



Type: Hermetic piston compressors
Producer: Maneurop
Series: MT

Model: MT100

Technical data

Cylinder count:	4
Displacement [m³/h]:	29,8
Cylinder capacity [cm³]:	171,3
RPM [min⁻¹]:	2900
Weight [kg]:	60
Oil charge [dm³]:	4
Oil type:	160P
Crankcase heater type:	PTC 35 W
Maximum system test pressure low side / high side:	25 / 30
Maximum number of starts without softstart [1/h]:	12
Refrigerant charge limit [dm³]:	10
Refrigerant:	R22
Sound power [dB]:	85
Sound power with accoustic hood [dB]:	79

Connections

	<u>milimeters</u>	<u>inches</u>
Suction Rotolock valve connection:		1 3/4"
Discharge Rotolock valve connection:		1 1/4"
Suction connection with supplied sleeve:		1 1/8"
Discharge connection with supplied sleeve:		3/4"

Approvals

CCC	+
CE	+
UL	+

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**R22****Cooling capacity [W]**

$t_c \setminus t_e$	-25	-20	-15	-10	-5	0	5	10	15
30	7 304	9 688	12 575	16 034	20 131	24 933	30 510	36 927	44 253
35	6 278	8 578	11 354	14 674	18 606	23 218	28 575	34 747	41 801
40	5 361	7 558	10 206	13 370	17 120	21 522	26 643	32 552	39 316
45	4 572	6 650	9 150	12 142	15 691	19 865	24 733	30 361	36 818
50	-	5 871	8 208	11 008	14 339	18 269	22 865	28 195	34 326
55	-	-	7 397	9 989	13 084	16 752	21 059	26 073	31 861
60	-	-	-	9 104	11 947	15 334	19 334	24 014	29 441
65	-	-	-	-	10 946	14 035	17 711	22 039	27 088

Power input [W]

$t_c \setminus t_e$	-25	-20	-15	-10	-5	0	5	10	15
30	3 902	4 394	4 840	5 218	5 503	5 674	5 705	5 575	5 259
35	3 973	4 494	4 980	5 407	5 750	5 988	6 097	6 053	5 833
40	4 026	4 584	5 116	5 597	6 006	6 318	6 510	6 559	6 442
45	4 061	4 662	5 246	5 789	6 269	6 662	6 944	7 093	7 084
50	-	4 727	5 370	5 982	6 539	7 019	7 398	7 652	7 759
55	-	-	5 488	6 174	6 816	7 389	7 871	8 238	8 466
60	-	-	-	6 366	7 098	7 771	8 362	8 848	9 205
65	-	-	-	-	7 385	8 164	8 871	9 482	9 974

Current [A]

$t_c \setminus t_e$	-25	-20	-15	-10	-5	0	5	10	15
30	9.91	10.35	10.79	11.19	11.51	11.71	11.74	11.58	11.18
35	9.99	10.45	10.93	11.39	11.78	12.06	12.19	12.14	11.86
40	10.04	10.54	11.08	11.60	12.07	12.44	12.69	12.76	12.62
45	10.06	10.62	11.22	11.82	12.38	12.86	13.22	13.43	13.44
50	-	10.68	11.36	12.05	12.71	13.31	13.81	14.16	14.33
55	-	-	11.50	12.29	13.07	13.80	14.44	14.95	15.29
60	-	-	-	12.53	13.44	14.31	15.11	15.79	16.31
65	-	-	-	-	13.83	14.86	15.82	16.68	17.40

Mass flow [kg/s]

$t_c \setminus t_e$	-25	-20	-15	-10	-5	0	5	10	15
30	148.97	195.82	251.00	315.72	391.16	478.49	578.91	693.60	823.75
35	132.58	179.52	234.74	299.42	374.74	461.90	562.06	676.43	806.18
40	117.55	164.08	218.82	282.94	357.64	444.10	543.50	657.02	785.87
45	104.54	150.16	203.90	266.95	340.51	425.76	523.88	636.05	763.47
50	-	138.41	190.64	252.12	324.02	407.55	503.87	614.18	739.66
55	-	-	179.72	239.10	308.84	390.12	484.13	592.06	715.09
60	-	-	-	228.56	295.62	374.15	465.34	570.38	690.44
65	-	-	-	-	285.03	360.30	448.15	549.78	666.36

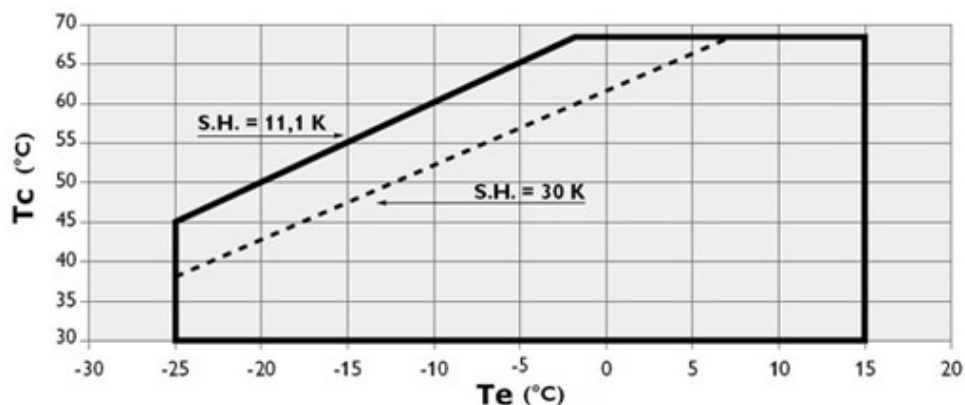
C.O.P. [W/W]

