

ENGINEERING TOMORROW

Datasheets

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



FRCC.UD.180316.102501

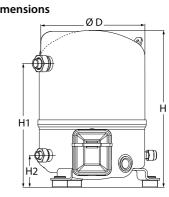
Datasheet, technical data

Maneurop reciprocating compressor, MTZ032-4

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General Characteristics

Model number (on compressor nameplate)		MTZ32JF4BVE			
Code number for Singlepack*		MTZ32-4VI			
Code number for Industrial pack**		MTZ32-4VM			
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	1			
Swept volume	53.86 c	m3/rev			
Displacement @ Nominal speed	9.4 m3/h @ 2900 rpm -	11.3 m3/h @ 3500 rpm			
Net weight	24	kg			
Oil charge	0.95 litre, P	OE - 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	1	2			
Refrigerant charge limit	2.5	kg			
Approved refrigerants	R404A,R134a,R407A/C/F,R	R404A,R134a,R407A/C/F,R448A,R449A,R452A,R513A			



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	6.45 Ω
Maximum Continuous Current (MCC)	8 A
Locked Rotor Amps (LRA)	25 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

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

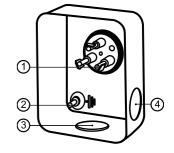
Installation instructions

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)

Terminal box



IP55 (with cable gland)

- 1: Spade connectors 1/4"
 - Earth M4-12

2:

- 3: Knock-out Ø 21 mm (0.83")
- 4: Hole Ø 21 mm (0.83")



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Datasheet, accessories and spare parts

Maneurop reciprocating compressor, MTZ032-4

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	
Gasket, 1"	8156130	
Rotolock accessories, sets	Code no.	
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	
Acoustic hood for 1 cylinder compressor	120Z0575	
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	6
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. MTZ032-4

Performance data at 50 Hz. EN 12900 rating conditions

Performanc	e data at 50) Hz, EN 129	00 rating co	nditions					R407C			
Cond. temp. in		Evaporating temperature in °C (to)										
°C (tc)	-15	-10	-5	0	5	10	15					
cooling capacity	in W											
35	3 135	4 200	5 458	6 931	8 644	10 620	12 882	-	-			
40	2 809	3 815	4 997	6 377	7 980	9 827	11 943	-	-			
45	2 480	3 428	4 534	5 821	7 313	9 032	11 003	-	-			
50	-	3 040	4 071	5 265	6 646	8 238	10 063	-	-			
55	-	-	3 609	4 710	5 981	7 445	9 125	-	-			
60	-	-	-	4 159	5 320	6 656	8 191	-	-			
65	-	-	-	3 614	4 664	5 873	7 263	-	-			
ower input in W	ı											
35	1 449	1 615	1 749	1 857	1 942	2 011	2 068	-	-			
40	1 487	1 689	1 856	1 991	2 101	2 190	2 262		_			
45	1 503	1 748	1 953	2 124	2 265	2 381	2 476	-	-			
50	-	1 786	2 038	2 250	2 429	2 579	2 704	_	-			
55	-	-	2 103	2 365	2 588	2 779	2 940		_			
60	_	-	-	2 463	2 738	2 976	3 181	-	_			
65	-	-	_	2 539	2 873	3 165	3 421		-			
•					1							
urrent consum		0.47	0.04	0.70	0.01	4.04	4.40					
35	3.29	3.47	3.64	3.78	3.91	4.01	4.10	-	-			
40	3.34	3.57	3.78	3.95	4.11	4.24	4.35	-	-			
45	3.38	3.66	3.91	4.13	4.33	4.50	4.65	-	-			
50	-	3.72	4.04	4.32	4.57	4.79	4.98	-	-			
55	-	-	4.14	4.49	4.80	5.08	5.33	-	-			
60 65	-	-	-	4.65 4.79	5.04	5.39	5.71 6.09	-	-			
60	-	-	-	4.79	5.27	5.70	6.09	-	-			
lass flow in kg/l 35	h 68	90	115	143	176	213	255	-	-			
40	64	86	110	138	170	207	248		-			
40	60	80	105	133	164	207	248	-	-			
45 50	-	76	105	133	158	192	240	-	-			
55	-	-	94	127	156	192	231	-	-			
60	-	-	- 94	121	151	176	213	-	-			
65	-	-	-	107	144	178	213	-	-			
			_	107	100	100	200	-	_			
oefficient of pe 35	rformance (C.C 2.16	2.60	3.12	3.73	4.45	5.28	6.23	-	-			
40	1.89	2.00	2.69	3.20	3.80	4.49	5.28	-	-			
40	1.65	1.96	2.32	2.74	3.23	3.79	4.44	-	-			
45 50	-	1.90	2.00	2.74	2.74	3.19	3.72	-	-			
55	-	-	1.72	1.99	2.74	2.68	3.12	-	-			
60	-	-	-	1.69	1.94	2.00	2.58	-	-			
65	-	-	-	1.69	1.94	1.86	2.56	-	-			
00	-	-	-	1.42	1.02	1.00	2.12	-	-			

Cooling capacity	6 646	W	
Power input	2 429	W	
Current consumption	4.57	A	
Mass flow	158	kg/h	
C.O.P.	2.74		

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Flessure 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)

74

67

dB(A)

dB(A)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Tolerance according EN12900

Sound power data

Sound power level

With accoustic hood





indee nen in ng									
35	68	90	115	143	176	213	255	-	-
40	64	86	110	138	170	207	248	-	-
45	60	81	105	133	164	200	240	-	-
50	-	76	100	127	158	192	231	-	-
55	-	-	94	121	151	184	222	-	-
60	-	-	-	114	144	176	213	-	-
65	-	-	-	107	136	168	203	-	-

Maneurop reciprocating compressor. MTZ032-4

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Performance	e data at 5	0 Hz, ARI rati	ing conditio	ns					R4070
Cond. temp. in				Evapor	ating temperature i	in °C (to)			
°C (tc)	-15	-10	-5	0	5	10	15		
Cooling capacity	r in W								
35	3 375	4 515	5 860	7 434	9 261	11 366	13 773	-	-
40	3 040	4 124	5 393	6 875	8 591	10 568	12 830	-	-
45	2 701	3 728	4 923	6 312	7 919	9 768	11 884	-	-
50	-	3 330	4 452	5 748	7 245	8 967	10 939	-	-
55	-	-	3 980	5 186	6 573	8 168	9 996	-	-
60	-	-	-	4 626	5 905	7 374	9 058	-	-
65	-	-	-	4 072	5 244	6 587	8 129	-	-
ower input in W 35	<i>I</i> 1 449	1 615	1 749	1 857	1 942	2 011	2 068	_	-
	-	-	-		-	-			
40	1 487	1 689	1 856	1 991	2 101	2 190	2 262	-	-
45	1 503	1 748	1 953	2 124	2 265	2 381	2 476	-	-
50	-	1 786	2 038	2 250	2 429	2 579	2 704	-	-
55	-	-	2 103	2 365	2 588	2 779	2 940	-	-
60	-	-	-	2 463	2 738	2 976	3 181	-	-
65	-	-	-	2 539	2 873	3 165	3 421	-	-
urrent consum	ption in A								
35	3.29	3.47	3.64	3.78	3.91	4.01	4.10	-	-
40	3.34	3.57	3.78	3.95	4.11	4.24	4.35	-	-
45	3.38	3.66	3.91	4.13	4.33	4.50	4.65	-	-
50	-	3.72	4.04	4.32	4.57	4.79	4.98	-	-
55	-	-	4.14	4.49	4.80	5.08	5.33	-	-
60	-	-	-	4.65	5.04	5.39	5.71	-	-
65	-	-	-	4.79	5.27	5.70	6.09	-	-
Mass flow in kg/l		89	114	142	175	212	254	·	
	00			172	.10	- 12	204	_	

35	68	89	114	142	175	212	254	-	-
40	64	85	110	137	169	205	246	-	-
45	59	81	105	132	163	198	238	-	-
50	-	76	100	126	157	191	230	-	-
55	-	-	94	120	150	183	221	-	-
60	-	-	-	114	143	175	212	-	-
65	-	-	-	107	135	167	202	-	-

Coefficient of performance (C.O.P.)

coefficient of p	entormance (C.O	.F. <i>)</i>							
35	2.33	2.80	3.35	4.00	4.77	5.65	6.66	-	-
40	2.04	2.44	2.91	3.45	4.09	4.83	5.67	-	-
45	1.80	2.13	2.52	2.97	3.50	4.10	4.80	-	-
50	-	1.86	2.18	2.55	2.98	3.48	4.05	-	-
55	-	-	1.89	2.19	2.54	2.94	3.40	-	-
60	-	-	-	1.88	2.16	2.48	2.85	-	-
65	-	-	-	1.60	1.83	2.08	2.38	-	-

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

Cooling capacity	7 335	W	
Power input	2 655	W	
Current consumption	4.90	A	
Mass flow	165	kg/h	
C.O.P.	2.76		

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

29.4	bar(g)	
1.4	bar(g)	
1.7	bar(g)	
	1.4	1.4 bar(g)

Sound power data

Sound power level	74	dB(A)
With accoustic hood	67	dB(A)

Tolerance according EN12900



Maneurop reciprocating compressor. MTZ032-4

Performance data at 50 Hz, EN 12900 rating conditions

Cond. temp. in				1	ating temperatu		1	· · · ·	
°C (tc)	-25	-20	-10	-5	0	5	10	15	20
cooling capacity			c						
35	941	1 350	2 530	3 357	4 379	5 623	7 118	8 891	10 969
40	806	1 196	2 306	3 082	4 041	5 212	6 622	8 299	10 271
45	669	1 039	2 076	2 799	3 694	4 790	6 115	7 695	9 560
50	534	882	1 843	2 511	3 341	4 361	5 599	7 081	8 836
55	-	-	1 611	2 223	2 986	3 929	5 077	6 460	8 105
60	-	-	-	1 937	2 632	3 495	4 554	5 836	7 369
65	-	-	-	-	2 282	3 064	4 032	5 211	6 631
75	-	-	-	-	-	-	3 004	3 975	5 163
Power input in V								1	
35	744	889	1 173	1 299	1 408	1 494	1 551	1 574	1 557
40	763	913	1 214	1 353	1 476	1 579	1 655	1 699	1 706
45	770	927	1 248	1 400	1 540	1 661	1 758	1 825	1 858
50	765	930	1 274	1 442	1 599	1 740	1 859	1 951	2 011
55	-	-	1 292	1 476	1 652	1 815	1 958	2 077	2 165
60	-	-	-	1 504	1 700	1 886	2 055	2 201	2 319
65	-	-	-	-	1 742	1 952	2 148	2 324	2 474
75	-	-	-	-	-	-	2 324	2 563	2 780
Current consum	•								
35	2.90	3.02	3.25	3.35	3.44	3.51	3.56	3.57	3.56
40	2.91	3.04	3.29	3.41	3.52	3.61	3.68	3.72	3.73
45	2.92	3.05	3.33	3.47	3.59	3.70	3.80	3.87	3.91
50	2.91	3.05	3.36	3.51	3.66	3.80	3.92	4.02	4.10
55	-	-	3.37	3.55	3.72	3.88	4.03	4.17	4.28
60	-	-	-	3.57	3.77	3.96	4.14	4.31	4.46
65	-	-	-	-	3.80	4.03	4.24	4.44	4.63
75	-	-	-	-	-	-	4.40	4.68	4.95
Mass flow in kg/				70	00	405	150	404	000
35	24	34	60	78	99	125	156	191	233
40	22	31	58	75	96	122	152	187	228
45	19	29	55	72	93	118	147	182	222
50	16	26	52	68	89	113	142	176	216
55	-	-	48	64	84	108	137	170	209
60	-	-	-	60	80	103	131	163	202
65	-	-	-	-	74	97	124	156	194
75	-	-	-	-	-	-	109	139	175
Coefficient of no	formonoo (C (
Coefficient of pe		1	2.16	2.59	2.11	2.76	4.50	E GE	7.05
35	1.27	1.52	2.16	2.58	3.11	3.76	4.59	5.65	7.05
40	1.06	1.31 1.12	1.90	2.28	2.74	3.30	4.00	4.88	6.02
45	0.87		1.66	2.00	2.40	2.88	3.48	4.22	5.15
50	0.70	0.95	1.45	1.74	2.09	2.51	3.01	3.63	4.39
55	-	-	1.25	1.51	1.81	2.16	2.59	3.11	3.74
60	-	-	-	1.29	1.55	1.85	2.22	2.65	3.18
65	-	-	-	-	1.31	1.57	1.88	2.24	2.68
75	-	-	-	-	-	-	1.29	1.55	1.86
lominal norfer-	anos at to - F	°C to - 50 °C				Drocours owitch	cottings		
Nominal perform Cooling capacity	ance at to = 5	*C, tc = 50 *C 4 361	W			Pressure switch Maximum HP swit		20.2	bar(g)
Power input		1 740	Ŵ			Minimum LP switc		0.1	bar(g)
Current consump	tion	3.80	A			LP pump down se	-	0.4	bar(g)
Aass flow		113	kg/h						
C.O.P.		2.51				Sound power dat	a		
						Sound power leve		0	dB(A)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point Rating conditions : Superheat = 10 K , Subcooling = 0 K

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R134a

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

Maneurop reciprocating compressor. MTZ032-4

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Performance	e data at 50) Hz, ARI rat	ing conditio	ns					R134a	
Cond. temp. in	Evaporating temperature in °C (to)									
°C (tc)	-25	-20	-10	-5	0	5	10	15	20	
Cooling capacity	in W									
35	1 023	1 465	2 736	3 624	4 720	6 052	7 650	9 541	11 756	
40	882	1 305	2 507	3 344	4 377	5 636	7 149	8 947	11 056	
45	737	1 141	2 270	3 054	4 023	5 207	6 636	8 337	10 340	
50	-	976	2 029	2 759	3 662	4 770	6 112	7 715	9 611	
55	-	-	1 788	2 461	3 298	4 328	5 581	7 086	8 872	
60	-	-	-	2 164	2 932	3 883	5 046	6 451	8 127	
65	-	-	-	-	-	3 440	4 512	5 816	7 380	
75	-	-	-	-	-	-	3 457	4 555	5 896	
Power input in W 35	744	889	1 173	1 299	1 408	1 494	1 551	1 574	1 557	
35	744	889	1 173	1 299	1 408	1 494	1 551	1 574	1 557	
40	763	913	1 214	1 353	1 476	1 579	1 655	1 699	1 706	
45	770	927	1 248	1 400	1 540	1 661	1 758	1 825	1 858	
50	-	930	1 274	1 442	1 599	1 740	1 859	1 951	2 011	
55	-	-	1 292	1 476	1 652	1 815	1 958	2 077	2 165	
60	-	-	-	1 504	1 700	1 886	2 055	2 201	2 319	
65	-	-	-	-	-	1 952	2 148	2 324	2 474	
75	-	-	-	-	-	-	2 324	2 563	2 780	
Current consum	otion in A									
35	2.90	3.02	3.25	3.35	3.44	3.51	3.56	3.57	3.56	
40	2.91	3.04	3.29	3.41	3.52	3.61	3.68	3.72	3.73	
45	2.92	3.05	3.33	3.47	3.59	3.70	3.80	3.87	3.91	
50	-	3.05	3.36	3.51	3.66	3.80	3.92	4.02	4.10	
55	-	-	3.37	3.55	3.72	3.88	4.03	4.17	4.28	
60	-	-	-	3.57	3.77	3.96	4.14	4.31	4.46	
65	-	-	-	-	-	4.03	4.24	4.44	4.63	
75	-	-	-	-	-	-	4.40	4.68	4.95	

Mass flow in kg/h

35	24	34	60	78	99	125	155	190	232
40	22	31	57	75	96	121	151	186	227
45	19	29	55	72	92	117	147	181	221
50	-	26	51	68	88	113	142	176	215
55	-	-	48	64	84	108	136	169	208
60	-	-	-	60	79	102	130	163	201
65	-	-	-	-	-	96	123	155	192
75	-	-	-	-	-	-	108	139	174

Coefficient of performance (C.O.P.)

35	1.38	1.65	2.33	2.79	3.35	4.05	4.93	6.06	7.55
40	1.16	1.43	2.07	2.47	2.97	3.57	4.32	5.26	6.48
45	0.96	1.23	1.82	2.18	2.61	3.14	3.77	4.57	5.57
50	-	1.05	1.59	1.91	2.29	2.74	3.29	3.95	4.78
55	-	-	1.38	1.67	2.00	2.38	2.85	3.41	4.10
60	-	-	-	1.44	1.72	2.06	2.46	2.93	3.50
65	-	-	-	-	-	1.76	2.10	2.50	2.98
75	-	-	-	-	-	-	1.49	1.78	2.12

Nominal performance at to = 7.2 °C	, tc = 54.4 °C	
Cooling capacity	4 908	W
Power input	1 871	W
Current consumption	3.94	А
Mass flow	120	kg/h
C.O.P.	2.62	

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		dB(A)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Tolerance according EN12900



Maneurop reciprocating compressor. MTZ032-4

Danfoss

R404A

Performance data at 50 Hz, EN 12900 rating conditions

Cond. temp. in	Evaporating temperature in °C (to)									
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10	
oling capacity	in W									
30	1 757	2 453	3 305	4 335	5 561	7 003	8 682	10 616	12 826	
35	1 510	2 155	2 945	3 899	5 036	6 376	7 940	9 747	11 816	
40	1 271	1 864	2 589	3 464	4 509	5 745	7 191	8 867	10 793	
45	1 044	1 582	2 238	3 031	3 983	5 111	6 437	7 980	9 759	
50	828	1 308	1 893	2 603	3 457	4 476	5 679	7 085	8 715	
55	-	1 046	1 557	2 180	2 935	3 841	4 917	6 185	7 663	
60	-	796	1 231	1 764	2 417	3 207	4 155	5 281	6 605	
ower input in W 30	1 246	1 436	1 610	1 767	1 904	2 021	2 115	2 187	2 234	
35	1 243	1 456	1 653	1 834	1 997	2 141	2 265	2 367	2 445	
40	1 243	1 463	1 685	1 892	2 083	2 256	2 409	2 542	2 443	
45	1 198	1 458	1 706	1 941	2 160	2 363	2 548	2 714	2 860	
50	1 154	1 441	1 716	1 980	2 229	2 464	2 682	2 882	3 063	
55	-	1 410	1 715	2 008	2 289	2 557	2 809	3 045	3 263	
60		1 367	1 701	2 026	2 340	2 642	2 930	3 203	3 460	
		4								
urrent consump		0.07	0.40	0.74	0.04	4.00	4.00	4.07	1.00	
30	3.06	3.27	3.49	3.71	3.91	4.08	4.20	4.27	4.26	
35	3.08	3.30	3.54	3.78	4.01	4.21	4.37	4.47	4.50	
40	3.08	3.32	3.59	3.86	4.12	4.36	4.57	4.72	4.80	
45	3.06	3.33	3.63	3.94	4.25	4.53	4.79	4.99	5.14	
50	3.00	3.31	3.65 3.64	4.01	4.36 4.46	4.70	5.02	5.28	5.49	
55	-	3.25		4.05		4.86	5.24	5.58	5.86	
60	-	3.13	3.57	4.04	4.52	4.99	5.44	5.86	6.22	
ass flow in kg/h	1	1	1	1	1	1	1	1	1	
30	55	76	99	127	159	195	237	284	337	
35	51	71	95	122	153	189	230	277	329	
40	47	66	90	116	147	183	224	269	321	
45	42	62	84	111	141	176	216	261	312	
50	37	56	79	104	134	169	208	253	303	
55	-	51	73	98	127	161	199	243	292	
60	-	45	66	91	119	152	190	233	281	
oefficient of per	formance (C.C).P.)								
30	1.41	1.71	2.05	2.45	2.92	3.47	4.10	4.85	5.74	
35	1.21	1.48	1.78	2.13	2.52	2.98	3.51	4.12	4.83	
40	1.04	1.27	1.54	1.83	2.16	2.55	2.98	3.49	4.07	
45	0.87	1.08	1.31	1.56	1.84	2.16	2.53	2.94	3.41	
50	0.72	0.91	1.10	1.31	1.55	1.82	2.12	2.46	2.85	
55	-	0.74	0.91	1.09	1.28	1.50	1.75	2.03	2.35	
60	-	0.58	0.72	0.87	1.03	1.21	1.42	1.65	1.91	

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

Cooling capacity	3 983	W
Power input	2 160	W
Current consumption	4.25	A
Mass flow	141	kg/h
C.O.P.	1.84	



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)

71

64

dB(A)

dB(A)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

With accoustic hood

Sound power data

Sound power level

Tolerance according EN12900



Maneurop reciprocating compressor. MTZ032-4

Danfoss

R404A

Performance data at 50 Hz, ARI rating conditions

Cond. temp. in				Evapora	ating temperature	in °C (to)			
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
ooling oonooity i	- 14/								
30 30	1 956	2 723	3 660	4 788	6 128	7 701	9 527	11 627	14 021
35	1 699	2 417	3 293	4 347	5 600	7 073	8 787	10 762	13 019
40	1 449	2 117	2 930	3 907	5 070	6 441	8 040	9 888	12 006
45	1 210	1 825	2 570	3 468	4 540	5 806	7 288	9 007	10 984
50	981	1 541	2 218	3 034	4 011	5 171	6 535	8 123	9 957
55	-	1 267	1 874	2 607	3 488	4 540	5 784	7 242	8 935
60	-	1 006	1 541	2 190	2 976	3 921	5 047	6 375	7 929
		1000	1011	2100	2010	0.021	0011	0010	1 020
ower input in W									
30	1 246	1 436	1 610	1 767	1 904	2 021	2 115	2 187	2 234
35	1 243	1 456	1 653	1 834	1 997	2 141	2 265	2 367	2 445
40	1 227	1 463	1 685	1 892	2 083	2 256	2 409	2 542	2 654
45	1 198	1 458	1 706	1 941	2 160	2 363	2 548	2 714	2 860
50	1 154	1 441	1 716	1 980	2 229	2 464	2 682	2 882	3 063
55	-	1 410	1 715	2 008	2 289	2 557	2 809	3 045	3 263
60	-	1 367	1 701	2 026	2 340	2 642	2 930	3 203	3 460
Surrent consumpt	ion in A 3.06	3.27	3.49	3.71	3.91	4.08	4.20	4.27	4.26
35	3.08	3.30	3.54	3.78	4.01	4.21	4.37	4.47	4.50
40	3.08	3.32	3.59	3.86	4.12	4.36	4.57	4.72	4.80
45	3.06	3.33	3.63	3.94	4.25	4.53	4.79	4.99	5.14
50	3.00	3.31	3.65	4.01	4.36	4.70	5.02	5.28	5.49
55	-	3.25	3.64	4.05	4.46	4.86	5.24	5.58	5.86
60	-	3.13	3.57	4.04	4.52	4.99	5.44	5.86	6.22
lass flow in kg/h									
30	55	75	99	126	158	194	235	282	335
35	51	71	94	120	152	188	229	275	327
40	46	66	89	116	147	182	222	268	319
45	42	61	84	110	140	175	215	260	310
50	37	56	78	104	134	168	207	251	301
55	-	50	72	97	126	160	198	242	290
60	-	45	66	90	120	152	189	231	230
		1			110	102	100	201	200
30	1.57	1.90	2.27	2.71	3.22	3.81	4.50	5.32	6.28
35	1.37	1.90	1.99	2.71	2.80	3.30	3.88	4.55	5.33
40	1.18	1.66	1.99	2.06	2.60	2.86	3.34	3.89	4.52
40	1.18	1.45	1.74	1.79	2.43	2.86	2.86	3.89	4.52 3.84
			1.51					1	
50	0.85	1.07		1.53	1.80	2.10	2.44	2.82	3.25
55	-	0.90	1.09 0.91	1.30	1.52 1.27	1.78	2.06	2.38 1.99	2.74 2.29

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

Cooling capacity	4 540	W
Power input	2 160	W
Current consumption	4.25	Α
Mass flow	140	kg/h
C.O.P.	2.10	

