



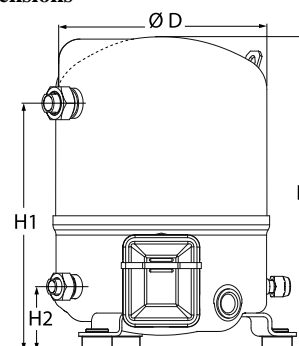
Datasheets

# Maneurop® Reciprocating compressors MT / MTZ / MPZ / NTZ



**General Characteristics**

Model number (on compressor nameplate)		<b>MTZ18JA5AVE</b>
Code number for Singlepack*		MTZ18-5VI
Code number for Industrial pack**		MTZ18-5VM
Drawing number		8501021e
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		30 bar / 8 bar
Cylinders		1
Swept volume		30,23 cm <sup>3</sup> /rev
Displacement @ Nominal speed		5.3 m <sup>3</sup> /h @ 2900 rpm
Net weight		21 kg
Oil charge		0,95 litre, POE - 160PZ
Maximum system test pressure Low Side / High side		25 bar(g) / 30 bar(g)
Maximum differential test pressure		30 bar
Maximum number of starts per hour		12
Refrigerant charge limit		2,5 kg
Approved refrigerants		R404A, R507A, R134a, R407C

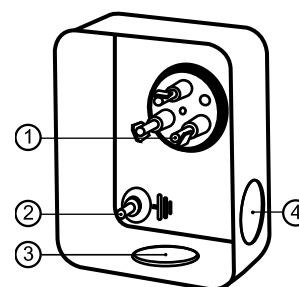
**Dimensions**


D=224 mm

H=333 mm

H1=263 mm

H2=68 mm

**Terminal box**

**Electrical Characteristics**

Nominal voltage	230V/1/50Hz
Voltage range	207-253 V
Winding resistance (main / start) at 25°C	1,8 # / 4,7 #
Run capacitors A + C	20 µF + 10 µF
Start capacitor B	100 µF
Start relay	RVA-6AMKL
Maximum Continuous Current (MCC)	10 A
Locked Rotor Amps (LRA)	40 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

**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, -, -

\*Singlepack: Compressor in cardboard box

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

IP55 (with cable gland)

1: Spade connectors 1/4"

2: Earth M4-12

3: Knock-out Ø 21 mm (0.83")

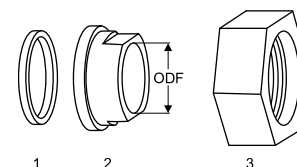
4: Hole Ø 21 mm (0.83")

**Rotolock accessories, suction side**

**Code no.**

Solder sleeve, P06 (1" Rotolock, 1/2" ODF)	8153007
Angle adapter, C06 (1" Rotolock, 1/2" ODF)	8168007
Rotolock valve, V06 (1" Rotolock, 1/2" ODF)	8168031
Gasket, 1"	8156130

**Gaskets, sleeves and nuts**



- 1: Gasket  
2: Solder sleeve  
3: Rotolock nut

**Rotolock accessories, discharge side**

**Code no.**

Solder sleeve, P01 (1" Rotolock, 3/8" ODF)	8153010
Angle adapter, C01 (1" Rotolock, 3/8" ODF)	8168004
Rotolock valve, V01 (1" Rotolock, 3/8" ODF)	8168027
Gasket, 1"	8156130

**Rotolock accessories, sets**

**Code no.**

Angle adapter set, C06 (1"~1/2"), C01 (1"~3/8")	7703011
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

**Oil / lubricants**

**Code no.**

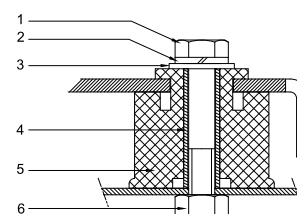
POE lubricant, 160PZ, 1 litre can	7754019
POE lubricant, 160PZ, 2 litre can	7754020

**Crankcase heaters**

**Code no.**

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

**Mounting kit**



- 1: Bolt (3x)  
2: Lock washer (3x)  
3: Flat washer (3x)  
4: Sleeve (3x)  
5: Grommet (3x)  
6: Nut (3x)

**Miscellaneous accessories**

**Code no.**

PSC starting kit, 20 µF, 10 µF	7701026
CSR starting kit, 20 µF, 10 µF, 98 µF	7701022
CSR starting kit, prewired box, 20 µF, 10 µF, 98 µF	7701028
Acoustic hood for 1 cylinder compressor	120Z0471
Oil equalisation nut	8153127

**Spare parts**

**Code no.**

Mounting kit for 1 and 2 cylinder compressor, including 3 grommets, 3 bolts	8156001
Oil sight glass with gaskets (black & white)	8156019
Gasket for oil sight glass (black chloroprene)	8156145
Service kit for terminal box 80 x 96 mm, including 1 cover, 1 clamp	8156134

# Datasheet, performance data

# Maneurop reciprocating compressor. MTZ018-5

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

# R407C

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

### Cooling capacity in W

35	1 387	1 966	2 683	3 560	4 621	5 886	7 377	-	-
40	1 265	1 806	2 464	3 262	4 222	5 366	6 716	-	-
45	1 136	1 648	2 258	2 986	3 856	4 890	6 109	-	-
50	-	1 484	2 055	2 724	3 514	4 447	5 545	-	-
55	-	-	1 845	2 466	3 186	4 029	5 016	-	-
60	-	-	-	2 202	2 863	3 626	4 512	-	-
65	-	-	-	1 922	2 534	3 227	4 023	-	-

### Power input in W

35	794	884	961	1 022	1 066	1 094	1 103	-	-
40	819	924	1 013	1 086	1 143	1 181	1 200	-	-
45	838	958	1 063	1 151	1 220	1 271	1 302	-	-
50	-	985	1 107	1 212	1 297	1 363	1 408	-	-
55	-	-	1 145	1 268	1 371	1 454	1 516	-	-
60	-	-	-	1 317	1 441	1 543	1 623	-	-
65	-	-	-	1 357	1 502	1 626	1 727	-	-

### Current consumption in A

35	4.74	4.93	5.16	5.39	5.60	5.77	5.86	-	-
40	4.83	5.03	5.27	5.51	5.73	5.90	6.00	-	-
45	4.95	5.18	5.44	5.71	5.96	6.16	6.28	-	-
50	-	5.32	5.63	5.95	6.24	6.49	6.66	-	-
55	-	-	5.79	6.18	6.54	6.86	7.09	-	-
60	-	-	-	6.36	6.82	7.22	7.54	-	-
65	-	-	-	6.46	7.02	7.53	7.96	-	-

