ENGINEERING TOMORROW



Datasheets

Danfoss Reciprocating compressors MT / MTZ / NTZ





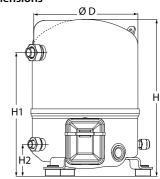


Datasheet, technical data

General Characteristics

Model number (on compressor nameplate)		MTZ22JC4BVE	
Code number for Singlepack*	MTZ22-4VI		
Code number for Industrial pack**		MTZ22-4VM	
Drawing number		8501024e	
Suction and discharge connections		Rotolock	
Suction connection		1 " Rotolock	
Discharge connection		1 " Rotolock	
Suction connection with supplied sleeve		1/2 " ODF	
Discharge connection with supplied sleeve		3/8 " 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	I	
Swept volume	38.12 c	m3/rev	
Displacement @ Nominal speed	6.6 m3/h @ 2900 rpm -	- 8.0 m3/h @ 3500 rpm	
Net weight	21	kg	
Oil charge	0.95 litre, POE - 175PZ		
Maximum system test pressure Low Side / High side	25 bar(g) / 30 bar(g)		
Maximum differential test pressure	30 bar		
Maximum number of starts per hour	12		
Refrigerant charge limit	2.5 kg		
Approved refrigerants	R404A,R134a,R407A/C/F,R	448A,R449A,R452A,R513A	

Dimensions



D=224 mm H=333 mm H1=263 mm H2=68 mm H3=- mm

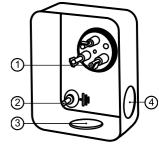
Electrical Characteristics

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	11.88 Ω
Maximum Continuous Current (MCC)	6 A
Locked Rotor Amps (LRA)	20 A
Motor protection	Internal overload protector

Recommended Installation torques

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

Terminal box



IP55 (with cable gland)

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

Parts shipped with compressor

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

 $Suction \& \, Discharge \, solder \, sleeves, \, rotolock \, nuts \, and \, gaskets \, (shipped \, with \, rotolock \, version \, only)$

Initial oil charge

Installation instructions

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

*Singlepack: Compressor in cardboard box

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



Datasheet, accessories and spare parts

Maneurop reciprocating compressor, MTZ022-4

Rotolock accessories, suction side	Code no.	
Solder sleeve, P06 (1" Rotolock, 1/2" ODF)	8153007	
Rotolock valve, V06 (1" Rotolock, 1/2" ODF)	8168031	
Gasket, 1"	8156130	Gaskets, sleeves and nuts
Rotolock accessories, discharge side	Code no.	
Solder sleeve, P01 (1" Rotolock, 3/8" ODF)	8153010	
Rotolock valve, V01 (1" Rotolock, 3/8" ODF)	8168027	
Gasket, 1"	8156130	
Rotolock accessories, sets	Code no.	1 2 3
Valve set, V06 (1"~1/2"), V01 (1"~3/8")	7703004	
Gasket set, 1", 1-1/4", 1-3/4", OSG gaskets black & white	8156009	1: Gasket
		2: Solder sleeve
Oil / lubricants	Code no.	3: Rotolock nut
POE lubricant, 175PZ, 1 litre can	120Z0638	
POE lubricant, 175PZ, 2.5 litre can	120Z0639	
Crankcase heaters	Code no.	
PTC heater 27W,CE mark, UL	120Z0459	
Belt type crankcase heater, 54 W, 230 V, CE mark, UL	7773106	
Belt type crankcase heater, 54 W, 400 V, UL	7773013	Mounting kit
Miscellaneous accessories	Code no.	1
Electronic soft start kit, MCI 15 C	7705006	2
Acoustic hood for 1 cylinder compressor	120Z0575	3
Oil equalisation nut	8153127	
Spare parts	Code no.	4 5
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. MTZ022-4

Performance data at 50 Hz, EN 12900 rating conditions

R407C

Cond. temp. in				Evapora	iting temperature	in °C (to)			
°C (tc)	-15	-10	-5	0	5	10	15		
					•				l .
Cooling capacity	/ in W								
35	2 090	2 840	3 729	4 774	5 992	7 400	9 013	-	-
40	1 853	2 559	3 393	4 372	5 512	6 830	8 343	-	-
45	1 619	2 280	3 058	3 969	5 030	6 258	7 669	-	-
50	-	2 006	2 727	3 569	4 550	5 687	6 995	-	-
55	-	-	2 401	3 175	4 075	5 119	6 324	-	-
60	-	-	-	2 788	3 607	4 558	5 658	-	-
65	-	-	-	2 412	3 148	4 005	5 000	-	-
Power input in V		,		,	,	1			ı
35	1 045	1 159	1 249	1 319	1 370	1 405	1 429	-	-
40	1 067	1 208	1 323	1 414	1 484	1 537	1 576	-	-
45	1 071	1 243	1 386	1 503	1 597	1 671	1 729	-	-
50	-	1 262	1 437	1 584	1 706	1 806	1 888	-	-
55	-	-	1 476	1 657	1 811	1 941	2 049	-	-
60	-	-	-	1 719	1 909	2 073	2 212	-	-
65	-	-	-	1 770	2 000	2 201	2 376	-	-
Current consum	-	T	1	T	Т	1	1		ı
35	2.55	2.66	2.74	2.81	2.88	2.94	3.00	-	-
40	2.58	2.71	2.82	2.92	3.00	3.07	3.14	-	-
45	2.59	2.76	2.90	3.02	3.13	3.23	3.32	-	-
50	-	2.78	2.97	3.13	3.27	3.40	3.52	-	-
55	-	-	3.02	3.23	3.42	3.58	3.74	-	-
60	-	-	-	3.31	3.55	3.77	3.97	-	-
65	-	-	-	3.37	3.67	3.95	4.20	-	-
Mass flow in kg/		T	T			1			1
35	45	61	78	99	122	148	178	-	-
40	42	57	75	95	118	144	173	-	-
45	39	54	71	91	113	138	167	-	-
50	-	50	67	86	108	133	161	-	-
55	-	-	63	81	103	127	154	-	-
60	-	-	-	77	97	121	147	-	-
65	-	-	-	72	92	114	140	-	-
0 651 - 1 4 - 5									
Coefficient of pe		1	2.00	2.02	4.20	5.07	0.24		I
35	2.00	2.45	2.98	3.62	4.38	5.27	6.31	-	-
40	1.74	2.12	2.57	3.09	3.71	4.44	5.29	-	-
45	1.51	1.83	2.21	2.64	3.15	3.74	4.43	-	-
50	-	1.59	1.90	2.25	2.67	3.15	3.71	-	-
55	-	-	1.63	1.92	2.25	2.64	3.09	-	-
60	-	-	-	1.62	1.89	2.20	2.56	-	-
65	-	-	-	1.36	1.57	1.82	2.10	-	-

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

Cooling capacity	4 550	W
Power input	1 706	W
Current consumption	3.27	Α
Mass flow	108	kg/h
C.O.P.	2.67	

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

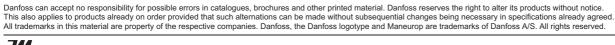
Rating conditions : Superheat = 10 K , Subcooling = 0 K

Pressure switch settings

Maximum HP switch setting	29.4	bar(g)	
Minimum LP switch setting	1.4	bar(g)	
LP pump down setting	1.7	bar(g)	

Sound power data

Sound power level	73	dB(A)
With accoustic hood	67	dB(A)







Maneurop reciprocating compressor. MTZ022-4

Performance data at 50 Hz, ARI rating conditions

R407C

Cond. temp. in				Evapora	ting temperature	in °C (to)			
°C (tc)	-15	-10	-5	0	5	10	15		
		1							l .
Cooling capacity	/ in W								
35	2 249	3 053	4 004	5 120	6 420	7 919	9 637	-	-
40	2 005	2 766	3 662	4 713	5 934	7 345	8 962	-	-
45	1 763	2 480	3 321	4 304	5 447	6 768	8 283	1	-
50	-	2 197	2 982	3 897	4 961	6 191	7 604	ı	-
55	-	-	2 649	3 495	4 478	5 617	6 928	1	-
60	-	-	-	3 101	4 003	5 049	6 257	ı	-
65	-	-	-	2 718	3 539	4 492	5 596	-	-
Power input in V						1	,		ı
35	1 045	1 159	1 249	1 319	1 370	1 405	1 429	-	-
40	1 067	1 208	1 323	1 414	1 484	1 537	1 576	-	-
45	1 071	1 243	1 386	1 503	1 597	1 671	1 729	-	-
50	-	1 262	1 437	1 584	1 706	1 806	1 888	-	-
55	-	-	1 476	1 657	1 811	1 941	2 049	-	-
60	-	-	-	1 719	1 909	2 073	2 212	-	-
65	-	-	-	1 770	2 000	2 201	2 376	-	-
Current consum	-		1	1	1	Т	ı		ı
35	2.55	2.66	2.74	2.81	2.88	2.94	3.00	-	-
40	2.58	2.71	2.82	2.92	3.00	3.07	3.14	-	-
45	2.59	2.76	2.90	3.02	3.13	3.23	3.32	-	-
50	-	2.78	2.97	3.13	3.27	3.40	3.52	-	-
55	-	-	3.02	3.23	3.42	3.58	3.74	-	-
60	-	-	-	3.31	3.55	3.77	3.97	-	-
65	-	-	-	3.37	3.67	3.95	4.20	-	-
	_								
Mass flow in kg/			T =0	1 00	1 404	1 440			1
35	45	60	78	98	121	148	177	-	-
40	42	57	74	94	117	143	172	-	-
45	39	54	71	90	112	137	166	-	-
50	-	50	67	86	107	132	160	-	-
55	-	-	62	81	102	126	153	-	-
60	-	-	-	76	97	120	146	-	-
65	-	-	-	71	91	114	139	-	-
Offi-i		.							
Coefficient of pe		2.63	3.20	3.88	4.69	5.64	6.74		
35 40	2.15 1.88		2.77		4.69	4.78	6.74	-	-
		2.29	2.77	3.33			5.69		-
45 50	1.65	2.00	1	2.86	3.41	4.05	4.79	-	-
50	-	1.74	2.07	2.46	2.91	3.43	4.03	-	-
55	-	-	1.79	2.11	2.47	2.89	3.38	-	-
60	-	-	-	1.80	2.10	2.44	2.83	-	-
65	-	-	-	1.54	1.77	2.04	2.36	-	-

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

Cooling capacity	5 021	W
Power input	1 857	W
Current consumption	3.47	Α
Mass flow	113	kg/h
C.O.P.	2.70	

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

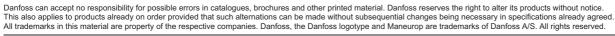
Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 K

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	73	dB(A)
With accoustic hood	67	dB(A)







Maneurop reciprocating compressor. MTZ022-4

Performance data at 50 Hz, EN 12900 rating conditions

R134a

Cond. temp. in				Evapora	ting temperature	in °C (to)			
°C (tc)	-25	-20	-10	-5	0	5	10	15	20
·					•	•	•		•
Cooling capacity		1	1	Т	T	1		Т	1
35	574	869	1 732	2 329	3 059	3 935	4 974	6 191	7 600
40	487	766	1 572	2 128	2 807	3 624	4 595	5 735	7 059
45	396	660	1 408	1 922	2 550	3 308	4 211	5 274	6 513
50	304	552	1 242	1 714	2 291	2 990	3 825	4 811	5 964
55	-	-	1 075	1 505	2 032	2 671	3 437	4 346	5 414
60	-	-	-	1 298	1 773	2 352	3 050	3 882	4 864
65	-	-	-	-	1 518	2 037	2 666	3 421	4 317
75	-	-	-	-	-	-	1 912	2 512	3 235
Power input in W	ı								
		506	763	926	906	040	065	066	041
35 40	508	596 612	763	836	896 944	940	965	966 1 056	941
	520	1	+	874	ł	1 001	1 039		1 048
45	524	620	815	906	989	1 058	1 112	1 146	1 157
50	517	619	831	933	1 029	1 113	1 183	1 235	1 265
55	-	-	840	955	1 064	1 164	1 251	1 322	1 373
60	-	-	-	969	1 094	1 210	1 316	1 407	1 480
65	-	-	-	-	1 118	1 252	1 378	1 490	1 586
75	-	-	-	-	-	-	1 488	1 647	1 792
urrent consum	ntion in A								
35	1.96	2.01	2.12	2.17	2.22	2.26	2.30	2.33	2.35
40	1.96	2.02	2.14	2.20	2.26	2.32	2.37	2.41	2.45
45	1.96	2.02	2.16	2.23	2.30	2.37	2.43	2.50	2.55
50	1.95	2.02	2.18	2.26	2.34	2.42	2.50	2.58	2.65
55	-	-	2.19	2.28	2.38	2.47	2.57	2.67	2.76
60		-	2.19	2.20	2.36	2.52	2.64	2.76	2.70
65		-	-	-	2.44	2.57	2.71	2.85	2.98
75		-	-	-	-	-	2.84	3.03	3.21
75				1	<u> </u>		2.04	3.03	3.21
/lass flow in kg/l	n								
35	15	22	41	54	70	88	109	133	161
40	13	20	39	52	67	85	105	129	157
45	11	18	37	50	64	81	102	125	151
50	9	16	35	47	61	78	97	120	146
55	-	-	32	44	58	74	93	115	140
60	-	-	-	40	54	69	88	109	133
65	-	-	-	-	49	64	82	102	126
75	-	-	-	-	-	-	69	88	110
Coefficient of pe	rformance (C.C								
35	1.13	1.46	2.27	2.79	3.41	4.18	5.15	6.41	8.08
							+		
40	0.94	1.25	1.98	2.44	2.97	3.62	4.42	5.43	6.73
45	0.76	1.06	1.73		2.58	3.13	3.79	4.60	5.63
50	0.59	0.89	1.49	1.84	2.23	2.69	3.23	3.90	4.72
55	-	-	1.28	1.58	1.91	2.29	2.75	3.29	3.94
60	-	-	-	1.34	1.62	1.94	2.32	2.76	3.29
65	-	-	-	-	1.36	1.63	1.94	2.30	2.72
75	-	-	-	-	-	-	1.28	1.53	1.80

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

Cooling capacity	2 990	W	
Power input	1 113	W	
Current consumption	2.42	Α	
Mass flow	78	kg/h	
C.O.P.	2.69		

to: Evaporating temperature at dew point

Pressure switch settings

Maximum HP switch setting	20.2	bar(g)
Minimum LP switch setting	0.1	bar(g)
LP pump down setting	0.4	bar(g)

Sound power data

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

Tolerance according EN12900



tc: Condensing temperature at dew point

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



Maneurop reciprocating compressor. MTZ022-4

Performance data at 50 Hz, ARI rating conditions

R134a

Cond. temp. in	Evaporating temperature in °C (to)								
°C (tc)	-25	-20	-10	-5	0	5	10	15	20
Cooling capacity	v in W								
35	624	943	1 872	2 515	3 297	4 235	5 346	6 644	8 146
40	532	836	1 708	2 308	3 040	3 919	4 961	6 182	7 599
45	436	725	1 539	2 097	2 777	3 596	4 570	5 714	7 045
50	-	611	1 367	1 882	2 511	3 270	4 175	5 242	6 487
55	-	-	1 193	1 666	2 244	2 942	3 778	4 767	5 927
60	-	-	-	1 450	1 976	2 614	3 380	4 292	5 365
65	-	-	-	-	-	2 286	2 984	3 818	4 804
75	-	-	-	-	-	-	2 200	2 879	3 694
Power input in V	v								
	508	506	763	936	896	940	965	966	941
35 40	520	596 612	792	836 874	944	1 001	1 039	1 056	1 048
45	524	620	815	906	989	1 058	1 112	1 146	1 157
50	-	619	831	933	1 029	1 113	1 183	1 235	1 265
55	-	-	840	955	1 029	1 164	1 251	1 322	1 373
60		_	-	969	1 004	1 210	1 316	1 407	1 480
65		_	_	-	-	1 252	1 378	1 490	1 586
75	_	_	_	_	-	-	1 488	1 647	1 792
		_ I	1			l	1 .00		
Current consum	ption in A								
35	1.96	2.01	2.12	2.17	2.22	2.26	2.30	2.33	2.35
40	1.96	2.02	2.14	2.20	2.26	2.32	2.37	2.41	2.45
45	1.96	2.02	2.16	2.23	2.30	2.37	2.43	2.50	2.55
50	-	2.02	2.18	2.26	2.34	2.42	2.50	2.58	2.65
55	-	-	2.19	2.28	2.38	2.47	2.57	2.67	2.76
60	-	-	-	2.30	2.41	2.52	2.64	2.76	2.87
65	-	-	-	-	-	2.57	2.71	2.85	2.98
75	-	-	-	-	-	-	2.84	3.03	3.21
Mass flow in kg/	'h								
35	14	22	41	54	69	87	108	133	160
40	13	20	39	52	67	84	105	129	156
45	11	18	37	49	64	81	101	124	151
50	-	16	35	47	61	77	97	119	145
55	-	-	32	43	57	73	92	114	139
60	-	-	-	40	53	69	87	108	132
65	-	-	-	-	-	64	82	102	125
75	-	-	-	-	-	-	69	88	109
Coefficient of pe	1.23	1	2.45	2.01	2.60	4.50	5.54	6 00	0.66
35		1.58		3.01	3.68	4.50	5.54	6.88	8.66
40	1.02	1.37	2.16	2.64	3.22	3.92	4.77	5.85	7.25
45 50	0.83	1.17	1.89	2.31	2.81	3.40	4.11	4.99	6.09
50 55	-	0.99	1.64	2.02	2.44	2.94	3.53	4.25	5.13
55	-	-	1.42	1.75	2.11	2.53	3.02	3.61	4.32
60	-	-	-	1.50	1.81	2.16	2.57	3.05	3.62
65 75	-	-	-	-	-	1.83	2.17	2.56	3.03
75	-	-	-	-	-	-	1.48	1.75	2.06