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Sound power level	71	dB(A)
With accoustic hood	64	dB(A)

Tolerance according EN12900



Maneurop reciprocating compressor. MTZ032-4

Danfoss

R407A

Performance data at 50 Hz, EN 12900 rating conditions

Cond. temp. in		-		Evapora	ting temperature	in °C (to)	-		
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
oling capacity	in W								
30	1 276	1 918	2 708	3 668	4 817	6 175	7 762	9 598	11 704
35	1 087	1 697	2 446	3 353	4 438	5 722	7 225	8 966	10 966
40	895	1 470	2 173	3 024	4 043	5 249	6 664	8 307	10 198
45	703	1 240	1 894	2 686	3 635	4 761	6 085	7 626	9 404
50	-	1 012	1 615	2 344	3 219	4 262	5 492	6 928	8 591
55	-	-	1 339	2 002	2 802	3 757	4 889	6 217	7 762
60	-	-	-	1 666	2 386	3 251	4 282	5 499	6 922
	_		·			•			
ower input in W		1 1 2 9	1 210	1 492	1 620	1 757	1 964	1.050	2 014
30	942	1 138	1 319	1 483	1 629	1 757	1 864	1 950	2 014
35 40	925 893	1 143 1 135	1 347 1 364	1 536 1 579	1 708	1 862 1 961	1 998 2 127	2 114	2 209 2 400
	893		1 364	1 611	1 778 1 840	2 053	2 127	2 273 2 429	2 400
45 50	-	1 113	1 369	1 611			2 250	2 429	
50	-	1 079			1 893	2 138		2 582	2 778
60	-	-	1 344	1 647 1 650	1 938 1 975	2 216 2 288	2 481 2 589	2 730	2 964
60	-	-	-	1 650	1975	2 200	2 569	2010	3 148
urrent consum	otion in A								
30	2.74	2.94	3.16	3.37	3.58	3.75	3.88	3.96	3.96
35	2.75	2.95	3.18	3.42	3.64	3.85	4.02	4.13	4.18
40	2.75	2.97	3.21	3.47	3.73	3.97	4.19	4.35	4.46
45	2.73	2.97	3.24	3.53	3.82	4.11	4.37	4.60	4.77
50	-	2.94	3.24	3.57	3.91	4.25	4.57	4.86	5.10
55	-	-	3.20	3.58	3.97	4.37	4.76	5.12	5.44
60	-	-	-	3.54	4.00	4.46	4.92	5.36	5.77
lass flow in kg/l	ı								
30	30	45	62	83	106	134	166	202	243
35	27	42	59	79	103	130	162	198	239
40	24	38	55	76	99	126	157	193	234
45	20	34	51	71	94	121	152	187	227
50	-	30	47	66	89	116	146	181	220
55	-	-	42	61	83	109	139	173	212
60	-	-	-	55	77	102	132	165	203
oefficient of pe	rformanae (C.C	ופר							
30	1.35	1.68	2.05	2.47	2.96	3.52	4.16	4.92	5.81
35	1.18	1.48	1.82	2.18	2.60	3.07	3.62	4.32	4.97
40	1.00	1.40	1.59	1.92	2.00	2.68	3.13	3.65	4.37
40	0.83	1.11	1.38	1.67	1.98	2.32	2.70	3.14	3.63
	-	0.94	1.19	1.43	1.30	1.99	2.32	2.68	3.09
50		0.07				1.33	1.97		
50 55	-	-	1.00	1.22	1.45	1 70	197	2.28	2.62

Nominal performance at to = -10	C, IC = 45 C		
Cooling capacity	3 635	W	
Power input	1 840	W	
Current consumption	3.82	Α	
Mass flow	94	kg/h	
C.O.P.	1.98		

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	70	dB(A)
With accoustic hood	63	dB(A)

Tolerance according EN12900



Maneurop reciprocating compressor. MTZ032-4

Danfoss

R407A

Performance data at 50 Hz, ARI rating conditions

ond. temp. in				Evapora	ating temperature				
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
ooling consoity i	m 14/								
ooling capacity in 30	1 380	2 071	2 921	3 951	5 181	6 634	8 329	10 287	12 530
35	1 183	1 843	2 652	3 630	4 799	6 179	7 791	9 656	11 796
40	980	1 607	2 372	3 295	4 398	5 702	7 228	8 997	11 030
45	776	1 367	2 083	2 948	3 982	5 207	6 644	8 314	10 237
50	-	1 127	1 793	2 596	3 558	4 701	6 045	7 613	9 424
55	-	-	1 504	2 243	3 130	4 188	5 437	6 899	8 596
60	-	-	-	1 893	2 703	3 673	4 825	6 180	7 760
		•	I						
ower input in W									
30	942	1 138	1 319	1 483	1 629	1 757	1 864	1 950	2 014
35	925	1 143	1 347	1 536	1 708	1 862	1 998	2 114	2 209
40	893	1 135	1 364	1 579	1 778	1 961	2 127	2 273	2 400
45	846	1 113	1 369	1 611	1 840	2 053	2 250	2 429	2 590
50	-	1 079	1 362	1 634	1 893	2 138	2 368	2 582	2 778
55	-	-	1 344	1 647	1 938	2 216	2 481	2 730	2 964
60	-	-	-	1 650	1 975	2 288	2 589	2 876	3 148
urrent consumpt 30	tion in A 2.74	2.94	3.16	3.37	3.58	3.75	3.88	3.96	3.96
35	2.75	2.95	3.18	3.42	3.64	3.85	4.02	4.13	4.18
40	2.75	2.97	3.21	3.47	3.73	3.97	4.19	4.35	4.46
45	2.73	2.97	3.24	3.53	3.82	4.11	4.37	4.60	4.77
50	-	2.94	3.24	3.57	3.91	4.25	4.57	4.86	5.10
55	-	-	3.20	3.58	3.97	4.37	4.76	5.12	5.44
60	-	-	-	3.54	4.00	4.46	4.92	5.36	5.77
lass flow in kg/h	00	45			100	400	405	001	0.40
30	30	45	62	82	106	133	165	201	242
35	27	42	59	79	102	130	161	197	237
40	24	38	55	75	98	125	157	192	232
45	20	34	51	71	94	121	151	186	226
50	-	30	46	66	89	115	145	180	219
55	-	-	41	61	83	109	138	172	211
60	-	-	-	55	77	102	131	164	202
oefficient of perf		1		1	1			1	1
30	1.46	1.82	2.21	2.66	3.18	3.78	4.47	5.27	6.22
35	1.28	1.61	1.97	2.36	2.81	3.32	3.90	4.57	5.34
40	1.10	1.42	1.74	2.09	2.47	2.91	3.40	3.96	4.59
45	0.92	1.23	1.52	1.83	2.16	2.54	2.95	3.42	3.95
50	-	1.04	1.32	1.59	1.88	2.20	2.55	2.95	3.39
55	-	-	1.12	1.36	1.62	1.89	2.19	2.53	2.90
		-	-	1.15	1.37	1.61	1.86	2.15	2.47

itelinia periernanee atte			
Cooling capacity	3 982	W	
Power input	1 840	W	
Current consumption	3.82	A	
Mass flow	94	kg/h	
C.O.P.	2.16		

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

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	70	dB(A)
With accoustic hood	63	dB(A)

Tolerance according EN12900



Maneurop reciprocating compressor. MTZ032-4

Danfoss

R407F

Performance data at 50 Hz, EN 12900 rating conditions

Cond. temp. in		-		Evapora	ating temperatu	re in °C (to)			
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
Saaling aanaaitu i	- N/								
30	-	2 117	3 013	4 096	5 390	6 918	8 704	10 770	13 140
35	-	1 808	2 628	3 620	4 807	6 212	7 858	9 769	11 968
40		1 543	2 2 2 2 9 8	3 209	4 299		7 109	8 875	10 914
40	-	1 314	2 298	2 855	3 858	5 591 5 048	6 448	8 081	9 969
	-								
50	-	-	1 769	2 549 2 284	3 477	4 575	5 868	7 377	9 126
55	-		-	- 2 204	3 147	4 164	5 359	6 756 -	8 376
60	-	-	-	-	-	-	-	-	-
ower input in W									
30	-	1 212	1 401	1 575	1 727	1 850	1 934	1 973	1 957
35	-	1 213	1 422	1 623	1 808	1 970	2 099	2 189	2 231
40	-	1 213	1 439	1 663	1 877	2 073	2 244	2 382	2 478
45	-	1 220	1 458	1 701	1 941	2 169	2 377	2 559	2 705
50	-	-	1 488	1 747	2 008	2 264	2 506	2 728	2 920
55	-	-	-	1 807	2 086	2 365	2 638	2 896	3 132
60	-	-	-	-	-	-	-	-	-
30	tion in A	2.95	3.18	3.41	3.63	3.81	3.94	3.99	3.95
35	_	2.99	3.23	3.49	3.73	3.95	4.12	4.22	4.24
40	-	3.02	3.23	3.55	3.83	4.09	4.31	4.47	4.55
45	-	3.02	3.30	3.61	3.93	4.03	4.51	4.74	4.90
43 50	-	-	3.30	3.67	4.03	4.23	4.51	5.04	5.28
55	-	-	-	3.72	4.03	4.59	4.74	5.37	5.28
60	-	-	-	-	-	-	4.90	-	- 5.70
				1		•	1	1	
lass flow in kg/h				1			1	1	r
30	-	44	61	82	107	135	168	205	247
35	-	39	56	76	99	127	158	194	235
40	-	35	51	71	93	120	150	185	224
45	-	32	48	66	88	114	143	177	215
50	-	-	44	63	84	109	138	171	208
55	-	-	-	60	81	106	134	166	202
60	-	-	-	-	-	-	-	-	-
Coefficient of perf	ormance (C. (0 P)							
30	-	1.75	2.15	2.60	3.12	3.74	4.50	5.46	6.71
35	-	1.49	1.85	2.23	2.66	3.15	3.74	4.46	5.36
40	-	1.10	1.60	1.93	2.29	2.70	3.17	3.73	4.40
45	-	1.08	1.38	1.68	1.99	2.33	2.71	3.16	3.69
50	-	-	1.19	1.46	1.73	2.02	2.34	2.70	3.12
55	-			1.40	1.73	1.76	2.03	2.33	2.67
60	-	-	-	-	-	-	-	-	- 2.07
		1		1	1	l	1	1	I
Nominal performa	nce at to = -1	,	14/	_		Pressure switch	-		
Cooling capacity Power input		3 858 1 941	W W			Maximum HP swit	•	24 1	bar(g)
ower input	on	1 341	vv	1		WITHINGTH LF SWIL	on setting	1	bar(g)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

1.99

88

kg/h

initiality for the sources	•	2a.(g)	
LP pump down setting	1.26	bar(g)	
-			
Sound power data			
Sound power level	70	dB(A)	
With accoustic hood	63	dB(A)	

Tolerance according EN12900

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Mass flow

Maneurop reciprocating compressor. MTZ032-4

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Performance	data at 5	0 Hz, ARI rat	ing conditio	ns					R407
Cond. temp. in				Evapora	ating temperatu	re in °C (to)			
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
ooling capacity i	in W								
30	-	2 269	3 225	4 381	5 760	7 386	9 284	11 478	13 992
35	-	1 947	2 827	3 889	5 158	6 659	8 416	10 453	12 795
40	-	1 671	2 485	3 465	4 636	6 024	7 650	9 542	11 722
45	-	1 432	2 191	3 101	4 186	5 470	6 979	8 736	10 765
50	-	-	1 939	2 790	3 800	4 993	6 394	8 028	9 920
55	-	-	-	2 523	3 470	4 584	5 891	7 415	9 180
60	-	-	-	-	-	-	-	-	-
ower input in W 30	-	1 212	1 401	1 575	1 727	1 850	1 934	1 973	1 957
35	-	1 212	1 401	1 623	1 808	1 970	2 099	2 189	2 231
35 40	-	1 213	1 422	1 663	1 808	2 073	2 099	2 189	2 231
40	-	1 213	1 458	1 701	1 941	2 169	2 244	2 559	2 478
	-	-		1 747	2 008			2 539	
50		-	1 488	1 807	2 008	2 264 2 365	2 506 2 638	2 728	2 920
55 60	-	-	-	-	- 2 000	-	- 2 030	- 2 090	
arrent consumption	tion in A	2.95	3.18	3.41	3.63	3.81	3.94	3.99	3.95
35	-	2.99	3.23	3.49	3.73	3.95	4.12	4.22	4.24
40	-	3.02	3.27	3.55	3.83	4.09	4.31	4.47	4.55
45	-	3.02	3.30	3.61	3.93	4.23	4.51	4.74	4.90
50	-	-	3.32	3.67	4.03	4.39	4.74	5.04	5.28
55	-	_	-	3.72	4.14	4.57	4.98	5.37	5.70
60	-	_	-	-	-	-	-	-	-
ass flow in kg/h			1	1	1		1	1	
30	-	43	61	82	106	134	167	204	246
35	-	39	56	76	99	126	157	193	233
40	-	35	51	70	93	119	149	183	223
45	-	31	47	66	88	113	142	176	214
50	-	-	44	62	84	109	137	170	207
55	-	-	-	60	81	105	133	165	201
60	-	-	-	-	-	-	-	-	-
efficient of perf			0.00	0.70	0.00	0.00	4.00	5.00	
30	-	1.87	2.30	2.78	3.33	3.99	4.80	5.82	7.15
35	-	1.61	1.99	2.40	2.85	3.38	4.01	4.78	5.73
40	-	1.38	1.73	2.08	2.47	2.91	3.41	4.01	4.73
45	-	1.17	1.50	1.82	2.16	2.52	2.94	3.41	3.98
50	-	-	1.30	1.60	1.89	2.21	2.55	2.94	3.40
55 60	-	-	-	1.40 -	1.66	- 1.94	2.23	2.56	2.93
	ince at to $= 4$	10 °C, tc = 45 °C			•	Pressure switch			•
oning capacity	1100 at 10	4 186	W			Maximum HP swi		24	bar(g)
ower input		1 941	Ŵ	1		Minimum LP swite		1	bar(g)
urrent consumption	าท	3.93	А	1		LP pump down se		1.26	

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

3.93

2<u>.16</u>

88

А

kg/h

LP pump down setting	1.26	bar(g)
-		
Sound power data		
Sound power level	70	dB(A)
With accoustic hood	63	dB(A)

Tolerance according EN12900

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Current consumption

Mass flow

Maneurop reciprocating compressor. MTZ032-4

Performance data at 50 Hz, EN 12900 rating conditions

Cond. temp. in				1	ating temperatu		1	· · · ·	
°C (tc)	-25	-20	-10	-5	0	5	10	15	20
cooling capacity			c						
35	941	1 350	2 530	3 357	4 379	5 623	7 118	8 891	10 969
40	806	1 196	2 306	3 082	4 041	5 212	6 622	8 299	10 271
45	669	1 039	2 076	2 799	3 694	4 790	6 115	7 695	9 560
50	534	882	1 843	2 511	3 341	4 361	5 599	7 081	8 836
55	-	-	1 611	2 223	2 986	3 929	5 077	6 460	8 105
60	-	-	-	1 937	2 632	3 495	4 554	5 836	7 369
65	-	-	-	-	2 282	3 064	4 032	5 211	6 631
75	-	-	-	-	-	-	3 004	3 975	5 163
Power input in V								1	
35	744	889	1 173	1 299	1 408	1 494	1 551	1 574	1 557
40	763	913	1 214	1 353	1 476	1 579	1 655	1 699	1 706
45	770	927	1 248	1 400	1 540	1 661	1 758	1 825	1 858
50	765	930	1 274	1 442	1 599	1 740	1 859	1 951	2 011
55	-	-	1 292	1 476	1 652	1 815	1 958	2 077	2 165
60	-	-	-	1 504	1 700	1 886	2 055	2 201	2 319
65	-	-	-	-	1 742	1 952	2 148	2 324	2 474
75	-	-	-	-	-	-	2 324	2 563	2 780
Current consum	•								
35	2.90	3.02	3.25	3.35	3.44	3.51	3.56	3.57	3.56
40	2.91	3.04	3.29	3.41	3.52	3.61	3.68	3.72	3.73
45	2.92	3.05	3.33	3.47	3.59	3.70	3.80	3.87	3.91
50	2.91	3.05	3.36	3.51	3.66	3.80	3.92	4.02	4.10
55	-	-	3.37	3.55	3.72	3.88	4.03	4.17	4.28
60	-	-	-	3.57	3.77	3.96	4.14	4.31	4.46
65	-	-	-	-	3.80	4.03	4.24	4.44	4.63
75	-	-	-	-	-	-	4.40	4.68	4.95
Mass flow in kg/				70	00	405	150	404	000
35	24	34	60	78	99	125	156	191	233
40	22	31	58	75	96	122	152	187	228
45	19	29	55	72	93	118	147	182	222
50	16	26	52	68	89	113	142	176	216
55	-	-	48	64	84	108	137	170	209
60	-	-	-	60	80	103	131	163	202
65	-	-	-	-	74	97	124	156	194
75	-	-	-	-	-	-	109	139	175
Coefficient of no	formonoo (C (
Coefficient of pe	•	1	2.16	2.59	2.11	2.76	4.50	E GE	7.05
35	1.27	1.52	2.16	2.58	3.11	3.76	4.59	5.65	7.05
40	1.06	1.31 1.12	1.90	2.28	2.74	3.30	4.00	4.88	6.02
45	0.87		1.66	2.00	2.40	2.88	3.48	4.22	5.15
50	0.70	0.95	1.45	1.74	2.09	2.51	3.01	3.63	4.39
55	-	-	1.25	1.51	1.81	2.16	2.59	3.11	3.74
60 65	-	-	-	1.29	1.55	1.85	2.22	2.65	3.18
65	-	-	-	-	1.31	1.57	1.88	2.24	2.68
75	-	-	-	-	-	-	1.29	1.55	1.86
lominal norfer-	anos at to - F	°C to - E0 °C				Drocours owitch	cottings		
Nominal perform Cooling capacity	ance at to = 5	*C, tc = 50 *C 4 361	W			Pressure switch Maximum HP swit		20.2	bar(g)
Power input		1 740	Ŵ			Minimum LP switc		0.1	bar(g)
Current consump	tion	3.80	A			LP pump down se	-	0.4	bar(g)
Aass flow		113	kg/h						
C.O.P.		2.51				Sound power dat	a		
						Sound power leve		0	dB(A)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point Rating conditions : Superheat = 10 K , Subcooling = 0 K

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R134a

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

Maneurop reciprocating compressor. MTZ032-4

Danfoss

Deufermenen einen state at 50 Line A Di wattere einerstittere

Performance	e data at 50) Hz, ARI rat	ing conditio	ns					R134a	
Cond. temp. in	Evaporating temperature in °C (to)									
°C (tc)	-25	-20	-10	-5	0	5	10	15	20	
Cooling capacity	in W									
35	1 023	1 465	2 736	3 624	4 720	6 052	7 650	9 541	11 756	
40	882	1 305	2 507	3 344	4 377	5 636	7 149	8 947	11 056	
45	737	1 141	2 270	3 054	4 023	5 207	6 636	8 337	10 340	
50	-	976	2 029	2 759	3 662	4 770	6 112	7 715	9 611	
55	-	-	1 788	2 461	3 298	4 328	5 581	7 086	8 872	
60	-	-	-	2 164	2 932	3 883	5 046	6 451	8 127	
65	-	-	-	-	-	3 440	4 512	5 816	7 380	
75	-	-	-	-	-	-	3 457	4 555	5 896	
Power input in W 35	744	889	1 173	1 299	1 408	1 494	1 551	1 574	1 557	
35	744	889	1 173	1 299	1 408	1 494	1 551	1 574	1 557	
40	763	913	1 214	1 353	1 476	1 579	1 655	1 699	1 706	
45	770	927	1 248	1 400	1 540	1 661	1 758	1 825	1 858	
50	-	930	1 274	1 442	1 599	1 740	1 859	1 951	2 011	
55	-	-	1 292	1 476	1 652	1 815	1 958	2 077	2 165	
60	-	-	-	1 504	1 700	1 886	2 055	2 201	2 319	
65	-	-	-	-	-	1 952	2 148	2 324	2 474	
75	-	-	-	-	-	-	2 324	2 563	2 780	
Current consum	otion in A									
35	2.90	3.02	3.25	3.35	3.44	3.51	3.56	3.57	3.56	
40	2.91	3.04	3.29	3.41	3.52	3.61	3.68	3.72	3.73	
45	2.92	3.05	3.33	3.47	3.59	3.70	3.80	3.87	3.91	
50	-	3.05	3.36	3.51	3.66	3.80	3.92	4.02	4.10	
55	-	-	3.37	3.55	3.72	3.88	4.03	4.17	4.28	
60	-	-	-	3.57	3.77	3.96	4.14	4.31	4.46	
65	-	-	-	-	-	4.03	4.24	4.44	4.63	
75	-	-	-	-	-	-	4.40	4.68	4.95	

Mass flow in kg/h

35	24	34	60	78	99	125	155	190	232
40	22	31	57	75	96	121	151	186	227
45	19	29	55	72	92	117	147	181	221
50	-	26	51	68	88	113	142	176	215
55	-	-	48	64	84	108	136	169	208
60	-	-	-	60	79	102	130	163	201
65	-	-	-	-	-	96	123	155	192
75	-	-	-	-	-	-	108	139	174

Coefficient of performance (C.O.P.)