### Mass flow in kg/h

35	30	42	56	74	94	118	146	-	-
40	29	40	54	71	90	113	139	-	-
45	27	39	52	68	87	108	133	-	-
50	-	37	51	66	83	104	127	-	-
55	-	-	48	63	80	100	122	-	-
60	-	-	-	61	77	96	117	-	-
65	-	-	-	57	74	92	113	-	-

### Coefficient of performance (C.O.P.)

35	1.75	2.22	2.79	3.49	4.33	5.38	6.69	-	-
40	1.54	1.95	2.43	3.00	3.69	4.54	5.60	-	-
45	1.36	1.72	2.12	2.60	3.16	3.85	4.69	-	-
50	-	1.51	1.86	2.25	2.71	3.26	3.94	-	-
55	-	-	1.61	1.94	2.32	2.77	3.31	-	-
60	-	-	-	1.67	1.99	2.35	2.78	-	-
65	-	-	-	1.42	1.69	1.98	2.33	-	-

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

Cooling capacity	3 514	W
Power input	1 297	W
Current consumption	6.24	A
Mass flow	83	kg/h
C.O.P.	2.71	



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	0	dB(A)
With acoustic hood	0	dB(A)

All performance data +/- 5%

**Performance data at 50 Hz, ARI rating conditions**
**R407C**

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

**Cooling capacity in W**

35	1 493	2 113	2 881	3 819	4 950	6 299	7 888	-	-
40	1 370	1 951	2 659	3 516	4 545	5 771	7 215	-	-
45	1 238	1 792	2 451	3 238	4 175	5 288	6 598	-	-
50	-	1 626	2 247	2 974	3 831	4 841	6 028	-	-
55	-	-	2 036	2 715	3 502	4 421	5 495	-	-
60	-	-	-	2 449	3 178	4 017	4 990	-	-
65	-	-	-	2 166	2 849	3 619	4 503	-	-

**Power input in W**

35	794	884	961	1 022	1 066	1 094	1 103	-	-
40	819	924	1 013	1 086	1 143	1 181	1 200	-	-
45	838	958	1 063	1 151	1 220	1 271	1 302	-	-
50	-	985	1 107	1 212	1 297	1 363	1 408	-	-
55	-	-	1 145	1 268	1 371	1 454	1 516	-	-
60	-	-	-	1 317	1 441	1 543	1 623	-	-
65	-	-	-	1 357	1 502	1 626	1 727	-	-

**Current consumption in A**

35	4.74	4.93	5.16	5.39	5.60	5.77	5.86	-	-
40	4.83	5.03	5.27	5.51	5.73	5.90	6.00	-	-
45	4.95	5.18	5.44	5.71	5.96	6.16	6.28	-	-
50	-	5.32	5.63	5.95	6.24	6.49	6.66	-	-
55	-	-	5.79	6.18	6.54	6.86	7.09	-	-
60	-	-	-	6.36	6.82	7.22	7.54	-	-
65	-	-	-	6.46	7.02	7.53	7.96	-	-

**Mass flow in kg/h**

35	30	42	56	73	94	118	146	-	-
40	29	40	54	70	90	112	138	-	-
45	27	39	52	68	86	107	132	-	-
50	-	37	50	65	83	103	127	-	-
55	-	-	48	63	80	99	121	-	-
60	-	-	-	60	77	95	117	-	-
65	-	-	-	57	73	92	112	-	-

**Coefficient of performance (C.O.P.)**

35	1.88	2.39	3.00	3.74	4.64	5.76	7.15	-	-
40	1.67	2.11	2.62	3.24	3.98	4.89	6.01	-	-
45	1.48	1.87	2.31	2.81	3.42	4.16	5.07	-	-
50	-	1.65	2.03	2.45	2.95	3.55	4.28	-	-
55	-	-	1.78	2.14	2.55	3.04	3.62	-	-
60	-	-	-	1.86	2.21	2.60	3.07	-	-
65	-	-	-	1.60	1.90	2.23	2.61	-	-

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

Cooling capacity	3 932	W
Power input	1 401	W
Current consumption	6.65	A
Mass flow	89	kg/h
C.O.P.	2.81	

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

**Pressure switch settings**

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

**Sound power data**

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

All performance data +/- 5%

**Performance data at 50 Hz, EN 12900 rating conditions**
**R134a**

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

**Cooling capacity in W**

35	939	1 345	1 836	2 422	3 113	3 919	4 849	5 915	-
40	809	1 189	1 648	2 196	2 842	3 597	4 470	5 472	-
45	695	1 046	1 469	1 974	2 572	3 272	4 085	5 020	-
50	599	917	1 300	1 760	2 306	2 948	3 695	4 559	-
55	522	803	1 143	1 553	2 044	2 624	3 303	4 092	-
60	-	704	998	1 356	1 787	2 302	2 909	3 620	-
65	-	-	-	1 169	1 537	1 983	2 515	3 144	-
70	-	-	-	-	-	1 669	2 123	2 666	-

**Power input in W**

35	582	643	695	736	763	773	762	728	-
40	601	668	729	780	818	841	845	827	-
45	613	688	758	820	870	907	927	926	-
50	617	701	781	855	919	971	1 008	1 026	-
55	613	706	798	885	964	1 032	1 086	1 124	-
60	-	703	807	908	1 003	1 088	1 162	1 219	-
65	-	-	-	924	1 036	1 140	1 233	1 312	-
70	-	-	-	-	-	1 185	1 299	1 401	-

**Current consumption in A**

35	4.58	4.65	4.73	4.81	4.90	4.99	5.08	5.18	-
40	4.59	4.68	4.77	4.87	4.99	5.10	5.23	5.36	-
45	4.59	4.70	4.81	4.94	5.08	5.23	5.39	5.56	-
50	4.60	4.72	4.86	5.01	5.18	5.36	5.55	5.76	-
55	4.59	4.74	4.90	5.08	5.28	5.49	5.72	5.97	-
60	-	4.75	4.94	5.15	5.38	5.63	5.90	6.19	-
65	-	-	-	5.22	5.48	5.77	6.08	6.42	-
70	-	-	-	-	-	5.91	6.27	6.65	-

**Mass flow in kg/h**

35	23	32	43	55	69	86	104	125	-
40	21	30	40	52	66	82	101	121	-
45	19	27	38	50	63	79	96	116	-
50	17	26	35	47	60	75	92	111	-
55	16	24	33	44	56	71	87	105	-
60	-	22	31	41	53	66	81	99	-
65	-	-	-	38	49	61	76	92	-
70	-	-	-	-	-	56	70	85	-