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

recinitial portormanoc at to 1.2	0, 10 04.4 0	
Cooling capacity	3 335	W
Power input	1 197	W
Current consumption	2.51	Α
Mass flow	82	kg/h
C.O.P.	2.79	

to: Evaporating temperature at dew point

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

Pressure switch settings

Maximum HP switch setting	20.2	bar(g)
Minimum LP switch setting	0.1	bar(g)
LP pump down setting	0.4	bar(g)

Sound power data

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

Tolerance according EN12900



tc: Condensing temperature at dew point



Maneurop reciprocating compressor. MTZ022-4

Performance data at 50 Hz, EN 12900 rating conditions

R404A

Cond. temp. in				Evapora	iting temperature	in °C (to)			
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
cooling capacit		4.505	0.405	0.050	0.744	1 4004	0.050	7.504	0.470
30	1 070	1 535	2 125	2 856	3 744	4 804	6 052	7 504	9 176
35	918	1 342	1 882	2 552	3 368	4 347	5 504	6 854	8 413
40	774	1 156	1 643	2 251	2 995	3 891	4 954	6 201	7 647
45	639	978	1 411	1 955	2 625	3 436	4 405	5 547	6 878
50	515	809	1 187	1 665	2 259	2 985	3 857	4 892	6 106
55	-	650	971	1 382	1 899	2 537	3 311	4 239	5 334
60	-	503	765	1 108	1 545	2 094	2 769	3 587	4 563
Power input in \	N	1	1	1	1	T			_
30	893	1 017	1 128	1 224	1 305	1 369	1 414	1 440	1 443
35	890	1 029	1 156	1 270	1 370	1 454	1 521	1 570	1 599
40	879	1 032	1 176	1 309	1 428	1 534	1 624	1 697	1 752
45	859	1 029	1 190	1 342	1 482	1 610	1 724	1 822	1 904
50	832	1 019	1 198	1 370	1 532	1 683	1 821	1 945	2 054
55	-	1 002	1 201	1 393	1 577	1 752	1 916	2 067	2 204
60	-	980	1 199	1 413	1 620	1 819	2 009	2 188	2 354
Current consum	nption in A								
30	2.41	2.53	2.65	2.76	2.86	2.94	3.00	3.04	3.04
35	2.42	2.55	2.68	2.80	2.92	3.02	3.10	3.15	3.18
40	2.43	2.57	2.71	2.85	2.99	3.11	3.21	3.30	3.36
45	2.41	2.57	2.74	2.90	3.06	3.21	3.35	3.47	3.56
50	2.37	2.56	2.75	2.94	3.13	3.32	3.49	3.65	3.78
55	-	2.52	2.74	2.97	3.20	3.42	3.64	3.84	4.02
60	-	2.45	2.71	2.98	3.25	3.52	3.78	4.03	4.26
Mass flow in kg/	/h								
30	34	47	64	84	107	134	165	200	241
35	31	44	60	80	102	129	160	195	235
40	28	41	57	76	98	124	154	189	228
45	26	38	53	71	93	118	148	182	220
50	23	35	49	67	88	112	141	174	212
55	-	32	45	62	82	106	134	167	204
60	-	28	41	57	76	100	127	158	194
Coefficient of n	erformance (C.C	D.P.)							
30	1.20	1.51	1.88	2.33	2.87	3.51	4.28	5.21	6.36
35	1.03	1.30	1.63	2.01	2.46	2.99	3.62	4.37	5.26
40	0.88	1.12	1.40	1.72	2.10	2.54	3.05	3.65	4.36
45	0.74	0.95	1.19	1.46	1.77	2.13	2.56	3.04	3.61
50	0.62	0.79	0.99	1.22	1.47	1.77	2.12	2.52	2.97
		1	0.81	0.99	1.20		1.73	2.05	2.42
55	-	0.65	0.01	0.99	1.20	1.45	1.73	2.05	

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

Cooling capacity	2 625	W
Power input	1 482	W
Current consumption	3.06	Α
Mass flow	93	kg/h
C.O.P.	1.77	

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

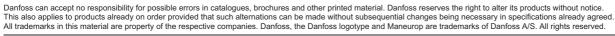


Pressure switch settings

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	68	dB(A)







Maneurop reciprocating compressor. MTZ022-4

Performance data at 50 Hz, ARI rating conditions

R404A

Cond. temp. in				Evapora	ating temperature	in °C (to)			
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
Cooling capacit		4.704	0.252	2.455	4.400	F 202	0.040	0.040	10.021
30	1 191	1 704	2 353	3 155	4 126	5 283	6 642	8 219	10 031
35	1 033	1 505	2 104	2 845	3 746	4 822	6 091	7 568	9 270
40	882	1 313	1 860	2 539	3 368	4 362	5 539	6 915	8 506
45	741	1 128	1 621	2 237	2 992	3 903	4 987	6 261	7 741
50	610	953	1 391	1 941	2 621	3 448	4 438	5 609	6 977
55	-	788	1 169	1 653	2 257	2 999	3 895	4 963	6 219
60	-	635	958	1 375	1 903	2 560	3 363	4 330	5 477
Power input in \	N		1			T			•
30	893	1 017	1 128	1 224	1 305	1 369	1 414	1 440	1 443
35	890	1 029	1 156	1 270	1 370	1 454	1 521	1 570	1 599
40	879	1 032	1 176	1 309	1 428	1 534	1 624	1 697	1 752
45	859	1 029	1 190	1 342	1 482	1 610	1 724	1 822	1 904
50	832	1 019	1 198	1 370	1 532	1 683	1 821	1 945	2 054
55	-	1 002	1 201	1 393	1 577	1 752	1 916	2 067	2 204
60	-	980	1 199	1 413	1 620	1 819	2 009	2 188	2 354
Current consum	nption in A								
30	2.41	2.53	2.65	2.76	2.86	2.94	3.00	3.04	3.04
35	2.42	2.55	2.68	2.80	2.92	3.02	3.10	3.15	3.18
40	2.43	2.57	2.71	2.85	2.99	3.11	3.21	3.30	3.36
45	2.41	2.57	2.74	2.90	3.06	3.21	3.35	3.47	3.56
50	2.37	2.56	2.75	2.94	3.13	3.32	3.49	3.65	3.78
55	-	2.52	2.74	2.97	3.20	3.42	3.64	3.84	4.02
60	-	2.45	2.71	2.98	3.25	3.52	3.78	4.03	4.26
Mass flow in kg	/h								
30	33	47	63	83	106	133	164	199	239
35	31	44	60	79	102	128	159	193	233
40	28	41	57	75	97	123	153	187	226
45	26	38	53	71	92	118	147	181	219
50	23	35	49	66	87	112	140	173	211
55	-	31	45	62	82	106	133	165	202
60	-	28	41	57	76	99	126	157	193
Coefficient of po	erformance (C.C).P.)							
30	1.33	1.68	2.09	2.58	3.16	3.86	4.70	5.71	6.95
35	1.16	1.46	1.82	2.24	2.74	3.32	4.00	4.82	5.80
40	1.00	1.27	1.58	1.94	2.36	2.84	3.41	4.07	4.85
45	0.86	1.10	1.36	1.67	2.02	2.42	2.89	3.44	4.07
50	0.73	0.94	1.16	1.42	1.71	2.05	2.44	2.88	3.40
	-	0.79	0.97	1.19	1.43	1.71	2.03	2.40	2.82
55									

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

Cooling capacity	2 992	W
Power input	1 482	W
Current consumption	3.06	Α
Mass flow	92	kg/h
C.O.P.	2.02	· ·

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

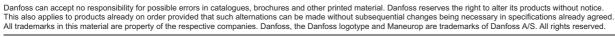
Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 K

Pressure switch settings

Maximum HP switch setting	27.7	bar(g)	I
Minimum LP switch setting	1	bar(g)	l
LP pump down setting	1.3	bar(g)	l

Sound power data

Sound power level	74	dB(A)
With accoustic hood	68	dB(A)







Maneurop reciprocating compressor. MTZ022-4

Performance data at 50 Hz, EN 12900 rating conditions

R407A

Cond. temp. in Evaporating temperature in °C (to)									
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
Cooling capacity		1				1	T		
30	791	1 221	1 768	2 447	3 273	4 261	5 426	6 783	8 347
35	667	1 066	1 576	2 211	2 987	3 918	5 020	6 306	7 793
40	544	911	1 381	1 970	2 693	3 564	4 599	5 812	7 218
45	429	760	1 187	1 727	2 393	3 201	4 166	5 303	6 626
50	-	617	999	1 486	2 093	2 836	3 728	4 785	6 023
55	-	-	820	1 252	1 797	2 470	3 287	4 262	5 410
60	-	-	-	1 029	1 509	2 110	2 849	3 739	4 795
Power input in W	ı								
30	674	804	926	1 037	1 131	1 206	1 259	1 285	1 281
35	659	801	937	1 064	1 177	1 274	1 351	1 403	1 428
40	636	791	942	1 086	1 220	1 339	1 441	1 521	1 576
45	604	772	940	1 103	1 258	1 401	1 529	1 637	1 724
50	-	745	930	1 113	1 290	1 458	1 613	1 751	1 870
55	-	-	911	1 115	1 316	1 509	1 693	1 862	2 014
60	-	-	-	1 109	1 334	1 555	1 767	1 969	2 155
Current consum		1	ı	I	T	1	1		1
30	2.15	2.27	2.39	2.51	2.62	2.71	2.77	2.82	2.83
35	2.16	2.28	2.41	2.53	2.65	2.76	2.85	2.91	2.95
40	2.17	2.29	2.43	2.56	2.70	2.83	2.94	3.04	3.12
45	2.15	2.29	2.44	2.59	2.75	2.91	3.06	3.19	3.30
50	-	2.27	2.44	2.62	2.80	2.99	3.18	3.35	3.51
55	-	-	2.41	2.62	2.85	3.07	3.30	3.52	3.73
60	-	-	-	2.61	2.87	3.14	3.41	3.68	3.95
Mass flow in kg/l	h								
30	19	29	41	55	72	92	116	143	173
35	17	26	38	52	69	89	113	139	170
40	14	24	35	49	66	86	109	135	165
45	12	21	32	46	62	81	104	130	160
50	-	18	29	42	58	77	99	125	154
55	-	-	25	38	53	72	94	119	148
60	-	-	-	34	49	66	88	112	141
								_	
Coefficient of per	•	1	1		1	1	1		
30	1.17	1.52	1.91	2.36	2.89	3.53	4.31	5.28	6.52
35	1.01	1.33	1.68	2.08	2.54	3.08	3.72	4.49	5.46
40	0.86	1.15	1.47	1.81	2.21	2.66	3.19	3.82	4.58
45	0.71	0.98	1.26	1.57	1.90	2.29	2.73	3.24	3.84
50	-	0.83	1.07	1.34	1.62	1.95	2.31	2.73	3.22
55	-	-	0.90	1.12	1.37	1.64	1.94	2.29	2.69
60	-	-	-	0.93	1.13	1.36	1.61	1.90	2.22

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

Cooling capacity	2 393	W
Power input	1 258	W
Current consumption	2.75	Α
Mass flow	62	kg/h
C.O.P.	1.90	

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

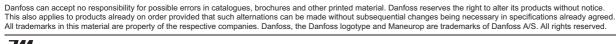
Rating conditions : Superheat = 10 K , Subcooling = 0 K

Pressure switch settings

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

Sound power data

Sound power level	73	dB(A)
With accoustic hood	67	dB(A)







Maneurop reciprocating compressor. MTZ022-4

Performance data at 50 Hz, ARI rating conditions

R407A

Cond. temp. in				Evapora	iting temperature	in °C (to)			
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
cooling capacit		1 040	4.000	0.005	0.500	4.537	5.000	7.070	0.000
30	856	1 318	1 906	2 635	3 520	4 577	5 822	7 270	8 936
35	725	1 158	1 709	2 394	3 230	4 231	5 413	6 792	8 383
40	596	996	1 507	2 146	2 929	3 871	4 987	6 294	7 807
45	474	837	1 306	1 895	2 622	3 502	4 549	5 782	7 213
50	-	686	1 109	1 646	2 313	3 128	4 104	5 258	6 607
55	-	-	921	1 402	2 007	2 753	3 656	4 730	5 992
60	-	-	-	1 169	1 709	2 384	3 209	4 201	5 375
Power input in \	N	1	1	1	1	1	1	1	1
30	674	804	926	1 037	1 131	1 206	1 259	1 285	1 281
35	659	801	937	1 064	1 177	1 274	1 351	1 403	1 428
40	636	791	942	1 086	1 220	1 339	1 441	1 521	1 576
45	604	772	940	1 103	1 258	1 401	1 529	1 637	1 724
50	-	745	930	1 113	1 290	1 458	1 613	1 751	1 870
55	-	-	911	1 115	1 316	1 509	1 693	1 862	2 014
60	-	-	-	1 109	1 334	1 555	1 767	1 969	2 155
Current consum	nption in A								
30	2.15	2.27	2.39	2.51	2.62	2.71	2.77	2.82	2.83
35	2.16	2.28	2.41	2.53	2.65	2.76	2.85	2.91	2.95
40	2.17	2.29	2.43	2.56	2.70	2.83	2.94	3.04	3.12
45	2.15	2.29	2.44	2.59	2.75	2.91	3.06	3.19	3.30
50	-	2.27	2.44	2.62	2.80	2.99	3.18	3.35	3.51
55	-	-	2.41	2.62	2.85	3.07	3.30	3.52	3.73
60	-	-	-	2.61	2.87	3.14	3.41	3.68	3.95
Mass flow in kg	/h								
30	19	28	40	55	72	92	115	142	172
35	17	26	38	52	69	89	112	138	169
40	14	24	35	49	66	85	108	134	164
45	12	21	32	45	62	81	104	130	159
50	-	18	29	42	58	76	99	124	154
55	-	-	25	38	53	71	93	118	147
60	-	-	-	34	48	66	87	112	140
Coefficient of n	erformance (C.C) P)							
30	1.27	1.64	2.06	2.54	3.11	3.79	4.63	5.66	6.98
35	1.10	1.45	1.82	2.25	2.74	3.32	4.01	4.84	5.87
40	0.94	1.26	1.60	1.98	2.40	2.89	3.46	4.14	4.95
45	0.79	1.08	1.39	1.72	2.08	2.50	2.98	3.53	4.18
50	-	0.92	1.19	1.48	1.79	2.15	2.54	3.00	3.53
55	-	-	1.01	1.26	1.53	1.82	2.16	2.54	2.98

Nominal performance at to = -10 °C, tc = 45 °C
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Cooling capacity	2 622	W
Power input	1 258	W
Current consumption	2.75	Α
Mass flow	62	kg/h
C.O.P.	2.08	

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Pressure switch settings

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

Sound power data

Sound power level	73	dB(A)
With accoustic hood	67	dB(A)

Tolerance according EN12900





Maneurop reciprocating compressor. MTZ022-4

Performance data at 50 Hz, EN 12900 rating conditions

R407F

Cond. temp. in	Evaporating temperature in °C (to)										
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10		
Cooling capacity i		Т		T	T		T	Т			
30	-	1 326	1 939	2 700	3 626	4 737	6 051	7 585	9 359		
35	-	1 124	1 679	2 371	3 216	4 234	5 443	6 861	8 507		
40	-	954	1 458	2 086	2 857	3 788	4 899	6 207	7 732		
45	-	811	1 269	1 841	2 543	3 395	4 414	5 620	7 029		
50	-	-	1 109	1 631	2 272	3 050	3 984	5 093	6 394		
55	-	-	-	1 451	2 037	2 749	3 604	4 623	5 822		
60	-	-	-	-	-	-	-	-	-		
Power input in W		050	004	4.004	4.404	4.055	1.007	4.000	4.074		
30	-	859	981	1 091	1 184	1 255	1 297	1 306	1 274		
35	-	860	995	1 123	1 239	1 336	1 410	1 454	1 463		
40	-	859	1 006	1 150	1 286	1 409	1 512	1 590	1 637		
45	-	862	1 018	1 177	1 332	1 477	1 608	1 718	1 801		
50	-	-	1 038	1 209	1 380	1 546	1 702	1 842	1 960		
55	-	-	-	1 250	1 436	1 621	1 800	1 968	2 118		
60	-	-	-	-	-	-	-	-	-		
.	41 1 A										
Current consump		0.00	0.44	0.54	0.05	0.75	0.04	0.04	0.00		
30	-	2.28	2.41	2.54	2.65	2.75	2.81	2.84	2.82		
35	-	2.31	2.45	2.59	2.72	2.83	2.92	2.98	2.99		
40	-	2.33	2.47	2.62	2.77	2.91	3.03	3.12	3.18		
45	-	2.33	2.49	2.66	2.83	3.00	3.15	3.29	3.39		
50	-	-	2.50	2.69	2.90	3.10	3.30	3.48	3.64		
55	-	-	-	2.73	2.97	3.22	3.46	3.69	3.91		
60	-	-	-	-	-		-	-	-		
Maaa flaw in ka/b											
Mass flow in kg/h		27	20	54	72	92	116	144	176		
30 35	<u>-</u>	24	39 36	50	66	92 86	116 109	144 136	176		
40		22	33	46	62		109	129	159		
		1	33	46	58	81			159		
45 50	-	19 -	28	43		76 73	98 94	123 118			
+			1		55	+	ł		146		
55	-	-	-	38	53 -	70	90	114	141		
60	-	-	-	-	-	-	<u> </u>	-	-		
Coefficient of perf	formance (C.C.) P)									
•	ormance (C.C	1	1.00	2.47	3.06	2 70	4.66	5.91	7.25		
30 35		1.54 1.31	1.98 1.69	2.47	3.06 2.60	3.78 3.17	4.66 3.86	5.81 4.72	7.35 5.81		
+	-	1	1			+	ł		1		
40		1.11	1.45	1.81	2.22	2.69	3.24	3.90	4.72		
45	-	0.94	1.25	1.56	1.91	2.30	2.75	3.27	3.90		
50	-	-	1.07	1.35	1.65	1.97	2.34	2.76	3.26		
55	-	-	-	1.16	1.42	1.70	2.00	2.35	2.75		
60	-	-	-	-	-	-	-	-	-		

