ENGINEERING TOMORROW



Datasheets

Danfoss Reciprocating compressors MT / MTZ / NTZ





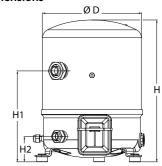


Datasheet, technical data

General Characteristics

Model number (on compressor nameplate)		MTZ50HK4CVE	
Code number for Singlepack*	MTZ50-4VI		
Code number for Industrial pack**	MTZ50-4VM		
Drawing number		8502012g	
Suction and discharge connections		Rotolock	
Suction connection		1-3/4 " Rotolock	
Discharge connection		1-1/4 " Rotolock	
Suction connection with supplied sleeve		7/8 " ODF	
Discharge connection with supplied sleeve		3/4 " ODF	
Oil sight glass		Threaded	
Oil equalisation connection		3/8" flare SAE	
Oil drain connection		None	
LP gauge port		Schrader	
IPR valve		30 bar / 8 bar	
Cylinders	2	2	
Swept volume	85,64 cm3/rev		
Displacement @ Nominal speed	14.9 m3/h @ 2900 rpm -	- 18.0 m3/h @ 3500 rpm	
Net weight	37	kg	
Oil charge	1,8 litre, POE - 160PZ		
Maximum system test pressure Low Side / High side	25 bar(g) / 30 bar(g)		
Maximum differential test pressure	30 bar		
Maximum number of starts per hour	12		
Refrigerant charge limit	5 kg		
Approved refrigerants	R404A, R507A, R134a,	R407C, R407A, R407F	

Dimensions



D=288 mm H=413 mm H1=265 mm H2=74 mm H3=- mm

Terminal box

(1)

Electrical Characteristics

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	3.35 Ω
Maximum Continuous Current (MCC)	12 A
Locked Rotor Amps (LRA)	48.5 A
Motor protection	Internal overload protector

Recommended Installation torques

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

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: 6 Unboxed compressors on pallet (order per multiples of 6)



Datasheet, accessories and spare parts

Belt type crankcase heater, 65 W, 400 V, CE mark, UL

Belt type crankcase heater, 65 W, 460 V, CE mark, UL

Miscellaneous accessories

Acoustic hood for 2 cylinder compressor

Electronic soft start kit, MCI 15 C

Oil equalisation nut

Rotolock accessories, suction side

Maneurop reciprocating compressor, MTZ050-4

notolock accessories, saction side	couc no.	
Solder sleeve, P07 (1-3/4" Rotolock, 7/8" ODF)	8153013	
Angle adapter, C07 (1-3/4" Rotolock, 7/8" ODF)	8168008	
Rotolock valve, V07 (1-3/4" Rotolock, 7/8" ODF)	8168032	Gaskets, sleeves and nuts
Gasket, 1-3/4"	8156132	
Rotolock accessories, discharge side	Code no.	
Solder sleeve, P04 (1-1/4" Rotolock, 3/4" ODF)	8153008	
Angle adapter, C04 (1-1/4" Rotolock, 3/4" ODF)	8168006	
Rotolock valve, V04 (1-1/4" Rotolock, 3/4" ODF)	8168029	
Gasket, 1-1/4"	8156131	1 2 3
Rotolock accessories, sets	Code no.	1: Gasket
Angle adapter set, C07 (1-3/4"~7/8"), C04 (1-1/4"~3/4")	7703013	2: Solder sleeve
Valve set, V07 (1-3/4"~7/8"), V04 (1-1/4"~3/4")	7703006	3: Rotolock nut
Gasket set, 1", 1-1/4", 1-3/4", OSG gaskets black & white	8156009	
Oil / lubricants	Code no.	
POE lubricant, 160PZ, 1 litre can	7754019	
POE lubricant, 160PZ, 2.5 litre can	120Z0573	
Cuantização hostous	Cadana	Manustina lit
Crankcase heaters	Code no.	Mounting kit
PTC heater 27W,CE mark, UL	120Z0459	
Belt type crankcase heater, 65 W, 230 V, CE mark, UL	7773107	1 2

Code no.

7773117

120Z0466

Code no.

7705006

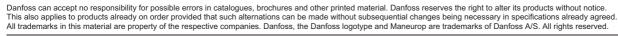
120Z0472

8153127

Spare parts	Code no.