**Coefficient of performance (C.O.P.)**

35	1.61	2.09	2.64	3.29	4.08	5.07	6.37	8.13	-
40	1.35	1.78	2.26	2.82	3.47	4.28	5.29	6.62	-
45	1.13	1.52	1.94	2.41	2.96	3.61	4.41	5.42	-
50	0.97	1.31	1.66	2.06	2.51	3.04	3.67	4.45	-
55	0.85	1.14	1.43	1.76	2.12	2.54	3.04	3.64	-
60	-	1.00	1.24	1.49	1.78	2.11	2.50	2.97	-
65	-	-	-	1.26	1.48	1.74	2.04	2.40	-
70	-	-	-	-	-	1.41	1.63	1.90	-

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

Cooling capacity	2 306	W
Power input	919	W
Current consumption	5.18	A
Mass flow	60	kg/h
C.O.P.	2.51	

**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 acoustic hood	0	dB(A)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

All performance data +/- 5%

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



**Performance data at 50 Hz, ARI rating conditions**
**R134a**

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

**Cooling capacity in W**

35	1 017	1 455	1 982	2 611	3 351	4 212	5 205	6 340	-
40	881	1 292	1 788	2 378	3 073	3 883	4 819	5 891	-
45	762	1 144	1 603	2 151	2 797	3 551	4 426	5 430	-
50	662	1 009	1 428	1 929	2 522	3 218	4 027	4 959	-
55	581	891	1 265	1 716	2 252	2 884	3 623	4 480	-
60	-	789	1 116	1 511	1 986	2 551	3 216	3 993	-
65	-	-	-	1 316	1 726	2 219	2 807	3 500	-
70	-	-	-	-	-	1 891	2 397	3 001	-

**Power input in W**

35	582	643	695	736	763	773	762	728	-
40	601	668	729	780	818	841	845	827	-
45	613	688	758	820	870	907	927	926	-
50	617	701	781	855	919	971	1 008	1 026	-
55	613	706	798	885	964	1 032	1 086	1 124	-
60	-	703	807	908	1 003	1 088	1 162	1 219	-
65	-	-	-	924	1 036	1 140	1 233	1 312	-
70	-	-	-	-	-	1 185	1 299	1 401	-

**Current consumption in A**

35	4.58	4.65	4.73	4.81	4.90	4.99	5.08	5.18	-
40	4.59	4.68	4.77	4.87	4.99	5.10	5.23	5.36	-
45	4.59	4.70	4.81	4.94	5.08	5.23	5.39	5.56	-
50	4.60	4.72	4.86	5.01	5.18	5.36	5.55	5.76	-
55	4.59	4.74	4.90	5.08	5.28	5.49	5.72	5.97	-
60	-	4.75	4.94	5.15	5.38	5.63	5.90	6.19	-
65	-	-	-	5.22	5.48	5.77	6.08	6.42	-
70	-	-	-	-	-	5.91	6.27	6.65	-

**Mass flow in kg/h**

35	23	32	42	55	69	85	104	124	-
40	21	29	40	52	66	82	100	120	-
45	19	27	38	49	63	78	96	116	-
50	17	25	35	46	59	74	91	110	-
55	16	24	33	44	56	70	86	105	-
60	-	22	31	41	52	66	81	98	-
65	-	-	-	38	49	61	75	91	-
70	-	-	-	-	-	56	69	84	-

**Coefficient of performance (C.O.P.)**

35	1.75	2.26	2.85	3.55	4.39	5.45	6.83	8.71	-
40	1.47	1.93	2.45	3.05	3.76	4.62	5.71	7.12	-
45	1.24	1.66	2.12	2.62	3.21	3.92	4.78	5.86	-
50	1.07	1.44	1.83	2.26	2.74	3.31	4.00	4.84	-
55	0.95	1.26	1.59	1.94	2.34	2.79	3.34	3.99	-
60	-	1.12	1.38	1.66	1.98	2.34	2.77	3.27	-
65	-	-	-	1.42	1.67	1.95	2.28	2.67	-
70	-	-	-	-	-	1.60	1.85	2.14	-

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

Cooling capacity	2 553	W
Power input	989	W
Current consumption	5.35	A
Mass flow	62	kg/h
C.O.P.	2.58	

**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 acoustic hood	0	dB(A)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

All performance data +/- 5%

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

**Performance data at 50 Hz, EN 12900 rating conditions**
**R404A**

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

**Cooling capacity in W**

30	642	996	1 448	2 012	2 700	3 524	4 496	5 630	6 937
35	553	876	1 288	1 801	2 429	3 182	4 074	5 118	6 324
40	468	761	1 133	1 597	2 164	2 847	3 659	4 613	5 720
45	389	652	984	1 397	1 905	2 519	3 251	4 115	5 122
50	313	546	839	1 203	1 651	2 195	2 848	3 623	4 531
55	-	444	698	1 012	1 401	1 877	2 451	3 136	3 945
60	-	345	559	825	1 156	1 562	2 058	2 654	3 365

**Power input in W**

30	702	823	931	1 024	1 102	1 163	1 205	1 228	1 229
35	695	824	942	1 046	1 137	1 212	1 271	1 311	1 331
40	690	826	953	1 068	1 171	1 260	1 334	1 392	1 431
45	687	830	965	1 090	1 205	1 308	1 397	1 471	1 529
50	686	836	979	1 114	1 240	1 355	1 459	1 549	1 625
55	-	844	995	1 139	1 276	1 404	1 522	1 628	1 720
60	-	856	1 014	1 167	1 314	1 454	1 585	1 706	1 816

**Current consumption in A**

30	4.95	5.38	5.76	6.11	6.41	6.67	6.87	7.02	7.11
35	5.07	5.47	5.84	6.17	6.47	6.72	6.94	7.10	7.21
40	5.18	5.57	5.93	6.26	6.56	6.83	7.06	7.25	7.40
45	5.27	5.66	6.02	6.36	6.68	6.97	7.24	7.47	7.66
50	5.33	5.72	6.10	6.46	6.81	7.14	7.44	7.72	7.97
55	-	5.74	6.15	6.54	6.93	7.31	7.66	8.00	8.32
60	-	5.72	6.16	6.60	7.04	7.47	7.89	8.31	8.70

**Mass flow in kg/h**

30	20	31	43	59	77	98	123	151	183
35	19	29	41	56	74	94	118	145	177
40	17	27	39	54	71	91	114	140	170
45	16	25	37	51	68	87	109	135	164
50	14	23	35	48	64	83	104	129	157
55	-	22	32	45	61	79	99	123	150
60	-	19	30	42	57	74	94	117	143