Nominal performance at to = -10 °C, tc = 45 °C	;
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Cooling capacity	2 543	W
Power input	1 332	W
Current consumption	2.83	Α
Mass flow	58	kg/h
C.O.P.	1.91	

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

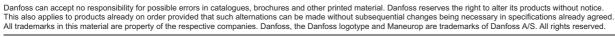
Rating conditions : Superheat = 10 K , Subcooling = 0 K

Pressure switch settings

Maximum HP switch setting	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	67	dB(A)







Maneurop reciprocating compressor. MTZ022-4

Performance data at 50 Hz, ARI rating conditions

R407F

			Evapora	ting temperature	in °C (to)			
-30	-25	-20	-15	-10	-5	0	5	10
	1 404	1 0.70	1	0.075	5.050	1 0.151	1 0004	0.000
	+				1			9 966
								9 095
								8 304
		1						7 590
								6 950
-	-	-						6 381
-	-	-	-	-	-	-	-	-
N								
-	859	981	1 091	1 184	1 255	1 297	1 306	1 274
-	860	995	1 123	1 239	1 336	1 410	1 454	1 463
-	859	1 006	1 150	1 286	1 409	1 512	1 590	1 637
-	862	1 018	1 177	1 332	1 477	1 608	1 718	1 801
-	-	1 038	1 209	1 380	1 546	1 702	1 842	1 960
-	-	-	1 250	1 436	1 621	1 800	1 968	2 118
-	-	-	-	-	-	-	-	-
nption in A	1	I	T	T		T	T	T
-		1						2.82
-								2.99
-	1	ł			+		1	3.18
-		1						3.39
-		2.50			1		1	3.64
-	-	-	2.73	2.97	3.22	3.46	3.69	3.91
-	-	-	-	-	-	-	-	-
/h								
-	27	39	54	71	92	116	143	175
-	24	36	49	66	86	109	135	166
-	22	32	46	62	81	103	128	158
-	19	30	43	58	76	97	122	151
-	-	28	40	55	72	93	117	145
-	-	-	38	52	69	89	113	140
-	-	-	-	-	-	-	-	-
erformance (C.0	D.P.)							
-	1.65	2.12	2.65	3.27	4.03	4.98	6.19	7.82
-	1.41	1.82	2.27	2.79	3.40	4.13	5.05	6.22
-	1.20	1.57	1.96	2.40	2.90	3.49	4.20	5.07
	1.02	1.36	1.70	2.07	2.49	2.97	3.54	4.21
-	1.02		1		1		1	
-	-	1.17	1.48	1.80	2.15	2,55	3.01	3.55
	1	1.17	1.48 1.28	1.80 1.56	2.15 1.87	2.55 2.20	3.01 2.58	3.55 3.01
,	y in W	y in W - 1 421 - 1 211 - 1 033 - 883	y in W -	y in W - 1421 2076 2888 - 1211 1806 2547 - 1033 1576 2253 - 883 1381 2000 - 1216 1785 - 1603 - 1216 1785 - 1603 1603 1603 1603 1603 1603 1603 1603 1703 N - 859 981 1091 - 860 995 1123 - 869 1006 1150 - 862 1018 1177 1038 1209 1250 1250 1250 1250 1250 1250 1250 1250	y in W - 1421	yin W - 1421	yin W -	yin W 1421 2076 2888 3.875 5.058 6.454 8.084

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

Cooling capacity	2 760	W
Power input	1 332	W
Current consumption	2.83	Α
Mass flow	58	kg/h
C.O.P.	2.07	

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

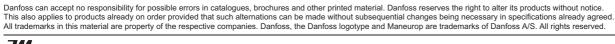
Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 K

Pressure switch settings

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

Sound power data

Sound power level	73	dB(A)
With accoustic hood	67	dB(A)







Maneurop reciprocating compressor. MTZ022-4

Performance data at 50 Hz, EN 12900 rating conditions

R134a

Cond. temp. in Evaporating temperature in °C (to)									
°C (tc)	-25	-20	-10	-5	0	5	10	15	20
·					•	•	•		•
Cooling capacity		1	1	Т	T	1		Т	1
35	574	869	1 732	2 329	3 059	3 935	4 974	6 191	7 600
40	487	766	1 572	2 128	2 807	3 624	4 595	5 735	7 059
45	396	660	1 408	1 922	2 550	3 308	4 211	5 274	6 513
50	304	552	1 242	1 714	2 291	2 990	3 825	4 811	5 964
55	-	-	1 075	1 505	2 032	2 671	3 437	4 346	5 414
60	-	-	-	1 298	1 773	2 352	3 050	3 882	4 864
65	-	-	-	-	1 518	2 037	2 666	3 421	4 317
75	-	-	-	-	-	-	1 912	2 512	3 235
Power input in W	ı								
		506	763	926	906	040	065	066	041
35 40	508	596 612	763	836	896 944	940	965	966 1 056	941
	520	1	+	874	ł	1 001	1 039		1 048
45	524	620	815	906	989	1 058	1 112	1 146	1 157
50	517	619	831	933	1 029	1 113	1 183	1 235	1 265
55	-	-	840	955	1 064	1 164	1 251	1 322	1 373
60	-	-	-	969	1 094	1 210	1 316	1 407	1 480
65	-	-	-	-	1 118	1 252	1 378	1 490	1 586
75	-	-	-	-	-	-	1 488	1 647	1 792
urrent consum	ntion in A								
35	1.96	2.01	2.12	2.17	2.22	2.26	2.30	2.33	2.35
40	1.96	2.02	2.14	2.20	2.26	2.32	2.37	2.41	2.45
45	1.96	2.02	2.16	2.23	2.30	2.37	2.43	2.50	2.55
50	1.95	2.02	2.18	2.26	2.34	2.42	2.50	2.58	2.65
55	-	-	2.19	2.28	2.38	2.47	2.57	2.67	2.76
60		-	2.19	2.20	2.36	2.52	2.64	2.76	2.70
65		-	-	-	2.44	2.57	2.71	2.85	2.98
75		-	-	-	-	-	2.84	3.03	3.21
75					<u> </u>		2.04	3.03	3.21
/lass flow in kg/l	n								
35	15	22	41	54	70	88	109	133	161
40	13	20	39	52	67	85	105	129	157
45	11	18	37	50	64	81	102	125	151
50	9	16	35	47	61	78	97	120	146
55	-	-	32	44	58	74	93	115	140
60	-	-	-	40	54	69	88	109	133
65	-	-	-	-	49	64	82	102	126
75	-	-	-	-	-	-	69	88	110
Coefficient of pe	rformance (C.C								
35	1.13	1.46	2.27	2.79	3.41	4.18	5.15	6.41	8.08
							+		
40	0.94	1.25	1.98	2.44	2.97	3.62	4.42	5.43	6.73
45	0.76	1.06	1.73		2.58	3.13	3.79	4.60	5.63
50	0.59	0.89	1.49	1.84	2.23	2.69	3.23	3.90	4.72
55	-	-	1.28	1.58	1.91	2.29	2.75	3.29	3.94
60	-	-	-	1.34	1.62	1.94	2.32	2.76	3.29
65	-	-	-	-	1.36	1.63	1.94	2.30	2.72
75	-	-	-	-	-	-	1.28	1.53	1.80

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

Cooling capacity	2 990	W	
Power input	1 113	W	
Current consumption	2.42	Α	
Mass flow	78	kg/h	
C.O.P.	2.69		

to: Evaporating temperature at dew point

Pressure switch settings

Maximum HP switch setting	20.2	bar(g)
Minimum LP switch setting	0.1	bar(g)
LP pump down setting	0.4	bar(g)

Sound power data

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

Tolerance according EN12900



tc: Condensing temperature at dew point

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



Maneurop reciprocating compressor. MTZ022-4

Performance data at 50 Hz, ARI rating conditions

R134a

Cond. temp. in Evaporating temperature in °C (to)									
°C (tc)	-25	-20	-10	-5	0	5	10	15	20
Cooling capacity	v in W								
35	624	943	1 872	2 515	3 297	4 235	5 346	6 644	8 146
40	532	836	1 708	2 308	3 040	3 919	4 961	6 182	7 599
45	436	725	1 539	2 097	2 777	3 596	4 570	5 714	7 045
50	-	611	1 367	1 882	2 511	3 270	4 175	5 242	6 487
55	-	-	1 193	1 666	2 244	2 942	3 778	4 767	5 927
60	-	-	-	1 450	1 976	2 614	3 380	4 292	5 365
65	-	-	-	-	-	2 286	2 984	3 818	4 804
75	-	-	-	-	-	-	2 200	2 879	3 694
Power input in V	v								
	508	506	763	936	896	940	965	966	941
35 40	520	596 612	792	836 874	944	1 001	1 039	1 056	1 048
45	524	620	815	906	989	1 058	1 112	1 146	1 157
50	-	619	831	933	1 029	1 113	1 183	1 235	1 265
55	-	-	840	955	1 029	1 164	1 251	1 322	1 373
60		_	-	969	1 004	1 210	1 316	1 407	1 480
65		_	_	-	-	1 252	1 378	1 490	1 586
75	_	_	_	_	-	-	1 488	1 647	1 792
		_ I	1			l .	1 .00		
Current consum	ption in A								
35	1.96	2.01	2.12	2.17	2.22	2.26	2.30	2.33	2.35
40	1.96	2.02	2.14	2.20	2.26	2.32	2.37	2.41	2.45
45	1.96	2.02	2.16	2.23	2.30	2.37	2.43	2.50	2.55
50	-	2.02	2.18	2.26	2.34	2.42	2.50	2.58	2.65
55	-	-	2.19	2.28	2.38	2.47	2.57	2.67	2.76
60	-	-	-	2.30	2.41	2.52	2.64	2.76	2.87
65	-	-	-	-	-	2.57	2.71	2.85	2.98
75	-	-	-	-	-	-	2.84	3.03	3.21
Mass flow in kg/	'h								
35	14	22	41	54	69	87	108	133	160
40	13	20	39	52	67	84	105	129	156
45	11	18	37	49	64	81	101	124	151
50	-	16	35	47	61	77	97	119	145
55	-	-	32	43	57	73	92	114	139
60	-	-	-	40	53	69	87	108	132
65	-	-	-	-	-	64	82	102	125
75	-	-	-	-	-	-	69	88	109
Coefficient of pe	1.23	1	2.45	2.01	2.60	4.50	5.54	6 00	0.66
35		1.58		3.01	3.68	4.50	5.54	6.88	8.66
40	1.02	1.37	2.16	2.64	3.22	3.92	4.77	5.85	7.25
45 50	0.83	1.17	1.89	2.31	2.81	3.40	4.11	4.99	6.09
50 55	-	0.99	1.64	2.02	2.44	2.94	3.53	4.25	5.13
55	-	-	1.42	1.75	2.11	2.53	3.02	3.61	4.32
60	-	-	-	1.50	1.81	2.16	2.57	3.05	3.62
65 75	-	-	-	-	-	1.83	2.17	2.56	3.03
75	-	-	-	-	-	-	1.48	1.75	2.06

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

recinitial portormanoc at to 1.2	0, 10 04.4 0	
Cooling capacity	3 335	W
Power input	1 197	W
Current consumption	2.51	Α
Mass flow	82	kg/h
C.O.P.	2.79	

to: Evaporating temperature at dew point

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

Pressure switch settings

Maximum HP switch setting	20.2	bar(g)
Minimum LP switch setting	0.1	bar(g)
LP pump down setting	0.4	bar(g)

Sound power data

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

Tolerance according EN12900



tc: Condensing temperature at dew point



Maneurop reciprocating compressor. MTZ022-4

Performance data at 50 Hz, EN 12900 rating conditions

R407C

Cond. temp. in				Evapora	iting temperature	in °C (to)			
°C (tc)	-15	-10	-5	0	5	10	15		
		•		•	•				l .
Cooling capacity	/ in W								
35	2 090	2 840	3 729	4 774	5 992	7 400	9 013	-	-
40	1 853	2 559	3 393	4 372	5 512	6 830	8 343	-	-
45	1 619	2 280	3 058	3 969	5 030	6 258	7 669	-	-
50	-	2 006	2 727	3 569	4 550	5 687	6 995	-	-
55	-	-	2 401	3 175	4 075	5 119	6 324	-	-
60	-	-	-	2 788	3 607	4 558	5 658	-	-
65	-	-	-	2 412	3 148	4 005	5 000	-	-
Power input in V		,		,	,	1			ı
35	1 045	1 159	1 249	1 319	1 370	1 405	1 429	-	-
40	1 067	1 208	1 323	1 414	1 484	1 537	1 576	-	-
45	1 071	1 243	1 386	1 503	1 597	1 671	1 729	-	-
50	-	1 262	1 437	1 584	1 706	1 806	1 888	-	-
55	-	-	1 476	1 657	1 811	1 941	2 049	-	-
60	-	-	-	1 719	1 909	2 073	2 212	-	-
65	-	-	-	1 770	2 000	2 201	2 376	-	-
Current consum	-	T	1	T	Т	1	1		ı
35	2.55	2.66	2.74	2.81	2.88	2.94	3.00	-	-
40	2.58	2.71	2.82	2.92	3.00	3.07	3.14	-	-
45	2.59	2.76	2.90	3.02	3.13	3.23	3.32	-	-
50	-	2.78	2.97	3.13	3.27	3.40	3.52	-	-
55	-	-	3.02	3.23	3.42	3.58	3.74	-	-
60	-	-	-	3.31	3.55	3.77	3.97	-	-
65	-	-	-	3.37	3.67	3.95	4.20	-	-
Mass flow in kg/		T	T			1			1
35	45	61	78	99	122	148	178	-	-
40	42	57	75	95	118	144	173	-	-
45	39	54	71	91	113	138	167	-	-
50	-	50	67	86	108	133	161	-	-
55	-	-	63	81	103	127	154	-	-
60	-	-	-	77	97	121	147	-	-
65	-	-	-	72	92	114	140	-	-
0 651 - 1 4 - 5									
Coefficient of pe		1	2.00	2.02	4.20	5.07	0.24		I
35	2.00	2.45	2.98	3.62	4.38	5.27	6.31	-	-
40	1.74	2.12	2.57	3.09	3.71	4.44	5.29	-	-
45	1.51	1.83	2.21	2.64	3.15	3.74	4.43	-	-
50	-	1.59	1.90	2.25	2.67	3.15	3.71	-	-
55	-	-	1.63	1.92	2.25	2.64	3.09	-	-
60	-	-	-	1.62	1.89	2.20	2.56	-	-
65	-	-	-	1.36	1.57	1.82	2.10	-	-

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

Cooling capacity	4 550	W
Power input	1 706	W
Current consumption	3.27	Α
Mass flow	108	kg/h
C.O.P.	2.67	

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

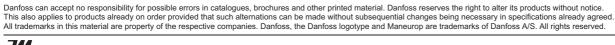
Rating conditions : Superheat = 10 K , Subcooling = 0 K

Pressure switch settings

Maximum HP switch setting	29.4	bar(g)	
Minimum LP switch setting	1.4	bar(g)	
LP pump down setting	1.7	bar(g)	

Sound power data

Sound power level	73	dB(A)
With accoustic hood	67	dB(A)







Maneurop reciprocating compressor. MTZ022-4

Performance data at 50 Hz, ARI rating conditions

R407C

Cond. temp. in				Evapora	ting temperature	in °C (to)			
°C (tc)	-15	-10	-5	0	5	10	15		
		1							l .
Cooling capacity	/ in W								
35	2 249	3 053	4 004	5 120	6 420	7 919	9 637	-	-
40	2 005	2 766	3 662	4 713	5 934	7 345	8 962	-	-
45	1 763	2 480	3 321	4 304	5 447	6 768	8 283	1	-
50	-	2 197	2 982	3 897	4 961	6 191	7 604	ı	-
55	-	-	2 649	3 495	4 478	5 617	6 928	1	-
60	-	-	-	3 101	4 003	5 049	6 257	ı	-
65	-	-	-	2 718	3 539	4 492	5 596	-	-
Power input in V						1	,		ı
35	1 045	1 159	1 249	1 319	1 370	1 405	1 429	-	-
40	1 067	1 208	1 323	1 414	1 484	1 537	1 576	-	-
45	1 071	1 243	1 386	1 503	1 597	1 671	1 729	-	-
50	-	1 262	1 437	1 584	1 706	1 806	1 888	-	-
55	-	-	1 476	1 657	1 811	1 941	2 049	-	-
60	-	-	-	1 719	1 909	2 073	2 212	-	-
65	-	-	-	1 770	2 000	2 201	2 376	-	-
Current consum	-		1	1	1	Т	ı		ı
35	2.55	2.66	2.74	2.81	2.88	2.94	3.00	-	-
40	2.58	2.71	2.82	2.92	3.00	3.07	3.14	-	-
45	2.59	2.76	2.90	3.02	3.13	3.23	3.32	-	-
50	-	2.78	2.97	3.13	3.27	3.40	3.52	-	-
55	-	-	3.02	3.23	3.42	3.58	3.74	-	-
60	-	-	-	3.31	3.55	3.77	3.97	-	-
65	-	-	-	3.37	3.67	3.95	4.20	-	-
	_								
Mass flow in kg/			T =0	1 00	1 404	1 440			1
35	45	60	78	98	121	148	177	-	-
40	42	57	74	94	117	143	172	-	-
45	39	54	71	90	112	137	166	-	-
50	-	50	67	86	107	132	160	-	-
55	-	-	62	81	102	126	153	-	-
60	-	-	-	76	97	120	146	-	-
65	-	-	-	71	91	114	139	-	-
Offi-i		.							
Coefficient of pe		2.63	3.20	3.88	4.69	5.64	6.74		
35 40	2.15 1.88		2.77		4.69	4.78	6.74	-	-
		2.29	2.77	3.33			5.69		-
45 50	1.65	2.00	1	2.86	3.41	4.05	4.79	-	-
50	-	1.74	2.07	2.46	2.91	3.43	4.03	-	-
55	-	-	1.79	2.11	2.47	2.89	3.38	-	-
60	-	-	-	1.80	2.10	2.44	2.83	-	-
65	-	-	-	1.54	1.77	2.04	2.36	-	-