Ī	Mounting kit for 1 and 2 cylinder compressor, including 3 grommets, 3 bolts	8156001	1: Bolt (3x)
	Oil sight glass with gaskets (black & white)	8156019	2: Lock washer (3x)
	Gasket for oil sight glass (black chloroprene)	8156145	3: Flat washer (3x)
	Service kit for terminal box 80 x 96 mm, including 1 cover, 1 clamp	8156134	4: Sleeve (3x)
			5: Grommet (3x)









Maneurop reciprocating compressor. MTZ050-4

Performance data at 50 Hz, EN 12900 rating conditions

R407C

Cond. temp. in				Evapora	ting temperature	in °C (to)			
°C (tc)	-15	-10	-5	0	5	10	15		
•		•			•		•		l .
Cooling capacity	y in W								
35	4 843	6 491	8 474	10 833	13 612	16 855	20 605	-	-
40	4 348	5 896	7 749	9 951	12 545	15 573	19 079	-	-
45	3 848	5 298	7 025	9 071	11 480	14 296	17 561	-	-
50	-	4 699	6 300	8 193	10 420	13 025	16 051	-	-
55	-	-	5 577	7 318	9 365	11 761	14 550	-	-
60	-	-	-	6 448	8 316	10 505	13 058	-	-
65	-	-	-	5 583	7 275	9 259	11 578	-	-
Power input in V		,			,	1	,	T	1
35	2 241	2 484	2 684	2 849	2 985	3 098	3 194	-	-
40	2 307	2 601	2 844	3 045	3 208	3 342	3 451	-	-
45	2 344	2 699	2 997	3 244	3 447	3 612	3 746	-	-
50	-	2 765	3 128	3 433	3 687	3 895	4 065	-	-
55	-	-	3 225	3 599	3 915	4 178	4 394	-	-
60	-	-	-	3 728	4 116	4 445	4 720	-	-
65	-	-	-	3 804	4 278	4 684	5 029	-	-
Current consum	-	T	1	1	Т	1	T	Γ	T
35	4.71	4.98	5.23	5.46	5.67	5.87	6.05	-	-
40	4.78	5.11	5.41	5.67	5.91	6.12	6.30	-	-
45	4.84	5.24	5.60	5.91	6.19	6.44	6.64	-	-
50	-	5.33	5.77	6.16	6.51	6.80	7.05	-	-
55	-	-	5.91	6.40	6.82	7.19	7.50	-	-
60	-	-	-	6.58	7.11	7.57	7.96	-	-
65	-	-	-	6.70	7.35	7.92	8.41	-	-
	_								
Mass flow in kg/		100	170	1 00.		1 000	100		I
35	105	139	178	224	277	338	408	-	-
40	99	132	171	216	268	327	396	-	-
45	93	125	163	207	258	316	383	-	-
50	-	118	155	198	247	304	369	-	-
55	-	-	146	188	236	292	355	-	-
60	-	-	-	177	224	278	340	-	-
65	-	-	-	166	212	264	324	-	-
O 661 - 1 4 - 6		, D ,							
Coefficient of pe		1	0.40	0.00	4.50	5.44	0.45	Ī	l
35	2.16	2.61	3.16	3.80	4.56	5.44	6.45	-	-
40	1.88	2.27	2.72	3.27	3.91	4.66	5.53	-	-
45	1.64	1.96	2.34	2.80	3.33	3.96	4.69	-	-
50	-	1.70	2.01	2.39	2.83	3.34	3.95	-	-
55	-	-	1.73	2.03	2.39	2.82	3.31	-	-
60	-	-	-	1.73	2.02	2.36	2.77	-	-
65	-	-	-	1.47	1.70	1.98	2.30	-	-

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

Cooling capacity	10 420	W
Power input	3 687	W
Current consumption	6.51	Α
Mass flow	247	kg/h
C.O.P.	2.83	

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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



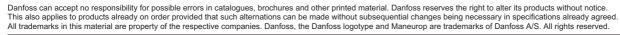
Pressure switch settings

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

Sound power data

Sound power level	84	dB(A)
With accoustic hood	77	dB(A)