**Coefficient of performance (C.O.P.)**

30	0.91	1.21	1.56	1.96	2.45	3.03	3.73	4.59	5.64
35	0.79	1.06	1.37	1.72	2.14	2.63	3.21	3.90	4.75
40	0.68	0.92	1.19	1.49	1.85	2.26	2.74	3.31	4.00
45	0.57	0.79	1.02	1.28	1.58	1.93	2.33	2.80	3.35
50	0.46	0.65	0.86	1.08	1.33	1.62	1.95	2.34	2.79
55	-	0.53	0.70	0.89	1.10	1.34	1.61	1.93	2.29
60	-	0.40	0.55	0.71	0.88	1.07	1.30	1.56	1.85

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

Cooling capacity	1 905	W
Power input	1 205	W
Current consumption	6.68	A
Mass flow	68	kg/h
C.O.P.	1.58	

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

**Pressure switch settings**

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

**Sound power data**

Sound power level	73	dB(A)
With acoustic hood	65	dB(A)

All performance data +/- 5%



# Datasheet, performance data

# Maneurop reciprocating compressor. MTZ018-5

## Performance data at 50 Hz, ARI rating conditions

# R404A

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

### Cooling capacity in W

30	715	1 105	1 604	2 223	2 975	3 875	4 934	6 166	7 583
35	622	982	1 440	2 009	2 701	3 530	4 509	5 651	6 968
40	534	865	1 283	1 801	2 433	3 192	4 091	5 144	6 362
45	451	752	1 130	1 599	2 171	2 861	3 681	4 644	5 765
50	370	643	983	1 402	1 915	2 536	3 278	4 153	5 177
55	-	538	839	1 210	1 666	2 219	2 883	3 672	4 600
60	-	436	700	1 025	1 423	1 910	2 499	3 204	4 039

### Power input in W

30	702	823	931	1 024	1 102	1 163	1 205	1 228	1 229
35	695	824	942	1 046	1 137	1 212	1 271	1 311	1 331
40	690	826	953	1 068	1 171	1 260	1 334	1 392	1 431
45	687	830	965	1 090	1 205	1 308	1 397	1 471	1 529
50	686	836	979	1 114	1 240	1 355	1 459	1 549	1 625
55	-	844	995	1 139	1 276	1 404	1 522	1 628	1 720
60	-	856	1 014	1 167	1 314	1 454	1 585	1 706	1 816

### Current consumption in A

30	4.95	5.38	5.76	6.11	6.41	6.67	6.87	7.02	7.11
35	5.07	5.47	5.84	6.17	6.47	6.72	6.94	7.10	7.21
40	5.18	5.57	5.93	6.26	6.56	6.83	7.06	7.25	7.40
45	5.27	5.66	6.02	6.36	6.68	6.97	7.24	7.47	7.66
50	5.33	5.72	6.10	6.46	6.81	7.14	7.44	7.72	7.97
55	-	5.74	6.15	6.54	6.93	7.31	7.66	8.00	8.32
60	-	5.72	6.16	6.60	7.04	7.47	7.89	8.31	8.70

### Mass flow in kg/h

30	20	31	43	58	76	97	122	150	181
35	19	29	41	56	73	94	117	145	175
40	17	27	39	53	70	90	113	139	169
45	16	25	37	51	67	86	108	134	163
50	14	23	35	48	64	82	104	128	156
55	-	21	32	45	60	78	99	122	149
60	-	19	30	42	57	74	94	116	142

### Coefficient of performance (C.O.P.)

30	1.02	1.34	1.72	2.17	2.70	3.33	4.09	5.02	6.17
35	0.89	1.19	1.53	1.92	2.38	2.91	3.55	4.31	5.23
40	0.77	1.05	1.35	1.69	2.08	2.53	3.07	3.70	4.45
45	0.66	0.91	1.17	1.47	1.80	2.19	2.64	3.16	3.77
50	0.54	0.77	1.00	1.26	1.54	1.87	2.25	2.68	3.19
55	-	0.64	0.84	1.06	1.31	1.58	1.89	2.26	2.67
60	-	0.51	0.69	0.88	1.08	1.31	1.58	1.88	2.22

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

Cooling capacity	2 171	W
Power input	1 205	W
Current consumption	6.68	A
Mass flow	67	kg/h
C.O.P.	1.80	