$t_c \setminus t_e$	-25	-20	-15	-10	-5	0	5	10	15
30	1.87	2.21	2.60	3.07	3.66	4.39	5.35	6.62	8.41
35	1.58	1.91	2.28	2.71	3.24	3.88	4.69	5.74	7.17
40	1.33	1.65	2.00	2.39	2.85	3.41	4.09	4.96	6.10
45	1.13	1.43	1.74	2.10	2.50	2.98	3.56	4.28	5.20
50	-	1.24	1.53	1.84	2.19	2.60	3.09	3.68	4.42
55	-	-	1.35	1.62	1.92	2.27	2.68	3.17	3.76
60	-	-	-	1.43	1.68	1.97	2.31	2.71	3.20
65	-	-	-	-	1.48	1.72	2.00	2.32	2.72

Operating conditions: suction superheat: 11.1 K, subcooling: 8.3 K

t_c - Condensing temperature [°C]

t_e - Evaporating temperature [°C]

Application range

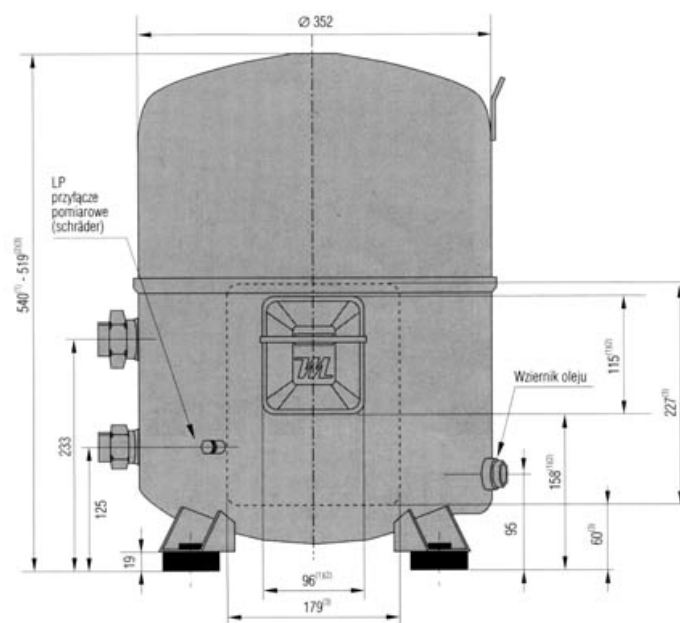
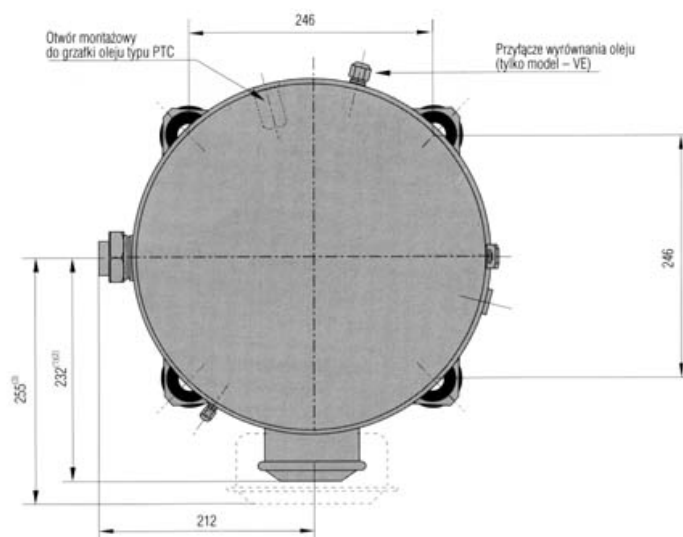
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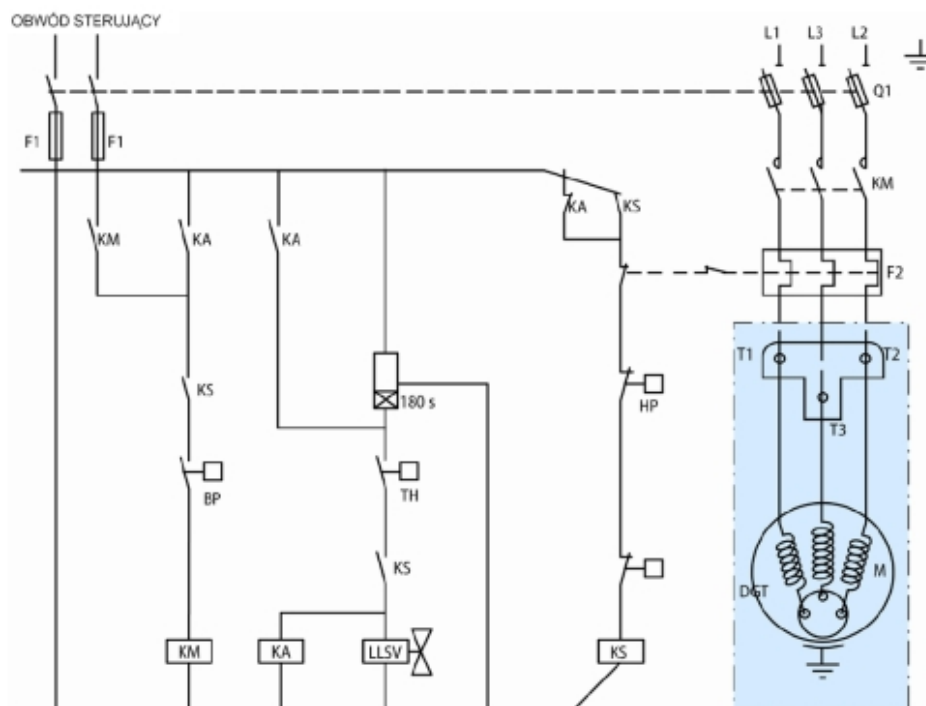


