

Type: Hermetic piston compressors**Producer: Maneurop****Series: MT**

Model: MT64

Technical data

Cylinder count:	2
Displacement [m ³ /h]:	18,74
Cylinder capacity [cm ³]:	107,7
RPM [min ⁻¹]:	2900
Weight [kg]:	37
Oil charge [dm ³]:	2
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 [dm ³]:	5
Refrigerant:	R22
Sound power [dB]:	80
Sound power with accoustic hood [dB]:	74

Connections

	<u>millimeters</u>	<u>inches</u>
Suction Rotolock valve connection:		1 3/4"
Discharge Rotolock valve connection:		1 1/4"
Suction connection with supplied sleeve:		7/8"
Discharge connection with supplied sleeve:		3/4"

Approvals

CCC	+
CE	+
UL	+

R22

Cooling capacity [W]

$t_c \setminus t_e$	-25	-20	-15	-10	-5	0	5	10	15
30	4 403	6 010	7 937	10 226	12 917	16 049	19 664	23 803	28 505
35	3 912	5 467	7 325	9 528	12 116	15 129	18 608	22 594	27 127
40	3 471	4 962	6 740	8 846	11 320	14 203	17 535	21 356	25 709
45	3 089	4 505	6 192	8 189	10 538	13 280	16 453	20 100	24 261
50	-	4 104	5 688	7 566	9 780	12 368	15 373	18 834	22 792
55	-	-	5 238	6 987	9 053	11 478	14 303	17 567	21 311
60	-	-	-	6 458	8 367	10 618	13 251	16 307	19 827
65	-	-	-	-	7 731	9 795	12 226	15 063	18 348

Power input [W]

$t_c \setminus t_e$	-25	-20	-15	-10	-5	0	5	10	15
30	2 181	2 563	2 924	3 248	3 522	3 730	3 858	3 890	3 812
35	2 340	2 741	3 125	3 480	3 789	4 038	4 213	4 298	4 278
40	2 471	2 894	3 306	3 695	4 043	4 338	4 563	4 705	4 748
45	2 570	3 019	3 464	3 889	4 281	4 625	4 905	5 108	5 217
50	-	3 112	3 592	4 059	4 499	4 896	5 235	5 502	5 682
55	-	-	3 688	4 201	4 692	5 146	5 548	5 883	6 138
60	-	-	-	4 310	4 856	5 371	5 840	6 248	6 581
65	-	-	-	-	4 987	5 567	6 106	6 591	7 006

Current [A]

$t_c \setminus t_e$	-25	-20	-15	-10	-5	0	5	10	15
30	5.29	5.62	5.97	6.32	6.63	6.88	7.03	7.07	6.94
35	5.44	5.79	6.18	6.57	6.94	7.25	7.48	7.60	7.57
40	5.56	5.95	6.37	6.82	7.25	7.63	7.94	8.15	8.22
45	5.65	6.08	6.55	7.06	7.56	8.02	8.42	8.72	8.90
50	-	6.17	6.71	7.28	7.85	8.40	8.89	9.30	9.59
55	-	-	6.83	7.47	8.12	8.76	9.36	9.88	10.29
60	-	-	-	7.62	8.36	9.10	9.81	10.44	10.99
65	-	-	-	-	8.57	9.41	10.23	10.99	11.67

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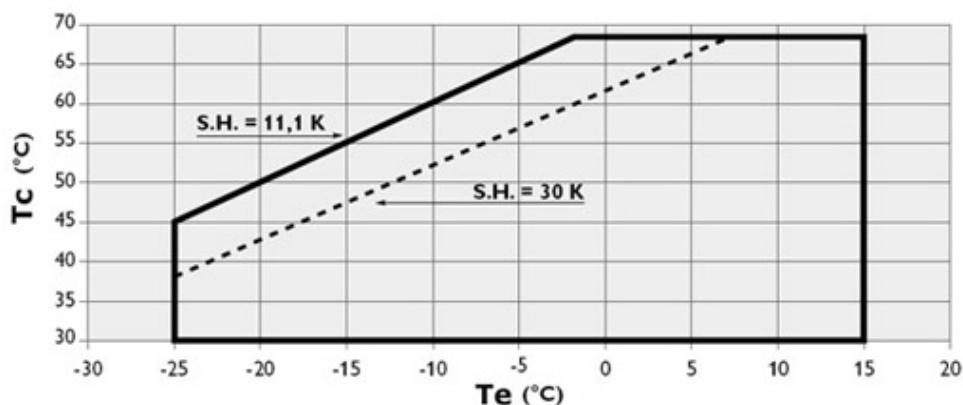
**Mass flow [kg/s]**