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

Cooling capacity	5 021	W
Power input	1 857	W
Current consumption	3.47	Α
Mass flow	113	kg/h
C.O.P.	2.70	

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

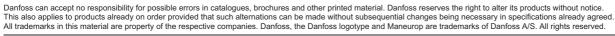
Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 K

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	73	dB(A)
With accoustic hood	67	dB(A)







Maneurop reciprocating compressor. MTZ022-4

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

R448A

Cond. temp. in	Evaporating temperature in °C (to)									
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10	
Cooling capacity	in W									
10	-	2 056	2 728	3 580	4 636	-	-	-	-	
20	-	1 772	2 352	3 088	4 002	5 118	6 459	-	-	
30	-	1 518	2 017	2 646	3 427	4 383	5 537	6 915	8 544	
40	-	-	1 707	2 238	2 896	3 702	4 678	5 849	7 238	
50	-	-	-	1 851	2 394	3 060	3 869	4 842	6 003	
60	-	-	-	-	1 908	2 443	3 095	3 882	4 824	
Power input in W										
10	-	735	786	824	846	-	-	-	-	
20	-	814	885	946	994	1 027	1 043	-	-	
30	-	889	981	1 068	1 145	1 212	1 263	1 299	1 315	
40	-	-	1 071	1 186	1 296	1 398	1 489	1 567	1 629	
50	-	-	-	1 295	1 440	1 580	1 714	1 837	1 949	
60	-	-	-	-	1 573	1 754	1 932	2 105	2 268	
Current consump	otion in A									
10	-	1.67	1.72	1.76	1.78	-	-	-	-	
20	-	2.11	2.17	2.23	2.28	2.30	2.29	-	-	
30	-	2.36	2.42	2.50	2.59	2.65	2.70	2.71	2.67	
40	-	-	2.56	2.67	2.78	2.90	3.00	3.08	3.12	
50	-	-	-	2.78	2.94	3.11	3.28	3.43	3.56	
60	-	-	-	-	3.13	3.35	3.58	3.82	4.03	
Mass flow in kg/h	1									
10	-	34	45	59	77	-	_	-	-	
20	-	31	42	55	71	92	117	-	-	
30	-	29	39	51	66	85	109	138	173	
40	-	-	36	47	61	79	101	128	161	
50	-	-	-	43	57	73	93	118	149	
60	-	-	-	-	51	67	85	109	137	
Coefficient of per	formance (C.0									
10	-	2.80	3.47	4.34	5.48	-	-	-	-	
20	-	2.18	2.66	3.27	4.03	4.98	6.20	-	-	
30	-	1.71	2.06	2.48	2.99	3.62	4.38	5.32	6.50	
40	-	-	1.59	1.89	2.23	2.65	3.14	3.73	4.44	
50	-	-	-	1.43	1.66	1.94	2.26	2.64	3.08	
60	-	_	_	-	1.21	1.39	1.60	1.84	2.13	

Mass now		
C O D		

Cooling capacity

Current consumption

Power input

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

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

Rating conditions : Suction gas temp. = 20 °C , Subcooling = 0 K

2 642

1 369

2.86 59 W

W

Pressure switch settings

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

Sound power data

Sound power level	74	dB(A)
With accoustic hood	68	dB(A)





Maneurop reciprocating compressor. MTZ022-4

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

R448A

Cond. temp. in	Evaporating temperature in °C (to)									
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10	
Cooling capacity	in W						_			
10	1 548	2 066	2 743	3 602	4 666	-	-	-	-	
20	1 312	1 760	2 343	3 082	4 001	5 124	6 471	-	-	
30	1 100	1 488	1 985	2 614	3 398	4 361	5 524	6 911	8 544	
40	897	1 233	1 654	2 183	2 842	3 654	4 642	5 829	7 238	
50	-	982	1 337	1 775	2 318	2 990	3 813	4 809	6 003	
60	-	-	1 019	1 375	1 812	2 353	3 020	3 836	4 824	
Power input in W	ı									
10	673	735	786	824	846	_	-	_	_	
20	736	814	885	946	994	1 027	1 043	-	-	
30	792	889	981	1 068	1 145	1 212	1 263	1 299	1 315	
40	835	953	1 071	1 186	1 296	1 398	1 489	1 567	1 629	
50	-	1 003	1 149	1 295	1 440	1 580	1 714	1 837	1 949	
60	-	-	1 209	1 390	1 573	1 754	1 932	2 105	2 268	
<u>'</u>		•			1	- 1		•		
Current consum	ption in A									
10	1.62	1.67	1.72	1.76	1.78	-	-	-	-	
20	2.06	2.11	2.17	2.23	2.28	2.30	2.29	_	-	
30	2.31	2.36	2.42	2.50	2.59	2.65	2.70	2.71	2.67	
40	2.43	2.48	2.56	2.67	2.78	2.90	3.00	3.08	3.12	
50	-	2.55	2.65	2.78	2.94	3.11	3.28	3.43	3.56	
60	-	-	2.75	2.92	3.13	3.35	3.58	3.82	4.03	
Mass flow in kg/l		1 00		1 00			1			
10	30	39	51	66	84	-	-	-	-	
20	27	36	47	61	78	99	123	-	-	
30	25	34	44	57	72	91	114	141	173	
40	23	31	41	53	67	85	106	131	161	
50	-	28	37	49	62	78	98	121	149	
60	-	-	33	44	57	72	90	112	137	
Coefficient of pe	rformance (C.0	D.P.)								
10	2.30	2.81	3.49	4.37	5.51	-	-	-	-	
20	1.78	2.16	2.65	3.26	4.03	4.99	6.21	-	-	
30	1.39	1.67	2.02	2.45	2.97	3.60	4.37	5.32	6.50	
40	1.07	1.29	1.54	1.84	2.19	2.61	3.12	3.72	4.44	
50	-	0.98	1.16	1.37	1.61	1.89	2.22	2.62	3.08	
60	-	-	0.84	0.99	1.15	1.34	1.56	1.82	2.13	
		1		1		-				
Nominal perform	ance at to = -1	0 °C, tc = 45 °C				Pressure switch	settings			
				1	г	, , , , , , , , , , , , , , , , , ,				

Cooling capacity

Current consumption

Power input

Mass flow

C.O.P.

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

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

2 577

1 369

2.86

65

1.88

W

W

Max	imum HP switch setting	27.7	bar(g)
Mini	mum LP switch setting	1	bar(g)
LPp	oump down setting	1.3	bar(g)

Sound power data

Sound power level	74	dB(A)
With accoustic hood	68	dB(A)





Maneurop reciprocating compressor. MTZ022-4

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

R449A

Cond. temp. in	Evaporating temperature in °C (to)									
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10	
Cooling capacity	in W									
10	-	2 060	2 732	3 584	4 641	-	_	_	-	
20	-	1 776	2 357	3 093	4 007	5 122	6 463	-	-	
30	_	1 522	2 021	2 650	3 431	4 387	5 540	6 917	8 544	
40	-	-	1 711	2 243	2 900	3 706	4 682	5 851	7 238	
50	_	_	_	1 855	2 399	3 064	3 872	4 845	6 003	
60	-	_	-	-	1 913	2 448	3 098	3 884	4 824	
Power input in W		1	1	II.	1	1	1	<u>'</u>		
10	-	735	786	824	846	-	_	_	-	
20	-	814	885	946	994	1 027	1 043	_	-	
30	-	889	982	1 068	1 146	1 212	1 264	1 299	1 315	
40	-	-	1 071	1 186	1 296	1 398	1 489	1 567	1 630	
50	-	_	-	1 296	1 440	1 581	1 714	1 838	1 949	
60	_	-	-	_	1 573	1 755	1 933	2 105	2 269	
Current consump	otion in A		T		1	_		T	1	
10	-	1.66	1.72	1.76	1.78	-	-	-	-	
20	-	2.11	2.17	2.23	2.27	2.30	2.29	-	-	
30	-	2.35	2.42	2.50	2.58	2.65	2.70	2.71	2.67	
40	-	-	2.56	2.66	2.78	2.90	3.00	3.08	3.12	
50	-	-	-	2.78	2.94	3.11	3.27	3.43	3.55	
60	-	-	-	-	3.12	3.34	3.58	3.81	4.03	
Mass flow in kg/h	ı									
10	-	35	46	61	79	-	-	-	-	
20	-	32	42	56	73	94	120	-	-	
30	-	29	39	52	67	87	111	140	176	
40	-	-	37	48	63	81	103	130	163	
50	-	-	-	44	58	75	95	121	152	
60	-	-	-	-	53	68	87	111	140	
Coefficient of per	formance (C.0		T		1			T		
10	-	2.80	3.47	4.35	5.48	-	-	-	-	
20	-	2.18	2.66	3.27	4.03	4.99	6.20	-	-	
30	-	1.71	2.06	2.48	3.00	3.62	4.38	5.33	6.50	
40	-	-	1.60	1.89	2.24	2.65	3.14	3.73	4.44	
50	-	-	-	1.43	1.67	1.94	2.26	2.64	3.08	
60	-	_	_	-	1.22	1.39	1.60	1.84	2.13	

IVIASS IIOW
C.O.P.

Cooling capacity

Current consumption

Power input

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

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

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

2 647

1 369

2.86 60 1.93 W

W

Pressure switch settings

Max	imum HP switch setting	27.7	bar(g)
Mini	mum LP switch setting	1	bar(g)
LPp	oump down setting	1.3	bar(g)

Sound power data

Sound power level	74	dB(A)
With accoustic hood	68	dB(A)





Maneurop reciprocating compressor. MTZ022-4

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

R449A

Cond. temp. in Evaporating temperature in °C (to)									
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
Cooling capacity	y in W								
10	1 548	2 066	2 743	3 602	4 666	-	-	-	-
20	1 312	1 760	2 343	3 082	4 001	5 124	6 471	-	-
30	1 100	1 488	1 985	2 614	3 398	4 361	5 524	6 911	8 544
40	897	1 233	1 654	2 183	2 842	3 654	4 642	5 829	7 238
50	-	982	1 337	1 775	2 318	2 990	3 813	4 809	6 003
60	-	-	1 019	1 375	1 812	2 353	3 020	3 836	4 824
Power input in V	v								
10	673	735	786	824	846	-	-	-	-
20	736	814	885	946	994	1 027	1 043	-	-
30	792	889	982	1 068	1 146	1 212	1 264	1 299	1 315
40	835	953	1 071	1 186	1 296	1 398	1 489	1 567	1 630
50	-	1 003	1 149	1 296	1 440	1 581	1 714	1 838	1 949
60	-	-	1 209	1 390	1 573	1 755	1 933	2 105	2 269
Current consum	-				T	T-	T-	1	I
10	1.61	1.66	1.72	1.76	1.78	-	-	-	-
20	2.06	2.11	2.17	2.23	2.27	2.30	2.29	-	-
30	2.31	2.35	2.42	2.50	2.58	2.65	2.70	2.71	2.67
40	2.43	2.48	2.56	2.66	2.78	2.90	3.00	3.08	3.12
50	-	2.54	2.64	2.78	2.94	3.11	3.27	3.43	3.55
60	-	-	2.74	2.91	3.12	3.34	3.58	3.81	4.03
Mass flow in kg/	h								
10	30	40	53	68	87	-	-	-	-
20	28	37	48	63	80	101	126	-	-
30	25	34	45	58	74	93	116	144	176
40	23	32	42	54	69	87	108	134	163
50	-	29	38	50	63	80	100	124	152
60	-	-	34	45	58	73	92	114	140
Coefficient of pe	erformance (C.C).P.)							
10	2.30	2.81	3.49	4.37	5.51	-	-	-	-
20	1.78	2.16	2.65	3.26	4.03	4.99	6.21	-	-
30	1.39	1.67	2.02	2.45	2.97	3.60	4.37	5.32	6.50
40	1.07	1.29	1.54	1.84	2.19	2.61	3.12	3.72	4.44
50	_	0.98	1.16	1.37	1.61	1.89	2.22	2.62	3.08
		+	+			+	1	t	2.13

Mass flow	
C.O.P.	

Cooling capacity

Current consumption

Power input

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

2 577

1 369

2.86

66 1.88 W

W

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 setti	ng	1.3	bar(g)

Sound power data

Sound power level	74	dB(A)
With accoustic hood	68	dB(A)





Maneurop reciprocating compressor. MTZ022-4

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

R452A

Cond. temp. in Evaporating temperature in °C (to)									
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
Cooling capacity	in W								
10	-	2 787	3 558	4 485	5 581	-	-	-	-
20	-	2 295	2 978	3 797	4 764	5 893	7 200	-	-
30	-	1 862	2 459	3 171	4 012	4 992	6 127	7 430	8 921
40	-	1 476	1 988	2 596	3 311	4 144	5 109	6 217	7 484
50	-	-	1 552	2 056	2 647	3 336	4 133	5 048	6 094
60	-	-	-	1 541	2 010	2 556	3 186	3 911	4 737
Power input in W									
10	-	898	949	975	973	-	-	-	-
20	-	965	1 045	1 105	1 142	1 151	1 130	-	-
30	-	1 017	1 126	1 221	1 297	1 351	1 379	1 377	1 342
40	-	1 055	1 195	1 325	1 441	1 540	1 617	1 671	1 695
50	-	-	1 251	1 417	1 574	1 719	1 847	1 956	2 041
60	-	-	-	1 500	1 699	1 890	2 070	2 235	2 381
Current consump		ı	_		1	_		T	I
10	-	1.68	1.68	1.68	1.68	-	-	-	-
20	-	2.21	2.24	2.27	2.30	2.32	2.32	-	-
30	-	2.47	2.53	2.60	2.67	2.74	2.78	2.81	2.82
40	-	2.56	2.66	2.77	2.89	3.00	3.11	3.19	3.26
50	-	-	2.74	2.90	3.06	3.23	3.39	3.54	3.67
60	-	-	-	3.09	3.31	3.53	3.76	3.98	4.18
Mass flow in kg/h	1								
10	-	56	72	92	116	-	-		-
20	-	50	66	85	107	134	165	-	-
30	-	45	60	78	99	124	154	189	231
40	-	40	54	71	91	115	143	177	217
50	-	-	48	64	83	106	133	165	204
60	-	-	-	57	76	97	123	154	190
Coefficient of per	formance (C.C	D.P.)							
10	-	3.11	3.75	4.60	5.74	-	-	-	-
20	-	2.38	2.85	3.44	4.17	5.12	6.37	-	-
30	-	1.83	2.18	2.60	3.09	3.70	4.44	5.40	6.65
40	-	1.40	1.66	1.96	2.30	2.69	3.16	3.72	4.41
				1.45	1.68	1.94	2.24	2.58	2.99
50	-	-	1.24	1.40	1.00	1.34		2.00	2.00

Nominal performa	nce at to = -10	°C, tc = 45 °C

Cooling capacity	2 975	W
Power input	1 509	W
Current consumption	2.98	Α
Mass flow	87	kg/h
C.O.P.	1.97	

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Pressure switch settings

Max	imum HP switch setting	27.7	bar(g)
Mini	mum LP switch setting	1	bar(g)
LPp	oump down setting	1.3	bar(g)

Sound power data

Sound power level	74	dB(A)
With accoustic hood	68	dB(A)