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

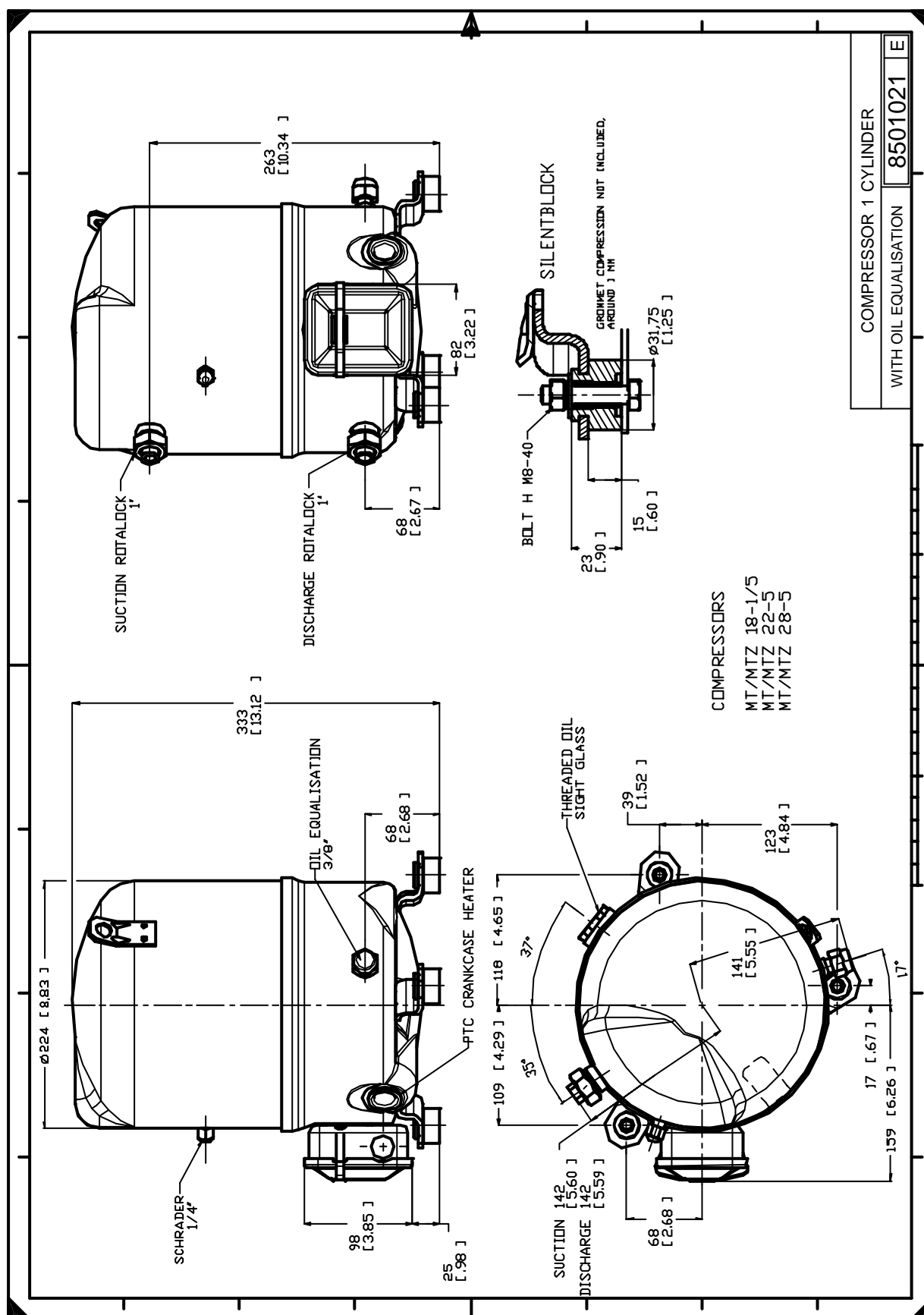
### Pressure switch settings

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

### Sound power data

Sound power level	73	dB(A)
With acoustic hood	65	dB(A)

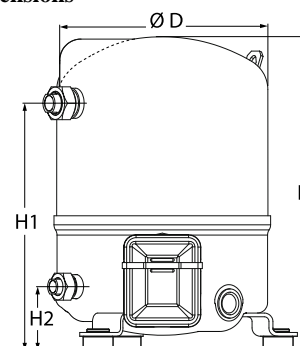
All performance data +/- 5%



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

**General Characteristics**

Model number (on compressor nameplate)		<b>MTZ18JA5A</b>
Code number for Industrial pack**		MTZ18-5M
Drawing number		8501028f
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		None
Oil equalisation connection		None
Oil drain connection		None
LP gauge port		Schrader
IPR valve		30 bar / 8 bar
Cylinders		1
Swept volume		30,23 cm <sup>3</sup> /rev
Displacement @ Nominal speed		5.3 m <sup>3</sup> /h @ 2900 rpm
Net weight		21 kg
Oil charge		0,95 litre, POE - 160PZ
Maximum system test pressure Low Side / High side		25 bar(g) / 30 bar(g)
Maximum differential test pressure		30 bar
Maximum number of starts per hour		12
Refrigerant charge limit		2,5 kg
Approved refrigerants		R404A, R507A, R134a, R407C

**Dimensions**


D=224 mm

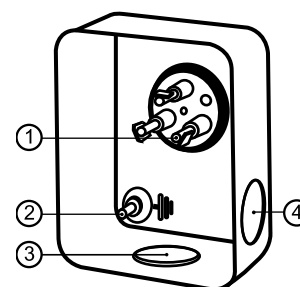
H=333 mm

H1=263 mm

H2=68 mm

**Electrical Characteristics**

Nominal voltage	230V/1/50Hz
Voltage range	207-253 V
Winding resistance (main / start) at 25°C	1,8 # / 4,7 #
Run capacitors A + C	20 µF + 10 µF
Start capacitor B	100 µF
Start relay	RVA-6AMKL
Maximum Continuous Current (MCC)	10 A
Locked Rotor Amps (LRA)	40 A
Motor protection	Internal overload protector

**Terminal box**

**Recommended Installation torques**

Oil sight glass	0 Nm
Power connections / Earth connection	Nm / 2 Nm
Mounting bolts	15 Nm

**Parts shipped with compressor**

Mounting kit with grommets, bolts, nuts, sleeves and washers
Initial oil charge
Installation instructions

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")

**Approvals** : CE certified, -, -

\*Singlepack: Compressor in cardboard box

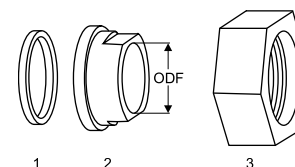
\*\*Industrial pack: 12 Unboxed compressors on pallet (order per multiples of 12)

**Rotolock accessories, suction side**

**Code no.**

Solder sleeve, P06 (1" Rotolock, 1/2" ODF)	8153007
Angle adapter, C06 (1" Rotolock, 1/2" ODF)	8168007
Rotolock valve, V06 (1" Rotolock, 1/2" ODF)	8168031
Gasket, 1"	8156130

**Gaskets, sleeves and nuts**



- 1: Gasket  
2: Solder sleeve  
3: Rotolock nut

**Rotolock accessories, discharge side**

**Code no.**

Solder sleeve, P01 (1" Rotolock, 3/8" ODF)	8153010
Angle adapter, C01 (1" Rotolock, 3/8" ODF)	8168004
Rotolock valve, V01 (1" Rotolock, 3/8" ODF)	8168027
Gasket, 1"	8156130

**Rotolock accessories, sets**

**Code no.**

Angle adapter set, C06 (1"~1/2"), C01 (1"~3/8")	7703011
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

**Oil / lubricants**

**Code no.**

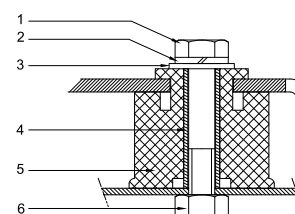
POE lubricant, 160PZ, 1 litre can	7754019
POE lubricant, 160PZ, 2 litre can	7754020

**Crankcase heaters**

**Code no.**

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

**Mounting kit**



- 1: Bolt (3x)  
2: Lock washer (3x)  
3: Flat washer (3x)  
4: Sleeve (3x)  
5: Grommet (3x)  
6: Nut (3x)

**Miscellaneous accessories**

**Code no.**

PSC starting kit, 20 µF, 10 µF	7701026
CSR starting kit, 20 µF, 10 µF, 98 µF	7701022
CSR starting kit, prewired box, 20 µF, 10 µF, 98 µF	7701028
Acoustic hood for 1 cylinder compressor	120Z0471