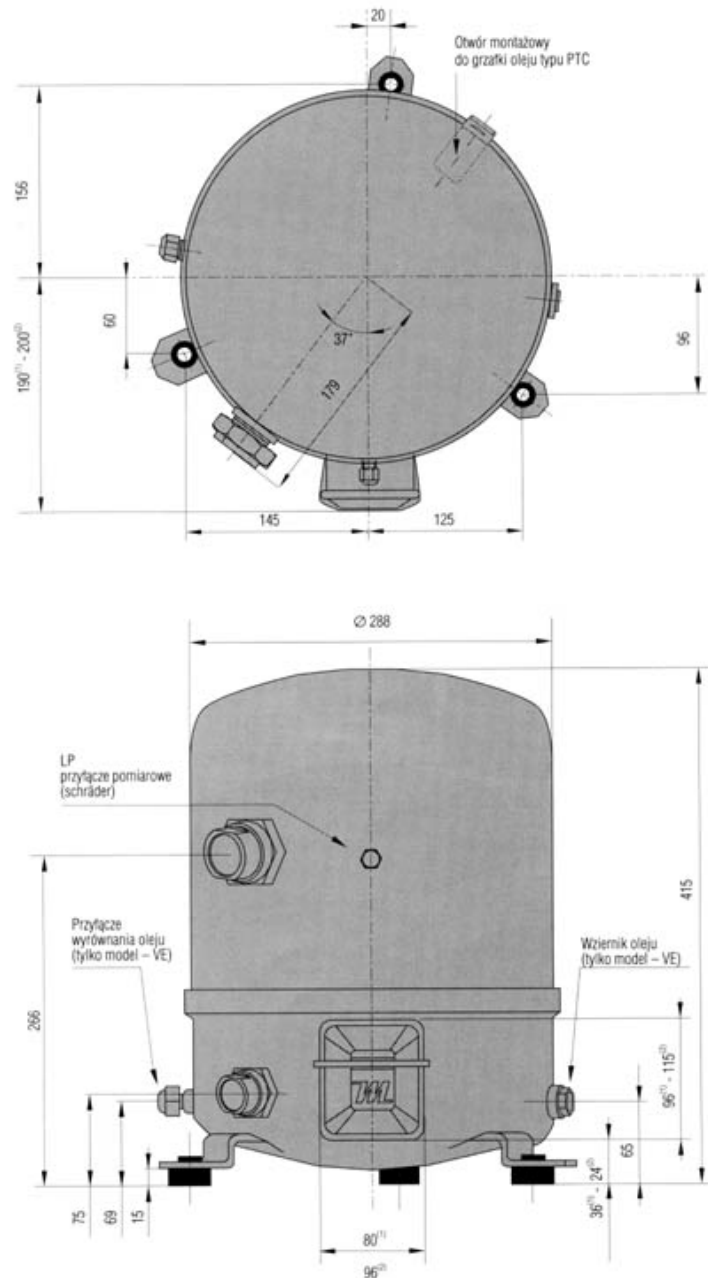
$t_c \setminus t_e$	-25	-20	-15	-10	-5	0	5	10	15
30	89.44	121.12	158.09	201.04	250.69	307.75	372.93	446.93	530.46
35	82.55	114.34	151.36	194.32	243.94	300.92	365.97	439.80	523.12
40	76.19	107.78	144.56	187.24	236.52	293.12	357.74	431.09	513.89
45	70.72	101.81	138.04	180.12	228.76	284.67	348.56	421.14	503.10
50	-	96.77	132.15	173.33	221.02	275.94	338.79	410.28	491.12
55	-	-	127.21	167.20	213.64	267.27	328.78	398.88	478.29
60	-	-	-	162.07	206.97	258.99	318.86	387.27	464.94
65	-	-	-	-	201.34	251.46	309.38	375.80	451.42