Maneurop reciprocating compressor. MTZ022-4

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

R452A

Cond. temp. in				Evapora	ting temperature	in °C (to)			
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
Cooling capacity	y in W	•							
10	2 089	2 714	3 484	4 416	5 522	-	-	-	-
20	1 646	2 196	2 874	3 693	4 668	5 814	7 144	-	-
30	1 267	1 744	2 330	3 038	3 883	4 879	6 042	7 384	8 921
40	939	1 345	1 839	2 437	3 153	4 002	4 997	6 153	7 484
50	649	983	1 388	1 877	2 466	3 167	3 996	4 967	6 094
60	-	646	962	1 344	1 806	2 361	3 026	3 813	4 737
Power input in V	v								
10	826	898	949	975	973	-	-	-	-
20	869	965	1 045	1 105	1 142	1 151	1 130	-	-
30	897	1 017	1 126	1 221	1 297	1 351	1 379	1 377	1 342
40	909	1 055	1 195	1 325	1 441	1 540	1 617	1 671	1 695
50	909	1 081	1 251	1 417	1 574	1 719	1 847	1 956	2 041
60	-	1 095	1 298	1 500	1 699	1 890	2 070	2 235	2 381
				•		•			•
Current consum	ption in A								
10	1.68	1.68	1.68	1.68	1.68	-	-	-	-
20	2.19	2.21	2.24	2.27	2.30	2.32	2.32	-	-
30	2.42	2.47	2.53	2.60	2.67	2.74	2.78	2.81	2.82
40	2.48	2.56	2.66	2.77	2.89	3.00	3.11	3.19	3.26
50	2.47	2.60	2.74	2.90	3.06	3.23	3.39	3.54	3.67
60	-	2.69	2.88	3.09	3.31	3.53	3.76	3.98	4.18
Mass flow in kg/	h								
10	50	65	83	103	127	_	_	_	_
20	45	59	76	95	118	144	174	_	_
30	39	53	69	87	109	134	162	195	231
40	33	46	62	80	100	124	151	182	217
50	28	40	55	72	92	114	140	170	204
60	-	34	48	64	83	105	130	158	190
		1					1		
Coefficient of pe	erformance (C.C	D.P.)	T	T	1		T	T	,
10	2.53	3.02	3.67	4.53	5.68	-	-	-	-
20	1.89	2.28	2.75	3.34	4.09	5.05	6.32	-	-
30	1.41	1.72	2.07	2.49	2.99	3.61	4.38	5.36	6.65
40	1.03	1.27	1.54	1.84	2.19	2.60	3.09	3.68	4.41
50	0.71	0.91	1.11	1.32	1.57	1.84	2.16	2.54	2.99
60	-	0.59	0.74	0.90	1.06	1.25	1.46	1.71	1.99
Nominal perforn	nance at to = -1	0 °C, tc = 45 °C			_	Pressure switch	settings		

Cooling capacity

Current consumption

Power input

Mass flow

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

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

2 805

1 509

2.98

96

W

W

Max	imum HP switch setting	27.7	bar(g)
Mini	mum LP switch setting	1	bar(g)
LPp	oump down setting	1.3	bar(g)

Sound power data

Sound power level	74	dB(A)
With accoustic hood	68	dB(A)





Maneurop reciprocating compressor. MTZ022-4

Performance data at 60 Hz, EN 12900 rating conditions

R407C

Cond. temp. in				Evapora	ating temperature	in °C (to)			
°C (tc)	-15	-10	-5	0	5	10	15		
		-	-	I		1	<u> </u>	I.	
Cooling capacity	y in W								
35	2 570	3 463	4 534	5 805	7 297	9 033	11 033	-	-
40	2 351	3 188	4 185	5 361	6 740	8 342	10 189	-	-
45	2 129	2 914	3 840	4 926	6 195	7 668	9 367	-	-
50	-	2 638	3 497	4 497	5 661	7 009	8 562	-	-
55	-	-	3 154	4 072	5 134	6 361	7 774	-	-
60	-	-	-	3 648	4 612	5 722	6 999	-	-
65	-	-	-	3 222	4 093	5 089	6 232	-	-
Power input in V		1	1	1			1		1
35	1 231	1 369	1 484	1 579	1 658	1 725	1 782	-	-
40	1 281	1 444	1 581	1 694	1 788	1 866	1 930	-	-
45	1 324	1 517	1 680	1 816	1 929	2 022	2 099	-	-
50	-	1 578	1 772	1 936	2 074	2 187	2 281	-	-
55	-	-	1 851	2 048	2 214	2 353	2 468	-	-
60	-	-	-	2 142	2 342	2 511	2 653	-	-
65	-	-	-	2 213	2 451	2 655	2 829	-	-
Current consum	•		1	1			1		ı
35	2.36	2.48	2.59	2.69	2.77	2.84	2.88	-	-
40	2.41	2.56	2.69	2.81	2.91	3.00	3.06	-	-
45	2.45	2.63	2.80	2.94	3.07	3.17	3.26	-	-
50	-	2.70	2.90	3.07	3.23	3.36	3.48	-	-
55	-	-	2.99	3.20	3.39	3.56	3.70	-	-
60	-	-	-	3.31	3.54	3.75	3.93	-	-
65	-	-	-	3.40	3.68	3.93	4.15	-	-
Mass flow in kg/		1	T	T	_		T		ı
35	56	74	95	120	149	181	219	-	-
40	54	71	92	116	144	175	211	-	-
45	51	69	89	113	139	170	204	-	-
50	-	66	86	109	134	164	197	-	-
55	-	-	83	105	130	158	190	-	-
60	-	-	-	100	125	152	182	-	-
65	-	-	-	96	119	145	175	-	-
Coefficient of pe			1	ī		T	ī	T	1
35	2.09	2.53	3.06	3.68	4.40	5.24	6.19	-	-
40	1.83	2.21	2.65	3.16	3.77	4.47	5.28	-	-
45	1.61	1.92	2.29	2.71	3.21	3.79	4.46	-	-
50	-	1.67	1.97	2.32	2.73	3.20	3.75	-	-
55	-	-	1.70	1.99	2.32	2.70	3.15	-	-
60	-	-	-	1.70	1.97	2.28	2.64	-	-
65	-	-	-	1.46	1.67	1.92	2.20	-	-

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

Cooling capacity	5 661	W
Power input	2 074	W
Current consumption	3.23	Α
Mass flow	134	kg/h
C.O.P.	2.73	

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Pressure switch settings

Maximum HP switch setting	29.4	bar(g)	
Minimum LP switch setting	1.4	bar(g)	
LP pump down setting	1.7	bar(g)	

Sound power data

Sound power level	76	dB(A)
With accoustic hood	70	dB(A)

Tolerance according EN12900





Maneurop reciprocating compressor. MTZ022-4

Performance data at 60 Hz, ARI rating conditions

R407C

Cond. temp. in				Evapora	ting temperature	in °C (to)			
°C (tc)	-15	-10	-5	0	5	10	15		
•									
Cooling capacity	in W								T
35	2 767	3 723	4 869	6 226	7 818	9 668	11 796	-	-
40	2 545	3 446	4 517	5 779	7 257	8 971	10 946	-	-
45	2 318	3 169	4 169	5 342	6 709	8 293	10 117	-	-
50	-	2 890	3 824	4 910	6 171	7 630	9 308	-	-
55	-	-	3 479	4 483	5 643	6 979	8 516	-	-
60	-	-	-	4 058	5 120	6 339	7 739	-	-
65	-	-	-	3 631	4 601	5 708	6 975	-	-
Power input in W	Ī								
35	1 231	1 369	1 484	1 579	1 658	1 725	1 782	_	_
40	1 281	1 444	1 581	1 694	1 788	1 866	1 930	-	-
45	1 324	1 517	1 680	1 816	1 929	2 022	2 099	-	-
50	-	1 578	1 772	1 936	2 074	2 187	2 281	-	-
55	-	-	1 851	2 048	2 214	2 353	2 468	-	_
60	-	-	-	2 142	2 342	2 511	2 653	-	-
65	-	-	-	2 213	2 451	2 655	2 829	-	-
•		•			•	•	•		ı
Current consum	otion in A								
35	2.36	2.48	2.59	2.69	2.77	2.84	2.88	-	-
40	2.41	2.56	2.69	2.81	2.91	3.00	3.06	-	-
45	2.45	2.63	2.80	2.94	3.07	3.17	3.26	-	-
50	-	2.70	2.90	3.07	3.23	3.36	3.48	-	-
55	-	-	2.99	3.20	3.39	3.56	3.70	-	-
60	-	-	-	3.31	3.54	3.75	3.93	-	-
65	-	-	-	3.40	3.68	3.93	4.15	-	-
A 61 ! ! !	_								
Mass flow in kg/h	1 55	73	95	119	148	180	217	-	_
40	53	71	95	116	143	174	217	-	
45	51	69	89	112	138	169	203	-	_
50	-	66	86	108	134	163	196	-	_
55	-	-	82	104	129	157	188	-	_
60		-	-	100	124	151	181	-	_
65		-	-	95	119	145	174	-	-
		1	1		1	1	1	I	<u>l</u>
Coefficient of pe	rformance (C.O).P.)							
35	2.25	2.72	3.28	3.94	4.71	5.61	6.62	-	-
40	1.99	2.39	2.86	3.41	4.06	4.81	5.67	-	-
45	1.75	2.09	2.48	2.94	3.48	4.10	4.82	-	-
50	-	1.83	2.16	2.54	2.98	3.49	4.08	-	-
55	-	-	1.88	2.19	2.55	2.97	3.45	-	-
60	-	-	-	1.89	2.19	2.52	2.92	-	-
65	-	_	_	1.64	1.88	2.15	2.47	-	_

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

Cooling capacity	6 277	W
Power input	2 260	W
Current consumption	3.45	Α
Mass flow	141	kg/h
C.O.P.	2.78	

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

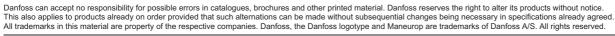
Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 K

Pressure switch settings

Maximum HP switch setting	29.4	bar(g)	
Minimum LP switch setting	1.4	bar(g)	
LP pump down setting	1.7	bar(q)	

Sound power data

Sound power level	76	dB(A)
With accoustic hood	70	dB(A)







Maneurop reciprocating compressor. MTZ022-4

Performance data at 60 Hz, EN 12900 rating conditions

R134a

Cond. temp. in				Evapora	ting temperature	in °C (to)			
°C (tc)	-25	-20	-10	-5	0	5	10	15	20
Caaling canacit	r in W								
Cooling capacity 35	688	1 043	2 078	2 795	3 671	4 722	5 969	7 429	9 121
40	584	920	1 886	2 553	3 368	4 349	5 514	6 882	8 471
45	475	792	1 689	2 306	3 060	3 970	5 053	6 329	7 816
50	365	662	1 490	2 056	2 750	3 588	4 590	5 773	7 157
55	-	-	1 290	1 806	2 438	3 205	4 125	5 216	6 497
60	-	-	-	1 557	2 128	2 823	3 660	4 659	5 837
65	-	-	_	-	1 821	2 444	3 199	4 105	5 180
75	_	_	_	_	-	-	2 295	3 014	3 882
		<u> </u>	l		L				
Power input in V		1		Т	ı	1		<u> </u>	ı
35	609	715	916	1 003	1 075	1 128	1 158	1 160	1 129
40	624	734	951	1 048	1 133	1 201	1 247	1 268	1 258
45	628	744	978	1 087	1 186	1 270	1 335	1 375	1 388
50	620	743	997	1 120	1 234	1 336	1 419	1 482	1 518
55	-	-	1 008	1 146	1 277	1 397	1 501	1 586	1 648
60	-	-	-	1 163	1 312	1 452	1 579	1 689	1 776
65	-	-	-	-	1 341	1 503	1 653	1 788	1 904
75	-	-	-	-	-	-	1 786	1 976	2 151
Current consum	ption in A								
35	2.04	2.10	2.21	2.27	2.32	2.36	2.40	2.43	2.45
40	2.05	2.11	2.24	2.30	2.36	2.42	2.47	2.52	2.55
45	2.04	2.11	2.25	2.33	2.40	2.47	2.54	2.60	2.66
50	2.03	2.11	2.27	2.35	2.44	2.53	2.61	2.69	2.77
55	-	-	2.28	2.38	2.48	2.58	2.68	2.78	2.88
60	-	-	-	2.40	2.51	2.63	2.75	2.87	2.99
65	-	-	_	-	2.55	2.68	2.82	2.97	3.11
75	-	-	-	-	-	-	2.97	3.16	3.35
						•			
Mass flow in kg/		Т			T	1			ı
35	18	26	49	65	83	105	131	160	194
40	16	24	47	62	80	102	126	155	188
45	14	22	45	59	77	98	122	150	182
50	11	20	42	56	73	93	117	144	175
55	-	-	38	52	69	88	111	137	168
60	-	-	-	48	64	83	105	131	160
65	-	-	-	-	59	77	98	123	151
75	-	-	-	-	-	-	83	106	132
Coefficient of pe	rformance (C.C	D.P.)							
35	1.13	1.46	2.27	2.79	3.41	4.18	5.15	6.41	8.08
40	0.94	1.25	1.98	2.44	2.97	3.62	4.42	5.43	6.73
45	0.76	1.06	1.73	2.12	2.58	3.13	3.79	4.60	5.63
50	0.59	0.89	1.49	1.84	2.23	2.69	3.23	3.90	4.72
55	-	-	1.28	1.58	1.91	2.29	2.75	3.29	3.94
60	-	-	-	1.34	1.62	1.94	2.32	2.76	3.29
65	-	-	-	-	1.36	1.63	1.94	2.30	2.72
75	_	-	_	-	-	-	1.28	1.53	1.80

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

	•• •		
Cooling capacity	3 588	W	
Power input	1 336	W	
Current consumption	2.53	Α	
Mass flow	93	kg/h	
C.O.P.	2.69		

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	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. MTZ022-4

Performance data at 60 Hz, ARI rating conditions

R134a

Cond. temp. in				Evapora	iting temperature	in °C (to)			
°C (tc)	-25	-20	-10	-5	0	5	10	15	20
							1		
Cooling capacit	y in W								
35	748	1 132	2 247	3 018	3 956	5 082	6 415	7 973	9 775
40	638	1 004	2 050	2 770	3 648	4 702	5 953	7 418	9 118
45	523	870	1 847	2 517	3 333	4 316	5 484	6 857	8 454
50	-	733	1 640	2 259	3 014	3 924	5 010	6 290	7 785
55	-	-	1 432	1 999	2 692	3 531	4 534	5 721	7 112
60	-	-	-	1 740	2 371	3 136	4 056	5 150	6 438
65	-	-	-	-	-	2 744	3 580	4 581	5 765
75	-	-	-	-	-	-	2 641	3 455	4 432
Power input in V	N								
35	609	715	916	1 003	1 075	1 128	1 158	1 160	1 129
40	624	734	951	1 048	1 133	1 201	1 247	1 268	1 258
45	628	744	978	1 087	1 186	1 270	1 335	1 375	1 388
50	-	743	997	1 120	1 234	1 336	1 419	1 482	1 518
55	-	-	1 008	1 146	1 277	1 397	1 501	1 586	1 648
60	-	-	-	1 163	1 312	1 452	1 579	1 689	1 776
65	-	-	-	-	-	1 503	1 653	1 788	1 904
75	-	-	-	-	-	-	1 786	1 976	2 151
Current consum	nption in A								
35	2.04	2.10	2.21	2.27	2.32	2.36	2.40	2.43	2.45
40	2.05	2.11	2.24	2.30	2.36	2.42	2.47	2.52	2.55
45	2.04	2.11	2.25	2.33	2.40	2.47	2.54	2.60	2.66
50	-	2.11	2.27	2.35	2.44	2.53	2.61	2.69	2.77
55	-	-	2.28	2.38	2.48	2.58	2.68	2.78	2.88
60	-	-	-	2.40	2.51	2.63	2.75	2.87	2.99
65	-	-	-	-	-	2.68	2.82	2.97	3.11
75	-	-	-	-	-	-	2.97	3.16	3.35
"		•	•	•	•	•	•	-	•
Mass flow in kg	/h								
35	17	26	49	65	83	105	130	159	193
40	16	24	47	62	80	101	126	154	187
45	14	22	44	59	77	97	121	149	181
50	-	20	42	56	73	93	116	143	174
55	-	-	38	52	69	88	111	137	167
60	-	-	-	48	64	83	105	130	159
65	-	-	-	-	-	77	98	122	150
75	-	-	-	-	-	-	83	105	131
		•	•	•	•	•	•		•
Coefficient of pe	erformance (C.C	D.P.)							
35	1.23	1.58	2.45	3.01	3.68	4.50	5.54	6.88	8.66
40	1.02	1.37	2.16	2.64	3.22	3.92	4.77	5.85	7.25
45	0.83	1.17	1.89	2.31	2.81	3.40	4.11	4.99	6.09
50	-	0.99	1.64	2.02	2.44	2.94	3.53	4.25	5.13
55	-	-	1.42	1.75	2.11	2.53	3.02	3.61	4.32
60	-	-	-	1.50	1.81	2.16	2.57	3.05	3.62
65	-	-	-	-	-	1.83	2.17	2.56	3.03

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

	• •		
Cooling capacity	4 002	W	
Power input	1 437	W	
Current consumption	2.62	Α	
Mass flow	98	kg/h	
C.O.P.	2.79		

to: Evaporating temperature at dew point

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

Pressure switch settings

Maximum HP switch setting	20.2	bar(g)
Minimum LP switch setting	0.1	bar(g)
LP pump down setting	0.4	bar(g)

Sound power data

Sound p	ower level	0	dB(A)	
With acc	coustic hood	0	dB(A)	