All performance data +/- 5%







Maneurop reciprocating compressor. MTZ050-4

Performance data at 50 Hz, ARI rating conditions

R407C

Cond. temp. in				Evapora	ating temperature	in °C (to)			
°C (tc)	-15	-10	-5	0	5	10	15		
•		•	•	•	•	•	•	•	•
Cooling capacity	y in W								
35	5 213	6 979	9 099	11 619	14 584	18 040	22 030	-	-
40	4 705	6 372	8 364	10 727	13 506	16 747	20 496	-	-
45	4 192	5 762	7 628	9 835	12 431	15 460	18 968	-	-
50	-	5 147	6 890	8 945	11 359	14 178	17 448	-	-
55	-	-	6 152	8 057	10 292	12 904	15 938	-	-
60	-	-	-	7 172	9 231	11 638	14 440	-	-
65	-	-	-	6 291	8 178	10 384	12 958	-	-
Power input in V		1	•	1		1	•	1	1
35	2 241	2 484	2 684	2 849	2 985	3 098	3 194	-	-
40	2 307	2 601	2 844	3 045	3 208	3 342	3 451	-	-
45	2 344	2 699	2 997	3 244	3 447	3 612	3 746	-	-
50	-	2 765	3 128	3 433	3 687	3 895	4 065	-	-
55	-	-	3 225	3 599	3 915	4 178	4 394	-	-
60	-	-	-	3 728	4 116	4 445	4 720	-	-
65	-	-	-	3 804	4 278	4 684	5 029	-	-
Current consum	-	T	T	T		1	T	T	ı
35	4.71	4.98	5.23	5.46	5.67	5.87	6.05	-	-
40	4.78	5.11	5.41	5.67	5.91	6.12	6.30	-	-
45	4.84	5.24	5.60	5.91	6.19	6.44	6.64	-	-
50	-	5.33	5.77	6.16	6.51	6.80	7.05	-	-
55	-	-	5.91	6.40	6.82	7.19	7.50	-	-
60	-	-	-	6.58	7.11	7.57	7.96	-	-
65	-	-	-	6.70	7.35	7.92	8.41	-	-
	_								
Mass flow in kg/		100	1 4		075	1 000	100	I	I
35	105	138	177	223	275	336	406	-	-
40	99	131	170	214	266	325	393	-	-
45	92	125	162	206	256	314	380	-	-
50	-	117	154	197	246	302	367	-	-
55	-	1	145	187	235	290	352	-	-
60	-	-	-	176	223	277	337	-	-
65	-	-	-	165	211	263	322	-	-
Coefficient of no	rformance (C C) D)							
Coefficient of pe			3.39	4.08	4.89	5.82	6.00		
35 40	2.33	2.81	2.94		4.89	5.82	6.90	-	-
	2.04	2.45		3.52	ł	+	5.94		-
45	1.79	2.13	2.55	3.03	3.61	4.28	5.06	-	-
50 55		1.86	2.20	2.61	3.08	3.64	4.29	-	-
55	-	-	1.91	2.24	2.63	3.09	3.63	-	-
60	-	-	-	1.92	2.24	2.62	3.06	-	-
65	-	-	-	1.65	1.91	2.22	2.58	-	-

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

Cooling capacity	11 531	W
Power input	4 007	W
Current consumption	6.95	Α
Mass flow	260	kg/h
C.O.P.	2.88	

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

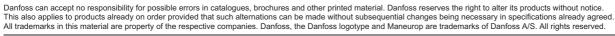
Pressure switch settings

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

Sound power data

Sound power level	84	dB(A)
With accoustic hood	77	dB(A)