35	1.38	1.65	2.33	2.79	3.35	4.05	4.93	6.06	7.55
40	1.16	1.43	2.07	2.47	2.97	3.57	4.32	5.26	6.48
45	0.96	1.23	1.82	2.18	2.61	3.14	3.77	4.57	5.57
50	-	1.05	1.59	1.91	2.29	2.74	3.29	3.95	4.78
55	-	-	1.38	1.67	2.00	2.38	2.85	3.41	4.10
60	-	-	-	1.44	1.72	2.06	2.46	2.93	3.50
65	-	-	-	-	-	1.76	2.10	2.50	2.98
75	-	-	-	-	-	-	1.49	1.78	2.12

Nominal performance at to = 7.2 °C, tc = 54.4 °C							
Cooling capacity	4 908	W					
Power input	1 871	W					
Current consumption	3.94	А					
Mass flow	120	kg/h					
C.O.P.	2.62						

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		dB(A)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Tolerance according EN12900



Maneurop reciprocating compressor. MTZ032-4

Performance data at 50 Hz. EN 12900 rating conditions

Performanc	e data at 50) Hz, EN 129	00 rating co	nditions					R407C
Cond. temp. in				Evapora	ating temperature	in °C (to)			
°C (tc)	-15	-10	-5	0	5	10	15		
cooling capacity	in W								
35	3 135	4 200	5 458	6 931	8 644	10 620	12 882	-	-
40	2 809	3 815	4 997	6 377	7 980	9 827	11 943	-	-
45	2 480	3 428	4 534	5 821	7 313	9 032	11 003	-	-
50	-	3 040	4 071	5 265	6 646	8 238	10 063	-	-
55	-	-	3 609	4 710	5 981	7 445	9 125	-	-
60	-	-	-	4 159	5 320	6 656	8 191	-	-
65	-	-	-	3 614	4 664	5 873	7 263	-	-
ower input in W	ı								
35	1 449	1 615	1 749	1 857	1 942	2 011	2 068	-	-
40	1 487	1 689	1 856	1 991	2 101	2 190	2 262		_
45	1 503	1 748	1 953	2 124	2 265	2 381	2 476	-	-
50	-	1 786	2 038	2 250	2 429	2 579	2 704	_	-
55	-	-	2 103	2 365	2 588	2 779	2 940		_
60	_	-	-	2 463	2 738	2 976	3 181	-	_
65	-	-	_	2 539	2 873	3 165	3 421		-
•					1				
urrent consum		0.47	0.04	0.70	0.01	4.04	4.40		
35	3.29	3.47	3.64	3.78	3.91	4.01	4.10	-	-
40	3.34	3.57	3.78	3.95	4.11	4.24	4.35	-	-
45	3.38	3.66	3.91	4.13	4.33	4.50	4.65	-	-
50	-	3.72	4.04	4.32	4.57	4.79	4.98	-	-
55	-	-	4.14	4.49	4.80	5.08	5.33	-	-
60 65	-	-	-	4.65 4.79	5.04	5.39	5.71 6.09	-	-
60	-	-	-	4.79	5.27	5.70	6.09	-	-
lass flow in kg/l 35	h 68	90	115	143	176	213	255	-	-
40	64	86	110	138	170	207	248		-
40	60	80	105	133	164	207	248	-	-
45 50	-	76	105	133	158	192	240	-	-
55	-	-	94	127	156	192	231	-	-
60	-	-	- 94	121	151	176	213	-	-
65	-	-	-	107	144	178	213	-	-
			_	107	100	100	200	-	_
oefficient of pe 35	rformance (C.C 2.16	2.60	3.12	3.73	4.45	5.28	6.23	-	-
40	1.89	2.00	2.69	3.20	3.80	4.49	5.28	-	-
40	1.65	1.96	2.32	2.74	3.23	3.79	4.44	-	-
45 50	-	1.90	2.00	2.74	2.74	3.19	3.72	-	-
55	-	-	1.72	1.99	2.74	2.68	3.12	-	-
60	-	-	-	1.69	1.94	2.00	2.58	-	-
65	-	-	-	1.69	1.94	1.86	2.56	-	-
00	-	-	-	1.42	1.02	1.00	2.12	-	-

Cooling capacity	6 646	W	
Power input	2 429	W	
Current consumption	4.57	A	
Mass flow	158	kg/h	
C.O.P.	2.74		

CERTIFIED ASERCOM

Flessure 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)

74

67

dB(A)

dB(A)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Tolerance according EN12900

Sound power data

Sound power level

With accoustic hood





indee nen in ng									
35	68	90	115	143	176	213	255	-	-
40	64	86	110	138	170	207	248	-	-
45	60	81	105	133	164	200	240	-	-
50	-	76	100	127	158	192	231	-	-
55	-	-	94	121	151	184	222	-	-
60	-	-	-	114	144	176	213	-	-
65	-	-	-	107	136	168	203	-	-

Maneurop reciprocating compressor. MTZ032-4

Danfoss

Performance	e data at 5	0 Hz, ARI rati	ing conditio	ns					R4070
Cond. temp. in				Evapor	ating temperature i	in °C (to)			
°C (tc)	-15	-10	-5	0	5	10	15		
Cooling capacity	r in W								
35	3 375	4 515	5 860	7 434	9 261	11 366	13 773	-	-
40	3 040	4 124	5 393	6 875	8 591	10 568	12 830	-	-
45	2 701	3 728	4 923	6 312	7 919	9 768	11 884	-	-
50	-	3 330	4 452	5 748	7 245	8 967	10 939	-	-
55	-	-	3 980	5 186	6 573	8 168	9 996	-	-
60	-	-	-	4 626	5 905	7 374	9 058	-	-
65	-	-	-	4 072	5 244	6 587	8 129	-	-
ower input in W 35	<i>I</i> 1 449	1 615	1 749	1 857	1 942	2 011	2 068	_	-
	-	-	-		-	-			
40	1 487	1 689	1 856	1 991	2 101	2 190	2 262	-	-
45	1 503	1 748	1 953	2 124	2 265	2 381	2 476	-	-
50	-	1 786	2 038	2 250	2 429	2 579	2 704	-	-
55	-	-	2 103	2 365	2 588	2 779	2 940	-	-
60	-	-	-	2 463	2 738	2 976	3 181	-	-
65	-	-	-	2 539	2 873	3 165	3 421	-	-
urrent consum	ption in A								
35	3.29	3.47	3.64	3.78	3.91	4.01	4.10	-	-
40	3.34	3.57	3.78	3.95	4.11	4.24	4.35	-	-
45	3.38	3.66	3.91	4.13	4.33	4.50	4.65	-	-
50	-	3.72	4.04	4.32	4.57	4.79	4.98	-	-
55	-	-	4.14	4.49	4.80	5.08	5.33	-	-
60	-	-	-	4.65	5.04	5.39	5.71	-	-
65	-	-	-	4.79	5.27	5.70	6.09	-	-
Mass flow in kg/l		89	114	142	175	212	254	·	
	00			172	.10	- 12	204	_	

35	68	89	114	142	175	212	254	-	-
40	64	85	110	137	169	205	246	-	-
45	59	81	105	132	163	198	238	-	-
50	-	76	100	126	157	191	230	-	-
55	-	-	94	120	150	183	221	-	-
60	-	-	-	114	143	175	212	-	-
65	-	-	-	107	135	167	202	-	-

Coefficient of performance (C.O.P.)

coefficient of p	entormance (C.O	.F. <i>)</i>							
35	2.33	2.80	3.35	4.00	4.77	5.65	6.66	-	-
40	2.04	2.44	2.91	3.45	4.09	4.83	5.67	-	-
45	1.80	2.13	2.52	2.97	3.50	4.10	4.80	-	-
50	-	1.86	2.18	2.55	2.98	3.48	4.05	-	-
55	-	-	1.89	2.19	2.54	2.94	3.40	-	-
60	-	-	-	1.88	2.16	2.48	2.85	-	-
65	-	-	-	1.60	1.83	2.08	2.38	-	-

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

Cooling capacity	7 335	W	
Power input	2 655	W	
Current consumption	4.90	A	
Mass flow	165	kg/h	
C.O.P.	2.76		

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

29.4	bar(g)	
1.4	bar(g)	
1.7	bar(g)	
	1.4	1.4 bar(g)

Sound power data

Sound power level	74	dB(A)
With accoustic hood	67	dB(A)

Tolerance according EN12900



Danfoss

Maneurop reciprocating compressor. MTZ032-4

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

R448A

Cond. temp. in		•		Evapora	ting temperature	e in °C (to)	P		
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
cooling capacity	in W								
10	-	2 899	3 768	4 860	6 207	-	-	-	-
20	-	2 585	3 373	4 357	5 565	7 029	8 780	-	
30	-	2 226	2 931	3 803	4 871	6 164	7 712	9 548	11 709
40	_	-	2 452	3 209	4 134	5 254	6 598	8 195	10 078
50	-	_	-	2 585	3 365	4 309	5 446	6 802	8 407
60	-	_		-	2 570	3 338	4 267	5 382	6 707
00	-	_	_	_	2 370	0.000	4 207	0.002	0101
Power input in W			-		-				
10	-	1 341	1 402	1 436	1 443	-	-	-	-
20	-	1 264	1 356	1 431	1 483	1 510	1 508	-	-
30	-	1 259	1 389	1 507	1 610	1 694	1 756	1 793	1 802
40	-	-	1 457	1 624	1 782	1 928	2 059	2 171	2 262
50	-	-	-	1 739	1 956	2 169	2 373	2 565	2 743
60	-	-	-	-	2 092	2 375	2 657	2 934	3 203
Current consump	tion in A								
10	tion in A	2.51	2.65	2.76	2.85	-	-	-	-
20	-	2.67	2.80	2.93	3.03	3.10	3.13	-	
30	-	2.82	2.97	3.13	3.28	3.41	3.50	3.54	3.52
40	-	-	3.12	3.33	3.55	3.75	3.94	4.08	4.18
50	-	_	-	3.49	3.80	4.10	4.40	4.67	4.91
60	_	-	-	-	3.98	4.42	4.85	5.27	5.66
Mass flow in kg/h			1	T				11	
10	-	48	62	80	102	-	-	-	-
20	-	46	60	77	99	126	158	-	-
30	-	42	56	73	94	120	151	190	237
40	-	-	51	68	87	112	142	179	224
50	-	-	-	60	79	103	131	166	208
60	-	-	-	-	69	91	118	150	191
2000 2000 2000 2000 2000 2000 2000 200	formance (C.C	2.16	2.69	3.38	4.30	-	-	-	-
	_	2.05	2.49	3.05	3.75	4.66	5.82	-	-
20	-	1.77	2.43	2.52	3.03	3.64	4.39	5.32	6.50
20			1.68	1.98	2.32	2.73	3.20	3.77	4.46
30	_	-		1.00	2.02		2.29	2.65	3.07
30 40	-	-			1 72	1 99		2.00	5.07
30 40 50	-		-	1.49	1.72	1.99			2 00
30 40					1.72 1.23	1.99 1.41	1.61	1.83	2.09
30 40 50 60 Nominal performa	-	- - 0 °C, tc = 45 °C	-	1.49		1.41 Pressure switch s	1.61 settings	1.83	2.09
30 40 50 60 Nominal performa Cooling capacity	-	- - 0 °C, tc = 45 °C 3 753	- - W	1.49		1.41 Pressure switch s Maximum HP swite	1.61 settings ch setting	1.83	bar(g)
30 40 50 60 Nominal performa Cooling capacity Power input	- - ance at to = -1	- - 0 °C, tc = 45 °C 3 753 1 871	- - W W	1.49		1.41 Pressure switch s Maximum HP switc Minimum LP switc	1.61 settings ch setting h setting	1.83 27.7 1	bar(g) bar(g)
30 40 50 60 Nominal performa Cooling capacity Power input Current consumpti	- - ance at to = -1	- - 0 °C, tc = 45 °C 3 753 1 871 3.68	- - W W A	1.49		1.41 Pressure switch s Maximum HP swite	1.61 settings ch setting h setting	1.83	
30 40 50 60 Nominal performa Cooling capacity Power input Current consumpti Mass flow	- - ance at to = -1	- - 0 °C, tc = 45 °C 3 753 1 871 3.68 84	- - W W	1.49		1.41 Pressure switch s Maximum HP switc Minimum LP switc LP pump down se	1.61 settings ch setting h setting tting	1.83 27.7 1	bar(g) bar(g)
30 40 50 60 Nominal performa Cooling capacity Power input Current consumpti	- - ance at to = -1	- - 0 °C, tc = 45 °C 3 753 1 871 3.68	- - W W A	1.49		1.41 Pressure switch s Maximum HP switc Minimum LP switc	1.61 settings ch setting h setting tting a	1.83 27.7 1	bar(g) bar(g)



Maneurop reciprocating compressor. MTZ032-4

Danfoss

R448A

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

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

Cooling capacity in W

10	2 234	2 913	3 789	4 890	6 247	-	-	-	-
20	1 946	2 568	3 359	4 348	5 564	7 037	8 796	-	-
30	1 620	2 181	2 884	3 757	4 831	6 133	7 694	9 543	11 709
40	1 267	1 764	2 376	3 131	4 058	5 187	6 547	8 168	10 078
50	-	1 329	1 846	2 480	3 258	4 210	5 367	6 756	8 407
60	-	-	1 307	1 816	2 442	3 215	4 164	5 318	6 707

Power input in W

10	1 259	1 341	1 402	1 436	1 443	-	-	-	-
20	1 156	1 264	1 356	1 431	1 483	1 510	1 508	-	-
30	1 120	1 259	1 389	1 507	1 610	1 694	1 756	1 793	1 802
40	1 112	1 285	1 457	1 624	1 782	1 928	2 059	2 171	2 262
50	-	1 301	1 519	1 739	1 956	2 169	2 373	2 565	2 743
60	-	-	1 532	1 809	2 092	2 375	2 657	2 934	3 203

Current consumption in A

10	2.37	2.51	2.65	2.76	2.85	-	-	-	-
20	2.55	2.67	2.80	2.93	3.03	3.10	3.13	-	-
30	2.69	2.82	2.97	3.13	3.28	3.41	3.50	3.54	3.52
40	2.77	2.93	3.12	3.33	3.55	3.75	3.94	4.08	4.18
50	-	2.94	3.20	3.49	3.80	4.10	4.40	4.67	4.91
60	-	-	3.18	3.57	3.98	4.42	4.85	5.27	5.66

Mass flow in kg/h

10	43	56	71	89	112	-	-	-	-
20	41	53	68	86	108	135	167	-	-
30	37	49	64	82	103	129	159	195	237
40	32	44	59	76	96	120	150	184	224
50	-	38	52	68	87	110	138	170	208
60	-	-	43	58	76	98	124	155	191

Coefficient of performance (C.O.P.)

10	1.77	2.17	2.70	3.40	4.33	-	-	-	-
20	1.68	2.03	2.48	3.04	3.75	4.66	5.83	-	-
30	1.45	1.73	2.08	2.49	3.00	3.62	4.38	5.32	6.50
40	1.14	1.37	1.63	1.93	2.28	2.69	3.18	3.76	4.46
50	-	1.02	1.22	1.43	1.67	1.94	2.26	2.63	3.07
60	-	-	0.85	1.00	1.17	1.35	1.57	1.81	2.09

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

-,	
3 661	W
1 871	W
3.68	А
92	kg/h
1.96	
	3 661 1 871 3.68 92

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

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

Sound power data

Sound power level	73	dB(A)
With accoustic hood	66	dB(A)

Tolerance according EN12900



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Maneurop reciprocating compressor. MTZ032-4

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

Cond. temp. in				Evapora	ating temperatu	re in °C (to)			
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
ooling oonooity i	m 10/								
10	-	2 904	3 774	4 866	6 212	-	-	-	
									-
20	-	2 590	3 379	4 363	5 571	7 035	8 784	-	
30	-	2 232	2 937	3 810	4 878	6 170	7 717	9 551	11 709
40	-	-	2 458	3 216	4 141	5 261	6 603	8 198	10 078
50	-	-	-	2 592	3 371	4 315	5 451	6 805	8 407
60	-	-	-	-	2 577	3 344	4 272	5 385	6 707
ower input in W		1				1	1	1	
10	-	1 341	1 402	1 436	1 443	-	-	-	-
20	-	1 264	1 356	1 431	1 483	1 510	1 508	-	-
30	-	1 259	1 389	1 507	1 610	1 694	1 756	1 793	1 802
40	-	-	1 457	1 624	1 782	1 928	2 059	2 171	2 262
50	-	-	-	1 739	1 956	2 169	2 373	2 565	2 743
60	-	-	-	-	2 092	2 375	2 657	2 934	3 203
·	lion in A								
10	-	2.51	2.65	2.76	2.85	-	-	-	-
20	-	2.67	2.80	2.93	3.03	3.10	3.13	-	-
30	-	2.82	2.97	3.13	3.28	3.41	3.50	3.54	3.52
40	-	-	3.12	3.33	3.55	3.75	3.94	4.08	4.18
50	-	-	-	3.49	3.80	4.10	4.40	4.67	4.91
60	-	-	-	-	3.98	4.42	4.85	5.27	5.66
ass flow in kg/h	-	49	64	83	106	-	-	-	-
20	-	46	61	79	101	128	162	-	
30	-	43	57	75	96	120	154	193	241
40	-	-	52	69	89	114	145	182	228
50	_	-	- 52	62	81	105	143	169	213
60	-	_	-	-	71	93	104	154	195
00	-	-	-	-	11		121	104	195
oefficient of perf	ormance (C.C	1	Γ	Г	Т		1	1 1	
10	-	2.17	2.69	3.39	4.31	-	-	-	-
20	-	2.05	2.49	3.05	3.76	4.66	5.83	-	-
30	-	1.77	2.11	2.53	3.03	3.64	4.39	5.33	6.50
40	-	-	1.69	1.98	2.32	2.73	3.21	3.78	4.46
50	-	-	-	1.49	1.72	1.99	2.30	2.65	3.07
60	-	-	-	-	1.23	1.41	1.61	1.84	2.09
ominal performa	nce at to = -1	0 °C, tc = 45 °C				Pressure switch	settings		
cooling capacity		3 760	W			Maximum HP swit	-	27.7	bar(g)
ower input		1 871	W			Minimum LP swite	-	1	bar(g)
Current consumption	on	3.68	A			LP pump down se	tting	1.3	bar(g)
Aass flow		86	kg/h			Cound a course to	-		
C.O.P.		2.01				Sound power date		73	
o: Evaporating terr	inerature at de	w noint				With accoustic ho		66	dB(A) dB(A)
	perature at de					With accoustic HO		00	



Maneurop reciprocating compressor. MTZ032-4

Danfoss

R449A

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

Cond. temp. in				Evapora	ting temperature i	n °C (to)			
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10

Cooling	capacity	in	w
Cooling	capacity	ш	

10	2 234	2 913	3 789	4 890	6 247	-	-	-	-
20	1 946	2 568	3 359	4 348	5 564	7 037	8 796	-	-
30	1 620	2 181	2 884	3 757	4 831	6 133	7 694	9 543	11 709
40	1 267	1 764	2 376	3 131	4 058	5 187	6 547	8 168	10 078
50	-	1 329	1 846	2 480	3 258	4 210	5 367	6 756	8 407
60	-	-	1 307	1 816	2 442	3 215	4 164	5 318	6 707

Power input in W

10	1 259	1 341	1 402	1 436	1 443	-	-	-	-
20	1 156	1 264	1 356	1 431	1 483	1 510	1 508	-	-
30	1 120	1 259	1 389	1 507	1 610	1 694	1 756	1 793	1 802
40	1 112	1 285	1 457	1 624	1 782	1 928	2 059	2 171	2 262
50	-	1 301	1 519	1 739	1 956	2 169	2 373	2 565	2 743
60	-	-	1 532	1 809	2 092	2 375	2 657	2 934	3 203

Current consumption in A

10	2.37	2.51	2.65	2.76	2.85	-	-	-	-
20	2.55	2.67	2.80	2.93	3.03	3.10	3.13	-	-
30	2.69	2.82	2.97	3.13	3.28	3.41	3.50	3.54	3.52
40	2.77	2.93	3.12	3.33	3.55	3.75	3.94	4.08	4.18
50	-	2.94	3.20	3.49	3.80	4.10	4.40	4.67	4.91
60	-	-	3.18	3.57	3.98	4.42	4.85	5.27	5.66

Mass flow in kg/h

10	44	57	73	92	116	-	-	-	-
20	41	54	70	88	111	138	170	-	-
30	38	50	65	83	105	131	162	198	241
40	33	45	60	77	98	123	153	187	228
50	-	39	53	69	89	113	141	174	213
60	-	-	44	59	78	100	127	158	195

Coefficient of performance (C.O.P.)

10	1.77	2.17	2.70	3.40	4.33	-	-	-	-
20	1.68	2.03	2.48	3.04	3.75	4.66	5.83	-	-
30	1.45	1.73	2.08	2.49	3.00	3.62	4.38	5.32	6.50
40	1.14	1.37	1.63	1.93	2.28	2.69	3.18	3.76	4.46
50	-	1.02	1.22	1.43	1.67	1.94	2.26	2.63	3.07
60	-	-	0.85	1.00	1.17	1.35	1.57	1.81	2.09

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

-,	
3 661	W
1 871	W
3.68	А
94	kg/h
1.96	
	3 661 1 871 3.68 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	27.7	bar(g)
Minimum LP switch setting	1	bar(g)
LP pump down setting	1.3	bar(g)

Sound power data

oouna ponor aata		
Sound power level	73	dB(A)
With accoustic hood	66	dB(A)

Tolerance according EN12900



<u>Danfoss</u>

Datasheet, performance data

Maneurop reciprocating compressor. MTZ032-4

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

cond. temp. in				Evapora	ting temperatur	e in °C (to)		· · ·	
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
ooling capacity	in W								
10	-	3 329	4 252	5 387	6 754	-	-	- 1	-
20		2 946	3 797	4 833	6 074	7 540	9 253		
30	-		3 276	4 833	1			- 0.975	- 11 905
		2 508			5 306	6 605	8 120	9 875	11 895
40	-	2 028	2 703	3 508	4 462	5 583	6 890	8 402	10 141
50	-	-	2 089	2 762	3 556	4 489	5 577	6 836	8 285
60	-	-	-	1 976	2 601	3 336	4 196	5 194	6 342
Power input in W									
10	-	1 710	1 770	1 800	1 797	-	-	-	-
20	-	1 475	1 574	1 647	1 693	1 708	1 689	-	-
30	-	1 408	1 553	1 677	1 779	1 854	1 902	1 917	1 899
40	-	1 417	1 615	1 798	1 963	2 106	2 226	2 320	2 384
50	-	-	1 669	1 917	2 152	2 370	2 571	2 749	2 904
60	-	-	-	1 942	2 254	2 555	2 842	3 113	3 365
						·			
10	tion in A	1.79	1.80	1.82	1.84	-	-	-	-
20	-	2.56	2.61	2.67		2.77		_	
30		2.36	3.07		2.73		2.79	1 1	-
	-	-		3.19	3.31	3.43	3.52	3.57	3.57
40	-	3.10	3.28	3.48	3.69	3.90	4.08	4.23	4.34
50	-	-	3.34	3.64	3.96	4.27	4.57	4.85	5.07
60	-	-	-	3.76	4.20	4.65	5.09	5.50	5.87
Mass flow in kg/h					-		-		
10	-	68	87	111	139	-	-	-	-
20	-	65	85	108	136	170	211	-	-
30	-	61	80	103	131	164	204	251	308
40	-	55	73	96	123	155	194	240	294
50	-	-	65	86	112	143	180	224	277
60	-	-	-	73	98	127	162	204	255
2000 10 20 20 20 20 20 20 20 20 20 20 20 20 20	formance (C.0	D.P.) 1.95	2.40	2.99	3.76	_	-		
20	-	2.00	2.40	2.93	3.59	4.42	5.48	_	
30	-	1.78	2.41	2.93	2.98	3.56	4.27	5.15	6.26
40	-	1.78	1.67	1.95	2.96	2.65	3.09	3.62	4.25
40 50		-							
	-	-	1.25	1.44	1.65	1.89	2.17	2.49	2.85
60	-	-	-	1.02	1.15	1.31	1.48	1.67	1.88
I	ance at to = -1	0 °C, tc = 45 °C				Pressure switch	-		
	•					Maximum HP swit	•	27.7	bar(g)
lominal performa		ver input 2 062 W				Minimum LP switc		1	bar(g)
lominal performa Cooling capacity Power input									
Iominal perform Cooling capacity Power input Current consumpti	on	3.83	A			LP pump down se	ung	1.3	bar(g)
Iominal performa Cooling capacity Power input Current consumpti Mass flow	on	3.83 118				· · ·		1.3	bar(g)
Iominal perform Cooling capacity Power input Current consumpti	on	3.83	A			Sound power date	a	73	dB(A)



Maneurop reciprocating compressor. MTZ032-4

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R452A

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

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

Cooling capacity in W

10	2 514	3 241	4 163	5 303	6 682	-	-	-	-
20	2 144	2 819	3 664	4 701	5 952	7 438	9 182	-	-
30	1 739	2 350	3 105	4 026	5 135	6 455	8 007	9 813	11 895
40	1 314	1 848	2 500	3 294	4 250	5 391	6 739	8 315	10 141
50	884	1 330	1 868	2 521	3 312	4 262	5 393	6 726	8 285
60	-	811	1 223	1 724	2 337	3 083	3 985	5 064	6 342

Power input in W

10	1 623	1 710	1 770	1 800	1 797	-	-	-	-
20	1 354	1 475	1 574	1 647	1 693	1 708	1 689	-	-
30	1 246	1 408	1 553	1 677	1 779	1 854	1 902	1 917	1 899
40	1 207	1 417	1 615	1 798	1 963	2 106	2 226	2 320	2 384
50	1 144	1 410	1 669	1 917	2 152	2 370	2 571	2 749	2 904
60	-	1 295	1 621	1 942	2 254	2 555	2 842	3 113	3 365

Current consumption in A

10	1.80	1.79	1.80	1.82	1.84	-	-	-	-
20	2.54	2.56	2.61	2.67	2.73	2.77	2.79	-	-
30	2.90	2.97	3.07	3.19	3.31	3.43	3.52	3.57	3.57
40	2.96	3.10	3.28	3.48	3.69	3.90	4.08	4.23	4.34
50	2.83	3.07	3.34	3.64	3.96	4.27	4.57	4.85	5.07
60	-	2.95	3.34	3.76	4.20	4.65	5.09	5.50	5.87

Mass flow in kg/h

10	62	79	100	124	153	-	-	-	-
20	59	76	97	121	150	183	222	-	-
30	54	71	91	116	144	177	215	258	308
40	47	64	84	108	135	167	204	246	294
50	38	54	74	97	123	154	189	230	277
60	-	42	61	82	108	137	171	210	255

Coefficient of performance (C.O.P.)

