °C	NA/			Pressure switch	-	07.0	hc=(=)
Cooling capacity Power input		18 199 6 115	w w			Maximum HP swite Minimum LP swite	•	27.9 0.7	bar(g) bar(g)
Current consump	tion	10.98	A			LP pump down se		0.9	bar(g)
Mass flow		413	kg/h			P = = = = = = = = = = = = = = = =	<u> </u>		
C.O.P.		2.98		1		Sound power da			

to:	Evaporating	temperature	at	dew	point
-----	-------------	-------------	----	-----	-------

tc: Condensing temperature at dew point

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

Tolerance according EN12900

Sound power level

With accoustic hood

Danfoss can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alternations can be made without subsequential changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss, the Danfoss logotype and Maneurop are trademarks of Danfoss A/S. All rights reserved.



69

dB(A)

dB(A)

### Maneurop reciprocating compressor. MT072-4

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

~( · (tc)		1		1	ting temperatur		r	,	
°C (tc)	-25	-20	-15	-10	-5	0	5	10	15
Cooling capacity			40				0		· ·
30	5 870	7 917	10 410	13 396	16 924	21 041	25 796	31 237	37 414
35	5 360	7 306	9 676	12 517	15 878	19 808	24 353	29 564	35 487
40	4 864	6 699	8 937	11 625	14 811	18 544	22 871	27 841	33 502
45	4 392	6 107	8 204	10 730	13 732	17 259	21 358	26 079	31 467
50	-	5 538	7 485	9 840	12 649	15 962	19 825	24 286	29 393
55	-	-	6 790	8 965	11 573	14 661	18 278	22 471	27 287
60	-	-	-	8 113	10 511	13 366	16 728	20 643	25 158
65	-	-	-	-	9 471	12 085	15 182	18 809	23 013
Power input in W		0.507	0.000	4 000	4.055	4.040	5 407	5 400	5 504
30	3 142	3 567	3 962	4 326	4 655	4 946	5 197	5 402	5 561
35	3 245	3 715	4 158	4 571	4 950	5 292	5 594	5 853	6 066
40	3 330	3 850	4 344	4 808	5 240	5 636	5 993	6 309	6 579
45	3 394	3 966	4 514	5 033	5 520	5 973	6 389	6 764	7 095
50	-	4 060	4 664	5 241	5 787	6 300	6 777	7 214	7 609
55	-	-	4 790	5 428	6 036	6 612	7 153	7 656	8 117
60	-	-	-	5 589	6 262	6 905	7 513	8 084	8 614
65	-	-	-	-	6 461	7 173	7 851	8 494	9 097
	41 a m 1 m . •								
30	5.99	6.39	6.81	7.23	7.60	7.92	8.15	8.26	8.23
35	6.11	6.55	7.02	7.49	7.94	8.34	8.66	8.88	8.96
40	6.22		7.02	7.49					9.67
		6.69			8.26	8.74	9.15	9.47	
45	6.32	6.83	7.40	7.99	8.57	9.13	9.63	10.05	10.36
50	-	6.96	7.57	8.22	8.87	9.51	10.10	10.62	11.04
55	-	-	7.74	8.44	9.16	9.87	10.55	11.17	11.70
60	-	-	-	8.65	9.44	10.22	10.99	11.70	12.34
65	-	-	-	-	9.70	10.56	11.41	12.22	12.96
Mass flow in kg/h									
30	127	170	221	281	350	430	521	624	740
35	121	163	213	272	341	420	510	613	728
40	115	156	205	263	331	409	498	600	714
40	109	149	197	253	320	397	490	585	698
43 50	-		188	233	320	397	485	569	681
	-	141							
55	-	-	179	233 222	296 284	370	455	552	661 641
	-	-	-	222	284	355 340	438	533	619
60			-	-	2/1	340	421	513	019