**Spare parts**

**Code no.**

Mounting kit for 1 and 2 cylinder compressor, including 3 grommets, 3 bolts	8156001
Service kit for terminal box 80 x 96 mm, including 1 cover, 1 clamp	8156134

# Datasheet, performance data

# Maneurop reciprocating compressor. MTZ018-5

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

# R407C

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

### Cooling capacity in W

35	1 387	1 966	2 683	3 560	4 621	5 886	7 377	-	-
40	1 265	1 806	2 464	3 262	4 222	5 366	6 716	-	-
45	1 136	1 648	2 258	2 986	3 856	4 890	6 109	-	-
50	-	1 484	2 055	2 724	3 514	4 447	5 545	-	-
55	-	-	1 845	2 466	3 186	4 029	5 016	-	-
60	-	-	-	2 202	2 863	3 626	4 512	-	-
65	-	-	-	1 922	2 534	3 227	4 023	-	-

### Power input in W

35	794	884	961	1 022	1 066	1 094	1 103	-	-
40	819	924	1 013	1 086	1 143	1 181	1 200	-	-
45	838	958	1 063	1 151	1 220	1 271	1 302	-	-
50	-	985	1 107	1 212	1 297	1 363	1 408	-	-
55	-	-	1 145	1 268	1 371	1 454	1 516	-	-
60	-	-	-	1 317	1 441	1 543	1 623	-	-
65	-	-	-	1 357	1 502	1 626	1 727	-	-

### Current consumption in A

35	4.74	4.93	5.16	5.39	5.60	5.77	5.86	-	-
40	4.83	5.03	5.27	5.51	5.73	5.90	6.00	-	-
45	4.95	5.18	5.44	5.71	5.96	6.16	6.28	-	-
50	-	5.32	5.63	5.95	6.24	6.49	6.66	-	-
55	-	-	5.79	6.18	6.54	6.86	7.09	-	-
60	-	-	-	6.36	6.82	7.22	7.54	-	-
65	-	-	-	6.46	7.02	7.53	7.96	-	-

### Mass flow in kg/h

35	30	42	56	74	94	118	146	-	-
40	29	40	54	71	90	113	139	-	-
45	27	39	52	68	87	108	133	-	-
50	-	37	51	66	83	104	127	-	-
55	-	-	48	63	80	100	122	-	-
60	-	-	-	61	77	96	117	-	-
65	-	-	-	57	74	92	113	-	-

### Coefficient of performance (C.O.P.)

35	1.75	2.22	2.79	3.49	4.33	5.38	6.69	-	-
40	1.54	1.95	2.43	3.00	3.69	4.54	5.60	-	-
45	1.36	1.72	2.12	2.60	3.16	3.85	4.69	-	-
50	-	1.51	1.86	2.25	2.71	3.26	3.94	-	-
55	-	-	1.61	1.94	2.32	2.77	3.31	-	-
60	-	-	-	1.67	1.99	2.35	2.78	-	-
65	-	-	-	1.42	1.69	1.98	2.33	-	-

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

Cooling capacity	3 514	W
Power input	1 297	W
Current consumption	6.24	A
Mass flow	83	kg/h
C.O.P.	2.71	



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	0	dB(A)
With acoustic hood	0	dB(A)

All performance data +/- 5%

**Performance data at 50 Hz, ARI rating conditions**
**R407C**

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

**Cooling capacity in W**

35	1 493	2 113	2 881	3 819	4 950	6 299	7 888	-	-
40	1 370	1 951	2 659	3 516	4 545	5 771	7 215	-	-
45	1 238	1 792	2 451	3 238	4 175	5 288	6 598	-	-
50	-	1 626	2 247	2 974	3 831	4 841	6 028	-	-
55	-	-	2 036	2 715	3 502	4 421	5 495	-	-
60	-	-	-	2 449	3 178	4 017	4 990	-	-
65	-	-	-	2 166	2 849	3 619	4 503	-	-

**Power input in W**

35	794	884	961	1 022	1 066	1 094	1 103	-	-
40	819	924	1 013	1 086	1 143	1 181	1 200	-	-
45	838	958	1 063	1 151	1 220	1 271	1 302	-	-
50	-	985	1 107	1 212	1 297	1 363	1 408	-	-
55	-	-	1 145	1 268	1 371	1 454	1 516	-	-
60	-	-	-	1 317	1 441	1 543	1 623	-	-
65	-	-	-	1 357	1 502	1 626	1 727	-	-

**Current consumption in A**

35	4.74	4.93	5.16	5.39	5.60	5.77	5.86	-	-
40	4.83	5.03	5.27	5.51	5.73	5.90	6.00	-	-
45	4.95	5.18	5.44	5.71	5.96	6.16	6.28	-	-
50	-	5.32	5.63	5.95	6.24	6.49	6.66	-	-
55	-	-	5.79	6.18	6.54	6.86	7.09	-	-
60	-	-	-	6.36	6.82	7.22	7.54	-	-
65	-	-	-	6.46	7.02	7.53	7.96	-	-

**Mass flow in kg/h**

35	30	42	56	73	94	118	146	-	-
40	29	40	54	70	90	112	138	-	-
45	27	39	52	68	86	107	132	-	-
50	-	37	50	65	83	103	127	-	-
55	-	-	48	63	80	99	121	-	-
60	-	-	-	60	77	95	117	-	-
65	-	-	-	57	73	92	112	-	-

**Coefficient of performance (C.O.P.)**

35	1.88	2.39	3.00	3.74	4.64	5.76	7.15	-	-
40	1.67	2.11	2.62	3.24	3.98	4.89	6.01	-	-
45	1.48	1.87	2.31	2.81	3.42	4.16	5.07	-	-
50	-	1.65	2.03	2.45	2.95	3.55	4.28	-	-
55	-	-	1.78	2.14	2.55	3.04	3.62	-	-
60	-	-	-	1.86	2.21	2.60	3.07	-	-
65	-	-	-	1.60	1.90	2.23	2.61	-	-

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

Cooling capacity	3 932	W
Power input	1 401	W
Current consumption	6.65	A
Mass flow	89	kg/h
C.O.P.	2.81	

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

**Pressure switch settings**

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

**Sound power data**

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

All performance data +/- 5%

**Performance data at 50 Hz, EN 12900 rating conditions**
**R134a**

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

**Cooling capacity in W**

35	939	1 345	1 836	2 422	3 113	3 919	4 849	5 915	-
40	809	1 189	1 648	2 196	2 842	3 597	4 470	5 472	-
45	695	1 046	1 469	1 974	2 572	3 272	4 085	5 020	-
50	599	917	1 300	1 760	2 306	2 948	3 695	4 559	-
55	522	803	1 143	1 553	2 044	2 624	3 303	4 092	-
60	-	704	998	1 356	1 787	2 302	2 909	3 620	-
65	-	-	-	1 169	1 537	1 983	2 515	3 144	-
70	-	-	-	-	-	1 669	2 123	2 666	-

