
GACO SARL

28, Rue Bencharif Madani

25000 BELLEVUE/CONSTANTINE - ALGERIE

Tel. : 031 92 54 56 / 031 93 22 23 - Fax : 031 92 13 45

Email : gacosarl@gmail.com / benkobbi_fares@yahoo.fr

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

Model: MT40

Technical data

Cylinder count:	1
Displacement [m ³ /h]:	11,81
Cylinder capacity [cm ³]:	67,9
RPM [min ⁻¹]:	2900
Weight [kg]:	26
Oil charge [dm ³]:	1
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]:	3
Refrigerant:	R22
Sound power [dB]:	70
Sound power with accoustic hood [dB]:	65

Connections

	<u>milimeters</u>	<u>inches</u>
Suction Rotolock valve connection:		1 1/4"
Discharge Rotolock valve connection:		1"
Suction connection with supplied sleeve:		5/8"
Discharge connection with supplied sleeve:		1/2"

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	3 192	4 267	5 497	6 896	8 476	10 252	12 235	14 439	16 877
35	2 813	3 876	5 091	6 470	8 028	9 776	11 729	13 898	16 298
40	2 432	3 481	4 677	6 035	7 567	9 286	11 205	13 338	15 697
45	2 050	3 082	4 258	5 591	7 095	8 782	10 666	12 759	15 076
50	-	2 681	3 834	5 141	6 614	8 267	10 113	12 164	14 435
55	-	-	3 408	4 686	6 126	7 742	9 547	11 555	13 778
60	-	-	-	4 227	5 632	7 209	8 971	10 932	13 105
65	-	-	-	-	5 135	6 670	8 387	10 298	12 418

Power input [W]

$t_c \setminus t_e$	-25	-20	-15	-10	-5	0	5	10	15
30	1 537	1 796	2 036	2 244	2 410	2 523	2 570	2 542	2 426
35	1 635	1 909	2 167	2 398	2 592	2 737	2 821	2 834	2 764
40	1 714	2 005	2 285	2 542	2 767	2 947	3 071	3 128	3 107
45	1 770	2 081	2 386	2 673	2 932	3 150	3 317	3 422	3 452
50	-	2 136	2 469	2 789	3 084	3 344	3 557	3 711	3 797
55	-	-	2 530	2 886	3 221	3 525	3 787	3 995	4 138
60	-	-	-	2 961	3 339	3 691	4 005	4 270	4 474
65	-	-	-	-	3 437	3 840	4 209	4 533	4 801

Current [A]

$t_c \setminus t_e$	-25	-20	-15	-10	-5	0	5	10	15
30	3.66	3.89	4.13	4.36	4.55	4.68	4.74	4.70	4.54
35	3.76	4.01	4.27	4.53	4.76	4.94	5.05	5.07	4.97
40	3.83	4.11	4.40	4.69	4.97	5.20	5.37	5.45	5.43
45	3.89	4.19	4.52	4.86	5.18	5.47	5.70	5.85	5.91
50	-	4.25	4.62	5.00	5.38	5.73	6.04	6.27	6.40
55	-	-	4.69	5.13	5.57	5.99	6.37	6.68	6.90
60	-	-	-	5.24	5.74	6.24	6.69	7.09	7.41
65	-	-	-	-	5.89	6.46	7.00	7.49	7.91

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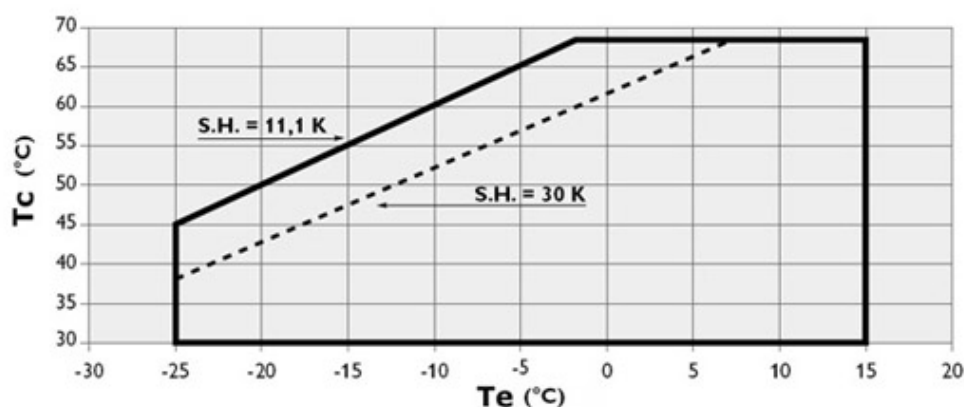
**Mass flow [kg/s]**