60 65	-	-							
65	- formance (C.0	D.P.)							
65 Coefficient of per	•	<b>D.P.</b> )	2.63	3.10	3.64	4.25	4.96	5.78	6.73
65	- formance (C.C 1.87 1.65		2.63	3.10 2.74	3.64 3.21	4.25	4.96 4.35	5.78 5.05	6.73 5.85
65 Coefficient of per 30	1.87	2.22						-	
65 Coefficient of per 30 35	1.87 1.65	2.22 1.97	2.33	2.74	3.21	3.74	4.35	5.05	5.85
65 Coefficient of per 30 35 40 45	1.87 1.65 1.46	2.22 1.97 1.74 1.54	2.33 2.06 1.82	2.74 2.42 2.13	3.21 2.83 2.49	3.74 3.29 2.89	4.35 3.82 3.34	5.05 4.41 3.86	5.85 5.09 4.44
65 Coefficient of per 30 35 40 45 50	1.87 1.65 1.46 1.29	2.22 1.97 1.74	2.33 2.06 1.82 1.60	2.74 2.42 2.13 1.88	3.21 2.83 2.49 2.19	3.74 3.29 2.89 2.53	4.35 3.82 3.34 2.93	5.05 4.41 3.86 3.37	5.85 5.09 4.44 3.86
65           Coefficient of per           30           35           40           45           50           55	1.87 1.65 1.46 1.29	2.22 1.97 1.74 1.54 1.36	2.33 2.06 1.82	2.74 2.42 2.13	3.21 2.83 2.49	3.74 3.29 2.89	4.35 3.82 3.34 2.93 2.56	5.05 4.41 3.86 3.37 2.94	5.85 5.09 4.44
65           Coefficient of per           30           35           40           45           50           55           60	1.87 1.65 1.46 1.29	2.22 1.97 1.74 1.54 1.36 -	2.33 2.06 1.82 1.60 1.42	2.74 2.42 2.13 1.88 1.65	3.21 2.83 2.49 2.19 1.92 1.68	3.74           3.29           2.89           2.53           2.22           1.94	4.35 3.82 3.34 2.93 2.56 2.23	5.05 4.41 3.86 3.37 2.94 2.55	5.85 5.09 4.44 3.86 3.36 2.92
65 Coefficient of per 30 35 40 45 50 55	1.87 1.65 1.46 1.29 - -	2.22 1.97 1.74 1.54 1.36 - -	2.33 2.06 1.82 1.60 1.42 -	2.74 2.42 2.13 1.88 1.65 1.45	3.21 2.83 2.49 2.19 1.92	3.74 3.29 2.89 2.53 2.22	4.35 3.82 3.34 2.93 2.56	5.05 4.41 3.86 3.37 2.94	5.85 5.09 4.44 3.86 3.36
65       Coefficient of per       30       35       40       45       50       55       60       65	1.87 1.65 1.46 1.29 - - -	2.22 1.97 1.74 1.54 1.36 - - -	2.33 2.06 1.82 1.60 1.42 -	2.74 2.42 2.13 1.88 1.65 1.45	3.21 2.83 2.49 2.19 1.92 1.68	3.74           3.29           2.89           2.53           2.22           1.94	4.35 3.82 3.34 2.93 2.56 2.23 1.93	5.05 4.41 3.86 3.37 2.94 2.55	5.85 5.09 4.44 3.86 3.36 2.92
65           Coefficient of per           30           35           40           45           50           55           60           65           Nominal perform           Cooling capacity	1.87 1.65 1.46 1.29 - - -	2.22 1.97 1.74 1.54 1.36 - - -	2.33 2.06 1.82 1.60 1.42 - -	2.74 2.42 2.13 1.88 1.65 1.45	3.21 2.83 2.49 2.19 1.92 1.68	3.74           3.29           2.89           2.53           2.22           1.94           1.68	4.35 3.82 3.34 2.93 2.56 2.23 1.93 settings	5.05 4.41 3.86 3.37 2.94 2.55	5.85 5.09 4.44 3.86 3.36 2.92