All performance data +/- 5%







Maneurop reciprocating compressor. MTZ050-4

Performance data at 50 Hz, EN 12900 rating conditions

R134a

Cond. temp. in	Evaporating temperature in °C (to)									
°C (tc)	-15	-10	-5	0	5	10	15	20		
`aaling aanaaitı	r in W									
Cooling capacity 35	3 018	4 164	5 583	7 316	9 401	11 877	14 783	18 159	-	
40	2 677	3 739	5 052	6 655	8 587	10 887	13 593	16 745		
45	2 356		4 557	6 038	7 824	9 955	12 469	15 406		
50	2 049	3 343 2 968	4 091	5 458	7 107	9 955		14 136		
		1	1	1	ł	1	11 407	t	-	
55	1 751	2 610	3 650	4 910	6 429	8 246	10 400	12 930		
60	-	2 263	3 228	4 389	5 787	7 458	9 444	11 782	-	
65	-	-	-	3 890	5 173	6 707	8 533	10 687	-	
70	-	-	-	-	-	5 988	7 660	9 639	-	
Power input in V	٧				•					
35	1 538	1 712	1 857	1 973	2 062	2 125	2 163	2 176	-	
40	1 558	1 760	1 931	2 072	2 185	2 271	2 329	2 363	-	
45	1 568	1 801	2 002	2 173	2 313	2 425	2 509	2 566	-	
50	1 564	1 832	2 067	2 270	2 442	2 583	2 696	2 780	-	
55	1 541	1 848	2 120	2 360	2 566	2 742	2 887	3 002	-	
60	-	1 844	2 158	2 437	2 683	2 895	3 077	3 227	-	
65	-	-	-	2 498	2 786	3 040	3 261	3 451	-	
70	-	-	-	-	-	3 171	3 436	3 668	-	
•					•					
urrent consum		T	T	T	1	T	1	T T		
35	3.83	4.08	4.28	4.44	4.56	4.65	4.72	4.76	-	
40	3.98	4.24	4.45	4.62	4.75	4.85	4.91	4.95	-	
45	4.02	4.32	4.56	4.75	4.90	5.01	5.09	5.14	-	
50	3.99	4.33	4.61	4.84	5.02	5.16	5.26	5.34	-	
55	3.90	4.29	4.63	4.90	5.13	5.31	5.46	5.57	-	
60	-	4.22	4.62	4.97	5.25	5.49	5.69	5.85	-	
65	-	-	-	5.04	5.40	5.71	5.97	6.19	-	
70	-	-	-	-	-	5.98	6.32	6.62	-	
Mass flow in kg/l	h									
35	73	99	130	167	210	260	318	385		
40	68	94	124	159	201	250	306	371		
45	64	88	118	152	193	240	295	358	_	
50	59	83	112	146	185	231	284	345		
55	54	78	106	139	178	222	274	334		
60	-	72	100	133	170	214	265	323		
65	<u> </u>	-	-	126	163	206	256	312		
70	-	-	-	-	-	199	247	302	-	
		1	1	1	1	1 .00		-		
Coefficient of pe	•	1	0.04	1 07	4.50	·	1 001	001		
35	1.96	2.43	3.01	3.71	4.56	5.59	6.84	8.34	-	
40	1.72	2.13	2.62	3.21	3.93	4.79	5.84	7.09	-	
45	1.50	1.86	2.28	2.78	3.38	4.11	4.97	6.00	-	
50	1.31	1.62	1.98	2.40	2.91	3.51	4.23	5.08	-	
55	1.14	1.41	1.72	2.08	2.51	3.01	3.60	4.31	-	
60	-	1.23	1.50	1.80	2.16	2.58	3.07	3.65	-	
65	-	-	-	1.56	1.86	2.21	2.62	3.10	-	
70	-	-	-	-	-	1.89	2.23	2.63	-	

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

rtommar portormanoc acto o o, to	00 0	
Cooling capacity	7 107	W
Power input	2 442	W
Current consumption	5.02	Α
Mass flow	185	kg/h
C.O.P.	2.91	

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

Sound power data

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

All performance data +/- 5%

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Maneurop reciprocating compressor. MTZ050-4