$t_c \setminus t_e$	-25	-20	-15	-10	-5	0	5	10	15
30	64.73	85.85	109.44	135.73	164.92	197.24	232.89	272.10	315.08
35	59.42	81.01	105.10	131.92	161.67	194.59	230.87	270.74	314.41
40	53.54	75.63	100.26	127.66	158.02	191.57	228.53	269.10	313.50
45	47.06	69.71	94.93	122.95	153.96	188.19	225.86	267.18	312.37
50	-	63.26	89.11	117.78	149.49	184.45	222.88	264.99	311.00
55	-	-	82.79	112.17	144.62	180.35	219.58	262.52	309.40
60	-	-	-	106.10	139.33	175.88	215.95	259.77	307.56
65	-	-	-	-	133.64	171.04	212.01	256.75	305.49

C.O.P. [W/W]

$t_c \setminus t_e$	-25	-20	-15	-10	-5	0	5	10	15
30	2.08	2.37	2.70	3.07	3.52	4.06	4.76	5.68	6.96
35	1.72	2.03	2.35	2.70	3.10	3.57	4.16	4.90	5.90
40	1.42	1.74	2.05	2.37	2.73	3.15	3.65	4.26	5.05
45	1.16	1.48	1.78	2.09	2.42	2.79	3.22	3.73	4.37
50	-	1.26	1.55	1.84	2.14	2.47	2.84	3.28	3.80
55	-	-	1.35	1.62	1.90	2.20	2.52	2.89	3.33
60	-	-	-	1.43	1.69	1.95	2.24	2.56	2.93
65	-	-	-	-	1.49	1.74	1.99	2.27	2.59

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

 t_c - Condensing temperature [°C] t_e - Evaporating temperature [°C]**Application range**

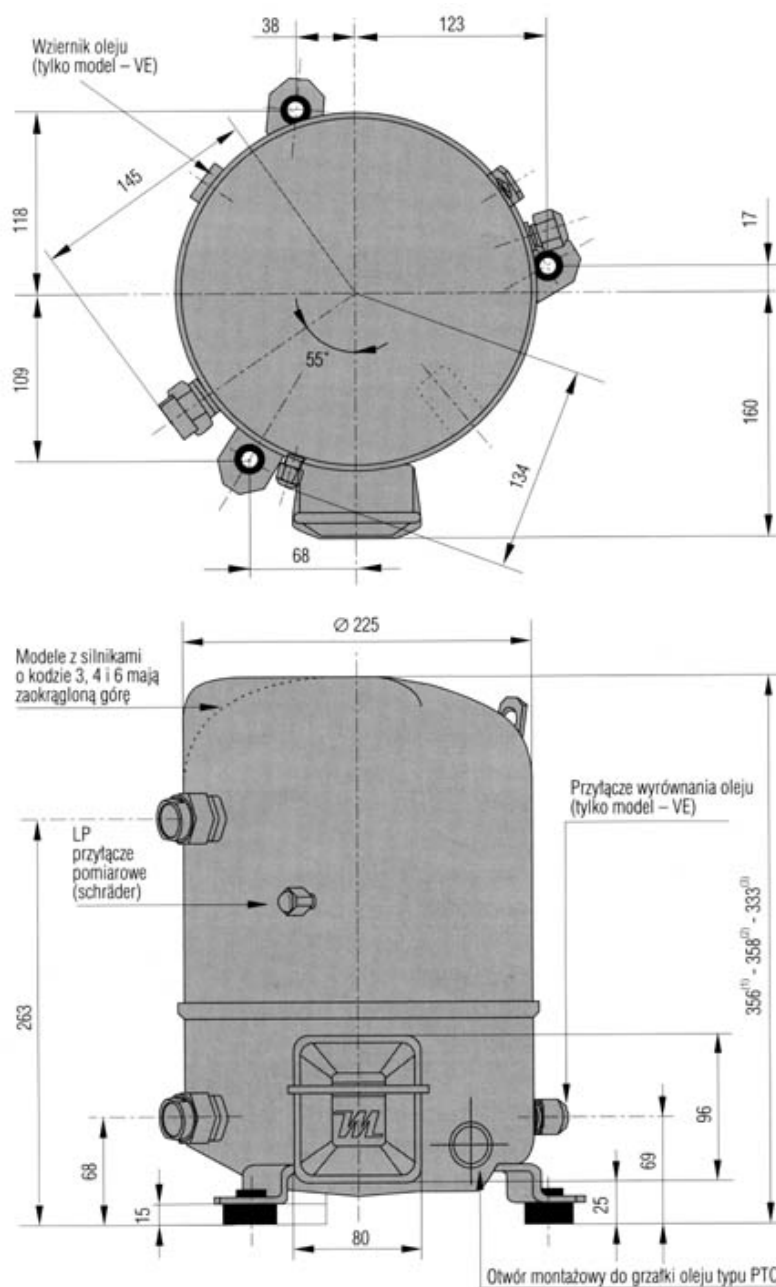
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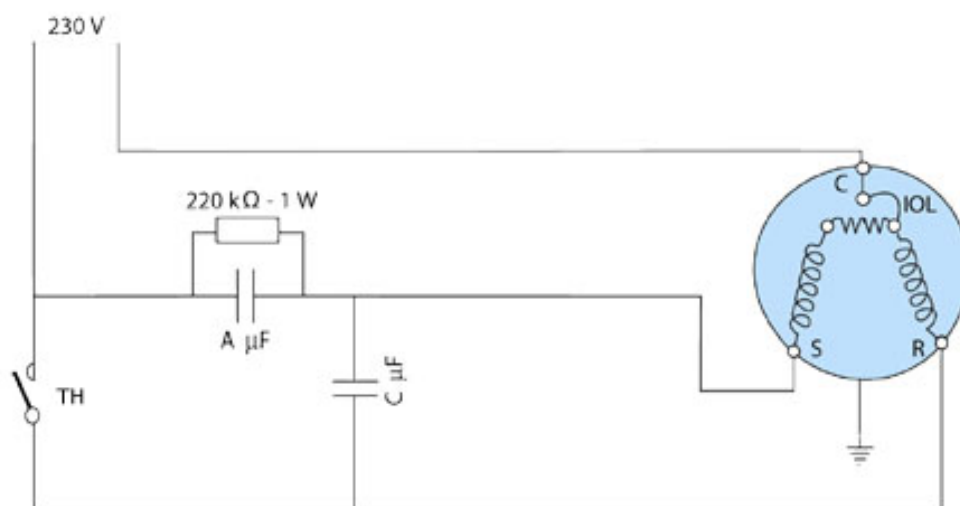