65       Coefficient of per       30       35       40       45       50       55       60       65       Nominal perform       Cooling capacity       Power input	1.87 1.65 1.46 1.29 - - - - - ance at to = 5	2.22 1.97 1.74 1.54 1.36 - - - °C, tc = 50 °C 19 825 6 777	2.33 2.06 1.82 1.60 1.42 - - - W W	2.74 2.42 2.13 1.88 1.65 1.45	3.21 2.83 2.49 2.19 1.92 1.68	3.74           3.29           2.89           2.53           2.22           1.94           1.68           Pressure switch s           Maximum HP switt           Minimum LP switt	4.35 3.82 3.34 2.93 2.56 2.23 1.93 settings ch setting h setting	5.05 4.41 3.86 3.37 2.94 2.55 2.21 27.9 0.7	5.85 5.09 4.44 3.86 3.36 2.92 2.53 bar(g) bar(g)
65       Coefficient of per       30       35       40       45       50       55       60       65       Nominal perform.       Cooling capacity       Power input       Current consumpti	1.87 1.65 1.46 1.29 - - - - - ance at to = 5	2.22 1.97 1.74 1.54 1.36 - - •°C, tc = 50 °C 19 825 6 777 10.10	2.33 2.06 1.82 1.60 1.42 - - - W W W A	2.74 2.42 2.13 1.88 1.65 1.45	3.21 2.83 2.49 2.19 1.92 1.68	3.74 3.29 2.89 2.53 2.22 1.94 1.68 Pressure switch s Maximum HP switch	4.35 3.82 3.34 2.93 2.56 2.23 1.93 settings ch setting h setting	5.05 4.41 3.86 3.37 2.94 2.55 2.21 27.9	5.85 5.09 4.44 3.86 3.36 2.92 2.53 bar(g)
65       Coefficient of per       30       35       40       45       50       55       60       65       Nominal perform       Cooling capacity       Yower input       Current consumpti       Auss flow	1.87 1.65 1.46 1.29 - - - - - ance at to = 5	2.22 1.97 1.74 1.54 1.36 - - °C, tc = 50 °C 19 825 6 777 10.10 470	2.33 2.06 1.82 1.60 1.42 - - - W W	2.74 2.42 2.13 1.88 1.65 1.45	3.21 2.83 2.49 2.19 1.92 1.68	3.74           3.29           2.89           2.53           2.22           1.94           1.68           Pressure switch s           Maximum HP switt           Minimum LP switt           LP pump down set	4.35 3.82 3.34 2.93 2.56 2.23 1.93 settings ch setting h setting ting	5.05 4.41 3.86 3.37 2.94 2.55 2.21 27.9 0.7	5.85 5.09 4.44 3.86 3.36 2.92 2.53 bar(g) bar(g)
65       Coefficient of per       30       35       40       45       50       55       60       65       Nominal perform.       Cooling capacity       Power input       Current consumpti	1.87 1.65 1.46 1.29 - - - - - ance at to = 5	2.22 1.97 1.74 1.54 1.36 - - •°C, tc = 50 °C 19 825 6 777 10.10	2.33 2.06 1.82 1.60 1.42 - - - W W W A	2.74 2.42 2.13 1.88 1.65 1.45	3.21 2.83 2.49 2.19 1.92 1.68	3.74           3.29           2.89           2.53           2.22           1.94           1.68           Pressure switch s           Maximum HP switt           Minimum LP switt	4.35 3.82 3.34 2.93 2.56 2.23 1.93 settings ch setting h setting h setting a	5.05 4.41 3.86 3.37 2.94 2.55 2.21 27.9 0.7	5.85 5.09 4.44 3.86 3.36 2.92 2.53 bar(g) bar(g)