10	1.55	1.90	2.35	2.95	3.72	-	-	-	-
20	1.58	1.91	2.33	2.85	3.52	4.36	5.44	-	-
30	1.40	1.67	2.00	2.40	2.89	3.48	4.21	5.12	6.26
40	1.09	1.30	1.55	1.83	2.17	2.56	3.03	3.58	4.25
50	0.77	0.94	1.12	1.32	1.54	1.80	2.10	2.45	2.85
60	-	0.63	0.75	0.89	1.04	1.21	1.40	1.63	1.88

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

Cooling capacity	3 787	W
Power input	2 062	W
Current consumption	3.83	А
Mass flow	130	kg/h
C.O.P.	1.84	

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	dat

Sound power level	73	dB(A)
With accoustic hood	66	dB(A)

Tolerance according EN12900



Maneurop reciprocating compressor. MTZ032-4

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Performance data at 60 Hz, EN 12900 rating conditions

Evaporating temperature in $^{\circ}$ (tic) Cooling capacity in W Second Secon	Performance	e data at 60	0 Hz, EN 129	00 rating co	nditions				I	R4070
$^{\circ}$ C (to) -15 -10 -5 0 5 10 15 Scoling capacity in W 35 3813 4972 6385 8.088 10120 12516 15315 40 3.684 4.686 5978 7.666 9.457 11.887 14294 45 3.204 4.322 5554 7.027 8.797 10.844 13.260 55 - - 4.690 5.903 7.320 8.986 65 - - - 4.699 5.903 7.320 8.986 20wer input in W - - - 4.699 5.903 7.320 8.986 20wer input in W - - - 4.699 5.903 7.320 8.986 2000 1.855 2.051 2.233 2.397 2.644 2.671 2.779 45 1.941 2.165 2.374 2.655 2.738 2.892 3.025 50 - - 2.032 <t< th=""><th>Cond. temp. in</th><th></th><th></th><th></th><th>Evapor</th><th>ating temperatur</th><th>e in °C (to)</th><th></th><th></th><th></th></t<>	Cond. temp. in				Evapor	ating temperatur	e in °C (to)			
35 3 813 4 972 6 386 8 088 10 120 12 516 15 315 40 3 564 4 666 5 978 7 566 9 457 11 1677 14 294 45 3 294 4 322 5 554 7 027 8 779 10 844 13 280 50 - - 4 650 5 988 7 374 9 113 11 153 60 - - - 4 650 5 988 7 374 9 113 11 153 60 - - - 4 699 5 903 7 320 8 986 7000 1855 2 061 2 233 2 397 2 544 2 667 2 779 45 1 941 2 165 2 374 2 565 2 738 2 892 3 025 50 - - 2 269 2 608 2 729 2 932 3 115 3 277 55 - - - 3 103 3 308 3 552 66 - - 3	· · –	-15	-10	-5				15		
35 3 813 4 972 6 386 8 088 10 120 12 516 15 315 40 3 564 4 666 5 978 7 566 9 457 11 1677 14 294 45 3 294 4 322 5 554 7 027 8 779 10 844 13 280 50 - - 4 650 5 988 7 374 9 113 11 153 60 - - - 4 650 5 988 7 374 9 113 11 153 60 - - - 4 699 5 903 7 320 8 986 7000 1855 2 061 2 233 2 397 2 544 2 667 2 779 45 1 941 2 165 2 374 2 565 2 738 2 892 3 025 50 - - 2 269 2 608 2 729 2 932 3 115 3 277 55 - - - 3 103 3 308 3 552 66 - - 3			•	•	•	1	•	•	•	
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35 1 758 1 930 2 087 2 228 2 351 2 456 2 542 40 1 855 2 051 2 233 2 397 2 544 2 671 2 779 45 1 941 2 165 2 374 2 565 2 738 2 892 3 025 50 - 2 269 2 508 2 729 2 932 3 115 3 277 55 - - 2 632 2 887 3 123 3 338 3 532 60 - - - 3 036 3 308 3 559 3 788 65 - - - 3 173 3 485 3 775 4 043 consumption in A strrent consumption in A 35 3.11 3.29 3.46 3.62 3.78 3.91 4.03 445 3.32 3.57 3.81 4.02 4.22 4.39 4.53 50 - - 4.12 4.43 4.72 4.96	ower input in W	v								
40 1 855 2 051 2 233 2 397 2 544 2 671 2 779 45 1 941 2 165 2 374 2 565 2 738 2 892 3 025 50 - 2 269 2 608 2 729 2 932 3 115 3 277 55 - - 2 632 2 887 3 123 3 338 3 532 60 - - - 3 036 3 308 3 559 3 775 4 043 comment consumption in A - - 3 173 3 485 3 775 4 043 201 3 23 3 44 3 63 3 82 3 99 4 .14 4 26 40 3 23 3 44 3 63 3 82 3 99 4 .14 4 26 45 3 32 3 57 3 81 4 02 4 .22 4 .39 4 .53 50 - - 4 .12 4 .43 4 .72 4 .96 5 .17 60 - - - 4 .62 4 .96 5 .27 5 .52 65 -			1 930	2 087	2 228	2 351	2 456	2 542	-	-
45 1 941 2 165 2 374 2 565 2 738 2 892 3 025 50 - 2 269 2 508 2 729 2 932 3 115 3 277 55 - - 2 632 2 887 3 123 3 338 3 552 60 - - - 3 036 3 308 3 559 3 788 65 - - - 3 173 3 485 3 775 4 043 surrent consumption in A 35 3 11 3 29 3 46 3 62 3 78 3 91 4 03 40 3 23 3.44 3 63 3.82 3.99 4.14 4.26 45 3.32 3.57 3.81 4.02 4.22 4.39 4.53 50 - 3.69 3.97 4.23 4.47 4.67 4.84 55 - - - 4.62 4.96 5.27 5.52 65 -									_	-
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60 - - 3 036 3 308 3 559 3 788 65 - - - 3 173 3 485 3 775 4 043 urrent consumption in A 3 3 3 3 3 3 4 0.3 40 3.23 3.44 3.63 3.82 3.99 4.14 4.26 45 3.32 3.57 3.81 4.02 4.22 4.39 4.53 50 - 3.69 3.97 4.23 4.47 4.67 4.84 55 - - 4.12 4.43 4.72 4.96 5.17 60 - - - 4.62 4.96 5.27 5.52 65 - - - 4.62 4.96 5.17 5.68 lass flow in kg/h - - - 4.79 5.20 5.57 5.88 lass flow in kg/h - - - 1.60 197									_	-
65 - - 3 173 3 485 3 775 4 043 35 3.11 3.29 3.46 3.62 3.78 3.91 4.03 40 3.23 3.44 3.63 3.82 3.99 4.14 4.26 45 3.32 3.57 3.81 4.02 4.22 4.39 4.53 50 - 3.69 3.97 4.23 4.47 4.67 4.84 55 - - 4.12 4.43 4.72 4.96 5.17 60 - - - 4.62 4.96 5.27 5.52 65 - - - 4.79 5.20 5.57 5.88 ass flow in kg/h 33 106 134 167 206 251 303 45 79 102 129 160 197 240 289 50 - 99 126 156 192 233 281									_	-
urrent consumption in A 35 3.11 3.29 3.46 3.62 3.78 3.91 4.03 40 3.23 3.44 3.63 3.82 3.99 4.14 4.26 45 3.32 3.57 3.81 4.02 4.22 4.39 4.53 50 - 3.69 3.97 4.23 4.47 4.67 4.84 55 - - 4.12 4.43 4.72 4.96 5.17 60 - - - 4.62 4.96 5.27 5.52 65 - - - 4.79 5.20 5.57 5.88 Inset flow in kg/h 35 83 106 134 167 206 251 303 40 81 104 132 164 202 246 296 45 79 102 129 160 197 240 289 55 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>_</td> <td>-</td>									_	-
35 3.11 3.29 3.46 3.62 3.78 3.91 4.03 40 3.23 3.44 3.63 3.82 3.99 4.14 4.26 45 3.32 3.57 3.81 4.02 4.22 4.39 4.53 50 - 3.69 3.97 4.23 4.47 4.67 4.84 55 - - 4.12 4.43 4.72 4.96 5.17 60 - - - 4.62 4.96 5.27 5.52 5.65 65 - - - 4.79 5.20 5.57 5.88 ass flow in kg/h - - - 4.79 5.20 2.51 303 - 40 81 104 132 164 202 246 296 - 45 79 102 129 160 197 240 289 - 55 - -	05	-	-	-	5175	3 403	5115	4 043	_	-
40 3.23 3.44 3.63 3.82 3.99 4.14 4.26 45 3.32 3.57 3.81 4.02 4.22 4.39 4.53 50 $ 3.69$ 3.97 4.23 4.47 4.67 4.84 55 $ 4.12$ 4.43 4.72 4.96 5.17 60 $ 4.62$ 4.96 5.27 5.52 65 $ 4.79$ 5.20 5.57 5.88 ass flow in kg/h 35 83 106 134 167 206 251 303 45 79 102 129 160 197 240 289 50 $ 122$ 151 186 226 272 233 281 $ 55$ $ 122$ 151 186 226 272 272 66 $ -$	urrent consum	ption in A								
45 3.32 3.57 3.81 4.02 4.22 4.39 4.53 50 - 3.69 3.97 4.23 4.47 4.67 4.84 55 4.12 4.43 4.72 4.96 5.17 60 4.62 4.96 5.27 5.52 65 4.79 5.20 5.57 5.88 ass flow in kg/hass flow in kg/h35 83 106 134 167 206 251 303 40 81 104 132 164 202 246 296 45 79 102 129 160 197 240 289 50 -99 126 156 192 233 281 55 122 151 186 226 272 60 146 179 218 262 65 140 172 209 251 officient of performance (C.O.P.) 35 2.17 2.58 3.06 3.63 4.30 5.10 6.03 40 1.92 2.27 2.68 3.16 3.72 4.38 5.14 45 1.70 2.00 2.34 2.74 3.21 3.73 55 55 1.77 2.04 2.36 2.73 3.16 <td>35</td> <td>3.11</td> <td>3.29</td> <td>3.46</td> <td>3.62</td> <td>3.78</td> <td>3.91</td> <td>4.03</td> <td>-</td> <td>-</td>	35	3.11	3.29	3.46	3.62	3.78	3.91	4.03	-	-
50- 3.69 3.97 4.23 4.47 4.67 4.84 55 4.12 4.43 4.72 4.96 5.17 60 4.62 4.96 5.27 5.52 65 4.79 5.20 5.57 5.88 ass flow in kg/h 35 83 106 134 167 206 251 303 40 81 104 132 164 202 246 296 45 79 102 129 160 197 240 289 50 -99 126 156 192 233 281 55 122 151 186 226 272 60 146 179 218 262 65 140 172 209 251 officient of performance (C.O.P.) 35 2.17 2.58 3.06 3.63 4.30 5.10 6.03 40 1.92 2.27 2.68 3.16 3.72 4.38 5.14 45 1.70 2.00 2.34 2.74 3.21 3.75 4.38 50 - 1.75 2.04 2.37 2.76 3.21 3.73 55 1.77 2.04 2.36 2.73 3.16	40	3.23	3.44	3.63	3.82	3.99	4.14	4.26	-	-
55 - - 4.12 4.43 4.72 4.96 5.17 60 - - - 4.62 4.96 5.27 5.52 65 - - - 4.79 5.20 5.57 5.88 ass flow in kg/h 35 83 106 134 167 206 251 303 40 81 104 132 164 202 246 296 45 79 102 129 160 197 240 289 50 - 99 126 156 192 233 281 55 - - 122 151 186 226 272 60 - - - 140 172 209 251 sefficient of performance (C.O.P.) 35 2.17 2.58 3.06 3.63 4.30 5.10 6.03 40 1.92 <td>45</td> <td>3.32</td> <td>3.57</td> <td>3.81</td> <td>4.02</td> <td>4.22</td> <td>4.39</td> <td>4.53</td> <td>-</td> <td>-</td>	45	3.32	3.57	3.81	4.02	4.22	4.39	4.53	-	-
60 - - 4.62 4.96 5.27 5.52 65 - - - 4.79 5.20 5.57 5.88 lass flow in kg/h 35 83 106 134 167 206 251 303 40 81 104 132 164 202 246 296 45 79 102 129 160 197 240 289 50 - 99 126 156 192 233 281 55 - - 122 151 186 226 272 60 - - - 146 179 218 262 65 - - - 140 172 209 251 station of performance (C.O.P.) 35 2.17 2.58 3.06 3.63 4.30 5.10 6.03 40 1.92 2.27	50	-	3.69	3.97	4.23	4.47	4.67	4.84	-	-
65 - - 4.79 5.20 5.57 5.88 ass flow in kg/h 35 83 106 134 167 206 251 303 40 81 104 132 164 202 246 296 45 79 102 129 160 197 240 289 50 - 99 126 156 192 233 281 55 - - 122 151 186 226 272 60 - - - 146 179 218 262 65 - - - 140 172 209 251 coefficient of performance (C.O.P.) 35 2.17 2.58 3.06 3.63 4.30 5.10 6.03 40 1.92 2.27 2.68 3.16 3.72 4.38 5.14 45 1.70 2.00	55	-	-	4.12	4.43	4.72	4.96	5.17	-	-
lass flow in kg/h 35 83 106 134 167 206 251 303 40 81 104 132 164 202 246 296 45 79 102 129 160 197 240 289 50 - 99 126 156 192 233 281 55 - - 122 151 186 226 272 60 - - - 146 179 218 262 65 - - 140 172 209 251 sofficient of performance (C.O.P.) 35 2.17 2.58 3.06 3.63 4.30 5.10 6.03 40 1.92 2.27 2.68 3.16 3.72 4.38 5.14 45 1.70 2.00 2.34 2.74 3.21 3.75 4.38 50 -	60	-	-	-	4.62	4.96	5.27	5.52	-	-
35 83 106 134 167 206 251 303 40 81 104 132 164 202 246 296 45 79 102 129 160 197 240 289 50 - 99 126 156 192 233 281 55 122 151 186 226 272 60 146 179 218 262 65 146 179 218 262 65 140 172 209 251 coefficient of performance (C.O.P.) 35 2.17 2.58 3.06 3.63 4.30 5.10 6.03 40 1.92 2.27 2.68 3.16 3.72 4.38 5.14 45 1.70 2.00 2.34 2.74 3.21 3.75 4.38 50 - 1.75 2.04 2.37 2.76 3.21 3.73 55 1.77 2.04 2.36 2.73 3.16	65	-	-	-	4.79	5.20	5.57	5.88	-	-
35 83 106 134 167 206 251 303 40 81 104 132 164 202 246 296 45 79 102 129 160 197 240 289 50 - 99 126 156 192 233 281 55 - - 122 151 186 226 272 60 - - - 146 179 218 262 65 - - - 140 172 209 251 coefficient of performance (C.O.P.) 35 2.17 2.58 3.06 3.63 4.30 5.10 6.03 40 1.92 2.27 2.68 3.16 3.72 4.38 5.14 45 1.70 2.00 2.34 2.74 3.21 3.75 4.38 50 - 1.75 2.04 <	aaa flaw in ka/	F								
40 81 104 132 164 202 246 296 45 79 102 129 160 197 240 289 50 - 99 126 156 192 233 281 55 - - 122 151 186 226 272 60 - - - 146 179 218 262 65 - - - 146 179 209 251 65 - - - 140 172 209 251 coefficient of performance (C.O.P.) 35 2.17 2.58 3.06 3.63 4.30 5.10 6.03 40 1.92 2.27 2.68 3.16 3.72 4.38 5.14 45 1.70 2.00 2.34 2.74 3.21 3.75 4.38 50 - 1.75 2.04 2.37 2.76 3.21 3.73 55 - - 1.77	Ĭ		100	104	407	200	054	202		
45 79 102 129 160 197 240 289 50 - 99 126 156 192 233 281 55 - - 122 151 186 226 272 60 - - - 146 179 218 262 65 - - - 140 172 209 251 oefficient of performance (C.O.P.) 35 2.17 2.58 3.06 3.63 4.30 5.10 6.03 40 1.92 2.27 2.68 3.16 3.72 4.38 5.14 45 1.70 2.00 2.34 2.74 3.21 3.75 4.38 50 - 1.75 2.04 2.37 2.76 3.21 3.73 55 - - 1.77 2.04 2.36 2.73 3.16									-	-
50 - 99 126 156 192 233 281 55 - - 122 151 186 226 272 60 - - 146 179 218 262 65 - - 146 179 218 262 65 - - 140 172 209 251 oefficient of performance (C.O.P.) 35 2.17 2.58 3.06 3.63 4.30 5.10 6.03 40 1.92 2.27 2.68 3.16 3.72 4.38 5.14 45 1.70 2.00 2.34 2.74 3.21 3.75 4.38 50 - 1.75 2.04 2.37 2.76 3.21 3.73 55 - - 1.77 2.04 2.36 2.73 3.16									-	-
55 - - 122 151 186 226 272 60 - - 146 179 218 262 65 - - 146 179 218 262 65 - - 140 172 209 251 oefficient of performance (C.O.P.) 35 2.17 2.58 3.06 3.63 4.30 5.10 6.03 40 1.92 2.27 2.68 3.16 3.72 4.38 5.14 45 1.70 2.00 2.34 2.74 3.21 3.75 4.38 50 - 1.75 2.04 2.37 2.76 3.21 3.73 55 - - 1.77 2.04 2.36 2.73 3.16										-
60 - - 146 179 218 262 65 - - - 140 172 209 251 oefficient of performance (C.O.P.) 35 2.17 2.58 3.06 3.63 4.30 5.10 6.03 40 1.92 2.27 2.68 3.16 3.72 4.38 5.14 45 1.70 2.00 2.34 2.74 3.21 3.75 4.38 50 - 1.75 2.04 2.37 2.76 3.21 3.73 55 - - 1.77 2.04 2.36 2.73 3.16									-	-
65 - - 140 172 209 251 coefficient of performance (C.O.P.) 35 2.17 2.58 3.06 3.63 4.30 5.10 6.03 40 1.92 2.27 2.68 3.16 3.72 4.38 5.14 45 1.70 2.00 2.34 2.74 3.21 3.75 4.38 50 - 1.75 2.04 2.37 2.76 3.21 3.73 55 - - 1.77 2.04 2.36 2.73 3.16									-	-
35 2.17 2.58 3.06 3.63 4.30 5.10 6.03 40 1.92 2.27 2.68 3.16 3.72 4.38 5.14 45 1.70 2.00 2.34 2.74 3.21 3.75 4.38 50 - 1.75 2.04 2.37 2.76 3.21 3.73 55 - - 1.77 2.04 2.36 2.73 3.16									-	-
35 2.17 2.58 3.06 3.63 4.30 5.10 6.03 40 1.92 2.27 2.68 3.16 3.72 4.38 5.14 45 1.70 2.00 2.34 2.74 3.21 3.75 4.38 50 - 1.75 2.04 2.37 2.76 3.21 3.73 55 - - 1.77 2.04 2.36 2.73 3.16	65	-	-	-	140	172	209	251	-	-
40 1.92 2.27 2.68 3.16 3.72 4.38 5.14 45 1.70 2.00 2.34 2.74 3.21 3.75 4.38 50 - 1.75 2.04 2.37 2.76 3.21 3.73 55 - - 1.77 2.04 2.36 2.73 3.16	oefficient of per	rformance (C.C	D.P.)							
45 1.70 2.00 2.34 2.74 3.21 3.75 4.38 50 - 1.75 2.04 2.37 2.76 3.21 3.73 55 - - 1.77 2.04 2.36 2.73 3.16	35	2.17	2.58	3.06	3.63	4.30	5.10	6.03	-	-
50 - 1.75 2.04 2.37 2.76 3.21 3.73 55 - - 1.77 2.04 2.36 2.73 3.16	40	1.92	2.27	2.68	3.16	3.72	4.38	5.14	-	-
50 - 1.75 2.04 2.37 2.76 3.21 3.73 55 - - 1.77 2.04 2.36 2.73 3.16	45	1.70	2.00	2.34	2.74	3.21	3.75	4.38	-	-
	50	-	1.75	2.04	2.37	2.76	3.21	3.73	-	-
	55	-	-	1.77	2.04		2.73	3.16	-	-
						-			-	-
65 1.48 1.69 1.94 2.22									-	-
	ominal restance		°C to = 50 °C				Dressure suit-h	oottingo		
Image: Non-state interview State interview Pressure switch settings Recolling capacity 8 084 W Maximum HP switch setting		iance at to = 5		۱۸/	_				29.4	bar(g)
Power input 2 932 W Maximum LP switch setting	• • •								1.4	bar(g)
Current consumption 4.47 A LP pump down setting	•	tion							1.7	bar(g)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

192

2.76

kg/h

LP pump down setting	1.7	bar(g)
Sound power data		
Sound power level	77	dB(A)
With accoustic hood	70	dB(A)

Tolerance according EN12900

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Mass flow

Maneurop reciprocating compressor. MTZ032-4

Danfoss

R407C

Performance data at 60 Hz, ARI rating conditions

ond. temp. in	Evaporating temperature in °C (to)									
°C (tc)	-15	-10	-5	0	5	10	15			
ooling capacit	y in W									
35	4 104	5 345	6 855	8 675	10 842	13 396	16 374	-	-	
40	3 857	5 032	6 452	8 156	10 182	12 569	15 355	-	-	
45	3 588	4 700	6 031	7 620	9 506	11 727	14 323	-	-	
50	-	4 346	5 590	7 066	8 813	10 871	13 277	-	-	
55	-	-	5 129	6 494	8 104	9 999	12 217	-	-	
60	-	-	-	5 904	7 378	9 112	11 144	-	-	
65	-	-	-	5 295	6 636	8 210	10 057	-	-	

35	1 758	1 930	2 087	2 228	2 351	2 456	2 542	-	-
40	1 855	2 051	2 233	2 397	2 544	2 671	2 779	-	-
45	1 941	2 165	2 374	2 565	2 738	2 892	3 025	-	-
50	-	2 269	2 508	2 729	2 932	3 115	3 277	-	-
55	-	-	2 632	2 887	3 123	3 338	3 532	-	-
60	-	-	-	3 036	3 308	3 559	3 788	-	-
65	-	-	-	3 173	3 485	3 775	4 043	-	-

Current consumption in A

35	3.11	3.29	3.46	3.62	3.78	3.91	4.03	-	-
40	3.23	3.44	3.63	3.82	3.99	4.14	4.26	-	-
45	3.32	3.57	3.81	4.02	4.22	4.39	4.53	-	-
50	-	3.69	3.97	4.23	4.47	4.67	4.84	-	-
55	-	-	4.12	4.43	4.72	4.96	5.17	-	-
60	-	-	-	4.62	4.96	5.27	5.52	-	-
65	-	-	-	4.79	5.20	5.57	5.88	-	-

Mass flow in kg/h

35	82	106	133	166	205	250	302	-	-
40	81	104	131	163	201	244	295	-	-
45	79	102	128	160	196	238	287	-	-
50	-	99	125	155	191	232	279	-	-
55	-	-	121	151	185	224	270	-	-
60	-	-	-	145	178	216	260	-	-
65	-	-	-	139	171	208	250	-	-

Coefficient of performance (C.O.P.)