Tolerance according EN12900



tc: Condensing temperature at dew point



Maneurop reciprocating compressor. MTZ022-4

Performance data at 60 Hz, EN 12900 rating conditions

R404A

Cond. temp. in				Evapora	ating temperature	in °C (to)			
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
Cooling capacit		4.054	0.507	0.054	4.050	5.500	0.000	0.500	40.000
30	1 306	1 851	2 527	3 354	4 350	5 532	6 920	8 533	10 388
35	1 161	1 684	2 328	3 112	4 054	5 173	6 487	8 015	9 774
40	997	1 491	2 096	2 830	3 711	4 759	5 991	7 427	9 083
45	822	1 280	1 837	2 514	3 327	4 296	5 439	6 775	8 321
50	642	1 056	1 559	2 170	2 909	3 792	4 838	6 066	7 495
55	-	826	1 267	1 806	2 462	3 251	4 194	5 308	6 611
60	-	596	969	1 428	1 993	2 682	3 513	4 505	5 675
Power input in \	N			1		T	1	1	_
30	1 069	1 223	1 360	1 482	1 587	1 676	1 749	1 805	1 845
35	1 089	1 264	1 422	1 564	1 689	1 798	1 891	1 967	2 026
40	1 092	1 290	1 472	1 636	1 785	1 916	2 031	2 129	2 210
45	1 075	1 299	1 506	1 696	1 870	2 026	2 165	2 287	2 392
50	1 035	1 287	1 522	1 740	1 941	2 124	2 290	2 439	2 571
55	-	1 251	1 516	1 764	1 995	2 208	2 403	2 581	2 741
60	-	1 188	1 486	1 766	2 029	2 274	2 501	2 710	2 901
Current consum	nption in A								
30	2.27	2.40	2.53	2.65	2.77	2.87	2.96	3.01	3.04
35	2.29	2.43	2.58	2.73	2.87	2.99	3.09	3.17	3.22
40	2.29	2.46	2.64	2.81	2.97	3.12	3.25	3.35	3.43
45	2.28	2.47	2.68	2.88	3.07	3.25	3.41	3.54	3.65
50	2.23	2.46	2.69	2.93	3.15	3.37	3.56	3.73	3.88
55	-	2.40	2.68	2.95	3.21	3.47	3.70	3.91	4.10
60	-	2.30	2.62	2.93	3.24	3.54	3.82	4.07	4.30
Mass flow in kg/	/h								
30	41	57	76	98	124	154	188	228	273
35	39	56	75	97	123	154	188	228	273
40	37	53	73	95	121	152	186	226	271
45	33	50	69	92	118	148	183	222	267
50	29	45	65	87	113	143	177	216	261
55	-	40	59	81	107	136	170	208	252
60	-	34	52	74	99	128	161	199	242
Coefficient of po	erformance (C.C).P.)							
30	1.22	1.51	1.86	2.26	2.74	3.30	3.96	4.73	5.63
35	1.07	1.33	1.64	1.99	2.40	2.88	3.43	4.07	4.82
40	0.91	1.16	1.42	1.73	2.08	2.48	2.95	3.49	4.11
45	0.76	0.99	1.22	1.48	1.78	2.12	2.51	2.96	3.48
50	0.62	0.82	1.02	1.25	1.50	1.78	2.11	2.49	2.92
				1.02	1.23		1.75	2.06	2.41
55	-	0.66	0.84	1.02	1.23	1.47	1.75	2.00	

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

Cooling capacity	3 327	W
Power input	1 870	W
Current consumption	3.07	Α
Mass flow	118	kg/h
C.O.P.	1.78	

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

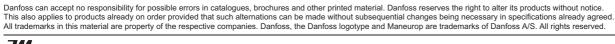
Rating conditions : Superheat = 10 K , Subcooling = 0 K

Pressure switch settings

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

Sound power data

Sound power level	77	dB(A)
With accoustic hood	71	dB(A)







Maneurop reciprocating compressor. MTZ022-4

Performance data at 60 Hz, ARI rating conditions

R404A

Cond. temp. in				Evapora	ting temperature	in °C (to)			
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
Cooling capacity									
30	1 454	2 055	2 798	3 705	4 793	6 083	7 594	9 345	11 356
35	1 306	1 888	2 603	3 470	4 509	5 739	7 179	8 850	10 770
40	1 137	1 694	2 372	3 192	4 173	5 335	6 698	8 281	10 104
45	953	1 476	2 111	2 876	3 793	4 880	6 159	7 647	9 366
50	761	1 243	1 826	2 530	3 375	4 381	5 567	6 955	8 563
55	-	1 000	1 525	2 160	2 926	3 844	4 933	6 214	7 707
60	-	754	1 213	1 773	2 455	3 279	4 267	5 438	6 813
Power input in V	v								
30	1 069	1 223	1 360	1 482	1 587	1 676	1 749	1 805	1 845
35	1 089	1 264	1 422	1 564	1 689	1 798	1 891	1 967	2 026
40	1 092	1 290	1 472	1 636	1 785	1 916	2 031	2 129	2 210
45	1 075	1 299	1 506	1 696	1 870	2 026	2 165	2 287	2 392
50	1 035	1 287	1 522	1 740	1 941	2 124	2 290	2 439	2 571
55	-	1 251	1 516	1 764	1 995	2 208	2 403	2 581	2 741
60	-	1 188	1 486	1 766	2 029	2 274	2 501	2 710	2 901
_									
30	ption in A 2.27	2.40	2.53	2.65	2.77	2.87	2.96	3.01	3.04
35	2.29	2.43	2.58	2.73	2.87	2.99	3.09	3.17	3.22
40	2.29	2.46	2.64	2.81	2.97	3.12	3.25	3.35	3.43
45	2.28	2.47	2.68	2.88	3.07	3.25	3.41	3.54	3.65
50	2.23	2.46	2.69	2.93	3.15	3.37	3.56	3.73	3.88
55	-	2.40	2.68	2.95	3.21	3.47	3.70	3.91	4.10
60	_	2.30	2.62	2.93	3.24	3.54	3.82	4.07	4.30
00		2.00	2.02	2.00	0.21	0.01	0.02	1.07	1.00
Mass flow in kg/		1	1		1		T	ı	
30	41	57	76	98	123	153	187	226	271
35	39	55	74	97	123	153	187	226	271
40	36	53	72	95	121	151	185	224	269
45	33	50	69	91	117	147	181	221	265
50	29	45	64	87	112	142	176	215	259
55	-	40	59	81	106	135	169	207	250
60	-	33	52	73	98	127	160	197	240
Coefficient of pe	erformance (C.O).P.)							
30	1.36	1.68	2.06	2.50	3.02	3.63	4.34	5.18	6.15
35	1.20	1.49	1.83	2.22	2.67	3.19	3.80	4.50	5.31
40	1.04	1.31	1.61	1.95	2.34	2.78	3.30	3.89	4.57
45	0.89	1.14	1.40	1.70	2.03	2.41	2.84	3.34	3.91
50	0.73	0.97	1.20	1.45	1.74	2.06	2.43	2.85	3.33
55	-	0.80	1.01	1.22	1.47	1.74	2.05	2.41	2.81
		0.63	0.82	1.00	1.21	1.44	1.71	2.01	2.35

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

Cooling capacity	3 793	W
Power input	1 870	W
Current consumption	3.07	Α
Mass flow	117	kg/h
C.O.P.	2.03	

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

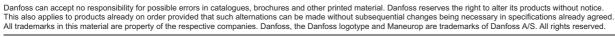
Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 K

Pressure switch settings

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

Sound power data

Sound power level	77	dB(A)
With accoustic hood	71	dB(A)







Maneurop reciprocating compressor. MTZ022-4

Performance data at 60 Hz, EN 12900 rating conditions

R407A

Cond. temp. in				Evapora	iting temperature	in °C (to)			
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
Cooling capacity		Т		T	T	1			
30	950	1 465	2 121	2 936	3 927	5 113	6 511	8 140	10 016
35	800	1 279	1 891	2 654	3 585	4 702	6 024	7 568	9 352
40	653	1 093	1 657	2 364	3 231	4 277	5 518	6 974	8 662
45	515	912	1 425	2 072	2 872	3 842	5 000	6 364	7 952
50	-	740	1 198	1 783	2 512	3 403	4 474	5 742	7 227
55	-	-	984	1 502	2 156	2 965	3 945	5 115	6 493
60	-	-	-	1 234	1 810	2 533	3 419	4 486	5 754
Power input in W	ı								
30	808	965	1 112	1 244	1 357	1 448	1 511	1 542	1 537
35	791	961	1 125	1 277	1 413	1 529	1 621	1 684	1 714
40	763	949	1 131	1 304	1 464	1 607	1 729	1 825	1 891
45	724	927	1 128	1 324	1 509	1 681	1 834	1 965	2 068
50	-	894	1 116	1 335	1 548	1 749	1 935	2 101	2 244
55	-	-	1 094	1 338	1 579	1 811	2 031	2 234	2 417
60	-	-	-	1 331	1 601	1 866	2 121	2 363	2 586
		•				•			
Current consum	ption in A								
30	2.25	2.37	2.50	2.62	2.73	2.82	2.89	2.94	2.95
35	2.26	2.38	2.51	2.64	2.77	2.88	2.97	3.04	3.08
40	2.26	2.39	2.53	2.68	2.82	2.95	3.07	3.18	3.25
45	2.25	2.39	2.55	2.71	2.88	3.04	3.19	3.33	3.45
50	-	2.37	2.55	2.74	2.93	3.13	3.32	3.50	3.67
55	-	-	2.53	2.74	2.97	3.21	3.45	3.68	3.90
60	-	-	-	2.73	3.00	3.28	3.57	3.85	4.13
Maaa fla in ku/l	_								
Mass flow in kg/l	23	34	49	66	87	111	139	171	208
35	20	32	49	63	83	107	135	167	204
40	17	28	42	59	79	103	130	162	199
45	15	25	39	55	75	98	125	156	192
50	-	22	35	50	70	92	119	150	185
55		-	31	46	64	86	112	143	178
60	<u>-</u>	-	-	41	58	80	105	135	169
		ı	L			1			
Coefficient of per	rformance (C.C	D.P.)							
30	1.17	1.52	1.91	2.36	2.89	3.53	4.31	5.28	6.52
35	1.01	1.33	1.68	2.08	2.54	3.08	3.72	4.49	5.46
40	0.86	1.15	1.47	1.81	2.21	2.66	3.19	3.82	4.58
45	0.71	0.98	1.26	1.57	1.90	2.29	2.73	3.24	3.84
50	-	0.83	1.07	1.34	1.62	1.95	2.31	2.73	3.22
55	-	-	0.90	1.12	1.37	1.64	1.94	2.29	2.69
60	_	_	-	0.93	1.13	1.36	1.61	1.90	2.22

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

Cooling capacity	2 872	W
Power input	1 509	W
Current consumption	2.88	Α
Mass flow	75	kg/h
C.O.P.	1.90	

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

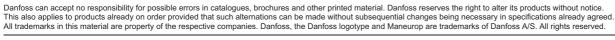
Rating conditions : Superheat = 10 K , Subcooling = 0 K

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(q)	

Sound power data

Sound power level	76	dB(A)
With accoustic hood	70	dB(A)







Maneurop reciprocating compressor. MTZ022-4

Performance data at 60 Hz, ARI rating conditions

R407A

Cond. temp. in				Evapora	iting temperature	in °C (to)			
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
L							-		
Cooling capacity		1	•	1	,	1	1		
30	1 027	1 582	2 288	3 162	4 224	5 493	6 987	8 724	10 724
35	870	1 389	2 051	2 873	3 876	5 077	6 496	8 150	10 059
40	716	1 195	1 809	2 576	3 515	4 645	5 985	7 553	9 368
45	569	1 005	1 567	2 274	3 147	4 202	5 459	6 938	8 656
50	-	824	1 330	1 975	2 776	3 753	4 925	6 310	7 928
55	-	-	1 105	1 682	2 409	3 304	4 387	5 676	7 190
60	-	-	-	1 402	2 051	2 861	3 851	5 042	6 450
Power input in V	V								
30	808	965	1 112	1 244	1 357	1 448	1 511	1 542	1 537
35	791	961	1 125	1 277	1 413	1 529	1 621	1 684	1 714
40	763	949	1 131	1 304	1 464	1 607	1 729	1 825	1 891
45	724	927	1 128	1 324	1 509	1 681	1 834	1 965	2 068
50	-	894	1 116	1 335	1 548	1 749	1 935	2 101	2 244
55	-	-	1 094	1 338	1 579	1 811	2 031	2 234	2 417
60	-	-	-	1 331	1 601	1 866	2 121	2 363	2 586
Current consum	ption in A								
30	2.25	2.37	2.50	2.62	2.73	2.82	2.89	2.94	2.95
35	2.26	2.38	2.51	2.64	2.77	2.88	2.97	3.04	3.08
40	2.26	2.39	2.53	2.68	2.82	2.95	3.07	3.18	3.25
45	2.25	2.39	2.55	2.71	2.88	3.04	3.19	3.33	3.45
50	-	2.37	2.55	2.74	2.93	3.13	3.32	3.50	3.67
55	-	-	2.53	2.74	2.97	3.21	3.45	3.68	3.90
60	-	-	-	2.73	3.00	3.28	3.57	3.85	4.13
Mass flow in kg/	h								
30	22	34	48	66	86	110	138	170	207
35	20	31	45	62	83	107	134	166	203
40	17	28	42	59	79	102	130	161	197
45	15	25	38	55	74	97	124	156	191
50	-	22	34	50	69	92	118	149	184
55	-	-	30	45	64	86	112	142	176
60	-	-	-	41	58	79	105	134	168
Coefficient of pe	rformance (C.C) P)							
30	1.27	1.64	2.06	2.54	3.11	3.79	4.63	5.66	6.98
35	1.10	1.45	1.82	2.25	2.74	3.32	4.01	4.84	5.87
40	0.94	1.26	1.60	1.98	2.40	2.89	3.46	4.14	4.95
45	0.79	1.08	1.39	1.72	2.08	2.50	2.98	3.53	4.18
50	-	0.92	1.19	1.48	1.79	2.15	2.54	3.00	3.53
55	-	-	1.01	1.26	1.53	1.82	2.16	2.54	2.98
		1	1				1		

Nominal performance at to = -10 °C, tc = 45 °C	3
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Cooling capacity	3 147	W
Power input	1 509	W
Current consumption	2.88	Α
Mass flow	74	kg/h
C.O.P.	2.08	

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

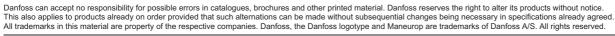
Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 K

Pressure switch settings

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

Sound power data

Sound power level	76	dB(A)
With accoustic hood	70	dB(A)







Maneurop reciprocating compressor. MTZ022-4

Performance data at 60 Hz, EN 12900 rating conditions

R407F

Cond. temp. in		_	Т	1	ting temperature		1	1	1
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
Cooling capacity	in W								
30	-	1 591	2 327	3 240	4 352	5 685	7 261	9 103	11 231
35	-	1 349	2 015	2 845	3 859	5 081	6 532	8 233	10 208
40	-	1 145	1 749	2 503	3 428	4 546	5 879	7 449	9 278
45	-	973	1 523	2 209	3 052	4 074	5 297	6 744	8 435
50	-	-	1 331	1 957	2 726	3 660	4 781	6 112	7 673
55	-	-	-	1 741	2 444	3 298	4 325	5 548	6 987
60	-	-	-	-	-	-	-	-	-
Power input in W	,								
30	_	1 031	1 177	1 309	1 421	1 506	1 557	1 567	1 529
35	-	1 031	1 193	1 347	1 486	1 604	1 692	1 745	1 756
40	-	1 031	1 207	1 380	1 543	1 691	1 814	1 908	1 965
45	-	1 035	1 222	1 412	1 598	1 773	1 929	2 061	2 161
50	-	-	1 246	1 450	1 656	1 856	2 043	2 210	2 352
55	-	-	-	1 500	1 723	1 945	2 160	2 362	2 542
60	-	-	-	-	-	-	-	-	-
Current consum	otion in A								
30	-	2.38	2.51	2.65	2.77	2.87	2.93	2.96	2.94
35	-	2.41	2.55	2.70	2.83	2.95	3.04	3.10	3.12
40	-	2.43	2.58	2.74	2.89	3.03	3.16	3.26	3.32
45	-	2.43	2.59	2.77	2.95	3.13	3.29	3.43	3.54
50	-	-	2.60	2.81	3.02	3.23	3.44	3.63	3.79
55	-	-	-	2.85	3.10	3.35	3.61	3.85	4.08
60	-	-	-	-	-	-	-	-	-
Mass flow in kg/l	1								
30	-	33	47	65	86	111	140	173	211
35	-	29	43	60	80	104	131	164	200
40	-	26	39	55	74	97	124	155	191
45	-	23	36	51	70	92	118	148	182
50	-	-	33	48	66	87	112	141	175
55	-	-	-	46	63	84	108	136	169
60	-	-	-	-	-	-	-	-	-
Coefficient of per	formance (C. ().P.)							
30	-	1.54	1.98	2.47	3.06	3.78	4.66	5.81	7.35
35		1.31	1.69	2.11	2.60	3.17	3.86	4.72	5.81
40	_	1.11	1.45	1.81	2.22	2.69	3.24	3.90	4.72
45	_	0.94	1.25	1.56	1.91	2.30	2.75	3.27	3.90
50			1.07	1.35	1.65	1.97	2.34	2.76	3.26
~~		-	-	1.16	1.42	1.70	2.00	2.35	2.75
55	-								

Nominal performance at to = -10 °C, tc = 45 °C	С
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Cooling capacity	3 052	W
Power input	1 598	W
Current consumption	2.95	Α
Mass flow	70	kg/h
C.O.P.	1.91	

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

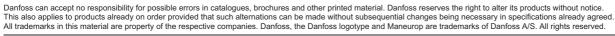
Rating conditions : Superheat = 10 K , Subcooling = 0 K

Pressure switch settings

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

Sound power data

Sound power level	76	dB(A)
With accoustic hood	70	dB(A)