C.O.P. [W/W]

$t_c \setminus t_e$	-25	-20	-15	-10	-5	0	5	10	15
30	2.02	2.34	2.71	3.15	3.67	4.30	5.10	6.12	7.48
35	1.67	1.99	2.34	2.74	3.20	3.75	4.42	5.26	6.34
40	1.40	1.71	2.04	2.39	2.80	3.27	3.84	4.54	5.41
45	1.20	1.49	1.79	2.11	2.46	2.87	3.35	3.94	4.65
50	-	1.32	1.58	1.86	2.17	2.53	2.94	3.42	4.01
55	-	-	1.42	1.66	1.93	2.23	2.58	2.99	3.47
60	-	-	-	1.50	1.72	1.98	2.27	2.61	3.01
65	-	-	-	-	1.55	1.76	2.00	2.29	2.62

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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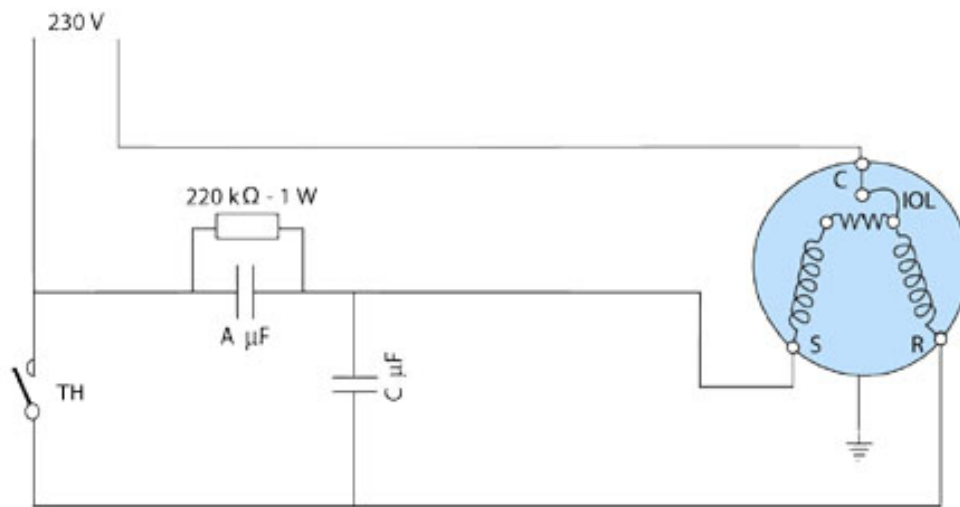


Single phase power supply

Electrical data

Motor voltage code:	1	5
Starting current [A]:	143	
Maximum Continuous Current (MCC) [A]:	46	
Winding resistance (between phases) (run/start) [Ω]:	0,32/2,1	/

PSC starting with additional winding



IOL: inner motor protection (klixon)