		,							
35	2.33	2.77	3.28	3.89	4.61	5.45	6.44	-	-
40	2.08	2.45	2.89	3.40	4.00	4.71	5.53	-	-
45	1.85	2.17	2.54	2.97	3.47	4.06	4.74	-	-
50	-	1.92	2.23	2.59	3.01	3.49	4.05	-	-
55	-	-	1.95	2.25	2.60	3.00	3.46	-	-
60	-	-	-	1.94	2.23	2.56	2.94	-	-
65	-	-	-	1.67	1.90	2.17	2.49	-	-

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

Cooling capacity	8 995	W
Power input	3 196	W
Current consumption	4.80	Α
Mass flow	202	kg/h
C.O.P.	2.81	

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

oouna ponor auta		
Sound power level	77	dB(A)
With accoustic hood	70	dB(A)

Tolerance according EN12900



Maneurop reciprocating compressor. MTZ032-4

Performance data at 60 Hz, EN 12900 rating conditions

°C (tc)		<u>-</u>			iting temperature	. ,			
°C (tc)	-25	-20	-10	-5	0	5	10	15	20
Cooling capacity		4 000		4 000		0.740	0.540	40.000	10.100
35	1 129	1 620	3 036	4 029	5 255	6 748	8 542	10 669	13 162
40	967	1 436	2 768	3 698	4 849	6 254	7 947	9 959	12 326
45	803	1 247	2 492	3 359	4 433	5 748	7 338	9 234	11 47 <i>°</i>
50	641	1 059	2 212	3 014	4 010	5 234	6 718	8 497	10 604
55	-	-	1 933	2 668	3 584	4 714	6 093	7 752	9 726
60	-	-	-	2 324	3 158	4 194	5 465	7 003	8 842
65	-	-	-	-	2 738	3 677	4 838	6 253	7 957
75	-	-	-	-	-	-	3 605	4 770	6 196
Power input in W		1		T	T	1	T		
35	892	1 067	1 407	1 559	1 690	1 793	1 861	1 889	1 868
40	915	1 096	1 457	1 623	1 771	1 894	1 986	2 039	2 047
45	924	1 113	1 497	1 680	1 848	1 993	2 109	2 190	2 229
50	918	1 116	1 529	1 730	1 918	2 088	2 231	2 341	2 413
55	-	-	1 550	1 771	1 983	2 178	2 350	2 492	2 597
60	-	-	-	1 804	2 040	2 263	2 466	2 641	2 783
65	-	-	-	-	2 091	2 343	2 578	2 788	2 968
75	-	-	-	-	-	-	2 788	3 075	3 337
Current consum	ption in A				•		•		
35	3.02	3.15	3.39	3.50	3.59	3.66	3.71	3.73	3.71
40	3.04	3.17	3.44	3.56	3.67	3.76	3.84	3.88	3.89
45	3.04	3.18	3.47	3.61	3.75	3.86	3.96	4.04	4.08
50	3.03	3.18	3.50	3.66	3.82	3.96	4.09	4.19	4.27
55	-	-	3.52	3.70	3.88	4.05	4.21	4.35	4.46
60	-	-	-	3.73	3.93	4.13	4.32	4.50	4.65
65	-	-	-	-	3.97	4.20	4.42	4.64	4.83
75	-	-	-	-	-	-	4.59	4.89	5.17
		•				•			
/lass flow in kg/ł	า								
35	29	40	72	94	119	150	187	230	280
40	26	38	69	90	116	146	182	224	274
45	23	35	66	87	112	141	177	219	267
50	20	31	62	82	107	136	171	212	260
55	-	-	58	77	101	130	164	204	251
60	-	-	-	72	96	124	157	196	242
65	-	-	-	-	89	116	149	187	232
75	-	-	-	-	-	-	131	167	210
	rformance (C.C).P.)							
Coefficient of pe			0.40	2.58	3.11	3.76	4.59	5.65	7.05
Coefficient of pe	1.27	1.52	2.16				4.00	4.88	6.02
35	1.27			2.28	2.74	3.30	4.00		
35 40	1.27 1.06	1.31	1.90	2.28 2.00	2.74 2.40	3.30 2.88			5.15
35 40 45	1.27 1.06 0.87	1.31 1.12	1.90 1.66	2.00	2.40	2.88	3.48	4.22	5.15 4.39
40 45 50	1.27 1.06 0.87 0.70	1.31 1.12 0.95	1.90 1.66 1.45	2.00 1.74	2.40 2.09	2.88 2.51	3.48 3.01	4.22 3.63	4.39
35 40 45 50 55	1.27 1.06 0.87 0.70	1.31 1.12 0.95 -	1.90 1.66 1.45 1.25	2.00 1.74 1.51	2.40 2.09 1.81	2.88 2.51 2.16	3.48 3.01 2.59	4.22 3.63 3.11	4.39 3.74
35 40 45 50 55 60	1.27 1.06 0.87 0.70 -	1.31 1.12 0.95 - -	1.90 1.66 1.45 1.25 -	2.00 1.74 1.51 1.29	2.40 2.09 1.81 1.55	2.88 2.51 2.16 1.85	3.48 3.01 2.59 2.22	4.22 3.63 3.11 2.65	4.39 3.74 3.18
35 40 45 50 55 60 65	1.27 1.06 0.87 0.70 - -	1.31 1.12 0.95 - - - -	1.90 1.66 1.45 1.25 - -	2.00 1.74 1.51 1.29 -	2.40 2.09 1.81 1.55 1.31	2.88 2.51 2.16 1.85 1.57	3.48 3.01 2.59 2.22 1.88	4.22 3.63 3.11 2.65 2.24	4.39 3.74 3.18 2.68
35 40 45 50 55 60	1.27 1.06 0.87 0.70 -	1.31 1.12 0.95 - -	1.90 1.66 1.45 1.25 -	2.00 1.74 1.51 1.29	2.40 2.09 1.81 1.55	2.88 2.51 2.16 1.85	3.48 3.01 2.59 2.22	4.22 3.63 3.11 2.65	4.39 3.74 3.18
35 40 45 50 55 60 65 75	1.27 1.06 0.87 0.70 - - -	1.31 1.12 0.95 - - - - -	1.90 1.66 1.45 1.25 - -	2.00 1.74 1.51 1.29 -	2.40 2.09 1.81 1.55 1.31	2.88 2.51 2.16 1.85 1.57 -	3.48 3.01 2.59 2.22 1.88 1.29	4.22 3.63 3.11 2.65 2.24	4.39 3.74 3.18 2.68
35 40 45 50 55 60 65 75 Iominal perform	1.27 1.06 0.87 0.70 - - -	1.31 1.12 0.95 - - - - -	1.90 1.66 1.45 1.25 - -	2.00 1.74 1.51 1.29 -	2.40 2.09 1.81 1.55 1.31	2.88 2.51 2.16 1.85 1.57 - Pressure switch	3.48 3.01 2.59 2.22 1.88 1.29 settings	4.22 3.63 3.11 2.65 2.24	4.39 3.74 3.18 2.68 1.86
35 40 45 50 55 60 65 75 Iominal perform Cooling capacity	1.27 1.06 0.87 0.70 - - -	1.31 1.12 0.95 - - - - - - - - - - - - -	1.90 1.66 1.45 1.25 - - -	2.00 1.74 1.51 1.29 -	2.40 2.09 1.81 1.55 1.31	2.88 2.51 2.16 1.85 1.57 -	3.48 3.01 2.59 2.22 1.88 1.29 settings tch setting	4.22 3.63 3.11 2.65 2.24 1.55	4.39 3.74 3.18 2.68 1.86 bar(g)
35 40 45 50 55 60 65 75	1.27 1.06 0.87 0.70 - - - - - - - - - - - - -	1.31 1.12 0.95 - - - - - - - - - - - - -	1.90 1.66 1.45 1.25 - - - W	2.00 1.74 1.51 1.29 -	2.40 2.09 1.81 1.55 1.31	2.88 2.51 2.16 1.85 1.57 - Pressure switch Maximum HP swi	3.48 3.01 2.59 2.22 1.88 1.29 settings tch setting	4.22 3.63 3.11 2.65 2.24 1.55 20.2	4.39 3.74 3.18 2.68 1.86 bar(g) bar(g)
35 40 45 50 55 60 65 75 Dominal perform Cooling capacity Power input Current consumpt	1.27 1.06 0.87 0.70 - - - - - - - - - - - - -	1.31 1.12 0.95 - - - - - - - - - - - - -	1.90 1.66 1.45 1.25 - - - W W	2.00 1.74 1.51 1.29 -	2.40 2.09 1.81 1.55 1.31	2.88 2.51 2.16 1.85 1.57 - Pressure switch Maximum HP switch	3.48 3.01 2.59 2.22 1.88 1.29 settings tch setting	4.22 3.63 3.11 2.65 2.24 1.55 20.2 0.1	4.39 3.74 3.18 2.68 1.86 bar(g) bar(g)
35 40 45 50 55 60 65 75 Iominal perform Cooling capacity Power input	1.27 1.06 0.87 0.70 - - - - - - - - - - - - -	1.31 1.12 0.95 - - - - - - - - - - - - -	1.90 1.66 1.45 1.25 - - - W W W A	2.00 1.74 1.51 1.29 -	2.40 2.09 1.81 1.55 1.31	2.88 2.51 2.16 1.85 1.57 - Pressure switch Maximum HP switch	3.48 3.01 2.59 2.22 1.88 1.29 settings tch setting th setting th setting	4.22 3.63 3.11 2.65 2.24 1.55 20.2 0.1	4.39 3.74 3.18 2.68

tc: Condensing temperature at dew point

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

Tolerance according EN12900

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R134a

Maneurop reciprocating compressor. MTZ032-4

Danfoss

Performance	e data at 60) Hz, ARI rat	ing conditio	ns					R134
Cond. temp. in				Evapora	ating temperatur	e in °C (to)			
°C (tc)	-25	-20	-10	-5	0	5	10	15	20
35	1 228	1 758	3 283	4 349	5 664	7 262	9 179	11 450	14 107
40	1 058	1 566	3 203	4 012	5 252	6 763	8 579	10 736	13 267
	884	1 370	2 724	3 665	4 828	6 249	7 963	10 7 36	12 408
45 50	-	1 171	2 7 2 4 3 5	3 310	4 395	5 724	7 903	9 258	12 408
55	-	-	2 435	2 953	4 395 3 957	5 193	6 697	9 238 8 503	10 646
60	-	-	- 2 145	2 955	3 957	4 660	6 056	7 741	9 753
							1		
65 75	-	-	-	-	-	4 128	5 414	6 979	8 856
75	-	-	-	-	-	-	4 148	5 466	7 075
ower input in W	/		•	•					
35	892	1 067	1 407	1 559	1 690	1 793	1 861	1 889	1 868
40	915	1 096	1 457	1 623	1 771	1 894	1 986	2 039	2 047
45	924	1 113	1 497	1 680	1 848	1 993	2 109	2 190	2 229
50	-	1 116	1 529	1 730	1 918	2 088	2 231	2 341	2 413
55	-	-	1 550	1 771	1 983	2 178	2 350	2 492	2 597
60	-	-	-	1 804	2 040	2 263	2 466	2 641	2 783
65	-	-	-	-	-	2 343	2 578	2 788	2 968
75	-	-	-	-	-	-	2 788	3 075	3 337
urrent consum			0.00	0.50	0.50		0.74	0.70	0.74
35	3.02	3.15	3.39	3.50	3.59	3.66	3.71	3.73	3.71
40	3.04	3.17	3.44	3.56	3.67	3.76	3.84	3.88	3.89
45	3.04	3.18	3.47	3.61	3.75	3.86	3.96	4.04	4.08
50	-	3.18	3.50	3.66	3.82	3.96	4.09	4.19	4.27
55	-	-	3.52	3.70	3.88	4.05	4.21	4.35	4.46
60	-	-	-	3.73	3.93	4.13	4.32	4.50	4.65
65	-	-	-	-	-	4.20	4.42	4.64	4.83
75	-	-	-	-	-	-	4.59	4.89	5.17
ass flow in kg/l									
35	28	40	72	93	119	149	186	228	278
40	26	38	69	90	115	145	181	223	272
45	23	35	66	86	111	141	176	217	265
50	-	31	62	82	106	135	170	211	258
55	-	-	57	77	101	129	163	203	250
60	-	-	-	72	95	123	156	195	241
65	-	-	-	-	-	116	148	186	231
75	-	-	-	-	-	-	130	166	209
oefficient of pe	rformance (C.C	D.P.)	1	1	1		1		
35	1.38	1.65	2.33	2.79	3.35	4.05	4.93	6.06	7.55
40	1.16	1.43	2.07	2.47	2.97	3.57	4.32	5.26	6.48
45	0.96	1.23	1.82	2.18	2.61	3.14	3.77	4.57	5.57
50	-	1.05	1.59	1.91	2.29	2.74	3.29	3.95	4.78
55	-	-	1.38	1.67	2.00	2.38	2.85	3.41	4.10
60	-	-	-	1.44	1.72	2.06	2.46	2.93	3.50
65	-	-	-	-	-	1.76	2.10	2.50	2.98
75	-	-	-	-	-	-	1.49	1.78	2.12
		0 00 to - 54 4 00				Deserves such t	t tim		
ominal perform ooling capacity	ance at to = 7.2	2 °C, tc = 54.4 °C 5 889	W			Pressure switch Maximum HP swit		20.2	bar(g)
ower input		2 245	Ŵ			Minimum LP swite	-	20.2	bar(g)
Current consumpt	e	4 11	A			I P pump down se	•	0.4	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)

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

Tolerance according EN12900

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

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

4.11

145

2.62

А

kg/h

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Current consumption

Mass flow

Maneurop reciprocating compressor. MTZ032-4

Danfoss

R404A

Performance data at 60 Hz, EN 12900 rating conditions

ond. temp. in				Evapora	ating temperature	e in °C (to)			
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
oling capacity	in 14/								
30	2 006	2 784	3 754	4 943	6 375	8 076	10 072	12 387	15 049
35	1 795	2 523	3 422	4 518	5 837	7 403	9 243	11 382	13 845
40	1 578	2 257	3 085	4 090	5 296	6 729	8 414	10 377	12 643
45	1 353	1 983	2 742	3 656	4 751	6 051	7 583	9 371	11 440
50	1 116	1 699	2 389	3 214	4 198	5 367	6 745	8 359	10 233
55	-	1 401	2 024	2 760	3 635	4 672	5 899	7 339	9 020
60	-	1 088	1 645	2 293	3 058	3 966	5 041	6 309	7 796
ower input in W			T	T	1		1	T	1
30	1 474	1 716	1 945	2 155	2 341	2 498	2 621	2 705	2 744
35	1 501	1 767	2 021	2 258	2 472	2 658	2 812	2 927	2 999
40	1 520	1 811	2 092	2 356	2 600	2 817	3 002	3 150	3 257
45	1 523	1 841	2 150	2 444	2 718	2 967	3 185	3 368	3 510
50	1 506	1 852	2 191	2 515	2 821	3 103	3 356	3 575	3 754
55	-	1 838	2 207	2 564	2 903	3 220	3 508	3 764	3 981
60	-	1 792	2 193	2 583	2 957	3 310	3 636	3 930	4 187
urrent consum	tion in A								
30	2.86	3.07	3.30	3.54	3.78	4.00	4.17	4.30	4.35
35	2.88	3.11	3.37	3.64	3.91	4.15	4.36	4.51	4.59
40	2.90	3.16	3.46	3.76	4.06	4.33	4.57	4.76	4.87
45	2.91	3.21	3.54	3.88	4.21	4.52	4.80	5.03	5.18
50	2.89	3.23	3.60	3.98	4.36	4.71	5.03	5.30	5.49
55		3.22	3.63	4.06	4.48	4.88	5.24	5.56	5.80
60	-	3.15	3.62	4.09	4.56	5.01	5.43	5.79	6.08
lass flow in kg/h	1								
30	63	86	112	144	182	225	275	332	398
35	61	83	110	141	177	220	268	324	387
40	58	80	107	137	173	214	261	315	376
45	54	77	103	134	168	208	254	306	366
50	50	73	99	129	163	202	247	298	355
55	-	68	94	124	157	196	239	289	344
60	-	61	88	118	151	188	231	279	333
-	fa								
oefficient of per 30		1.62	1.93	2.29	2.72	3.23	3.84	4.58	5.48
35	1.36 1.20	1.43	1.93	2.29	2.72	2.78	3.29	3.89	4.62
40	1.20	1.43	1.69	1.74	2.36	2.78	2.80	3.89	3.88
40	0.89	1.25	1.48	1.74	1.75	2.39	2.80	2.78	3.88
45 50	0.89	0.92	1.20	1.30	1.75	1.73	2.30	2.78	2.73
55	-	0.92	0.92	1.28			1.68		2.73
55 60		0.76	0.92	0.89	1.25	1.45	1.68	1.95 1.61	1.86
00	-	0.01	0.75	0.09	1.03	1.20	1.38	1.01	1.00
ominal perform	ance at to = -1	0 °C, tc = 45 °C				Pressure switch	settings		
Cooling capacity		4 751	W	1		Maximum HP swi		27.7	bar(g)
Power input		2 710	14/	1		Minimum I P swite	ch sotting	1	hor/a

|--|

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

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

2 718

4.21

168

1.75

W

А

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)

dB(A)

dB(A)

73

66

Sound power level	
With accoustic hood	

Tolerance according EN12900

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Power input Current consumption

Mass flow

Maneurop reciprocating compressor. MTZ032-4

Danfoss

R404A

Performance data at 60 Hz, ARI rating conditions

Cond. temp. in				Evapora	ating temperatu	re in °C (to)			
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
						·			
Cooling capacity		0.000		5.400		0.004	44.050	10 507	10.151
30	2 233	3 090	4 157	5 460	7 025	8 881	11 052	13 567	16 451
35	2 020	2 829	3 826	5 038	6 491	8 212	10 229	12 568	15 256
40	1 799	2 563	3 492	4 613	5 955	7 544	9 407	11 572	14 064
45	1 568	2 288	3 150	4 184	5 416	6 874	8 585	10 577	12 876
50	1 322	2 000	2 799	3 746	4 871	6 200	7 762	9 583	11 692
55	-	1 698	2 436	3 301	4 320	5 524	6 939	8 594	10 516
60	-	1 376	2 059	2 846	3 766	4 849	6 123	7 616	9 359
Power input in W									
30	1 474	1 716	1 945	2 155	2 341	2 498	2 621	2 705	2 744
35	1 501	1 767	2 021	2 258	2 472	2 658	2 812	2 927	2 999
40	1 520	1 811	2 092	2 356	2 600	2 817	3 002	3 150	3 257
45	1 523	1 841	2 150	2 444	2 718	2 967	3 185	3 368	3 510
50	1 506	1 852	2 191	2 515	2 821	3 103	3 356	3 575	3 754
55	-	1 838	2 207	2 564	2 903	3 220	3 508	3 764	3 981
60	-	1 792	2 193	2 583	2 957	3 310	3 636	3 930	4 187
30	2.86	3.07	3.30	3.54	3.78	4.00	4.17	4.30	4.35
35	2.88	3.11	3.37	3.64	3.91	4.15	4.36	4.51	4.59
40	2.90	3.16	3.46	3.76	4.06	4.33	4.57	4.76	4.87
45	2.91	3.21	3.54	3.88	4.21	4.52	4.80	5.03	5.18
50	2.89	3.23	3.60	3.98	4.36	4.71	5.03	5.30	5.49
55	-	3.22	3.63	4.06	4.48	4.88	5.24	5.56	5.80
60	-	3.15	3.62	4.09	4.56	5.01	5.43	5.79	6.08
00		0.10	0.02	1.00	1.00	0.01	0.10	0.10	0.00
lass flow in kg/h	1				1		1	1	
30	63	85	112	143	180	224	273	330	395
35	60	83	109	140	176	218	266	322	384
40	57	80	106	137	172	213	260	313	374
45	54	77	103	133	167	207	253	304	363
50	49	72	98	128	162	201	245	296	353
55	-	67	93	123	157	195	238	287	342
60	-	61	87	117	150	187	229	277	330
Coefficient of per	formance (C.C).P.)							
30	1.51	1.80	2.14	2.53	3.00	3.55	4.22	5.02	6.00
35	1.35	1.60	1.89	2.23	2.63	3.09	3.64	4.29	5.09
40	1.18	1.42	1.67	1.96	2.00	2.68	3.13	3.67	4.32
40	1.03	1.42	1.07	1.90	1.99	2.32	2.70	3.14	3.67
50	0.88	1.08	1.47	1.49	1.33	2.00	2.31	2.68	3.11
55	-	0.92	1.20	1.49	1.73	1.72	1.98	2.08	2.64
60	-	0.92	0.94	1.29	1.49	1.72	1.98	1.94	2.64
		0.11	0.07	1.10	1 1.27	1.10	1.00		<u> </u>
Nominal perform	ance at to = -1	,				Pressure switch			
Cooling capacity		5 416	W			Maximum HP swi	U	27.7	bar(g)
Power input Current consumpti		2 718 4.21	W			Minimum LP swite	•	1 1.3	bar(g)
Jurrent consumpti	ion -	4 21	А	1		I LP DUMD down se	nund	1.3	bar(g)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

4.21

167

1.99

А

kg/h

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

			_
Sound power level	73	dB(A)	
With accoustic hood	66	dB(A)	

Tolerance according EN12900

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Current consumption

Mass flow

Maneurop reciprocating compressor. MTZ032-4

Performance data at 60 Hz, EN 12900 rating conditions

Cond. temp. in		-		Evapora	ting temperature	in °C (to)			
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
ooling capacity	in W								
30	1 531	2 301	3 250	4 402	5 781	7 410	9 315	11 518	14 044
35	1 304	2 037	2 935	4 023	5 326	6 867	8 670	10 759	13 159
40	1 073	1 764	2 607	3 628	4 851	6 299	7 997	9 968	12 237
45	844	1 488	2 273	3 223	4 362	5 713	7 302	9 151	11 285
50	-	1 215	1 938	2 812	3 863	5 114	6 590	8 313	10 309
55	-	-	1 607	2 403	3 362	4 509	5 867	7 461	9 314
60	-	-	-	1 999	2 863	3 901	5 139	6 599	8 306
				•		1	•		
ower input in W		•		1	•		1	•	1
30	1 168	1 411	1 635	1 839	2 020	2 178	2 311	2 418	2 498
35	1 147	1 417	1 671	1 904	2 118	2 309	2 478	2 621	2 739
40	1 107	1 407	1 691	1 957	2 205	2 432	2 637	2 819	2 977
45	1 049	1 380	1 697	1 998	2 281	2 546	2 790	3 012	3 212
50	-	1 338	1 689	2 026	2 347	2 651	2 936	3 201	3 445
55	-	-	1 667	2 042	2 403	2 748	3 076	3 386	3 675
60	-	-	-	2 046	2 449	2 837	3 210	3 566	3 903
urrent consump		1		1			1		
30	2.86	3.07	3.29	3.52	3.73	3.91	4.05	4.12	4.12
35	2.87	3.08	3.31	3.56	3.80	4.01	4.19	4.31	4.36
40	2.87	3.09	3.35	3.62	3.89	4.14	4.36	4.54	4.65
45	2.84	3.09	3.37	3.67	3.98	4.28	4.56	4.79	4.97
50	-	3.05	3.37	3.71	4.07	4.42	4.76	5.06	5.31
55	-	-	3.33	3.72	4.13	4.54	4.95	5.33	5.66
60	-	-	-	3.68	4.15	4.63	5.11	5.57	6.00
lass flow in kg/h	1								
30	36	54	75	99	128	161	199	242	292
35	33	50	71	95	124	157	194	238	287
40	28	46	66	91	119	151	189	232	280
45	24	41	62	85	113	146	183	225	273
50	-	36	56	80	107	139	175	217	264
55	-	-	50	73	100	131	167	208	255
60	-	-	-	66	92	123	158	198	244
coefficient of per	formance (C.C	D.P.)							
30	1.31	1.63	1.99	2.39	2.86	3.40	4.03	4.76	5.62
35	1.14	1.44	1.76	2.11	2.51	2.97	3.50	4.10	4.80
40	0.97	1.25	1.54	1.85	2.20	2.59	3.03	3.54	4.11
45	0.80	1.08	1.34	1.61	1.91	2.24	2.62	3.04	3.51
50	-	0.91	1.15	1.39	1.65	1.93	2.24	2.60	2.99
55	-	-	0.96	1.18	1.40	1.64	1.91	2.20	2.53