Performance data at 50 Hz, ARI rating conditions

R134a

Cond. temp. in				Evapora	ting temperature	in °C (to)			
°C (tc)	-15	-10	-5	0	5	10	15	20	
		•	•		•	1	•	1	
Cooling capacit	y in W								
35	3 269	4 502	6 027	7 886	10 118	12 764	15 866	19 462	-
40	2 915	4 064	5 482	7 208	9 285	11 753	14 653	18 024	-
45	2 582	3 655	4 973	6 576	8 505	10 803	13 509	16 664	-
50	2 262	3 268	4 494	5 982	7 773	9 908	12 429	15 375	-
55	1 949	2 897	4 041	5 422	7 083	9 064	11 407	14 154	-
60	-	2 536	3 606	4 890	6 429	8 265	10 440	12 995	-
65	-	-	-	4 380	5 806	7 506	9 522	11 895	-
70	-	-	-	-	-	6 784	8 649	10 850	-
Power input in \	NA/								
35	1 538	1 712	1 857	1 973	2 062	2 125	2 163	2 176	_
40	1 558	1 760	1 931	2 072	2 185	2 271	2 329	2 363	
45	1 568	1 801	2 002	2 173	2 313	2 425	2 509	2 566	
50	1 564	1 832	2 002	2 173	2 442	2 583	2 696	2 780	
55	1 541	1 848	2 120	2 360	2 566	2 742	2 887	3 002	
60	-	1 844	2 158	2 437	2 683	2 895	3 077	3 227	
65	-	-	-	2 498	2 786	3 040	3 261	3 451	
70	-	_	_	-	-	3 171	3 436	3 668	
		1	1	1	l		0 .00	0 000	
Current consun	nption in A								
35	3.83	4.08	4.28	4.44	4.56	4.65	4.72	4.76	-
40	3.98	4.24	4.45	4.62	4.75	4.85	4.91	4.95	-
45	4.02	4.32	4.56	4.75	4.90	5.01	5.09	5.14	-
50	3.99	4.33	4.61	4.84	5.02	5.16	5.26	5.34	-
55	3.90	4.29	4.63	4.90	5.13	5.31	5.46	5.57	-
60	-	4.22	4.62	4.97	5.25	5.49	5.69	5.85	-
65	-	-	-	5.04	5.40	5.71	5.97	6.19	-
70	-	-	-	-	-	5.98	6.32	6.62	-
Mass flow in kg		T	T	1	T		1		
35	73	99	129	166	209	259	317	383	-
40	68	93	123	158	200	249	305	369	-
45	63	88	117	151	192	239	293	356	-
50	59	83	111	145	184	230	283	343	-
55	53	77	105	138	177	221	273	332	-
60	-	72	100	132	170	213	263	321	-
65	-	-	-	126	163	205	254	310	-
70	-	-	-	-	_	198	246	301	-
Coefficient of p	erformance (C.C).P.)							
35	2.13	2.63	3.25	4.00	4.91	6.01	7.34	8.94	-
40	1.87	2.31	2.84	3.48	4.25	5.18	6.29	7.63	-
45	1.65	2.03	2.48	3.03	3.68	4.46	5.39	6.50	-
50	1.45	1.78	2.17	2.64	3.18	3.84	4.61	5.53	-
55	1.27	1.57	1.91	2.30	2.76	3.31	3.95	4.71	-
60	-	1.38	1.67	2.01	2.40	2.85	3.39	4.03	-
65	-	-	-	1.75	2.08	2.47	2.92	3.45	-
70	-	-	-	-	-	2.14	2.52	2.96	-

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

monimum portormanoc at to	7.2 0, 10	U-1		
Cooling capacity		8 001	W	
Power input		2 631	W	
Current consumption		5.20	Α	
Mass flow		196	kg/h	
C.O.P.		3.04		

to: Evaporating temperature at dew point

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

Pressure switch settings

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

Sound power data

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

All performance data +/- 5%

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tc: Condensing temperature at dew point