**Power input in W**

35	582	643	695	736	763	773	762	728	-
40	601	668	729	780	818	841	845	827	-
45	613	688	758	820	870	907	927	926	-
50	617	701	781	855	919	971	1 008	1 026	-
55	613	706	798	885	964	1 032	1 086	1 124	-
60	-	703	807	908	1 003	1 088	1 162	1 219	-
65	-	-	-	924	1 036	1 140	1 233	1 312	-
70	-	-	-	-	-	1 185	1 299	1 401	-

**Current consumption in A**

35	4.58	4.65	4.73	4.81	4.90	4.99	5.08	5.18	-
40	4.59	4.68	4.77	4.87	4.99	5.10	5.23	5.36	-
45	4.59	4.70	4.81	4.94	5.08	5.23	5.39	5.56	-
50	4.60	4.72	4.86	5.01	5.18	5.36	5.55	5.76	-
55	4.59	4.74	4.90	5.08	5.28	5.49	5.72	5.97	-
60	-	4.75	4.94	5.15	5.38	5.63	5.90	6.19	-
65	-	-	-	5.22	5.48	5.77	6.08	6.42	-
70	-	-	-	-	-	5.91	6.27	6.65	-

**Mass flow in kg/h**

35	23	32	43	55	69	86	104	125	-
40	21	30	40	52	66	82	101	121	-
45	19	27	38	50	63	79	96	116	-
50	17	26	35	47	60	75	92	111	-
55	16	24	33	44	56	71	87	105	-
60	-	22	31	41	53	66	81	99	-
65	-	-	-	38	49	61	76	92	-
70	-	-	-	-	-	56	70	85	-

**Coefficient of performance (C.O.P.)**

35	1.61	2.09	2.64	3.29	4.08	5.07	6.37	8.13	-
40	1.35	1.78	2.26	2.82	3.47	4.28	5.29	6.62	-
45	1.13	1.52	1.94	2.41	2.96	3.61	4.41	5.42	-
50	0.97	1.31	1.66	2.06	2.51	3.04	3.67	4.45	-
55	0.85	1.14	1.43	1.76	2.12	2.54	3.04	3.64	-
60	-	1.00	1.24	1.49	1.78	2.11	2.50	2.97	-
65	-	-	-	1.26	1.48	1.74	2.04	2.40	-
70	-	-	-	-	-	1.41	1.63	1.90	-

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

Cooling capacity	2 306	W
Power input	919	W
Current consumption	5.18	A
Mass flow	60	kg/h
C.O.P.	2.51	

**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 acoustic hood	0	dB(A)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

All performance data +/- 5%

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



**Performance data at 50 Hz, ARI rating conditions**
**R134a**

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

**Cooling capacity in W**

35	1 017	1 455	1 982	2 611	3 351	4 212	5 205	6 340	-
40	881	1 292	1 788	2 378	3 073	3 883	4 819	5 891	-
45	762	1 144	1 603	2 151	2 797	3 551	4 426	5 430	-
50	662	1 009	1 428	1 929	2 522	3 218	4 027	4 959	-
55	581	891	1 265	1 716	2 252	2 884	3 623	4 480	-
60	-	789	1 116	1 511	1 986	2 551	3 216	3 993	-
65	-	-	-	1 316	1 726	2 219	2 807	3 500	-
70	-	-	-	-	-	1 891	2 397	3 001	-

**Power input in W**

35	582	643	695	736	763	773	762	728	-
40	601	668	729	780	818	841	845	827	-
45	613	688	758	820	870	907	927	926	-
50	617	701	781	855	919	971	1 008	1 026	-
55	613	706	798	885	964	1 032	1 086	1 124	-
60	-	703	807	908	1 003	1 088	1 162	1 219	-
65	-	-	-	924	1 036	1 140	1 233	1 312	-
70	-	-	-	-	-	1 185	1 299	1 401	-

**Current consumption in A**

35	4.58	4.65	4.73	4.81	4.90	4.99	5.08	5.18	-
40	4.59	4.68	4.77	4.87	4.99	5.10	5.23	5.36	-
45	4.59	4.70	4.81	4.94	5.08	5.23	5.39	5.56	-
50	4.60	4.72	4.86	5.01	5.18	5.36	5.55	5.76	-
55	4.59	4.74	4.90	5.08	5.28	5.49	5.72	5.97	-
60	-	4.75	4.94	5.15	5.38	5.63	5.90	6.19	-
65	-	-	-	5.22	5.48	5.77	6.08	6.42	-
70	-	-	-	-	-	5.91	6.27	6.65	-

**Mass flow in kg/h**

35	23	32	42	55	69	85	104	124	-
40	21	29	40	52	66	82	100	120	-
45	19	27	38	49	63	78	96	116	-
50	17	25	35	46	59	74	91	110	-
55	16	24	33	44	56	70	86	105	-
60	-	22	31	41	52	66	81	98	-
65	-	-	-	38	49	61	75	91	-
70	-	-	-	-	-	56	69	84	-

**Coefficient of performance (C.O.P.)**

35	1.75	2.26	2.85	3.55	4.39	5.45	6.83	8.71	-
40	1.47	1.93	2.45	3.05	3.76	4.62	5.71	7.12	-
45	1.24	1.66	2.12	2.62	3.21	3.92	4.78	5.86	-
50	1.07	1.44	1.83	2.26	2.74	3.31	4.00	4.84	-
55	0.95	1.26	1.59	1.94	2.34	2.79	3.34	3.99	-
60	-	1.12	1.38	1.66	1.98	2.34	2.77	3.27	-
65	-	-	-	1.42	1.67	1.95	2.28	2.67	-
70	-	-	-	-	-	1.60	1.85	2.14	-

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

Cooling capacity	2 553	W
Power input	989	W
Current consumption	5.35	A
Mass flow	62	kg/h
C.O.P.	2.58	

**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 acoustic hood	0	dB(A)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