Nominal performance at to = -10	C, IC = 45 C		
Cooling capacity	4 362	W	
Power input	2 281	W	
Current consumption	3.98	A	
Mass flow	113	kg/h	
C.O.P.	1.91		

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)
p		(3)

Sound power data

Sound power level	73	dB(A)
With accoustic hood	66	dB(A)

Tolerance according EN12900

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R407A

Maneurop reciprocating compressor. MTZ032-4

Danfoss

R407A

Performance data at 60 Hz, ARI rating conditions

cond. temp. in				Evapora	ating temperature	in °C (to)			
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
ooling capacity	in W								
30	1 656	2 485	3 505	4 741	6 218	7 961	9 995	12 345	15 036
35	1 419	2 212	3 183	4 357	5 759	7 414	9 349	11 587	14 155
40	1 176	1 928	2 846	3 954	5 277	6 842	8 673	10 796	13 235
45	932	1 640	2 500	3 538	4 779	6 249	7 973	9 976	12 285
50	-	1 352	2 151	3 115	4 270	5 641	7 254	9 135	11 309
55	-	-	1 805	2 691	3 756	5 025	6 524	8 279	10 316
60	-	-	-	2 272	3 243	4 407	5 789	7 416	9 312
		•		•	1			•	
ower input in W		1	1	1			•		1
30	1 168	1 411	1 635	1 839	2 020	2 178	2 311	2 418	2 498
35	1 147	1 417	1 671	1 904	2 118	2 309	2 478	2 621	2 739
40	1 107	1 407	1 691	1 957	2 205	2 432	2 637	2 819	2 977
45	1 049	1 380	1 697	1 998	2 281	2 546	2 790	3 012	3 212
50	-	1 338	1 689	2 026	2 347	2 651	2 936	3 201	3 445
55	-	-	1 667	2 042	2 403	2 748	3 076	3 386	3 675
60	-	-	-	2 046	2 449	2 837	3 210	3 566	3 903
urrent consump	otion in A			1	1	1	1	1	T
30	2.86	3.07	3.29	3.52	3.73	3.91	4.05	4.12	4.12
35	2.87	3.08	3.31	3.56	3.80	4.01	4.19	4.31	4.36
40	2.87	3.09	3.35	3.62	3.89	4.14	4.36	4.54	4.65
45	2.84	3.09	3.37	3.67	3.98	4.28	4.56	4.79	4.97
50	-	3.05	3.37	3.71	4.07	4.42	4.76	5.06	5.31
55	-	-	3.33	3.72	4.13	4.54	4.95	5.33	5.66
60	-	-	-	3.68	4.15	4.63	5.11	5.57	6.00
lass flow in kg/h	1								
30	36	54	74	98	127	160	198	241	290
35	32	50	70	95	123	156	193	236	285
40	28	46	66	90	118	151	188	230	279
45	24	41	61	85	113	145	182	224	271
50	-	36	56	79	106	138	174	216	263
55	-	-	50	73	100	131	166	207	253
60	-	-	-	66	92	122	157	197	243
coefficient of per	formance (C. C) P)							
30	1.42	1.76	2.14	2.58	3.08	3.65	4.32	5.10	6.02
35	1.24	1.56	1.91	2.29	2.72	3.21	3.77	4.42	5.17
40	1.06	1.37	1.68	2.02	2.39	2.81	3.29	3.83	4.45
45	0.89	1.19	1.47	1.77	2.09	2.45	2.86	3.31	3.82
50	-	1.01	1.27	1.54	1.82	2.13	2.47	2.85	3.28
55	-	-	1.08	1.32	1.56	1.83	2.12	2.45	2.81
~~		1		1.11	1.32	1.55	1.80	2.08	2.39

itelinia periorianee atte ie e, a			
Cooling capacity	4 779	W	
Power input	2 281	W	
Current consumption	3.98	Α	
Mass flow	113	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

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

dB(A) 73 Sound power level With accoustic hood 66 dB(A)

Tolerance according EN12900



Maneurop reciprocating compressor. MTZ032-4

Danfoss

R407F

Performance data at 60 Hz, EN 12900 rating conditions

cond. temp. in	Evaporating temperature in °C (to)									
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10	
ooling capacity i	n W									
30	-	2 540	3 615	4 915	6 468	8 302	10 445	12 924	15 768	
35	-	2 170	3 154	4 344	5 768	7 454	9 430	11 723	14 362	
40	-	1 852	2 758	3 850	5 158	6 709	8 530	10 650	13 096	
45	-	1 577	2 417	3 425	4 630	6 058	7 738	9 697	11 963	
50	-	-	2 122	3 059	4 172	5 490	7 041	8 852	10 95	
55	-	_	-	2 741	3 776	4 997	6 431	8 107	10 05	
60	-	_	-	-	-	-	-	-	-	
ower input in W				1	T		T		T	
30	-	1 454	1 681	1 890	2 073	2 220	2 321	2 367	2 349	
35	-	1 456	1 707	1 948	2 170	2 363	2 519	2 627	2 677	
40	-	1 456	1 727	1 995	2 252	2 488	2 693	2 858	2 973	
45	-	1 464	1 750	2 042	2 329	2 603	2 853	3 071	3 246	
50	-	-	1 786	2 096	2 409	2 716	3 007	3 273	3 505	
55	-	-	-	2 168	2 503	2 838	3 166	3 476	3 758	
60	-	-	-	-	-	-	-	-	-	
urrent consumpt 30	-	3.07	3.31	3.56	3.78	3.98	4.11	4.16	4.12	
35		3.12	3.37	3.63	3.89	4.11	4.29	4.40	4.42	
40	-	3.15	3.41	3.70	3.99	4.26	4.49	4.66	4.75	
45	-	3.15	3.44	3.76	4.09	4.41	4.70	4.94	5.11	
50	-	-	3.46	3.82	4.20	4.58	4.94	5.25	5.51	
55	-	_	-	3.88	4.32	4.76	5.20	5.60	5.94	
60	-	_	-	-	-	-	-	-	-	
					I					
lass flow in kg/h										
30	-	52	74	99	128	162	201	246	297	
35	-	47	67	91	119	152	190	233	282	
40	-	42	62	85	112	144	180	222	269	
45	-	38	57	80	106	137	172	212	258	
50	-	-	53	75	101	131	165	205	250	
55	-	-	-	72	98	127	161	199	243	
60	-	-	-	-	-	-	-	-	-	
a officient of norf										
30	-	1.75	2.15	2.60	3.12	3.74	4.50	5.46	6.71	
35	_	1.49	1.85	2.23	2.66	3.15	3.74	4.46	5.36	
40	_	1.43	1.60	1.93	2.29	2.70	3.17	3.73	4.40	
40	-	1.08	1.38	1.68	1.99	2.33	2.71	3.16	3.69	
45 50	-	-	1.30	1.46	1.99	2.02	2.71	2.70	3.09	
55	-	-		1.46	1.73	1.76	2.34	2.70	2.67	
60	-	-	-	-	-	-	-	-	- 2.07	
00	-	-	1 -	1 -	1 -		L -	1 -	I -	
ominal performa	nce at to = -1			_		Pressure switch				
cooling capacity		4 630				Maximum HP swi		24	bar(g	
Power input		2 329 4 09	W			Minimum LP swite		1 1 26	bar(g)	

to: Evaporating temperature at dew point	

tc: Condensing temperature at dew point

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

4.09

106

1.99

А

kg/h

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	73	dB(A)
With accoustic hood	66	dB(A)

Tolerance according EN12900

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Current consumption

Mass flow

Danfoss

Maneurop reciprocating compressor. MTZ032-4

Performance data at 60 Hz, ARI rating conditions

Performance	data at 6	0 Hz, ARI rat	ing conditio	ns					R407I		
Cond. temp. in	Evaporating temperature in °C (to)										
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10		
cooling capacity	in W										
30	-	2 723	3 871	5 257	6 911	8 863	11 141	13 773	16 790		
35	-	2 336	3 392	4 667	6 190	7 991	10 100	12 544	15 354		
40	-	2 005	2 981	4 158	5 564	7 228	9 181	11 450	14 066		
45	-	1 718	2 630	3 722	5 023	6 564	8 374	10 483	12 918		
50	-	-	2 327	3 348	4 560	5 991	7 673	9 634	11 904		
55	-	-	-	3 028	4 164	5 501	7 069	8 898	11 016		
60	-	-	-	-	-	-	-	-	-		
ower input in W 30	-	1 454	1 681	1 890	2 073	2 220	2 321	2 367	2 349		
35	-	1 456	1 707	1 948	2 170	2 363	2 519	2 627	2 677		
40	-	1 456	1 727	1 995	2 252	2 488	2 693	2 858	2 973		
45	-	1 464	1 750	2 042	2 329	2 603	2 853	3 071	3 246		
50	-	-	1 786	2 096	2 409	2 716	3 007	3 273	3 505		
55	-	-	-	2 168	2 503	2 838	3 166	3 476	3 758		
60	-	-	-	-	-	-	-	-	-		
urrent consump	tion in A	·									
30	-	3.07	3.31	3.56	3.78	3.98	4.11	4.16	4.12		
35	-	3.12	3.37	3.63	3.89	4.11	4.29	4.40	4.42		

35	-	3.12	3.37	3.63	3.89	4.11	4.29	4.40	4.42
40	-	3.15	3.41	3.70	3.99	4.26	4.49	4.66	4.75
45	-	3.15	3.44	3.76	4.09	4.41	4.70	4.94	5.11
50	-	-	3.46	3.82	4.20	4.58	4.94	5.25	5.51
55	-	-	-	3.88	4.32	4.76	5.20	5.60	5.94
60	-	-	-	-	-	-	-	-	-

Mass flow in kg/h

30	-	52	73	98	127	161	200	244	295
35	-	47	67	91	119	151	188	231	280
40	-	42	62	84	111	143	179	220	267
45	-	38	57	79	105	136	171	211	257
50	-	-	53	75	101	130	164	203	248
55	-	-	-	72	97	126	160	198	241
60	-	-	-	-	-	-	-	-	-

Coefficient of performance (C.O.P.)

		,							
30	-	1.87	2.30	2.78	3.33	3.99	4.80	5.82	7.15
35	-	1.61	1.99	2.40	2.85	3.38	4.01	4.78	5.73
40	-	1.38	1.73	2.08	2.47	2.91	3.41	4.01	4.73
45	-	1.17	1.50	1.82	2.16	2.52	2.94	3.41	3.98
50	-	-	1.30	1.60	1.89	2.21	2.55	2.94	3.40
55	-	-	-	1.40	1.66	1.94	2.23	2.56	2.93
60	-	-	-	-	-	-	-	-	-

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

Cooling capacity	5 023	W
Power input	2 329	W
Current consumption	4.09	А
Mass flow	105	kg/h
C.O.P.	2.16	-

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

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	73	dB(A)
With accoustic hood	66	dB(A)

Tolerance according EN12900



Maneurop reciprocating compressor. MTZ032-4

Performance data at 60 Hz, EN 12900 rating conditions

°C (tc)		<u>-</u>			iting temperature	. ,			
°C (tc)	-25	-20	-10	-5	0	5	10	15	20
Cooling capacity		4 000		4 000		0.740	0.540	40.000	10.100
35	1 129	1 620	3 036	4 029	5 255	6 748	8 542	10 669	13 162
40	967	1 436	2 768	3 698	4 849	6 254	7 947	9 959	12 326
45	803	1 247	2 492	3 359	4 433	5 748	7 338	9 234	11 47 <i>°</i>
50	641	1 059	2 212	3 014	4 010	5 234	6 718	8 497	10 604
55	-	-	1 933	2 668	3 584	4 714	6 093	7 752	9 726
60	-	-	-	2 324	3 158	4 194	5 465	7 003	8 842
65	-	-	-	-	2 738	3 677	4 838	6 253	7 957
75	-	-	-	-	-	-	3 605	4 770	6 196
Power input in W		1		T	T	1	T		
35	892	1 067	1 407	1 559	1 690	1 793	1 861	1 889	1 868
40	915	1 096	1 457	1 623	1 771	1 894	1 986	2 039	2 047
45	924	1 113	1 497	1 680	1 848	1 993	2 109	2 190	2 229
50	918	1 116	1 529	1 730	1 918	2 088	2 231	2 341	2 413
55	-	-	1 550	1 771	1 983	2 178	2 350	2 492	2 597
60	-	-	-	1 804	2 040	2 263	2 466	2 641	2 783
65	-	-	-	-	2 091	2 343	2 578	2 788	2 968
75	-	-	-	-	-	-	2 788	3 075	3 337
Current consum	ption in A				•		•		
35	3.02	3.15	3.39	3.50	3.59	3.66	3.71	3.73	3.71
40	3.04	3.17	3.44	3.56	3.67	3.76	3.84	3.88	3.89
45	3.04	3.18	3.47	3.61	3.75	3.86	3.96	4.04	4.08
50	3.03	3.18	3.50	3.66	3.82	3.96	4.09	4.19	4.27
55	-	-	3.52	3.70	3.88	4.05	4.21	4.35	4.46
60	-	-	-	3.73	3.93	4.13	4.32	4.50	4.65
65	-	-	-	-	3.97	4.20	4.42	4.64	4.83
75	-	-	-	-	-	-	4.59	4.89	5.17
		•				•			
/lass flow in kg/ł	า								
35	29	40	72	94	119	150	187	230	280
40	26	38	69	90	116	146	182	224	274
45	23	35	66	87	112	141	177	219	267
50	20	31	62	82	107	136	171	212	260
55	-	-	58	77	101	130	164	204	251
60	-	-	-	72	96	124	157	196	242
65	-	-	-	-	89	116	149	187	232
75	-	-	-	-	-	-	131	167	210
	rformance (C.C).P.)							
Coefficient of pe			0.40	2.58	3.11	3.76	4.59	5.65	7.05
Coefficient of pe	1.27	1.52	2.16					4.88	6.02
35	1.27			2.28	2.74	3.30	4.00		
35 40	1.27 1.06	1.31	1.90	2.28 2.00	2.74 2.40	3.30 2.88	4.00 3.48		5.15
35 40 45	1.27 1.06 0.87	1.31 1.12	1.90 1.66	2.00	2.40	2.88	3.48	4.22	5.15 4.39
40 45 50	1.27 1.06 0.87 0.70	1.31 1.12 0.95	1.90 1.66 1.45	2.00 1.74	2.40 2.09	2.88 2.51	3.48 3.01	4.22 3.63	4.39
35 40 45 50 55	1.27 1.06 0.87 0.70	1.31 1.12 0.95 -	1.90 1.66 1.45 1.25	2.00 1.74 1.51	2.40 2.09 1.81	2.88 2.51 2.16	3.48 3.01 2.59	4.22 3.63 3.11	4.39 3.74
35 40 45 50 55 60	1.27 1.06 0.87 0.70 -	1.31 1.12 0.95 - -	1.90 1.66 1.45 1.25 -	2.00 1.74 1.51 1.29	2.40 2.09 1.81 1.55	2.88 2.51 2.16 1.85	3.48 3.01 2.59 2.22	4.22 3.63 3.11 2.65	4.39 3.74 3.18
35 40 45 50 55 60 65	1.27 1.06 0.87 0.70 - -	1.31 1.12 0.95 - - - -	1.90 1.66 1.45 1.25 - -	2.00 1.74 1.51 1.29 -	2.40 2.09 1.81 1.55 1.31	2.88 2.51 2.16 1.85 1.57	3.48 3.01 2.59 2.22 1.88	4.22 3.63 3.11 2.65 2.24	4.39 3.74 3.18 2.68
35 40 45 50 55 60	1.27 1.06 0.87 0.70 -	1.31 1.12 0.95 - -	1.90 1.66 1.45 1.25 -	2.00 1.74 1.51 1.29	2.40 2.09 1.81 1.55	2.88 2.51 2.16 1.85	3.48 3.01 2.59 2.22	4.22 3.63 3.11 2.65	4.39 3.74 3.18
35 40 45 50 55 60 65 75	1.27 1.06 0.87 0.70 - - -	1.31 1.12 0.95 - - - - -	1.90 1.66 1.45 1.25 - -	2.00 1.74 1.51 1.29 -	2.40 2.09 1.81 1.55 1.31	2.88 2.51 2.16 1.85 1.57 -	3.48 3.01 2.59 2.22 1.88 1.29	4.22 3.63 3.11 2.65 2.24	4.39 3.74 3.18 2.68
35 40 45 50 55 60 65 75 Iominal perform	1.27 1.06 0.87 0.70 - - -	1.31 1.12 0.95 - - - - -	1.90 1.66 1.45 1.25 - -	2.00 1.74 1.51 1.29 -	2.40 2.09 1.81 1.55 1.31	2.88 2.51 2.16 1.85 1.57 - Pressure switch	3.48 3.01 2.59 2.22 1.88 1.29 settings	4.22 3.63 3.11 2.65 2.24	4.39 3.74 3.18 2.68 1.86
35 40 45 50 55 60 65 75 Iominal perform Cooling capacity	1.27 1.06 0.87 0.70 - - -	1.31 1.12 0.95 - - - - - - - - - - - - -	1.90 1.66 1.45 1.25 - - -	2.00 1.74 1.51 1.29 -	2.40 2.09 1.81 1.55 1.31	2.88 2.51 2.16 1.85 1.57 -	3.48 3.01 2.59 2.22 1.88 1.29 settings tch setting	4.22 3.63 3.11 2.65 2.24 1.55	4.39 3.74 3.18 2.68 1.86 bar(g)
35 40 45 50 55 60 65 75	1.27 1.06 0.87 0.70 - - - - - - - - - - - - -	1.31 1.12 0.95 - - - - - - - - - - - - -	1.90 1.66 1.45 1.25 - - - W	2.00 1.74 1.51 1.29 -	2.40 2.09 1.81 1.55 1.31	2.88 2.51 2.16 1.85 1.57 - Pressure switch Maximum HP swi	3.48 3.01 2.59 2.22 1.88 1.29 settings tch setting	4.22 3.63 3.11 2.65 2.24 1.55 20.2	4.39 3.74 3.18 2.68 1.86 bar(g) bar(g)
35 40 45 50 55 60 65 75 Dominal perform Cooling capacity Power input Current consumpt	1.27 1.06 0.87 0.70 - - - - - - - - - - - - -	1.31 1.12 0.95 - - - - - - - - - - - - -	1.90 1.66 1.45 1.25 - - - W W	2.00 1.74 1.51 1.29 -	2.40 2.09 1.81 1.55 1.31	2.88 2.51 2.16 1.85 1.57 - Pressure switch Maximum HP switch	3.48 3.01 2.59 2.22 1.88 1.29 settings tch setting	4.22 3.63 3.11 2.65 2.24 1.55 20.2 0.1	4.39 3.74 3.18 2.68 1.86 bar(g) bar(g)
35 40 45 50 55 60 65 75 Iominal perform Cooling capacity Power input	1.27 1.06 0.87 0.70 - - - - - - - - - - - - -	1.31 1.12 0.95 - - - - - - - - - - - - -	1.90 1.66 1.45 1.25 - - - W W W A	2.00 1.74 1.51 1.29 -	2.40 2.09 1.81 1.55 1.31	2.88 2.51 2.16 1.85 1.57 - Pressure switch Maximum HP switch	3.48 3.01 2.59 2.22 1.88 1.29 settings tch setting th setting th setting	4.22 3.63 3.11 2.65 2.24 1.55 20.2 0.1	4.39 3.74 3.18 2.68

tc: Condensing temperature at dew point

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

Tolerance according EN12900

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R134a

Maneurop reciprocating compressor. MTZ032-4

Danfoss

Performance	e data at 60) Hz, ARI rat	ing conditio	ns					R134
Cond. temp. in				Evapora	ating temperatur	e in °C (to)			
°C (tc)	-25	-20	-10	-5	0	5	10	15	20
35	1 228	1 758	3 283	4 349	5 664	7 262	9 179	11 450	14 107
40	1 058	1 566	3 203	4 012	5 252	6 763	8 579	10 736	13 267
	884	1 370	2 724	3 665	4 828	6 249	7 963	10 7 36	12 408
45 50	-	1 171	2 7 2 4 3 5	3 310	4 395	5 724	7 903	9 258	12 408
55	-	-	2 435	2 953	4 395 3 957	5 193	6 697	9 238 8 503	10 646
60	-	-	- 2 145	2 955	3 957	4 660	6 056	7 741	9 753
							1		
65 75	-	-	-	-	-	4 128	5 414	6 979	8 856
75	-	-	-	-	-	-	4 148	5 466	7 075
ower input in W	/		•	•					
35	892	1 067	1 407	1 559	1 690	1 793	1 861	1 889	1 868
40	915	1 096	1 457	1 623	1 771	1 894	1 986	2 039	2 047
45	924	1 113	1 497	1 680	1 848	1 993	2 109	2 190	2 229
50	-	1 116	1 529	1 730	1 918	2 088	2 231	2 341	2 413
55	-	-	1 550	1 771	1 983	2 178	2 350	2 492	2 597
60	-	-	-	1 804	2 040	2 263	2 466	2 641	2 783
65	-	-	-	-	-	2 343	2 578	2 788	2 968
75	-	-	-	-	-	-	2 788	3 075	3 337
urrent consum			0.00	0.50	0.50		0.74	0.70	0.74
35	3.02	3.15	3.39	3.50	3.59	3.66	3.71	3.73	3.71
40	3.04	3.17	3.44	3.56	3.67	3.76	3.84	3.88	3.89
45	3.04	3.18	3.47	3.61	3.75	3.86	3.96	4.04	4.08
50	-	3.18	3.50	3.66	3.82	3.96	4.09	4.19	4.27
55	-	-	3.52	3.70	3.88	4.05	4.21	4.35	4.46
60	-	-	-	3.73	3.93	4.13	4.32	4.50	4.65
65	-	-	-	-	-	4.20	4.42	4.64	4.83
75	-	-	-	-	-	-	4.59	4.89	5.17
ass flow in kg/l									
35	28	40	72	93	119	149	186	228	278
40	26	38	69	90	115	145	181	223	272
45	23	35	66	86	111	141	176	217	265
50	-	31	62	82	106	135	170	211	258
55	-	-	57	77	101	129	163	203	250
60	-	-	-	72	95	123	156	195	241
65	-	-	-	-	-	116	148	186	231
75	-	-	-	-	-	-	130	166	209
oefficient of pe	rformance (C.C	D.P.)	1	1	1		1		
35	1.38	1.65	2.33	2.79	3.35	4.05	4.93	6.06	7.55
40	1.16	1.43	2.07	2.47	2.97	3.57	4.32	5.26	6.48
45	0.96	1.23	1.82	2.18	2.61	3.14	3.77	4.57	5.57
50	-	1.05	1.59	1.91	2.29	2.74	3.29	3.95	4.78
55	-	-	1.38	1.67	2.00	2.38	2.85	3.41	4.10
60	-	-	-	1.44	1.72	2.06	2.46	2.93	3.50
65	-	-	-	-	-	1.76	2.10	2.50	2.98
75	-	-	-	-	-	-	1.49	1.78	2.12
		0 00 to - 54 4 00				Deserves such t	t tim		
ominal perform ooling capacity	ance at to = 7.2	2 °C, tc = 54.4 °C 5 889	W			Pressure switch Maximum HP swit		20.2	bar(g)
ower input		2 245	Ŵ			Minimum LP swite	-	20.2	bar(g)
Current consumpt	e	4 11	A			I P pump down se	•	0.4	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)