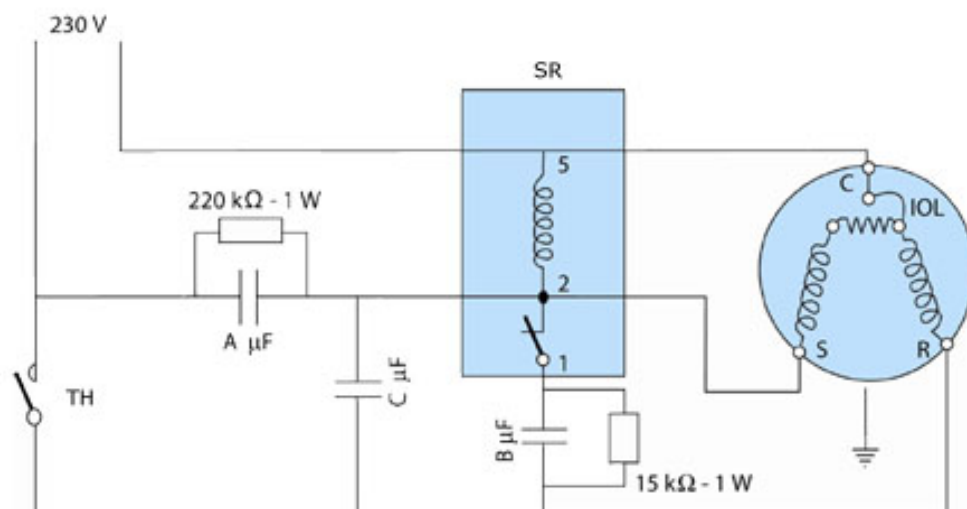
A, C: main condensers

C: starting condenser / S: common

TH: thermostat

SR: movement transmitter

CSR starting with additional winding



IOL: inner motor protection (klixon)

A, C: main condensers

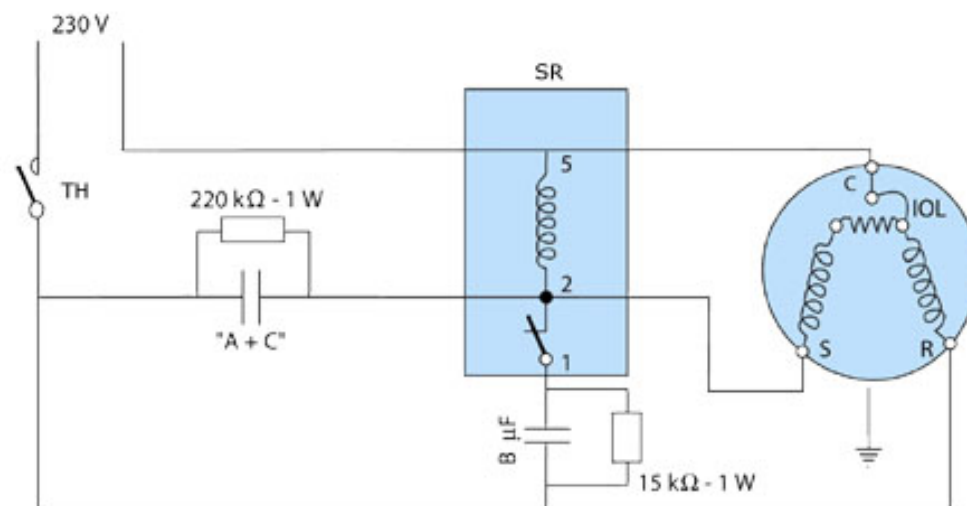
B: starting condenser

C: common / S: additional starting winding

TH: thermostat

SR: movement transmitter

CSR starting without additional winding



IOL: inner motor protection (klixon)