Three-phase power supply

Electrical data

Motor voltage code:	3	4	6	7	9
Starting current [A]:	157	90	126	62	110
Maximum Continuous	43	22	126	17	26
Current (MCC) [A]:					
Winding resistance	0,5	1,57	0,67	3,1	1,26
(between phases) [Ω]:					

Connection diagram for systems without refrigerant suction



TH: Thermostat

180 s: Optional short cycle timer (3min) 5 pts

KA: Control relay

LLSV: Liquid Solenoid valve

KM: Compressor contactor

KS: Safety lock out relay

BP: Low pressure switch

HP: High pressure switch

Q1: Fused disconnect

F1: Fuses

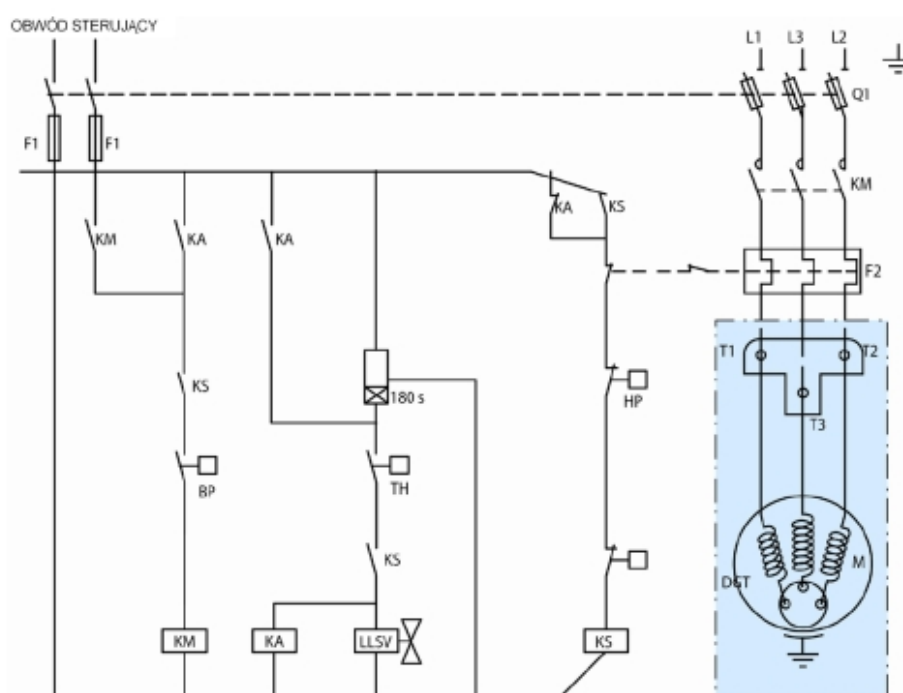
F2: External overload protection

M: Compressor's engine

thM: Motor safety thermostat

DGT: Discharge gas thermostat

Connection diagram for systems with refrigerant suction



TH: Thermostat

180 s: Optional short cycle timer (3min) 5 pts

KA: Control relay

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Equipment

- ▶ crankcase heater - PTC 35 W
- ▶ belt type heater - crankcase heater 75W, 230V
- ▶ Rotolock valves
 - suction: Rotolock valve connection 1 3/4", connection with supplied sleeve 1 1/8"
 - discharge: Rotolock valve connection 1 1/4", connection with supplied sleeve 3/4"
- ▶ soft-start kit - electronic softstart MCI 25C
- ▶ accoustic hood - acoustic shield of Danfoss catalogue number 7755003