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

Tolerance according EN12900

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

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

4.11

145

2.62

А

kg/h

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Current consumption

Mass flow

Maneurop reciprocating compressor. MTZ032-4

Danfoss

Performance data at 60 Hz, EN 12900 rating conditions

Evaporating temperature in $^{\circ}$ (tic) Cooling capacity in W Second Secon	Performance	e data at 60	0 Hz, EN 129	00 rating co	nditions				I	R4070
$^{\circ}$ C (to) -15 -10 -5 0 5 10 15 Scoling capacity in W 35 3813 4972 6385 8.088 10120 12516 15315 40 3.684 4.686 5978 7.666 9.457 11.887 14294 45 3.204 4.322 5554 7.027 8.797 10.844 13.260 55 - - 4.690 5.903 7.320 8.986 65 - - - 4.699 5.903 7.320 8.986 20wer input in W - - - 4.699 5.903 7.320 8.986 20wer input in W - - - 4.699 5.903 7.320 8.986 2000 1.855 2.051 2.233 2.397 2.644 2.671 2.779 45 1.941 2.165 2.374 2.655 2.738 2.892 3.025 50 - - 2.032 <t< th=""><th>Cond. temp. in</th><th></th><th></th><th></th><th>Evapor</th><th>ating temperatur</th><th>e in °C (to)</th><th></th><th></th><th></th></t<>	Cond. temp. in				Evapor	ating temperatur	e in °C (to)			
35 3 813 4 972 6 386 8 088 10 120 12 516 15 315 40 3 564 4 666 5 978 7 566 9 457 11 1677 14 294 45 3 294 4 322 5 554 7 027 8 779 10 844 13 280 50 - - 4 650 5 988 7 374 9 113 11 153 60 - - - 4 650 5 988 7 374 9 113 11 153 60 - - - 4 699 5 903 7 320 8 986 7000 1855 2 061 2 233 2 397 2 544 2 667 2 779 45 1 941 2 165 2 374 2 565 2 738 2 892 3 025 50 - - 2 269 2 608 2 729 2 932 3 115 3 277 55 - - - 3 103 3 308 3 552 66 - - 3	· · –	-15	-10	-5				15		
35 3 813 4 972 6 386 8 088 10 120 12 516 15 315 40 3 564 4 666 5 978 7 566 9 457 11 1677 14 294 45 3 294 4 322 5 554 7 027 8 779 10 844 13 280 50 - - 4 650 5 988 7 374 9 113 11 153 60 - - - 4 650 5 988 7 374 9 113 11 153 60 - - - 4 699 5 903 7 320 8 986 7000 1855 2 061 2 233 2 397 2 544 2 667 2 779 45 1 941 2 165 2 374 2 565 2 738 2 892 3 025 50 - - 2 269 2 608 2 729 2 932 3 115 3 277 55 - - - 3 103 3 308 3 552 66 - - 3			•	•	•	1	•	•	•	
40 3 564 4 656 5 978 7 566 9 457 11 687 14 294 45 3 294 4 322 5 554 7 027 8 779 10 844 13 260 50 - 3 968 5 111 6 471 8 084 9 896 12 213 55 - - 4 660 5 898 7 374 9 113 11 153 60 - - - 5 308 6 647 8 225 10 078 65 - - - 4 699 5 903 7 320 8 986 cowr input in W 35 1 758 1 930 2 067 2 228 2 351 2 450 2 542 40 1 855 2 051 2 233 2 397 2 544 2 671 2 779 50 - 2 266 2 738 2 892 3 105 3 277 55 - - 3 133 3 485 3 775 4 043 60 - - <	ooling capacity	r in W		-		-		-		
45 3 294 4 322 5 554 7 027 8 779 10 844 13 260 50 - 3 968 5 111 6 471 8 084 9 968 12 213 55 - - 4 650 5 988 7 374 9 113 11 153 60 - - - 5 308 6 647 8 225 10 078 65 - - - 4 699 5 903 7 320 8 986 >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	35	3 813	4 972	6 385	8 088	10 120	12 516	15 315	-	-
50 - 3 968 5 111 6 471 8 084 9 986 12 213 55 - - 4 650 5 898 7 374 9 113 11 153 60 - - 5 308 6 477 8 225 10 078 65 - - 4 699 5 903 7 320 8 986 vower input in W 35 1 758 1 930 2 087 2 228 2 351 2 456 2 542 40 1 855 2 051 2 233 2 397 2 544 2 671 2 779 45 1 941 2 165 2 374 2 565 2 738 2 892 3 123 50 - - 2 632 2 887 3 123 3 338 3 532 60 - - - 3 173 3 485 3 775 4 043 consumption in A strent consumption in A strent consumption in A 50 - -	40	3 564	4 656	5 978	7 566	9 457	11 687	14 294	-	-
55 - - 4 660 5 898 7 374 9 113 11 153 60 - - - 5 308 6 647 8 225 10 078 65 - - - - 4 699 5 903 7 320 8 986 20wer input in W - - - 4 699 5 903 7 320 8 986 40 1855 2 051 2 233 2 397 2 544 2 671 2 779 45 1 941 2 165 2 374 2 565 2 738 2 892 3 025 50 - 2 2 289 2 2 807 3 123 3 338 3 532 60 - - - 3 036 3 308 3 559 3 788 65 - - - 3 173 3 485 3 775 4 043 consumption in A 323 3.41 3.29 3.46 3.62 3.78 3.91 4.03 45	45	3 294	4 322	5 554	7 027	8 779	10 844	13 260	-	-
60 - - 5 308 6 647 8 225 10 078 65 - - - 4 699 5 903 7 320 8 986 bower input in W 35 1 758 1 930 2 087 2 228 2 351 2 466 2 542 40 1 865 2 051 2 233 2 397 2 544 2 671 2 779 45 1 941 2 165 2 374 2 665 2 738 2 892 3 025 50 - 2 269 2 508 2 729 2 932 3 115 3 277 55 - - - 3 036 3 039 3 569 3 788 60 - - - 3 036 3 039 3 569 3 788 615 - - - 3 173 3 485 3 775 4 043 443 3.62 3.78 3.91 4.03 4.53 55 - - 4 43 <td>50</td> <td>-</td> <td>3 968</td> <td>5 111</td> <td>6 471</td> <td>8 084</td> <td>9 986</td> <td>12 213</td> <td>-</td> <td>-</td>	50	-	3 968	5 111	6 471	8 084	9 986	12 213	-	-
65 . . . 4 699 5 903 7 320 8 986 ower input in W 35 1 758 1 930 2 087 2 228 2 351 2 456 2 542 40 1 885 2 051 2 233 2 397 2 544 2 671 2 779 45 1 941 2 165 2 374 2 565 2 738 2 892 3 105 3 277 55 - - 2 632 2 887 3 123 3 338 3 552 - 55 - - - 3 036 3 086 3 559 3 778 60 - - - 3 173 3 485 3 775 4 043 strent consumption in A 3.69 3.97	55	-	-	4 650	5 898	7 374	9 113	11 153	-	-
Sover input in W Sover input in W 35 1 758 1 930 2 087 2 228 2 351 2 456 2 542 40 1 865 2 051 2 233 2 397 2 544 2 671 2 779 45 1 941 2 165 2 374 2 565 2 738 2 892 3 025 50 - 2 269 2 602 2 729 2 932 3 115 3 277 55 - - 2 632 2 887 3 123 3 338 3 552 60 - - - 3 036 3 569 3 778 4 043 55 - - - 3 173 3 485 3 775 4 043 consumption in A - 35 3 11 3 29 3 46 3 62 3 78 3.91 4.03 40 3.23 3.57 3.81 4.02 4.22 4.39 4.53 55 - - 4.12	60	-	-	-	5 308	6 647	8 225	10 078	-	-
35 1 758 1 930 2 087 2 228 2 351 2 456 2 542 40 1 855 2 051 2 233 2 397 2 544 2 671 2 779 45 1 941 2 165 2 374 2 565 2 738 2 892 3 025 50 - 2 289 2 508 2 729 2 932 3 115 3 277 55 - - 2 632 2 887 3 123 3 338 3 532 60 - - - 3 036 3 308 3 559 3 788 65 - - - 3 173 3 485 3 775 4 043 consumption in A 35 3.11 3.29 3.46 3.62 3.78 3.91 4.03 45 3.323 3.44 3.63 3.82 3.99 4.14 4.26 45 3.32 3.67 3.81 4.02 4.22 4.39 4.53 50	65	-	-	-	4 699	5 903	7 320	8 986	-	-
35 1 758 1 930 2 087 2 228 2 351 2 456 2 542 40 1 855 2 051 2 233 2 397 2 544 2 671 2 779 45 1 941 2 165 2 374 2 565 2 738 2 892 3 025 50 - 2 269 2 508 2 729 2 932 3 115 3 277 55 - - 2 632 2 887 3 123 3 338 3 532 60 - - - 3 036 3 308 3 559 3 788 65 - - - 3 173 3 485 3 775 4 043 consumption in A strrent consumption in A 35 3.11 3.29 3.46 3.62 3.78 3.91 4.03 445 3.32 3.57 3.81 4.02 4.22 4.39 4.53 50 - - 4.12 4.43 4.72 4.96	ower input in W	v								
40 1 855 2 051 2 233 2 397 2 544 2 671 2 779 45 1 941 2 165 2 374 2 565 2 738 2 892 3 025 50 - 2 269 2 608 2 729 2 932 3 115 3 277 55 - - 2 632 2 887 3 123 3 338 3 532 60 - - - 3 036 3 308 3 559 3 775 4 043 comment consumption in A - - 3 173 3 485 3 775 4 043 201 3 23 3 44 3 63 3 82 3 99 4 .14 4 26 40 3 23 3 44 3 63 3 82 3 99 4 .14 4 26 45 3 32 3 57 3 81 4 02 4 .22 4 .39 4 .53 50 - - 4 .12 4 .43 4 .72 4 .96 5 .17 60 - - - 4 .62 4 .96 5 .27 5 .52 65 -			1 930	2 087	2 228	2 351	2 456	2 542	-	-
45 1 941 2 165 2 374 2 565 2 738 2 892 3 025 50 - 2 269 2 508 2 729 2 932 3 115 3 277 55 - - 2 632 2 887 3 123 3 338 3 552 60 - - - 3 036 3 308 3 559 3 788 65 - - - 3 173 3 485 3 775 4 043 surrent consumption in A 35 3 11 3 29 3 46 3 62 3 78 3 91 4 03 40 3 23 3.44 3 63 3.82 3.99 4.14 4.26 45 3.32 3.57 3.81 4.02 4.22 4.39 4.53 50 - 3.69 3.97 4.23 4.47 4.67 4.84 55 - - - 4.62 4.96 5.27 5.52 65 -									_	-
50 - 2 269 2 508 2 729 2 932 3 115 3 277 55 - - 2 632 2 887 3 123 3 338 3 532 60 - - - 3 036 3 308 3 559 3 788 65 - - - 3 173 3 485 3 775 4 043 urrent consumption in A 35 3.11 3.29 3.46 3.62 3.78 3.91 4.03 40 3.23 3.44 3.63 3.82 3.99 4.14 4.26 45 3.32 3.57 3.81 4.02 4.22 4.39 4.53 50 - 3.69 3.97 4.23 4.47 4.67 4.84 55 - - 4.12 4.43 4.72 4.96 5.17 60 - - - 4.12 4.43 4.72 4.96 5.17 65 - <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>_</td> <td>_</td>									_	_
55 - - 2 632 2 887 3 123 3 338 3 532 60 - - - 3 036 3 008 3 559 3 788 65 - - - 3 173 3 485 3 775 4 043 urrent consumption in A 35 3.11 3 29 3.46 3.62 3.78 3.91 4.03 40 3.23 3.44 3.63 3.82 3.99 4.14 4.26 45 3.32 3.57 3.81 4.02 4.22 4.39 4.53 50 - 3.69 3.97 4.23 4.47 4.67 4.84 55 - - 4.12 4.43 4.72 4.96 5.17 60 - - - 4.62 4.96 5.27 5.52 65 - - - 4.79 5.20 5.57 5.88 35 83									_	-
60 - - 3 036 3 308 3 559 3 788 65 - - - 3 173 3 485 3 775 4 043 urrent consumption in A 3 3 3 3 3 3 4 0.3 40 3.23 3.44 3.63 3.82 3.99 4.14 4.26 45 3.32 3.57 3.81 4.02 4.22 4.39 4.53 50 - 3.69 3.97 4.23 4.47 4.67 4.84 55 - - 4.12 4.43 4.72 4.96 5.17 60 - - - 4.62 4.96 5.27 5.52 65 - - - 4.62 4.96 5.17 5.68 lass flow in kg/h - - - 4.79 5.20 5.57 5.88 lass flow in kg/h - - - 1.60 197									_	-
65 - - 3 173 3 485 3 775 4 043 35 3.11 3.29 3.46 3.62 3.78 3.91 4.03 40 3.23 3.44 3.63 3.82 3.99 4.14 4.26 45 3.32 3.57 3.81 4.02 4.22 4.39 4.53 50 - 3.69 3.97 4.23 4.47 4.67 4.84 55 - - 4.12 4.43 4.72 4.96 5.17 60 - - - 4.62 4.96 5.27 5.52 65 - - - 4.79 5.20 5.57 5.88 ass flow in kg/h 33 106 134 167 206 251 303 45 79 102 129 160 197 240 289 50 - 99 126 156 192 233 281									_	-
urrent consumption in A 35 3.11 3.29 3.46 3.62 3.78 3.91 4.03 40 3.23 3.44 3.63 3.82 3.99 4.14 4.26 45 3.32 3.57 3.81 4.02 4.22 4.39 4.53 50 - 3.69 3.97 4.23 4.47 4.67 4.84 55 - - 4.12 4.43 4.72 4.96 5.17 60 - - - 4.62 4.96 5.27 5.52 65 - - - 4.79 5.20 5.57 5.88 Inset flow in kg/h 35 83 106 134 167 206 251 303 40 81 104 132 164 202 246 296 45 79 102 129 160 197 240 289 55 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>_</td> <td>-</td>									_	-
35 3.11 3.29 3.46 3.62 3.78 3.91 4.03 40 3.23 3.44 3.63 3.82 3.99 4.14 4.26 45 3.32 3.57 3.81 4.02 4.22 4.39 4.53 50 - 3.69 3.97 4.23 4.47 4.67 4.84 55 - - 4.12 4.43 4.72 4.96 5.17 60 - - - 4.62 4.96 5.27 5.52 5.65 65 - - - 4.79 5.20 5.57 5.88 ass flow in kg/h - - - 4.79 5.20 2.51 303 - 40 81 104 132 164 202 246 296 - 45 79 102 129 160 197 240 289 - 55 - -	05	-	-	-	5175	3 403	5115	4 043	_	-
40 3.23 3.44 3.63 3.82 3.99 4.14 4.26 45 3.32 3.57 3.81 4.02 4.22 4.39 4.53 50 $ 3.69$ 3.97 4.23 4.47 4.67 4.84 55 $ 4.12$ 4.43 4.72 4.96 5.17 60 $ 4.62$ 4.96 5.27 5.52 65 $ 4.79$ 5.20 5.57 5.88 ass flow in kg/h 35 83 106 134 167 206 251 303 45 79 102 129 160 197 240 289 50 $ 122$ 151 186 226 272 233 281 $ 55$ $ 122$ 151 186 226 272 272 66 $ -$	urrent consum	ption in A								
45 3.32 3.57 3.81 4.02 4.22 4.39 4.53 50 - 3.69 3.97 4.23 4.47 4.67 4.84 55 4.12 4.43 4.72 4.96 5.17 60 4.62 4.96 5.27 5.52 65 4.79 5.20 5.57 5.88 ass flow in kg/hass flow in kg/h35 83 106 134 167 206 251 303 40 81 104 132 164 202 246 296 45 79 102 129 160 197 240 289 50 -99 126 156 192 233 281 55 122 151 186 226 272 60 146 179 218 262 65 140 172 209 251 officient of performance (C.O.P.) 35 2.17 2.58 3.06 3.63 4.30 5.10 6.03 40 1.92 2.27 2.68 3.16 3.72 4.38 5.14 45 1.70 2.00 2.34 2.74 3.21 3.73 55 55 1.77 2.04 2.36 2.73 3.16 <td>35</td> <td>3.11</td> <td>3.29</td> <td>3.46</td> <td>3.62</td> <td>3.78</td> <td>3.91</td> <td>4.03</td> <td>-</td> <td>-</td>	35	3.11	3.29	3.46	3.62	3.78	3.91	4.03	-	-
50- 3.69 3.97 4.23 4.47 4.67 4.84 55 4.12 4.43 4.72 4.96 5.17 60 4.62 4.96 5.27 5.52 65 4.79 5.20 5.57 5.88 ass flow in kg/h 35 83 106 134 167 206 251 303 40 81 104 132 164 202 246 296 45 79 102 129 160 197 240 289 50 -99 126 156 192 233 281 55 122 151 186 226 272 60 146 179 218 262 65 140 172 209 251 officient of performance (C.O.P.) 35 2.17 2.58 3.06 3.63 4.30 5.10 6.03 40 1.92 2.27 2.68 3.16 3.72 4.38 5.14 45 1.70 2.00 2.34 2.74 3.21 3.75 4.38 50 - 1.75 2.04 2.37 2.76 3.21 3.73 55 1.77 2.04 2.36 2.73 3.16	40	3.23	3.44	3.63	3.82	3.99	4.14	4.26	-	-
55 - - 4.12 4.43 4.72 4.96 5.17 60 - - - 4.62 4.96 5.27 5.52 65 - - - 4.79 5.20 5.57 5.88 ass flow in kg/h 35 83 106 134 167 206 251 303 40 81 104 132 164 202 246 296 45 79 102 129 160 197 240 289 50 - 99 126 156 192 233 281 55 - - 122 151 186 226 272 60 - - - 140 172 209 251 sefficient of performance (C.O.P.) 35 2.17 2.58 3.06 3.63 4.30 5.10 6.03 40 1.92 <td>45</td> <td>3.32</td> <td>3.57</td> <td>3.81</td> <td>4.02</td> <td>4.22</td> <td>4.39</td> <td>4.53</td> <td>-</td> <td>-</td>	45	3.32	3.57	3.81	4.02	4.22	4.39	4.53	-	-
60 - - 4.62 4.96 5.27 5.52 65 - - - 4.79 5.20 5.57 5.88 lass flow in kg/h 35 83 106 134 167 206 251 303 40 81 104 132 164 202 246 296 45 79 102 129 160 197 240 289 50 - 99 126 156 192 233 281 55 - - 122 151 186 226 272 60 - - - 146 179 218 262 65 - - - 140 172 209 251 station of performance (C.O.P.) 35 2.17 2.58 3.06 3.63 4.30 5.10 6.03 40 1.92 2.27	50	-	3.69	3.97	4.23	4.47	4.67	4.84	-	-
65 - - 4.79 5.20 5.57 5.88 ass flow in kg/h 35 83 106 134 167 206 251 303 40 81 104 132 164 202 246 296 45 79 102 129 160 197 240 289 50 - 99 126 156 192 233 281 55 - - 122 151 186 226 272 60 - - - 146 179 218 262 65 - - - 140 172 209 251 coefficient of performance (C.O.P.) 35 2.17 2.58 3.06 3.63 4.30 5.10 6.03 40 1.92 2.27 2.68 3.16 3.72 4.38 5.14 45 1.70 2.00	55	-	-	4.12	4.43	4.72	4.96	5.17	-	-
lass flow in kg/h 35 83 106 134 167 206 251 303 40 81 104 132 164 202 246 296 45 79 102 129 160 197 240 289 50 - 99 126 156 192 233 281 55 - - 122 151 186 226 272 60 - - - 146 179 218 262 65 - - 140 172 209 251 sofficient of performance (C.O.P.) 35 2.17 2.58 3.06 3.63 4.30 5.10 6.03 40 1.92 2.27 2.68 3.16 3.72 4.38 5.14 45 1.70 2.00 2.34 2.74 3.21 3.75 4.38 50 -	60	-	-	-	4.62	4.96	5.27	5.52	-	-
35 83 106 134 167 206 251 303 40 81 104 132 164 202 246 296 45 79 102 129 160 197 240 289 50 - 99 126 156 192 233 281 55 122 151 186 226 272 60 146 179 218 262 65 146 179 218 262 65 140 172 209 251 coefficient of performance (C.O.P.) 35 2.17 2.58 3.06 3.63 4.30 5.10 6.03 40 1.92 2.27 2.68 3.16 3.72 4.38 5.14 45 1.70 2.00 2.34 2.74 3.21 3.75 4.38 50 - 1.75 2.04 2.37 2.76 3.21 3.73 55 1.77 2.04 2.36 2.73 3.16	65	-	-	-	4.79	5.20	5.57	5.88	-	-
35 83 106 134 167 206 251 303 40 81 104 132 164 202 246 296 45 79 102 129 160 197 240 289 50 - 99 126 156 192 233 281 55 - - 122 151 186 226 272 60 - - - 146 179 218 262 65 - - - 140 172 209 251 coefficient of performance (C.O.P.) 35 2.17 2.58 3.06 3.63 4.30 5.10 6.03 40 1.92 2.27 2.68 3.16 3.72 4.38 5.14 45 1.70 2.00 2.34 2.74 3.21 3.75 4.38 50 - 1.75 2.04 <	aaa flaw in ka/	F								
40 81 104 132 164 202 246 296 45 79 102 129 160 197 240 289 50 - 99 126 156 192 233 281 55 - - 122 151 186 226 272 60 - - - 146 179 218 262 65 - - - 146 179 209 251 65 - - - 140 172 209 251 coefficient of performance (C.O.P.) 35 2.17 2.58 3.06 3.63 4.30 5.10 6.03 40 1.92 2.27 2.68 3.16 3.72 4.38 5.14 45 1.70 2.00 2.34 2.74 3.21 3.75 4.38 50 - 1.75 2.04 2.37 2.76 3.21 3.73 55 - - 1.77	Ĭ		100	104	407	200	054	202		
45 79 102 129 160 197 240 289 50 - 99 126 156 192 233 281 55 - - 122 151 186 226 272 60 - - - 146 179 218 262 65 - - - 140 172 209 251 oefficient of performance (C.O.P.) 35 2.17 2.58 3.06 3.63 4.30 5.10 6.03 40 1.92 2.27 2.68 3.16 3.72 4.38 5.14 45 1.70 2.00 2.34 2.74 3.21 3.75 4.38 50 - 1.75 2.04 2.37 2.76 3.21 3.73 55 - - 1.77 2.04 2.36 2.73 3.16									-	-
50 - 99 126 156 192 233 281 55 - - 122 151 186 226 272 60 - - 146 179 218 262 65 - - 146 179 218 262 65 - - 140 172 209 251 oefficient of performance (C.O.P.) 35 2.17 2.58 3.06 3.63 4.30 5.10 6.03 40 1.92 2.27 2.68 3.16 3.72 4.38 5.14 45 1.70 2.00 2.34 2.74 3.21 3.75 4.38 50 - 1.75 2.04 2.37 2.76 3.21 3.73 55 - - 1.77 2.04 2.36 2.73 3.16									-	-
55 - - 122 151 186 226 272 60 - - 146 179 218 262 65 - - 146 179 218 262 65 - - 140 172 209 251 oefficient of performance (C.O.P.) 35 2.17 2.58 3.06 3.63 4.30 5.10 6.03 40 1.92 2.27 2.68 3.16 3.72 4.38 5.14 45 1.70 2.00 2.34 2.74 3.21 3.75 4.38 50 - 1.75 2.04 2.37 2.76 3.21 3.73 55 - - 1.77 2.04 2.36 2.73 3.16										-
60 - - 146 179 218 262 65 - - - 140 172 209 251 oefficient of performance (C.O.P.) 35 2.17 2.58 3.06 3.63 4.30 5.10 6.03 40 1.92 2.27 2.68 3.16 3.72 4.38 5.14 45 1.70 2.00 2.34 2.74 3.21 3.75 4.38 50 - 1.75 2.04 2.37 2.76 3.21 3.73 55 - - 1.77 2.04 2.36 2.73 3.16									-	-
65 - - 140 172 209 251 coefficient of performance (C.O.P.) 35 2.17 2.58 3.06 3.63 4.30 5.10 6.03 40 1.92 2.27 2.68 3.16 3.72 4.38 5.14 45 1.70 2.00 2.34 2.74 3.21 3.75 4.38 50 - 1.75 2.04 2.37 2.76 3.21 3.73 55 - - 1.77 2.04 2.36 2.73 3.16									-	-
35 2.17 2.58 3.06 3.63 4.30 5.10 6.03 40 1.92 2.27 2.68 3.16 3.72 4.38 5.14 45 1.70 2.00 2.34 2.74 3.21 3.75 4.38 50 - 1.75 2.04 2.37 2.76 3.21 3.73 55 - - 1.77 2.04 2.36 2.73 3.16									-	-
35 2.17 2.58 3.06 3.63 4.30 5.10 6.03 40 1.92 2.27 2.68 3.16 3.72 4.38 5.14 45 1.70 2.00 2.34 2.74 3.21 3.75 4.38 50 - 1.75 2.04 2.37 2.76 3.21 3.73 55 - - 1.77 2.04 2.36 2.73 3.16	65	-	-	-	140	172	209	251	-	-
40 1.92 2.27 2.68 3.16 3.72 4.38 5.14 45 1.70 2.00 2.34 2.74 3.21 3.75 4.38 50 - 1.75 2.04 2.37 2.76 3.21 3.73 55 - - 1.77 2.04 2.36 2.73 3.16	oefficient of per	rformance (C.C	D.P.)							
45 1.70 2.00 2.34 2.74 3.21 3.75 4.38 50 - 1.75 2.04 2.37 2.76 3.21 3.73 55 - - 1.77 2.04 2.36 2.73 3.16	35	2.17	2.58	3.06	3.63	4.30	5.10	6.03	-	-
50 - 1.75 2.04 2.37 2.76 3.21 3.73 55 - - 1.77 2.04 2.36 2.73 3.16	40	1.92	2.27	2.68	3.16	3.72	4.38	5.14	-	-
50 - 1.75 2.04 2.37 2.76 3.21 3.73 55 - - 1.77 2.04 2.36 2.73 3.16	45	1.70	2.00	2.34	2.74	3.21	3.75	4.38	-	-
	50	-	1.75	2.04	2.37	2.76	3.21	3.73	-	-
	55	-	-	1.77	2.04		2.73	3.16	-	-
						-			-	-
65 1.48 1.69 1.94 2.22									-	-
	ominal restance		°C to = 50 °C				Dressure suit-h	oottingo		
Image: Non-state interview State interview Pressure switch settings Recolling capacity 8 084 W Maximum HP switch setting		iance at to = 5		۱۸/	_				29.4	bar(g)
Power input 2 932 W Maximum LP switch setting	• • •								1.4	bar(g)
Current consumption 4.47 A LP pump down setting	•	tion							1.7	bar(g)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