Maneurop reciprocating compressor. MTZ050-4

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
S 11 14									
Cooling capacit	2 747	3 839	5 204	6 879	8 899	11 300	14 117	17 386	21 143
35	2 370	3 366	4 610	6 138	7 986	10 189	12 782	15 802	19 284
40	2 021	2 922	4 047	5 430	7 106	9 112	11 484	14 256	17 464
45	1 695	2 504	3 510	4 749	6 256	8 067	10 218	12 744	15 680
50	1 390	2 108	2 997	4 093	5 432	7 050	8 981	11 262	13 929
55	-	1 730	2 503	3 459	4 631	6 057	7 770	9 808	12 206
60		1 367	2 027	2 842	3 850	5 085	6 582	8 378	10 508
•		1 307	2 027	2 042	3 000	3 000	0 302	0 070	10 000
Power input in \ 30	1 933	2 197	2 439	2 656	2 846	3 005	3 131	3 223	3 277
35	1 946	2 238	2 508	2 754	2 973	3 164	3 322	3 448	3 536
40	1 948	2 269	2 569	2 846	3 098	3 322	3 515	3 676	3 802
45	1 935	2 288	2 620	2 931	3 218	3 478	3 708	3 907	4 072
50	1 907	2 293	2 661	3 008	3 331	3 629	3 899	4 139	4 345
55	-	2 283	2 688	3 073	3 437	3 775	4 087	4 369	4 619
60	_	2 256	2 701	3 127	3 532	3 913	4 269	4 596	4 893
00		2 200	2.0.	0 121	0 002	00.0	. 200	. 000	. 555
Current consum	nption in A			1		1	1		ı
30	4.36	4.68	4.98	5.26	5.51	5.73	5.90	6.02	6.08
35	4.39	4.73	5.06	5.36	5.65	5.90	6.11	6.27	6.38
40	4.41	4.77	5.13	5.47	5.80	6.09	6.35	6.56	6.73
45	4.41	4.80	5.20	5.58	5.95	6.29	6.60	6.88	7.10
50	4.38	4.81	5.25	5.68	6.10	6.50	6.87	7.20	7.50
55	-	4.79	5.28	5.77	6.24	6.70	7.14	7.54	7.91
60	-	4.74	5.28	5.82	6.36	6.89	7.40	7.88	8.33
Mass flow in kg/	/h								
30	86	118	156	201	254	315	385	465	556
35	80	111	148	192	243	302	371	449	538
40	74	104	140	183	232	290	357	433	520
45	68	97	132	173	222	278	343	417	502
50	62	91	124	164	211	266	329	401	484
55	-	84	117	155	201	254	315	385	466
60	-	77	109	146	190	242	301	370	448
Coefficient of po	erformance (C.C).P.)							
30	1.42	1.75	2.13	2.59	3.13	3.76	4.51	5.39	6.45
35	1.22	1.50	1.84	2.23	2.69	3.22	3.85	4.58	5.45
40	1.04	1.29	1.58	1.91	2.29	2.74	3.27	3.88	4.59
45	0.88	1.09	1.34	1.62	1.94	2.32	2.76	3.26	3.85
50	0.73	0.92	1.13	1.36	1.63	1.94	2.30	2.72	3.21
55	-	0.76	0.93	1.13	1.35	1.60	1.90	2.24	2.64
60	-	0.61	0.75	0.91	1.09	1.30	1.54	1.82	2.15

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

	,		
Cooling capacity		6 256	W
Power input		3 218	W
Current consumption		5.95	Α
Mass flow		222	kg/h
C.O.P.		1.94	

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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



Pressure switch settings

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

Sound power data

Sound power level	83	dB(A)
With accoustic hood	76	dB(A)

All performance data +/- 5%

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Maneurop reciprocating compressor. MTZ050-4