A, C: main condensers

B: starting condenser

C: common / S: additional starting winding

TH: thermostat

SR: movement transmitter

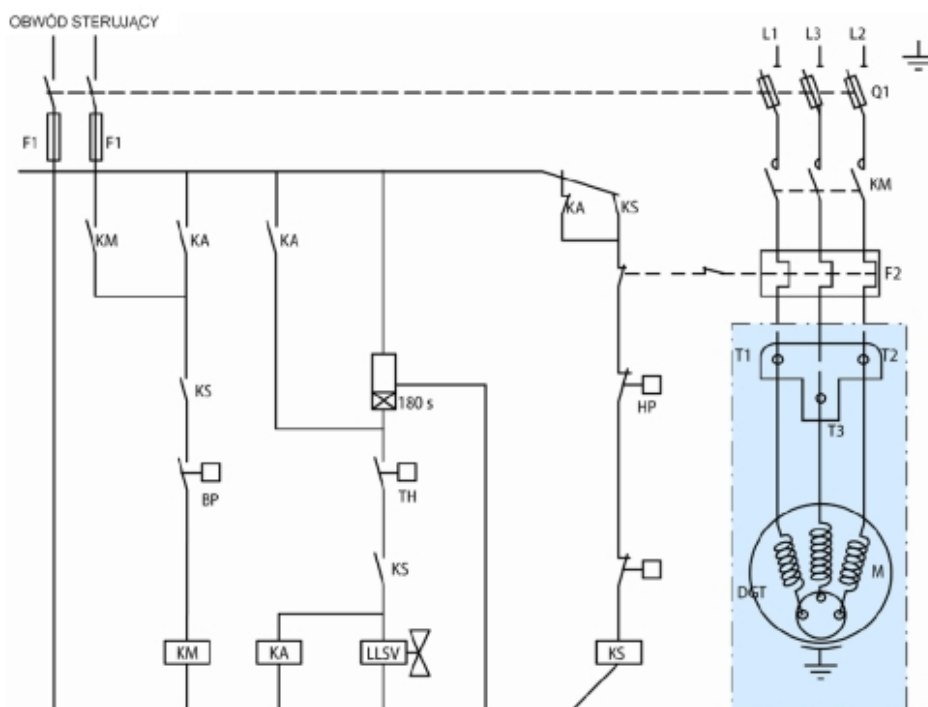
condensers A and C are replaced by one condenser of capacity A + C

Three-phase power supply

Electrical data

Motor voltage code:	3	4	6	7	9
Starting current [A]:	137	67	124		72
Maximum Continuous	29	15	124		17,5
Current (MCC) [A]:					
Winding resistance	0,57	2,41	0,76		1,64
(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

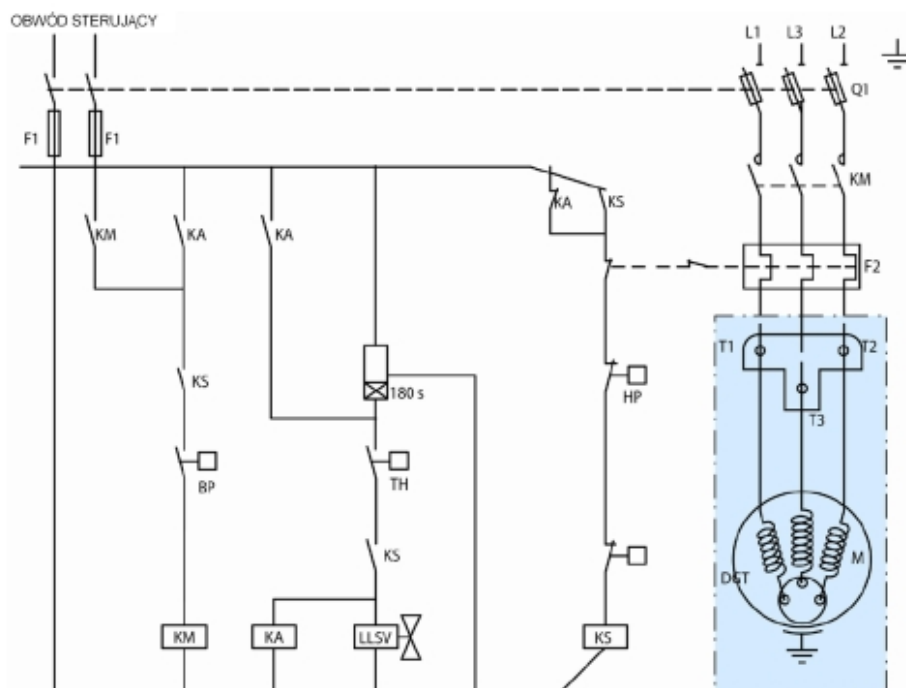
F2: External overload protection

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

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

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Equipment

- ▶ crankcase heater - PTC 35 W
- ▶ belt type heater - crankcase heater 65W, 230V
- ▶ Rotolock valves
 - suction: Rotolock valve connection 1 3/4", connection with supplied sleeve 7/8"
 - discharge: Rotolock valve connection 1 1/4", connection with supplied sleeve 3/4"
- ▶ soft-start kit - electronic softstart MCI 15C
- ▶ accoustic hood - acoustic shield of Danfoss catalogue number 7755002