Maneurop reciprocating compressor. MTZ022-4

Performance data at 60 Hz, ARI rating conditions

R407F

Cond. temp. in	Evaporating temperature in °C (to)									
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10	
Cooling capacity	in W	1	1	1		1			T	
30	-	1 705	2 491	3 465	4 650	6 069	7 745	9 701	11 959	
35	-	1 453	2 168	3 056	4 142	5 447	6 996	8 810	10 913	
40	-	1 240	1 892	2 703	3 697	4 898	6 327	8 008	9 965	
45	-	1 060	1 657	2 400	3 311	4 415	5 733	7 290	9 109	
50	-	-	1 459	2 142	2 979	3 994	5 210	6 652	8 340	
55	-	-	-	1 924	2 695	3 631	4 754	6 089	7 658	
60	-	-	-	-	-	-	-	-	-	
Dawar innut in W										
Power input in W	_	1 031	1 177	1 309	1 421	1 506	1 557	1 567	1 529	
35		1 031	1 193	1 347	1 486	1 604	1 692	1 745	1 756	
40		1 031	1 207	1 380	1 543	1 691	1 814	1 908	1 965	
45	_	1 035	1 222	1 412	1 598	1 773	1 929	2 061	2 161	
50		-	1 246	1 450	1 656	1 856	2 043	2 210	2 352	
55		-	-	1 500	1 723	1 945	2 160	2 362	2 542	
60	_	_	-	-	-	-	-	-	-	
00		1			I.	1	I	1		
Current consump	tion in A									
30	-	2.38	2.51	2.65	2.77	2.87	2.93	2.96	2.94	
35	-	2.41	2.55	2.70	2.83	2.95	3.04	3.10	3.12	
40	-	2.43	2.58	2.74	2.89	3.03	3.16	3.26	3.32	
45	-	2.43	2.59	2.77	2.95	3.13	3.29	3.43	3.54	
50	-	-	2.60	2.81	3.02	3.23	3.44	3.63	3.79	
55	-	-	-	2.85	3.10	3.35	3.61	3.85	4.08	
60	-	-	-	-	-	-	-	-	-	
•		•	•		•	•	•	•		
Mass flow in kg/h										
30	-	33	47	65	85	110	139	172	210	
35	-	29	43	59	79	103	131	163	199	
40	-	26	39	55	74	97	123	154	189	
45	-	23	36	51	69	91	117	147	181	
50	-	-	33	48	66	87	112	141	174	
55	-	-	-	46	63	83	107	135	168	
60	-	-	-	-	-	-	-	-	-	
	_									
Coefficient of per		1	1	1		1				
30	-	1.65	2.12	2.65	3.27	4.03	4.98	6.19	7.82	
35	-	1.41	1.82	2.27	2.79	3.40	4.13	5.05	6.22	
40	-	1.20	1.57	1.96	2.40	2.90	3.49	4.20	5.07	
45	-	1.02	1.36	1.70	2.07	2.49	2.97	3.54	4.21	
50	-	-	1.17	1.48	1.80	2.15	2.55	3.01	3.55	
55	-	-	-	1.28	1.56	1.87	2.20	2.58	3.01	
60	-	-	-	-	-	-	-	-	-	

Nominal performance at to = -10 °C, tc = 45 °C	;
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Cooling capacity	3 311	W
Power input	1 598	W
Current consumption	2.95	Α
Mass flow	69	kg/h
C.O.P.	2.07	

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Pressure switch settings

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

Sound power data

Sound power level	76	dB(A)
With accoustic hood	70	dB(A)

Tolerance according EN12900





Maneurop reciprocating compressor. MTZ022-4

Performance data at 60 Hz, EN 12900 rating conditions

R134a

Cond. temp. in	Evaporating temperature in °C (to)									
°C (tc)	-25	-20	-10	-5	0	5	10	15	20	
Caaling canacit	r in W									
Cooling capacity 35	688	1 043	2 078	2 795	3 671	4 722	5 969	7 429	9 121	
40	584	920	1 886	2 553	3 368	4 349	5 514	6 882	8 471	
45	475	792	1 689	2 306	3 060	3 970	5 053	6 329	7 816	
50	365	662	1 490	2 056	2 750	3 588	4 590	5 773	7 157	
55	-	-	1 290	1 806	2 438	3 205	4 125	5 216	6 497	
60	-	-	-	1 557	2 128	2 823	3 660	4 659	5 837	
65	-	-	_	-	1 821	2 444	3 199	4 105	5 180	
75	_	_	_	_	-	-	2 295	3 014	3 882	
		<u> </u>	l		L					
Power input in V		1		Т	ı	1		<u> </u>	ı	
35	609	715	916	1 003	1 075	1 128	1 158	1 160	1 129	
40	624	734	951	1 048	1 133	1 201	1 247	1 268	1 258	
45	628	744	978	1 087	1 186	1 270	1 335	1 375	1 388	
50	620	743	997	1 120	1 234	1 336	1 419	1 482	1 518	
55	-	-	1 008	1 146	1 277	1 397	1 501	1 586	1 648	
60	-	-	-	1 163	1 312	1 452	1 579	1 689	1 776	
65	-	-	-	-	1 341	1 503	1 653	1 788	1 904	
75	-	-	-	-	-	-	1 786	1 976	2 151	
Current consum	ption in A									
35	2.04	2.10	2.21	2.27	2.32	2.36	2.40	2.43	2.45	
40	2.05	2.11	2.24	2.30	2.36	2.42	2.47	2.52	2.55	
45	2.04	2.11	2.25	2.33	2.40	2.47	2.54	2.60	2.66	
50	2.03	2.11	2.27	2.35	2.44	2.53	2.61	2.69	2.77	
55	-	-	2.28	2.38	2.48	2.58	2.68	2.78	2.88	
60	-	-	-	2.40	2.51	2.63	2.75	2.87	2.99	
65	-	-	_	-	2.55	2.68	2.82	2.97	3.11	
75	-	-	-	-	-	-	2.97	3.16	3.35	
						•				
Mass flow in kg/		Т			T	1			ı	
35	18	26	49	65	83	105	131	160	194	
40	16	24	47	62	80	102	126	155	188	
45	14	22	45	59	77	98	122	150	182	
50	11	20	42	56	73	93	117	144	175	
55	-	-	38	52	69	88	111	137	168	
60	-	-	-	48	64	83	105	131	160	
65	-	-	-	-	59	77	98	123	151	
75	-	-	-	-	-	-	83	106	132	
Coefficient of pe	rformance (C.C	D.P.)								
35	1.13	1.46	2.27	2.79	3.41	4.18	5.15	6.41	8.08	
40	0.94	1.25	1.98	2.44	2.97	3.62	4.42	5.43	6.73	
45	0.76	1.06	1.73	2.12	2.58	3.13	3.79	4.60	5.63	
50	0.59	0.89	1.49	1.84	2.23	2.69	3.23	3.90	4.72	
55	-	-	1.28	1.58	1.91	2.29	2.75	3.29	3.94	
60	-	-	-	1.34	1.62	1.94	2.32	2.76	3.29	
65	-	-	-	-	1.36	1.63	1.94	2.30	2.72	
75	_	-	_	-	-	-	1.28	1.53	1.80	

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

	•• •		
Cooling capacity	3 588	W	
Power input	1 336	W	
Current consumption	2.53	Α	
Mass flow	93	kg/h	
C.O.P.	2.69		

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	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. MTZ022-4

Performance data at 60 Hz, ARI rating conditions

R134a

Cond. temp. in				Evapora	iting temperature	in °C (to)			
°C (tc)	-25	-20	-10	-5	0	5	10	15	20
							1		
Cooling capacit	y in W								
35	748	1 132	2 247	3 018	3 956	5 082	6 415	7 973	9 775
40	638	1 004	2 050	2 770	3 648	4 702	5 953	7 418	9 118
45	523	870	1 847	2 517	3 333	4 316	5 484	6 857	8 454
50	-	733	1 640	2 259	3 014	3 924	5 010	6 290	7 785
55	-	-	1 432	1 999	2 692	3 531	4 534	5 721	7 112
60	-	-	-	1 740	2 371	3 136	4 056	5 150	6 438
65	-	-	-	-	-	2 744	3 580	4 581	5 765
75	-	-	-	-	-	-	2 641	3 455	4 432
Power input in V	N								
35	609	715	916	1 003	1 075	1 128	1 158	1 160	1 129
40	624	734	951	1 048	1 133	1 201	1 247	1 268	1 258
45	628	744	978	1 087	1 186	1 270	1 335	1 375	1 388
50	-	743	997	1 120	1 234	1 336	1 419	1 482	1 518
55	-	-	1 008	1 146	1 277	1 397	1 501	1 586	1 648
60	-	-	-	1 163	1 312	1 452	1 579	1 689	1 776
65	-	-	-	-	-	1 503	1 653	1 788	1 904
75	-	-	-	-	-	-	1 786	1 976	2 151
Current consum	nption in A								
35	2.04	2.10	2.21	2.27	2.32	2.36	2.40	2.43	2.45
40	2.05	2.11	2.24	2.30	2.36	2.42	2.47	2.52	2.55
45	2.04	2.11	2.25	2.33	2.40	2.47	2.54	2.60	2.66
50	-	2.11	2.27	2.35	2.44	2.53	2.61	2.69	2.77
55	-	-	2.28	2.38	2.48	2.58	2.68	2.78	2.88
60	-	-	-	2.40	2.51	2.63	2.75	2.87	2.99
65	-	-	-	-	-	2.68	2.82	2.97	3.11
75	-	-	-	-	-	-	2.97	3.16	3.35
"		•	•	•	•	•	•	-	•
Mass flow in kg	/h								
35	17	26	49	65	83	105	130	159	193
40	16	24	47	62	80	101	126	154	187
45	14	22	44	59	77	97	121	149	181
50	-	20	42	56	73	93	116	143	174
55	-	-	38	52	69	88	111	137	167
60	-	-	-	48	64	83	105	130	159
65	-	-	-	-	-	77	98	122	150
75	-	-	-	-	-	-	83	105	131
		•	•	•	•	•	•		•
Coefficient of pe	erformance (C.C	D.P.)							
35	1.23	1.58	2.45	3.01	3.68	4.50	5.54	6.88	8.66
40	1.02	1.37	2.16	2.64	3.22	3.92	4.77	5.85	7.25
45	0.83	1.17	1.89	2.31	2.81	3.40	4.11	4.99	6.09
50	-	0.99	1.64	2.02	2.44	2.94	3.53	4.25	5.13
55	-	-	1.42	1.75	2.11	2.53	3.02	3.61	4.32
60	-	-	-	1.50	1.81	2.16	2.57	3.05	3.62
65	-	-	-	-	-	1.83	2.17	2.56	3.03

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

	• •		
Cooling capacity	4 002	W	
Power input	1 437	W	
Current consumption	2.62	Α	
Mass flow	98	kg/h	
C.O.P.	2.79		

to: Evaporating temperature at dew point

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

Pressure switch settings

Maximum HP switch setting	20.2	bar(g)
Minimum LP switch setting	0.1	bar(g)
LP pump down setting	0.4	bar(g)

Sound power data

Sound p	ower level	0	dB(A)	
With acc	coustic hood	0	dB(A)	

Tolerance according EN12900



tc: Condensing temperature at dew point



Maneurop reciprocating compressor. MTZ022-4

Performance data at 60 Hz, EN 12900 rating conditions

R407C

Cond. temp. in				Evapora	ating temperature	in °C (to)			
°C (tc)	-15	-10	-5	0	5	10	15		
		-	-	I		1	<u> </u>	I.	
Cooling capacity	y in W								
35	2 570	3 463	4 534	5 805	7 297	9 033	11 033	-	-
40	2 351	3 188	4 185	5 361	6 740	8 342	10 189	-	-
45	2 129	2 914	3 840	4 926	6 195	7 668	9 367	-	-
50	-	2 638	3 497	4 497	5 661	7 009	8 562	-	-
55	-	-	3 154	4 072	5 134	6 361	7 774	-	-
60	-	-	-	3 648	4 612	5 722	6 999	-	-
65	-	-	-	3 222	4 093	5 089	6 232	-	-
Power input in V		1	1	1			1		1
35	1 231	1 369	1 484	1 579	1 658	1 725	1 782	-	-
40	1 281	1 444	1 581	1 694	1 788	1 866	1 930	-	-
45	1 324	1 517	1 680	1 816	1 929	2 022	2 099	-	-
50	-	1 578	1 772	1 936	2 074	2 187	2 281	-	-
55	-	-	1 851	2 048	2 214	2 353	2 468	-	-
60	-	-	-	2 142	2 342	2 511	2 653	-	-
65	-	-	-	2 213	2 451	2 655	2 829	-	-
Current consum	•		1	1			1		ı
35	2.36	2.48	2.59	2.69	2.77	2.84	2.88	-	-
40	2.41	2.56	2.69	2.81	2.91	3.00	3.06	-	-
45	2.45	2.63	2.80	2.94	3.07	3.17	3.26	-	-
50	-	2.70	2.90	3.07	3.23	3.36	3.48	-	-
55	-	-	2.99	3.20	3.39	3.56	3.70	-	-
60	-	-	-	3.31	3.54	3.75	3.93	-	-
65	-	-	-	3.40	3.68	3.93	4.15	-	-
Mass flow in kg/		1	T	T	_		T		ı
35	56	74	95	120	149	181	219	-	-
40	54	71	92	116	144	175	211	-	-
45	51	69	89	113	139	170	204	-	-
50	-	66	86	109	134	164	197	-	-
55	-	-	83	105	130	158	190	-	-
60	-	-	-	100	125	152	182	-	-
65	-	-	-	96	119	145	175	-	-
Coefficient of pe			1	ī		T	ī	T	1
35	2.09	2.53	3.06	3.68	4.40	5.24	6.19	-	-
40	1.83	2.21	2.65	3.16	3.77	4.47	5.28	-	-
45	1.61	1.92	2.29	2.71	3.21	3.79	4.46	-	-
50	-	1.67	1.97	2.32	2.73	3.20	3.75	-	-
55	-	-	1.70	1.99	2.32	2.70	3.15	-	-
60	-	-	-	1.70	1.97	2.28	2.64	-	-
65	-	-	-	1.46	1.67	1.92	2.20	-	-

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

Cooling capacity	5 661	W
Power input	2 074	W
Current consumption	3.23	Α
Mass flow	134	kg/h
C.O.P.	2.73	

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Pressure switch settings

Maximum HP switch setting	29.4	bar(g)	
Minimum LP switch setting	1.4	bar(g)	
LP pump down setting	1.7	bar(g)	

Sound power data

Sound power level	76	dB(A)
With accoustic hood	70	dB(A)

Tolerance according EN12900





Maneurop reciprocating compressor. MTZ022-4

Performance data at 60 Hz, ARI rating conditions

R407C

Cond. temp. in				Evapora	ting temperature	in °C (to)			
°C (tc)	-15	-10	-5	0	5	10	15		
•									
Cooling capacity	in W								T
35	2 767	3 723	4 869	6 226	7 818	9 668	11 796	-	-
40	2 545	3 446	4 517	5 779	7 257	8 971	10 946	-	-
45	2 318	3 169	4 169	5 342	6 709	8 293	10 117	-	-
50	-	2 890	3 824	4 910	6 171	7 630	9 308	-	-
55	-	-	3 479	4 483	5 643	6 979	8 516	-	-
60	-	-	-	4 058	5 120	6 339	7 739	-	-
65	-	-	-	3 631	4 601	5 708	6 975	-	-
Power input in W	Ī								
35	1 231	1 369	1 484	1 579	1 658	1 725	1 782	_	_
40	1 281	1 444	1 581	1 694	1 788	1 866	1 930	-	-
45	1 324	1 517	1 680	1 816	1 929	2 022	2 099	-	-
50	-	1 578	1 772	1 936	2 074	2 187	2 281	-	-
55	-	-	1 851	2 048	2 214	2 353	2 468	-	_
60	-	-	-	2 142	2 342	2 511	2 653	-	-
65	-	-	-	2 213	2 451	2 655	2 829	-	-
•		•			•	•	•		ı
Current consum	otion in A								
35	2.36	2.48	2.59	2.69	2.77	2.84	2.88	-	-
40	2.41	2.56	2.69	2.81	2.91	3.00	3.06	-	-
45	2.45	2.63	2.80	2.94	3.07	3.17	3.26	-	-
50	-	2.70	2.90	3.07	3.23	3.36	3.48	-	-
55	-	-	2.99	3.20	3.39	3.56	3.70	-	-
60	-	-	-	3.31	3.54	3.75	3.93	-	-
65	-	-	-	3.40	3.68	3.93	4.15	-	-
A (1	_								
Mass flow in kg/h	1 55	73	95	119	148	180	217	-	_
40	53	71	95	116	143	174	217	-	
45	51	69	89	112	138	169	203	-	_
50	-	66	86	108	134	163	196	-	_
55	-	-	82	104	129	157	188	-	_
60		-	-	100	124	151	181	-	_
65		-	-	95	119	145	174	-	-
		1	1		1	1	1	I	<u>l</u>
Coefficient of pe	rformance (C.O).P.)							
35	2.25	2.72	3.28	3.94	4.71	5.61	6.62	-	-
40	1.99	2.39	2.86	3.41	4.06	4.81	5.67	-	-
45	1.75	2.09	2.48	2.94	3.48	4.10	4.82	-	-
50	-	1.83	2.16	2.54	2.98	3.49	4.08	-	-
55	-	-	1.88	2.19	2.55	2.97	3.45	-	-
60	-	-	-	1.89	2.19	2.52	2.92	-	-
65	-	_	_	1.64	1.88	2.15	2.47	-	_

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

Cooling capacity	6 277	W
Power input	2 260	W
Current consumption	3.45	Α
Mass flow	141	kg/h
C.O.P.	2.78	

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

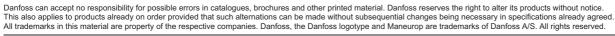
Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 K

Pressure switch settings

Maximum HP switch setting	29.4	bar(g)	
Minimum LP switch setting	1.4	bar(g)	
LP pump down setting	1.7	bar(q)	

Sound power data

Sound power level	76	dB(A)
With accoustic hood	70	dB(A)