192

2.76

kg/h

LP pump down setting	1.7	bar(g)
Sound power data		
Sound power level	77	dB(A)
With accoustic hood	70	dB(A)

Tolerance according EN12900

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Mass flow

Maneurop reciprocating compressor. MTZ032-4

Danfoss

R407C

Performance data at 60 Hz, ARI rating conditions

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)										
	-15	-10	-5	0	5	10	15				
ooling capacit	y in W										
35	4 104	5 345	6 855	8 675	10 842	13 396	16 374	-	-		
40	3 857	5 032	6 452	8 156	10 182	12 569	15 355	-	-		
45	3 588	4 700	6 031	7 620	9 506	11 727	14 323	-	-		
50	-	4 346	5 590	7 066	8 813	10 871	13 277	-	-		
55	-	-	5 129	6 494	8 104	9 999	12 217	-	-		
60	-	-	-	5 904	7 378	9 112	11 144	-	-		
65	-	-	-	5 295	6 636	8 210	10 057	-	-		

35	1 758	1 930	2 087	2 228	2 351	2 456	2 542	-	-
40	1 855	2 051	2 233	2 397	2 544	2 671	2 779	-	-
45	1 941	2 165	2 374	2 565	2 738	2 892	3 025	-	-
50	-	2 269	2 508	2 729	2 932	3 115	3 277	-	-
55	-	-	2 632	2 887	3 123	3 338	3 532	-	-
60	-	-	-	3 036	3 308	3 559	3 788	-	-
65	-	-	-	3 173	3 485	3 775	4 043	-	-

Current consumption in A

35	3.11	3.29	3.46	3.62	3.78	3.91	4.03	-	-
40	3.23	3.44	3.63	3.82	3.99	4.14	4.26	-	-
45	3.32	3.57	3.81	4.02	4.22	4.39	4.53	-	-
50	-	3.69	3.97	4.23	4.47	4.67	4.84	-	-
55	-	-	4.12	4.43	4.72	4.96	5.17	-	-
60	-	-	-	4.62	4.96	5.27	5.52	-	-
65	-	-	-	4.79	5.20	5.57	5.88	-	-

Mass flow in kg/h

35	82	106	133	166	205	250	302	-	-
40	81	104	131	163	201	244	295	-	-
45	79	102	128	160	196	238	287	-	-
50	-	99	125	155	191	232	279	-	-
55	-	-	121	151	185	224	270	-	-
60	-	-	-	145	178	216	260	-	-
65	-	-	-	139	171	208	250	-	-

Coefficient of performance (C.O.P.)

	(,							
35	2.33	2.77	3.28	3.89	4.61	5.45	6.44	-	-
40	2.08	2.45	2.89	3.40	4.00	4.71	5.53	-	-
45	1.85	2.17	2.54	2.97	3.47	4.06	4.74	-	-
50	-	1.92	2.23	2.59	3.01	3.49	4.05	-	-
55	-	-	1.95	2.25	2.60	3.00	3.46	-	-
60	-	-	-	1.94	2.23	2.56	2.94	-	-
65	-	-	-	1.67	1.90	2.17	2.49	-	-

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

Cooling capacity	8 995	W
Power input	3 196	W
Current consumption	4.80	А
Mass flow	202	kg/h
C.O.P.	2.81	-

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	70	dB(A)

Tolerance according EN12900



Danfoss

Maneurop reciprocating compressor. MTZ032-4

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

R448A

Cond. temp. in				Evapora	ating temperatur	re in °C (to)			
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
ooling capacity	n W				1		Г		
10	-	3 479	4 521	5 832	7 448	-	-	-	-
20	-	3 102	4 047	5 228	6 678	8 435	10 536	-	-
30	-	2 671	3 517	4 564	5 845	7 397	9 255	11 458	14 051
40	-	-	2 942	3 851	4 961	6 305	7 917	9 833	12 093
50	-	-	-	3 102	4 037	5 171	6 535	8 162	10 088
60	-	-	-	-	3 085	4 006	5 120	6 458	8 049
ower input in W									
10	-	1 610	1 682	1 724	1 731	-	-	_	-
20	-	1 516	1 628	1 717	1 779	1 811	1 809	-	-
30		1 511	1 667	1 808	1 932	2 033	2 107	2 152	2 162
40	-	-	1 749	1 948	2 138	2 313	2 470	2 605	2 712
50	_	-	-	2 086	2 348	2 603	2 848	3 079	3 291
60	-	-	-	-	2 540	2 803	3 189	3 521	3 291
60	-	-	-	-	2 510	2 850	3 109	5 52 1	3 043
urrent consump	tion in A								
10	-	2.62	2.76	2.88	2.97	-	-	-	-
20	-	2.78	2.92	3.05	3.16	3.24	3.26	-	-
30	-	2.94	3.10	3.27	3.42	3.55	3.65	3.69	3.67
40	-	-	3.25	3.47	3.70	3.92	4.11	4.26	4.35
50	-	-	-	3.64	3.96	4.28	4.59	4.87	5.12
60	-	-	-	-	4.15	4.61	5.06	5.50	5.91
		•	•	•				•	
lass flow in kg/h									
10	-	57	74	96	123	-	-	-	-
20	-	55	72	93	119	151	190	-	-
30	-	51	67	88	113	144	181	228	284
40	-	-	62	81	105	134	171	215	268
50	-	-	-	73	95	123	157	199	250
60	-	-	-	-	83	109	141	181	229
oefficient of per	ormance (C.C	D.P.)							
10	-	2.16	2.69	3.38	4.30	-	-	-	-
20	-	2.05	2.49	3.05	3.75	4.66	5.82	-	-
30	-	1.77	2.11	2.52	3.03	3.64	4.39	5.32	6.50
40	-	-	1.68	1.98	2.32	2.73	3.20	3.77	4.46
50	-	-	-	1.49	1.72	1.99	2.29	2.65	3.07
60	-	-	-	-	1.23	1.41	1.61	1.83	2.09
				1					
ominal performa	nce at to = -1	0 °C, tc = 45 °C				Pressure switch	settings		
ominal performance at to = -10 °C, tc = 45 °C cooling capacity 4 504 W					Maximum HP swit	-	27.7	bar(g)	
Power input 2 246 W					Minimum LP swite	ch setting	1	bar(g)	
Current consumption 3.83 A					LP pump down se	etting	1.3	bar(g)	
lass flow		100	kg/h						
C.O.P.		2.01				Sound power dat			
	perature at de					Sound power leve		74	dB(A)
						With accoustic ho	o.d.	67	dB(A)



Maneurop reciprocating compressor. MTZ032-4

Danfoss

R448A

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

Cond. temp. ir	1	Evaporating temperature in °C (to)									
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10		

Cooling capacity in W

10	2 681	3 496	4 547	5 868	7 496	-	-	-	-
20	2 335	3 082	4 030	5 217	6 677	8 444	10 555	-	-
30	1 944	2 617	3 461	4 509	5 797	7 360	9 233	11 452	14 051
40	1 520	2 117	2 851	3 757	4 870	6 225	7 857	9 801	12 093
50	-	1 595	2 216	2 976	3 910	5 053	6 440	8 107	10 088
60	-	-	1 568	2 179	2 930	3 858	4 996	6 382	8 049

Power input in W

10	1 511	1 610	1 682	1 724	1 731	-	-	-	-
20	1 387	1 516	1 628	1 717	1 779	1 811	1 809	-	-
30	1 344	1 511	1 667	1 808	1 932	2 033	2 107	2 152	2 162
40	1 334	1 542	1 749	1 948	2 138	2 313	2 470	2 605	2 714
50	-	1 561	1 823	2 086	2 348	2 603	2 848	3 079	3 291
60	-	-	1 839	2 171	2 510	2 850	3 189	3 521	3 843

Current consumption in A

10	2.47	2.62	2.76	2.88	2.97	-	-	-	-
20	2.65	2.78	2.92	3.05	3.16	3.24	3.26	-	-
30	2.81	2.94	3.10	3.27	3.42	3.55	3.65	3.69	3.67
40	2.88	3.05	3.25	3.47	3.70	3.92	4.11	4.26	4.35
50	-	3.07	3.34	3.64	3.96	4.28	4.59	4.87	5.12
60	-	-	3.31	3.72	4.15	4.61	5.06	5.50	5.91

Mass flow in kg/h

10	52	67	85	107	135	-	-	-	-
20	49	64	82	104	130	162	200	-	-
30	45	59	77	98	124	154	191	234	284
40	39	53	70	91	115	145	179	220	268
50	-	46	62	81	105	132	165	204	250
60	-	-	51	70	91	118	149	185	229

Coefficient of performance (C.O.P.)

10	1.77	2.17	2.70	3.40	4.33	-	-	-	-
20	1.68	2.03	2.48	3.04	3.75	4.66	5.83	-	-
30	1.45	1.73	2.08	2.49	3.00	3.62	4.38	5.32	6.50
40	1.14	1.37	1.63	1.93	2.28	2.69	3.18	3.76	4.46
50	-	1.02	1.22	1.43	1.67	1.94	2.26	2.63	3.07
60	-	-	0.85	1.00	1.17	1.35	1.57	1.81	2.09

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

Cooling capacity	4 393	W
Power input	2 246	W
Current consumption	3.83	А
Mass flow	110	kg/h
C.O.P.	1.96	

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

oound power data		
Sound power level	74	dB(A)
With accoustic hood	67	dB(A)

Tolerance according EN12900



Danfoss

Maneurop reciprocating compressor. MTZ032-4

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

cond. temp. in				Evapora	ating temperatu	re in °C (to)			
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
ooling oonooitu	in 14/								
ooling capacity		3 485	4 528	5 840	7 455	-	-		
20	-	3 108	4 055	5 235	6 686	8 442	10 541	-	-
									-
30 40	-	2 678	3 525 2 950	4 572 3 860	5 853 4 969	7 404 6 313	9 261 7 923	11 462 9 837	14 051 12 093
	-	-	- 2 950						
50 60	-		-	3 110	4 046 3 092	5 179 4 013	6 541 5 126	8 166 6 462	10 088 8 049
00	-	-	-	-	3 092	4015	5 120	0 402	0 049
ower input in W									
10	-	1 610	1 682	1 724	1 731	-	-	-	-
20	-	1 516	1 628	1 717	1 779	1 811	1 809	-	-
30	-	1 511	1 667	1 808	1 932	2 033	2 107	2 152	2 162
40	-	-	1 749	1 948	2 138	2 313	2 470	2 605	2 714
50	-	-	-	2 086	2 348	2 603	2 848	3 079	3 291
60	-	-	-	-	2 510	2 850	3 189	3 521	3 843
urrent consump	tion in A			1	1		1		
10	-	2.62	2.76	2.88	2.97	-	-	-	-
20	-	2.78	2.92	3.05	3.16	3.24	3.26	-	-
30	-	2.94	3.10	3.27	3.42	3.55	3.65	3.69	3.67
40	-	-	3.25	3.47	3.70	3.92	4.11	4.26	4.35
50	-	-	-	3.64	3.96	4.28	4.59	4.87	5.12
60	-	-	-	-	4.15	4.61	5.06	5.50	5.91
Aass flow in kg/h		50	70	00	107		Γ		
10	-	58	76	99	127	-	-	-	-
20	-	55	73	95	122	154	194	-	-
30	-	51	68	89	115	147	185	232	288
40	-	-	63	83	107	137	174	219	273
50	-	-	-	74	97	126	161	203	255
60	-	-	-	-	85	112	145	185	234
oefficient of per	formance (C.C) P)							
10	-	2.17	2.69	3.39	4.31	-	-	-	-
20	-	2.05	2.49	3.05	3.76	4.66	5.83	-	-
30	-	1.77	2.11	2.53	3.03	3.64	4.39	5.33	6.50
40	-	-	1.69	1.98	2.32	2.73	3.21	3.78	4.46
50	-	-	-	1.49	1.72	1.99	2.30	2.65	3.07
60	-	-	-	-	1.23	1.41	1.61	1.84	2.09
ominal performa	ance at to = -1	-		_		Pressure switch	-		
Cooling capacity		4 512	W			Maximum HP swit		27.7	bar(g)
Power input Current consumption	n	2 246 3.83	W A			Minimum LP swite	•	1 1.3	bar(g) bar(g)
lass flow		103	kg/h					1.0	bai(g)
C.O.P.		2.01				Sound power da	ta		
						Sound power leve		74	dB(A)
: Evaporating ten	nperature at de	ew point				With accoustic ho		67	dB(A)



Maneurop reciprocating compressor. MTZ032-4

Danfoss

R449A

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

Cond. temp. ir	1	Evaporating temperature in °C (to)									
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10		

Cooling capacity in W

10	2 681	3 496	4 547	5 868	7 496	-	-	-	-
20	2 335	3 082	4 030	5 217	6 677	8 444	10 555	-	-
30	1 944	2 617	3 461	4 509	5 797	7 360	9 233	11 452	14 051
40	1 520	2 117	2 851	3 757	4 870	6 225	7 857	9 801	12 093
50	-	1 595	2 216	2 976	3 910	5 053	6 440	8 107	10 088
60	-	-	1 568	2 179	2 930	3 858	4 996	6 382	8 049

Power input in W

10	1 511	1 610	1 682	1 724	1 731	-	-	-	-
20	1 387	1 516	1 628	1 717	1 779	1 811	1 809	-	-
30	1 344	1 511	1 667	1 808	1 932	2 033	2 107	2 152	2 162
40	1 334	1 542	1 749	1 948	2 138	2 313	2 470	2 605	2 714
50	-	1 561	1 823	2 086	2 348	2 603	2 848	3 079	3 291
60	-	-	1 839	2 171	2 510	2 850	3 189	3 521	3 843

Current consumption in A

10	2.47	2.62	2.76	2.88	2.97	-	-	-	-
20	2.65	2.78	2.92	3.05	3.16	3.24	3.26	-	-
30	2.81	2.94	3.10	3.27	3.42	3.55	3.65	3.69	3.67
40	2.88	3.05	3.25	3.47	3.70	3.92	4.11	4.26	4.35
50	-	3.07	3.34	3.64	3.96	4.28	4.59	4.87	5.12
60	-	-	3.31	3.72	4.15	4.61	5.06	5.50	5.91

Mass flow in kg/h

10	51	67	87	111	139	-	-	-	-
20	48	64	83	106	134	166	204	-	-
30	44	60	78	100	126	158	195	238	288
40	40	54	72	93	118	148	183	225	273
50	-	47	63	83	107	135	169	209	255
60	-	-	53	71	93	120	152	190	234

Coefficient of performance (C.O.P.)

10	1.77	2.17	2.70	3.40	4.33	-	-	-	-
20	1.68	2.03	2.48	3.04	3.75	4.66	5.83	-	-
30	1.45	1.73	2.08	2.49	3.00	3.62	4.38	5.32	6.50
40	1.14	1.37	1.63	1.93	2.28	2.69	3.18	3.76	4.46
50	-	1.02	1.22	1.43	1.67	1.94	2.26	2.63	3.07
60	-	-	0.85	1.00	1.17	1.35	1.57	1.81	2.09

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

Cooling capacity	4 393	W
Power input	2 246	W
Current consumption	3.83	А
Mass flow	113	kg/h
C.O.P.	1.96	

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

oound power data		
Sound power level	74	dB(A)
With accoustic hood	67	dB(A)

Tolerance according EN12900



Danfoss

Datasheet, performance data

Maneurop reciprocating compressor. MTZ032-4

Cond. temp. in				Evapora	ting temperatur	re in °C (to)			
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
ooling capacity	in W								
10	-	3 995	5 103	6 464	8 105	-	_	-	-
20	-	3 535	4 556	5 800	7 289	9 048	11 104	_	-
30	-	3 009	3 932	5 043	6 367	7 926	9 744	11 849	14 274
40	-	2 434	3 244	4 210	5 355	6 700	8 268	10 082	12 169
50	-	-	2 506	3 314	4 267	5 387	6 692	8 203	9 942
60	-	-	-	2 371	3 121	4 004	5 036	6 233	7 611
ower input in W									
10	-	2 052	2 124	2 160	2 156	-	-	_	-
20	-	1 770	1 888	1 977	2 031	2 049	2 027	-	-
30	-	1 690	1 863	2 013	2 135	2 225	2 282	2 301	2 279
40	-	1 701	1 938	2 158	2 355	2 527	2 671	2 784	2 861
50	-	-	2 003	2 300	2 582	2 845	3 085	3 299	3 485
60	-	-	-	2 330	2 705	3 066	3 411	3 736	4 038
	tion in A								
urrent consump 10	-	1.87	1.88	1.90	1.92	-		_	-
20		2.67	2.72	2.78	2.85	2.89	2.91		_
30	-	3.09	3.20	3.33	3.46	3.58	3.67	3.72	3.72
40	-	3.24	3.42	3.63	3.85	4.07	4.26	4.42	4.52
50	-	-	3.48	3.80	4.13	4.46	4.77	5.05	5.29
60	-	-	-	3.92	4.38	4.85	5.30	5.73	6.12
								•	
ass flow in kg/h								-	
10	-	82	105	133	167	-	-	-	-
20	-	78	101	130	163	204	253	-	-
30	-	73	96	124	157	197	245	302	370
40	-	66	88	115	147	186	232	287	353
50	-	-	77	103	134	171	216	269	332
60	-	-	-	88	118	153	195	245	306
oefficient of per	formance (C.	O.P.)							
10	-	1.95	2.40	2.99	3.76	-	-	-	-
20	-	2.00	2.41	2.93	3.59	4.42	5.48	-	-
30	-	1.78	2.11	2.51	2.98	3.56	4.27	5.15	6.26
40	-	1.43	1.67	1.95	2.27	2.65	3.09	3.62	4.25
50	-	-	1.25	1.44	1.65	1.89	2.17	2.49	2.85
60	-	-	-	1.02	1.15	1.31	1.48	1.67	1.88
ominal performa	ance at to $= -1$	0 °C to = 45 °C				Pressure switch	sottings		
ooling capacity		4 819	W			Maximum HP swi	-	27.7	bar(g)
ower input					Minimum LP swite	•	1	bar(g)	
urrent consumption						LP pump down se	etting	1.3	bar(g)
ass flow		141	kg/h				-		
.O.P.		1.95]		Sound power data		74	dB(A)
: Evaporating ten	nperature at de	ew point				With accoustic ho		67	dB(A)
: Condensing ten								-	× /
ating conditions :	Suction gas te	emp. = 20 °C , Sub	cooling = 0 K			Tolerance accord	ng EN12900		



Maneurop reciprocating compressor. MTZ032-4

Danfoss

R452A

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

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

Cooling capacity in W

10	3 017	3 889	4 996	6 364	8 019	-	-	-	-
20	2 573	3 383	4 397	5 641	7 142	8 925	11 018	-	-
30	2 087	2 820	3 725	4 831	6 163	7 746	9 609	11 776	14 274
40	1 576	2 217	3 001	3 953	5 100	6 469	8 086	9 978	12 169
50	1 061	1 595	2 241	3 026	3 974	5 114	6 471	8 072	9 942
60	-	973	1 467	2 069	2 804	3 700	4 782	6 077	7 611

Power input in W

10	1 947	2 052	2 124	2 160	2 156	-	-	-	-
20	1 624	1 770	1 888	1 977	2 031	2 049	2 027	-	-
30	1 495	1 690	1 863	2 013	2 135	2 225	2 282	2 301	2 279
40	1 448	1 701	1 938	2 158	2 355	2 527	2 671	2 784	2 861
50	1 373	1 692	2 003	2 300	2 582	2 845	3 085	3 299	3 485
60	-	1 554	1 945	2 330	2 705	3 066	3 411	3 736	4 038

Current consumption in A

10	1.88	1.87	1.88	1.90	1.92	-	-	-	-
20	2.65	2.67	2.72	2.78	2.85	2.89	2.91	-	-
30	3.02	3.09	3.20	3.33	3.46	3.58	3.67	3.72	3.72
40	3.09	3.24	3.42	3.63	3.85	4.07	4.26	4.42	4.52
50	2.96	3.20	3.48	3.80	4.13	4.46	4.77	5.05	5.29
60	-	3.07	3.48	3.92	4.38	4.85	5.30	5.73	6.12

Mass flow in kg/h

10	75	95	120	149	184	-	-	-	-
20	71	91	116	145	180	220	267	-	-
30	64	85	110	139	173	212	258	310	370
40	56	77	101	129	162	200	245	295	353
50	45	65	89	116	148	185	227	276	332
60	-	51	73	99	129	165	205	252	306

Coefficient of performance (C.O.P.)

10	1.55	1.90	2.35	2.95	3.72	-	-	-	-
20	1.58	1.91	2.33	2.85	3.52	4.36	5.44	-	-
30	1.40	1.67	2.00	2.40	2.89	3.48	4.21	5.12	6.26
40	1.09	1.30	1.55	1.83	2.17	2.56	3.03	3.58	4.25
50	0.77	0.94	1.12	1.32	1.54	1.80	2.10	2.45	2.85
60	-	0.63	0.75	0.89	1.04	1.21	1.40	1.63	1.88

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

Cooling capacity	4 544	W	
Power input	2 475	W	
Current consumption	4.00	А	
Mass flow	155	kg/h	
C.O.P.	1.84		

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

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

Sound power data

Sound power level	74	dB(A)
With accoustic hood	67	dB(A)

Tolerance according EN12900