All performance data +/- 5%

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

**Performance data at 50 Hz, EN 12900 rating conditions**
**R404A**

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

**Cooling capacity in W**

30	642	996	1 448	2 012	2 700	3 524	4 496	5 630	6 937
35	553	876	1 288	1 801	2 429	3 182	4 074	5 118	6 324
40	468	761	1 133	1 597	2 164	2 847	3 659	4 613	5 720
45	389	652	984	1 397	1 905	2 519	3 251	4 115	5 122
50	313	546	839	1 203	1 651	2 195	2 848	3 623	4 531
55	-	444	698	1 012	1 401	1 877	2 451	3 136	3 945
60	-	345	559	825	1 156	1 562	2 058	2 654	3 365

**Power input in W**

30	702	823	931	1 024	1 102	1 163	1 205	1 228	1 229
35	695	824	942	1 046	1 137	1 212	1 271	1 311	1 331
40	690	826	953	1 068	1 171	1 260	1 334	1 392	1 431
45	687	830	965	1 090	1 205	1 308	1 397	1 471	1 529
50	686	836	979	1 114	1 240	1 355	1 459	1 549	1 625
55	-	844	995	1 139	1 276	1 404	1 522	1 628	1 720
60	-	856	1 014	1 167	1 314	1 454	1 585	1 706	1 816

**Current consumption in A**

30	4.95	5.38	5.76	6.11	6.41	6.67	6.87	7.02	7.11
35	5.07	5.47	5.84	6.17	6.47	6.72	6.94	7.10	7.21
40	5.18	5.57	5.93	6.26	6.56	6.83	7.06	7.25	7.40
45	5.27	5.66	6.02	6.36	6.68	6.97	7.24	7.47	7.66
50	5.33	5.72	6.10	6.46	6.81	7.14	7.44	7.72	7.97
55	-	5.74	6.15	6.54	6.93	7.31	7.66	8.00	8.32
60	-	5.72	6.16	6.60	7.04	7.47	7.89	8.31	8.70

**Mass flow in kg/h**

30	20	31	43	59	77	98	123	151	183
35	19	29	41	56	74	94	118	145	177
40	17	27	39	54	71	91	114	140	170
45	16	25	37	51	68	87	109	135	164
50	14	23	35	48	64	83	104	129	157
55	-	22	32	45	61	79	99	123	150
60	-	19	30	42	57	74	94	117	143

**Coefficient of performance (C.O.P.)**

30	0.91	1.21	1.56	1.96	2.45	3.03	3.73	4.59	5.64
35	0.79	1.06	1.37	1.72	2.14	2.63	3.21	3.90	4.75
40	0.68	0.92	1.19	1.49	1.85	2.26	2.74	3.31	4.00
45	0.57	0.79	1.02	1.28	1.58	1.93	2.33	2.80	3.35
50	0.46	0.65	0.86	1.08	1.33	1.62	1.95	2.34	2.79
55	-	0.53	0.70	0.89	1.10	1.34	1.61	1.93	2.29
60	-	0.40	0.55	0.71	0.88	1.07	1.30	1.56	1.85

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

Cooling capacity	1 905	W
Power input	1 205	W
Current consumption	6.68	A
Mass flow	68	kg/h
C.O.P.	1.58	

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

**Pressure switch settings**

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

**Sound power data**

Sound power level	73	dB(A)
With acoustic hood	65	dB(A)

All performance data +/- 5%

## Datasheet, performance data

## Maneurop reciprocating compressor. MTZ018-5

### Performance data at 50 Hz, ARI rating conditions

## R404A

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

#### Cooling capacity in W

30	715	1 105	1 604	2 223	2 975	3 875	4 934	6 166	7 583
35	622	982	1 440	2 009	2 701	3 530	4 509	5 651	6 968
40	534	865	1 283	1 801	2 433	3 192	4 091	5 144	6 362
45	451	752	1 130	1 599	2 171	2 861	3 681	4 644	5 765
50	370	643	983	1 402	1 915	2 536	3 278	4 153	5 177
55	-	538	839	1 210	1 666	2 219	2 883	3 672	4 600
60	-	436	700	1 025	1 423	1 910	2 499	3 204	4 039

#### Power input in W

30	702	823	931	1 024	1 102	1 163	1 205	1 228	1 229
35	695	824	942	1 046	1 137	1 212	1 271	1 311	1 331
40	690	826	953	1 068	1 171	1 260	1 334	1 392	1 431
45	687	830	965	1 090	1 205	1 308	1 397	1 471	1 529
50	686	836	979	1 114	1 240	1 355	1 459	1 549	1 625
55	-	844	995	1 139	1 276	1 404	1 522	1 628	1 720
60	-	856	1 014	1 167	1 314	1 454	1 585	1 706	1 816

#### Current consumption in A

30	4.95	5.38	5.76	6.11	6.41	6.67	6.87	7.02	7.11
35	5.07	5.47	5.84	6.17	6.47	6.72	6.94	7.10	7.21
40	5.18	5.57	5.93	6.26	6.56	6.83	7.06	7.25	7.40
45	5.27	5.66	6.02	6.36	6.68	6.97	7.24	7.47	7.66
50	5.33	5.72	6.10	6.46	6.81	7.14	7.44	7.72	7.97
55	-	5.74	6.15	6.54	6.93	7.31	7.66	8.00	8.32
60	-	5.72	6.16	6.60	7.04	7.47	7.89	8.31	8.70

#### Mass flow in kg/h

30	20	31	43	58	76	97	122	150	181
35	19	29	41	56	73	94	117	145	175
40	17	27	39	53	70	90	113	139	169
45	16	25	37	51	67	86	108	134	163
50	14	23	35	48	64	82	104	128	156
55	-	21	32	45	60	78	99	122	149
60	-	19	30	42	57	74	94	116	142

#### Coefficient of performance (C.O.P.)

30	1.02	1.34	1.72	2.17	2.70	3.33	4.09	5.02	6.17
35	0.89	1.19	1.53	1.92	2.38	2.91	3.55	4.31	5.23
40	0.77	1.05	1.35	1.69	2.08	2.53	3.07	3.70	4.45
45	0.66	0.91	1.17	1.47	1.80	2.19	2.64	3.16	3.77
50	0.54	0.77	1.00	1.26	1.54	1.87	2.25	2.68	3.19
55	-	0.64	0.84	1.06	1.31	1.58	1.89	2.26	2.67
60	-	0.51	0.69	0.88	1.08	1.31	1.58	1.88	2.22

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

Cooling capacity	2 171	W
Power input	1 205	W
Current consumption	6.68	A
Mass flow	67	kg/h
C.O.P.	1.80	

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

#### Pressure switch settings

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

#### Sound power data

Sound power level	73	dB(A)
With acoustic hood	65	dB(A)

All performance data +/- 5%