Maneurop reciprocating compressor. MTZ022-4

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

R448A

Cond. temp. in	Evaporating temperature in °C (to)								
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
cooling capacity	in W	1	1	1	1	1	1		
10	-	2 467	3 273	4 296	5 563	-	-	-	-
20	-	2 126	2 823	3 706	4 803	6 141	7 751	-	-
30	-	1 822	2 420	3 175	4 112	5 259	6 644	8 297	10 253
40	-	-	2 048	2 686	3 475	4 442	5 614	7 018	8 686
50	-	-	-	2 221	2 873	3 672	4 643	5 811	7 203
60	-	-	-	-	2 290	2 932	3 713	4 658	5 789
ower input in W									
10	-	882	944	989	1 015	-	-	_	-
20	-	977	1 062	1 135	1 193	1 232	1 251	-	-
30	-	1 066	1 178	1 282	1 375	1 454	1 516	1 559	1 578
40	-	-	1 285	1 424	1 555	1 677	1 787	1 880	1 955
50	-	-	-	1 554	1 728	1 896	2 056	2 205	2 339
60	-	_	_	_	1 887	2 105	2 319	2 526	2 722
urrent consump	otion in A	1.74	1.79	1.84	1.86	_	_	T -	<u> </u>
20		2.20	2.26	2.32	2.37	2.40	2.39	-	_
30	-	2.46	2.53	2.61	2.70	2.77	2.82	2.82	2.78
40	-	-	2.67	2.78	2.70	3.03	3.13	3.22	3.26
50		-	-	2.70	3.07	3.24	3.42	3.58	3.71
60	-	_	_	-	3.26	3.49	3.74	3.98	4.21
		1	1	1	0.20	0.10		0.00	
lass flow in kg/h	1								
10	-	40	54	71	92	-	-	-	-
20	-	37	50	66	85	110	141	-	-
30	-	35	46	61	79	102	130	165	208
40	-	-	43	56	74	95	121	153	193
50	-	-	-	52	68	87	112	142	178
60	-	-	-	-	62	80	103	130	164
coefficient of per	formance (C.C) P)							
10	-	2.80	3.47	4.34	5.48	-	-	_	_
20	_	2.18	2.66	3.27	4.03	4.98	6.20	_	-
30	_	1.71	2.06	2.48	2.99	3.62	4.38	5.32	6.50
40	_	-	1.59	1.89	2.23	2.65	3.14	3.73	4.44
			1.59	1.43	1.66	1.94	2.26	2.64	3.08
50	-	_							

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

Cooling capacity	3 170	W
Power input	1 643	W
Current consumption	2.99	Α
Mass flow	71	kg/h
C.O.P.	1.93	

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Pressure switch settings

Max	imum HP switch setting	27.7	bar(g)
Mini	mum LP switch setting	1	bar(g)
LPp	oump down setting	1.3	bar(g)

Sound power data

Sound power level	77	dB(A)
With accoustic hood	71	dB(A)





Maneurop reciprocating compressor. MTZ022-4

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

R448A

Cond. temp. in	Evaporating temperature in °C (to)								
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
Cooling capacity	in W			•					
10	1 857	2 479	3 292	4 323	5 599	-	-	-	-
20	1 575	2 112	2 811	3 698	4 802	6 148	7 766	-	-
30	1 320	1 785	2 381	3 137	4 078	5 233	6 629	8 293	10 253
40	1 076	1 480	1 985	2 620	3 410	4 385	5 571	6 995	8 686
50	-	1 179	1 605	2 130	2 782	3 588	4 575	5 771	7 203
60	-	-	1 223	1 651	2 175	2 823	3 624	4 603	5 789
Power input in W	ı								
10	807	882	944	989	1 015	_	-	-	-
20	883	977	1 062	1 135	1 193	1 232	1 251	-	-
30	950	1 066	1 178	1 282	1 375	1 454	1 516	1 559	1 578
40	1 002	1 144	1 285	1 424	1 555	1 677	1 787	1 880	1 955
50	-	1 203	1 378	1 554	1 728	1 896	2 056	2 205	2 339
60	-	-	1 451	1 668	1 887	2 105	2 319	2 526	2 722
			1	•	1	- 1		•	
Current consum	ption in A								
10	1.68	1.74	1.79	1.84	1.86	-	-	-	-
20	2.15	2.20	2.26	2.32	2.37	2.40	2.39	-	-
30	2.41	2.46	2.53	2.61	2.70	2.77	2.82	2.82	2.78
40	2.54	2.59	2.67	2.78	2.90	3.03	3.13	3.22	3.26
50	-	2.66	2.76	2.90	3.07	3.24	3.42	3.58	3.71
60	-	-	2.87	3.05	3.26	3.49	3.74	3.98	4.21
Mass flow in kg/l			T				1		
10	36	47	61	79	101	-	-	-	-
20	33	43	57	73	94	118	148	-	-
30	30	40	53	68	87	110	137	170	208
40	28	37	49	63	81	102	127	157	193
50	-	34	45	58	74	94	118	145	178
60	-	-	40	53	68	86	108	134	164
Coefficient of pe	rformance (C.0	D.P.)							
10	2.30	2.81	3.49	4.37	5.51	-	-	-	-
20	1.78	2.16	2.65	3.26	4.03	4.99	6.21	-	-
30	1.39	1.67	2.02	2.45	2.97	3.60	4.37	5.32	6.50
40	1.07	1.29	1.54	1.84	2.19	2.61	3.12	3.72	4.44
50	-	0.98	1.16	1.37	1.61	1.89	2.22	2.62	3.08
60	-	-	0.84	0.99	1.15	1.34	1.56	1.82	2.13
•		•	•	•	•	•	•	•	
Nominal perform	nance at to = -1	0 °C, tc = 45 °C				Pressure switch	settings		
- ··				1					

Cooling capacity

Current consumption

Power input

Mass flow

C.O.P.

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

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

3 092

1 643

2.99

78

1.88

W

W

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

Sound power data

Sound power level	77	dB(A)
With accoustic hood	71	dB(A)





Maneurop reciprocating compressor. MTZ022-4

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

R449A

Cond. temp. in		Evaporating temperature in °C (to)								
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10	
Cooling capacity	in W									
10	-	2 472	3 278	4 301	5 569	-	-	-	-	
20	-	2 131	2 828	3 711	4 808	6 146	7 755	-	-	
30	-	1 827	2 426	3 180	4 118	5 264	6 648	8 300	10 253	
40	-	-	2 054	2 691	3 480	4 447	5 618	7 021	8 686	
50	-	-	-	2 226	2 879	3 677	4 647	5 813	7 203	
60	-	-	-	-	2 295	2 937	3 718	4 661	5 789	
Power input in W										
10	-	882	944	989	1 015	-	-	-	-	
20	-	977	1 062	1 135	1 193	1 232	1 251	-	-	
30	-	1 066	1 178	1 282	1 375	1 454	1 516	1 559	1 578	
40	-	-	1 285	1 424	1 555	1 677	1 787	1 880	1 955	
50	-	-	-	1 554	1 728	1 896	2 056	2 205	2 339	
60	_	-	-	-	1 887	2 105	2 319	2 526	2 722	
Current consump		1 474	1.70	1.04	1.00	Γ		1		
10	-	1.74	1.79	1.84	1.86	- 0.40	-	-	-	
20	-	2.20	2.26	2.32	2.37	2.40	2.39	-	- 0.70	
30	-	2.46	2.53	2.61	2.70	2.77	2.82	2.82	2.78	
40			2.67	2.78	2.90	3.02	3.13	3.22	3.26	
50	-	-	-	2.90	3.07	3.24	3.42	3.58	3.71	
60	-	-	-	-	3.26	3.49	3.74	3.98	4.20	
Mass flow in kg/h	1									
10	-	42	55	72	94	-	-	-	-	
20	-	38	51	67	87	112	143	-	-	
30	-	35	47	62	81	104	133	168	211	
40	-	-	44	58	75	97	123	156	196	
50	-	-	-	53	69	89	114	145	182	
60	-	-	-	-	63	82	105	133	168	
Coefficient of per	formance (C.C	D.P.)								
10	-	2.80	3.47	4.35	5.48	-	-	-	-	
20	-	2.18	2.66	3.27	4.03	4.99	6.20	-	-	
30	-	1.71	2.06	2.48	3.00	3.62	4.39	5.33	6.50	
40	-	-	1.60	1.89	2.24	2.65	3.14	3.73	4.44	
		İ	-	1.43	1.67	1.94	2.26	2.64	3.08	
50	-	-	_	1.70	1.07	1.01				

Nominal perf	ormance at to	= -10 °C	, tc = 45 °C

Cooling capacity	3 176	W
Power input	1 643	W
Current consumption	2.99	Α
Mass flow	72	kg/h
C.O.P.	1.93	

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Pressure switch settings

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

Sound power data

Sound power level	77	dB(A)
With accoustic hood	71	dB(A)





Maneurop reciprocating compressor. MTZ022-4

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

R449A

Cond. temp. in Evaporatin						ating temperature in °C (to)				
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10	
Cooling capacity	in W			•						
10	1 857	2 479	3 292	4 323	5 599	-	-	-	-	
20	1 575	2 112	2 811	3 698	4 802	6 148	7 766	-	-	
30	1 320	1 785	2 381	3 137	4 078	5 233	6 629	8 293	10 253	
40	1 076	1 480	1 985	2 620	3 410	4 385	5 571	6 995	8 686	
50	-	1 179	1 605	2 130	2 782	3 588	4 575	5 771	7 203	
60	-	-	1 223	1 651	2 175	2 823	3 624	4 603	5 789	
Power input in W	ı									
10	807	882	944	989	1 015	_	-	-	-	
20	883	977	1 062	1 135	1 193	1 232	1 251	-	-	
30	950	1 066	1 178	1 282	1 375	1 454	1 516	1 559	1 578	
40	1 002	1 144	1 285	1 424	1 555	1 677	1 787	1 880	1 955	
50	-	1 203	1 378	1 554	1 728	1 896	2 056	2 205	2 339	
60	-	-	1 451	1 668	1 887	2 105	2 319	2 526	2 722	
			1	•	1	1		•		
Current consum	ption in A									
10	1.68	1.74	1.79	1.84	1.86	-	-	-	-	
20	2.15	2.20	2.26	2.32	2.37	2.40	2.39	-	-	
30	2.41	2.46	2.53	2.61	2.70	2.77	2.82	2.82	2.78	
40	2.54	2.58	2.67	2.78	2.90	3.02	3.13	3.22	3.26	
50	-	2.66	2.76	2.90	3.07	3.24	3.42	3.58	3.71	
60	-	-	2.87	3.05	3.26	3.49	3.74	3.98	4.20	
Mass flow in kg/l		1	T	T			1		1	
10	37	48	63	81	103	-	-	-	-	
20	34	44	58	75	96	121	150	-	-	
30	31	41	54	70	89	112	140	173	211	
40	28	38	50	65	82	104	130	160	196	
50	-	34	46	60	76	96	120	149	182	
60	-	-	41	54	69	88	110	137	168	
Coefficient of pe	rformance (C.0	D.P.)								
10	2.30	2.81	3.49	4.37	5.51	-	-	-	-	
20	1.78	2.16	2.65	3.26	4.03	4.99	6.21	-	-	
30	1.39	1.67	2.02	2.45	2.97	3.60	4.37	5.32	6.50	
40	1.07	1.29	1.54	1.84	2.19	2.61	3.12	3.72	4.44	
50	-	0.98	1.16	1.37	1.61	1.89	2.22	2.62	3.08	
60	-	-	0.84	0.99	1.15	1.34	1.56	1.82	2.13	
•		•	•	•	•	•	•	•		
Nominal perform	nance at to = -1	0 °C, tc = 45 °C				Pressure switch	settings			
· ·				1						

Cooling capacity

Current consumption

Power input

Mass flow

C.O.P.

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

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

3 092

1 643

2.99

1.88

79

W

W

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

Sound power data

Sound power level 77	' dB(A)	
With accoustic hood 71	dB(A)	





Maneurop reciprocating compressor. MTZ022-4

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

R452A

Cond. temp. in	Evaporating temperature in °C (to)									
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10	
Cooling capacity in	n W									
10	-	3 345	4 270	5 382	6 697	_	_	-	_	
20	-	2 753	3 573	4 556	5 717	7 072	8 640	_	_	
30	_	2 234	2 951	3 806	4 814	5 991	7 352	8 916	10 705	
40	-	1 772	2 386	3 115	3 973	4 973	6 131	7 461	8 981	
50	-	_	1 862	2 468	3 177	4 003	4 959	6 058	7 313	
60	-	_	-	1 849	2 412	3 067	3 824	4 693	5 685	
		I.	1		l					
Power input in W										
10	-	1 077	1 138	1 170	1 168	-	-	-	-	
20	-	1 158	1 254	1 326	1 370	1 381	1 356	-	_	
30	-	1 221	1 352	1 465	1 557	1 621	1 655	1 653	1 610	
40	-	1 266	1 434	1 589	1 729	1 847	1 941	2 005	2 034	
50	-	-	1 502	1 700	1 889	2 062	2 217	2 347	2 450	
60	-	-	-	1 800	2 038	2 268	2 484	2 682	2 858	
Current consumpt			1	1	1	1	ı	1	1	
10	-	1.75	1.75	1.76	1.75	-	-	-	-	
20	-	2.30	2.34	2.37	2.40	2.42	2.42	-	-	
30	-	2.57	2.64	2.71	2.79	2.85	2.90	2.93	2.94	
40	-	2.67	2.78	2.89	3.01	3.13	3.24	3.33	3.40	
50	-	-	2.86	3.02	3.20	3.37	3.54	3.70	3.83	
60	-	-	-	3.22	3.45	3.69	3.92	4.15	4.36	
Mass flow in kg/h										
10	-	67	87	110	139	-	-	-	-	
20	-	61	79	102	128	160	198	-	-	
30	-	54	72	93	119	149	185	227	277	
40	-	48	65	85	109	138	172	213	261	
50	-	-	58	77	100	127	160	198	244	
60	-	-	-	69	91	117	148	185	228	
<u>.</u>			•					•		
Coefficient of perfo	ormance (C.C).P.)								
10	-	3.11	3.75	4.60	5.74	-	-	-	-	
20	-	2.38	2.85	3.44	4.17	5.12	6.37	-	-	
30	-	1.83	2.18	2.60	3.09	3.70	4.44	5.40	6.65	
	-	1.40	1.66	1.96	2.30	2.69	3.16	3.72	4.41	
40			1.24	1.45	1.68	1.94	2.24	2.58	2.99	
50	-	-	1.24	11.10						
	-	-	-	1.03	1.18	1.35	1.54	1.75	1.99	

Cooling capacity	3 :	57

Cooling capacity	3 570	W
Power input	1 810	W
Current consumption	3.10	Α
Mass flow	105	kg/h
C.O.P.	1.97	

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

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

Sound power data

Sound power level	77	dB(A)	
With accoustic hood	71	dB(A)	





Maneurop reciprocating compressor. MTZ022-4

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

R452A

Cond. temp. in Evaporating temperature in °C (to)									
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
Cooling capacity	y in W								
10	2 507	3 256	4 181	5 299	6 627	-	-	-	-
20	1 975	2 635	3 448	4 431	5 602	6 976	8 573	-	-
30	1 521	2 093	2 796	3 645	4 660	5 855	7 250	8 861	10 705
40	1 127	1 614	2 207	2 925	3 784	4 802	5 996	7 384	8 981
50	778	1 180	1 666	2 253	2 959	3 800	4 795	5 961	7 313
60	-	775	1 155	1 613	2 167	2 834	3 631	4 575	5 685
Power input in V	v								
10	991	1 077	1 138	1 170	1 168	_	_	_	_
20	1 043	1 158	1 254	1 326	1 370	1 381	1 356	-	-
30	1 076	1 221	1 352	1 465	1 557	1 621	1 655	1 653	1 610
40	1 091	1 266	1 434	1 589	1 729	1 847	1 941	2 005	2 034
50	1 091	1 297	1 502	1 700	1 889	2 062	2 217	2 347	2 450
60	-	1 315	1 557	1 800	2 038	2 268	2 484	2 682	2 858
							-		
Current consum	ption in A								
10	1.75	1.75	1.75	1.76	1.75	-	-	-	-
20	2.28	2.30	2.34	2.37	2.40	2.42	2.42	-	-
30	2.52	2.57	2.64	2.71	2.79	2.85	2.90	2.93	2.94
40	2.58	2.67	2.78	2.89	3.01	3.13	3.24	3.33	3.40
50	2.58	2.71	2.86	3.02	3.20	3.37	3.54	3.70	3.83
60	-	2.80	3.00	3.22	3.45	3.69	3.92	4.15	4.36
Mass flow in kg/	h								
10	60	78	99	124	153	_	_	_	_
20	54	71	91	114	141	173	208	_	_
30	47	63	82	105	131	160	195	234	277
40	40	56	74	95	120	149	181	219	261
50	33	48	66	86	110	137	169	204	244
60	-	40	57	77	100	126	156	190	228
		1				1	1	1	
Coefficient of pe	erformance (C.C	D.P.)	T	1			T	T	,
10	2.53	3.02	3.67	4.53	5.68	-	-	-	-
20	1.89	2.28	2.75	3.34	4.09	5.05	6.32	-	-
30	1.41	1.72	2.07	2.49	2.99	3.61	4.38	5.36	6.65
40	1.03	1.27	1.54	1.84	2.19	2.60	3.09	3.68	4.41
50	0.71	0.91	1.11	1.32	1.57	1.84	2.16	2.54	2.99
60	-	0.59	0.74	0.90	1.06	1.25	1.46	1.71	1.99
Nominal perforn	nance at to = -1	0 °C, tc = 45 °C			-	Pressure switch	settings		

to: Evaporating	tamparatura	at	dow	noin

Cooling capacity

Current consumption

Power input

Mass flow

C.O.P.

tc: Condensing temperature at dew point

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

3 366

1 810

3.10

115

1.86

W

W

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	77	dB(A)
With accoustic hood	71	dB(A)