Performance data at 50 Hz, ARI rating conditions

R404A

Cond. temp. in				Evapora	iting temperature	in °C (to)			
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
						•			
cooling capacity		1.004	T = 700	7.500		10.100	1 45 400	10.040	00.440
30	3 058	4 261	5 762	7 599	9 808	12 426	15 492	19 042	23 113
35	2 667	3 775	5 155	6 845	8 881	11 303	14 146	17 449	21 248
40	2 304	3 319	4 580	6 124	7 990	10 216	12 839	15 897	19 427
45	1 965	2 889	4 032	5 433	7 131	9 163	11 569	14 384	17 648
50	1 647	2 482	3 511	4 771	6 303	8 145	10 335	12 912	15 914
55	-	2 096	3 012	4 135	5 505	7 160	9 140	11 484	14 230
60	-	1 728	2 538	3 528	4 741	6 217	7 994	10 114	12 614
Power input in V	v								
30	1 933	2 197	2 439	2 656	2 846	3 005	3 131	3 223	3 277
35	1 946	2 238	2 508	2 754	2 973	3 164	3 322	3 448	3 536
40	1 948	2 269	2 569	2 846	3 098	3 322	3 515	3 676	3 802
45	1 935	2 288	2 620	2 931	3 218	3 478	3 708	3 907	4 072
50	1 907	2 293	2 661	3 008	3 331	3 629	3 899	4 139	4 345
55	-	2 283	2 688	3 073	3 437	3 775	4 087	4 369	4 619
60	-	2 256	2 701	3 127	3 532	3 913	4 269	4 596	4 893
Current consum	ption in A								
30	4.36	4.68	4.98	5.26	5.51	5.73	5.90	6.02	6.08
35	4.39	4.73	5.06	5.36	5.65	5.90	6.11	6.27	6.38
40	4.41	4.77	5.13	5.47	5.80	6.09	6.35	6.56	6.73
45	4.41	4.80	5.20	5.58	5.95	6.29	6.60	6.88	7.10
50	4.38	4.81	5.25	5.68	6.10	6.50	6.87	7.20	7.50
55	-	4.79	5.28	5.77	6.24	6.70	7.14	7.54	7.91
60	-	4.74	5.28	5.82	6.36	6.89	7.40	7.88	8.33
Mass flow in kg/	/h								
30	86	117	155	200	252	313	382	462	552
35	80	111	147	191	241	301	368	446	534
40	74	104	139	181	231	288	355	430	516
45	68	97	131	172	220	276	341	414	498
50	62	90	124	163	210	264	327	399	480
55	-	83	116	154	200	252	313	383	463
60	-	77	108	145	189	240	299	367	445
Coefficient of pe	erformance (C. C).P.)							
30	1.58	1.94	2.36	2.86	3.45	4.14	4.95	5.91	7.05
35	1.37	1.69	2.06	2.49	2.99	3.57	4.26	5.06	6.01
40	1.18	1.46	1.78	2.15	2.58	3.08	3.65	4.32	5.11
45	1.02	1.26	1.54	1.85	2.22	2.63	3.12	3.68	4.33
50	0.86	1.08	1.32	1.59	1.89	2.24	2.65	3.12	3.66
	-	0.92	1.12	1.35	1.60	1.90	2.24	2.63	3.08
55									

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

Cooling capacity	7 131	W
Power input	3 218	W
Current consumption	5.95	Α
Mass flow	220	kg/h
C.O.P.	2.22	

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

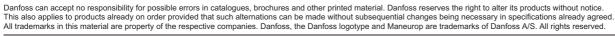
Pressure switch settings

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

Sound power data

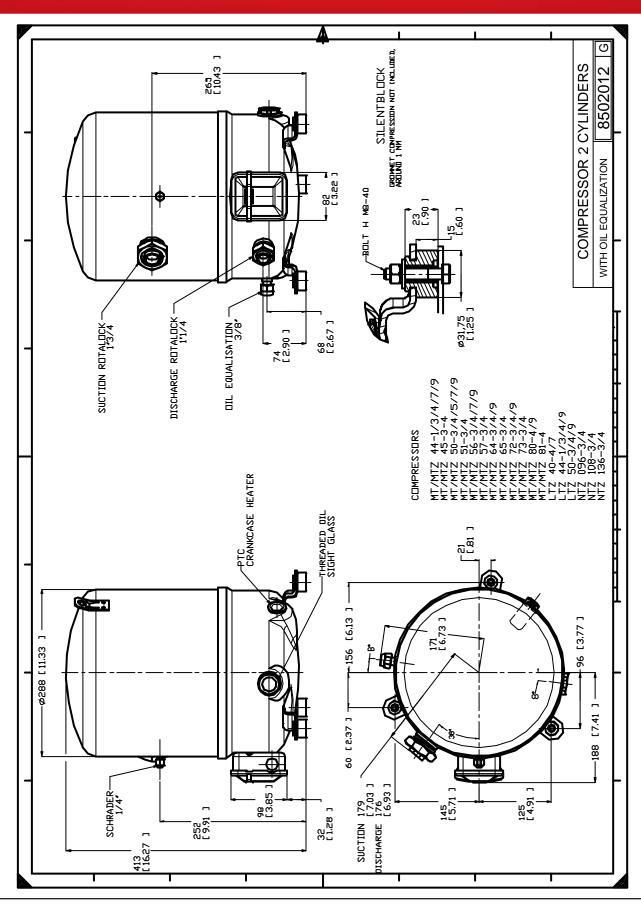
Sound power level	83	dB(A)
With accoustic hood	76	dB(A)

All performance data +/- 5%









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