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

Tolerance according EN12900

Danfoss can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alternations can be made without subsequential changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss, the Danfoss logotype and Maneurop are trademarks of Danfoss A/S. All rights reserved.





**R22** 

#### Maneurop reciprocating compressor. MT072-4

Danfoss

Performanc	e data at 60	) Hz, ARI rati	ing conditio	ns					R22
Cond. temp. in				Evapora	iting temperature	in °C (to)			
°C (tc)	-25	-20	-15	-10	-5	0	5	10	15
Cooling capacity	in W								
30	6 234	8 402	11 039	14 194	17 919	22 262	27 275	33 006	39 508
35	5 713	7 780	10 295	13 307	16 867	21 025	25 831	31 335	37 588
40	5 206	7 163	9 546	12 406	15 792	19 755	24 346	29 613	35 608
45	4 722	6 559	8 801	11 499	14 703	18 462	22 827	27 849	33 576
50	_	5 978	8 071	10 598	13 609	17 156	21 286	26 052	31 503
55	_	-	7 365	9 711	12 521	15 845	19 733	24 234	29 399
60	_	-	-	8 849	11 449	14 541	18 175	22 403	27 273
65	-	-	-	-	10 401	13 252	16 625	20 569	25 135
					10 101	10 202	10 020	20000	20.00
ower input in W				1				1	1
30	3 142	3 567	3 962	4 326	4 655	4 946	5 197	5 402	5 561
35	3 245	3 715	4 158	4 571	4 950	5 292	5 594	5 853	6 066
40	3 330	3 850	4 344	4 808	5 240	5 636	5 993	6 309	6 579
45	3 394	3 966	4 514	5 033	5 520	5 973	6 389	6 764	7 095
50	-	4 060	4 664	5 241	5 787	6 300	6 777	7 214	7 609
55	-	-	4 790	5 428	6 036	6 612	7 153	7 656	8 117
60	-	-	-	5 589	6 262	6 905	7 513	8 084	8 614
65	-	-	-	-	6 461	7 173	7 851	8 494	9 097
urrent consum	ntion in A								
30	5.99	6.39	6.81	7.23	7.60	7.92	8.15	8.26	8.23
35	6.11	6.55	7.02	7.49	7.94	8.34	8.66	8.88	8.96
40	6.22	6.69	7.21	7.74	8.26	8.74	9.15	9.47	9.67
45	6.32	6.83	7.40	7.99	8.57	9.13	9.63	10.05	10.36
50	-	6.96	7.57	8.22	8.87	9.51	10.10	10.62	11.04
55	-	-	7.74	8.44	9.16	9.87	10.55	11.17	11.70
60	-	-	-	8.65	9.44	10.22	10.99	11.70	12.34
65	-	-	-	-	9.70	10.56	11.41	12.22	12.96
lass flow in kg/l									
30	127	169	220	279	348	427	518	621	736
35	120	162	212	271	339	418	507	609	724
40	114	155	204	262	329	407	495	596	710
45	108	148	196	252	318	395	482	582	694
50	-	141	187	242	307	382	468	566	677
55	-	-	178	232	295	368	452	549	658
60	-	-	-	221	282	353	436	530	637
65	-	-	-	-	269	338	418	511	615

#### 1.98 2.36 2.79 3.28 3.85 4.50 5.25 6.11 30 35 1.76 2.09 2.48 2.91 3.41 3.97 4.62 5.35 40 1.56 1.86 2.20 2.58 3.01 3.51 4.06 4.69 45 1.39 1.65 1.95 2.28 2.66 3.09 3.57 4.12 1.73 50 1.47 2.02 2 35 2.72 3.14 3 61 1.54 55 1.79 2.07 2.40 2.76 3.17 60 1.58 1.83 2.11 2.42 2.77

-

1.61

1.85

Pressure switch settings Maximum HP switch setting

Tolerance according EN12900

Nominal performance at to = 7.2 °	C, tc = 54.4 °C	
Cooling capacity	21 835	W
Power input	7 331	W
Current consumption	10.77	Α
Mass flow	495	kg/h
C.O.P.	2.98	

-

-

5		
Minimum LP switch setting	0.7	bar(g)
LP pump down setting	0.9	bar(g)
Sound power data		
Sound power data Sound power level	79	dB(A)

2.12

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

\_

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

Danfoss can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alternations can be made without subsequential changes being necessary in specifications already agreed.

All trademarks in this material are property of the respective companies. Danfoss, the Danfoss logotype and Maneurop are trademarks of Danfoss A/S. All rights reserved.



65

2.42

27.9

7.10

6.20

5.41

4.73

4.14

3.62

3.17

2.76

bar(g)

ENGINEERING TOMORROW