Single phase power supply

Electrical data

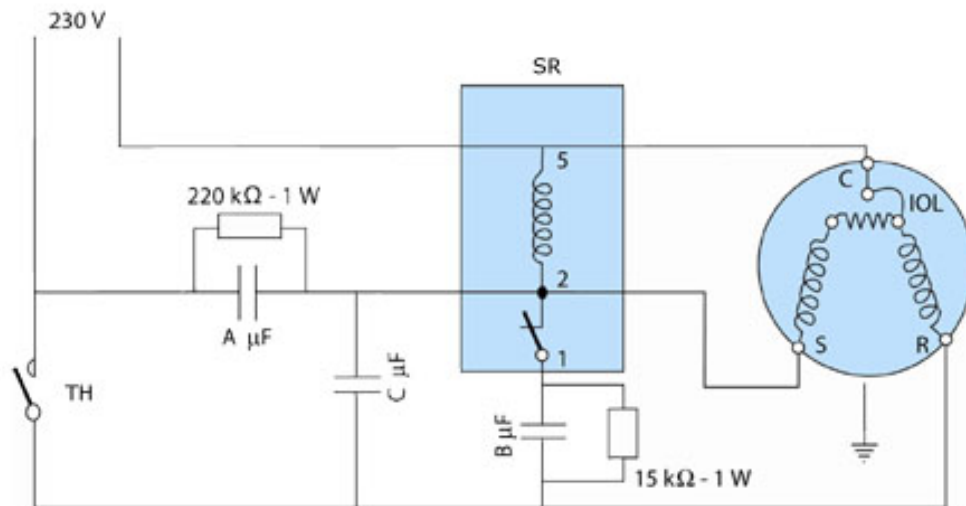
Motor voltage code:	1	5
Starting current [A]:	99	
Maximum Continuous Current (MCC) [A]:	34	
Winding resistance (between phases) (run/start) [Ω]:	0,53/2	/

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

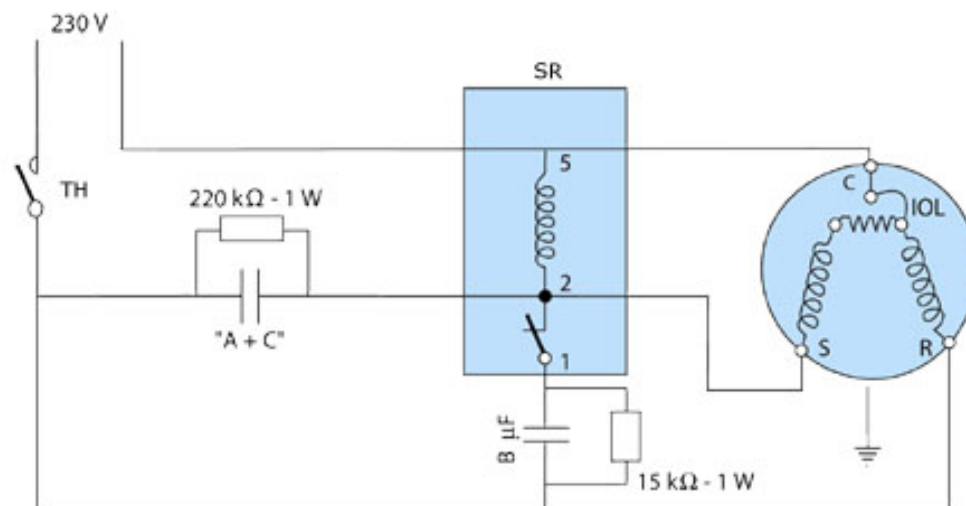
B: starting condenser

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

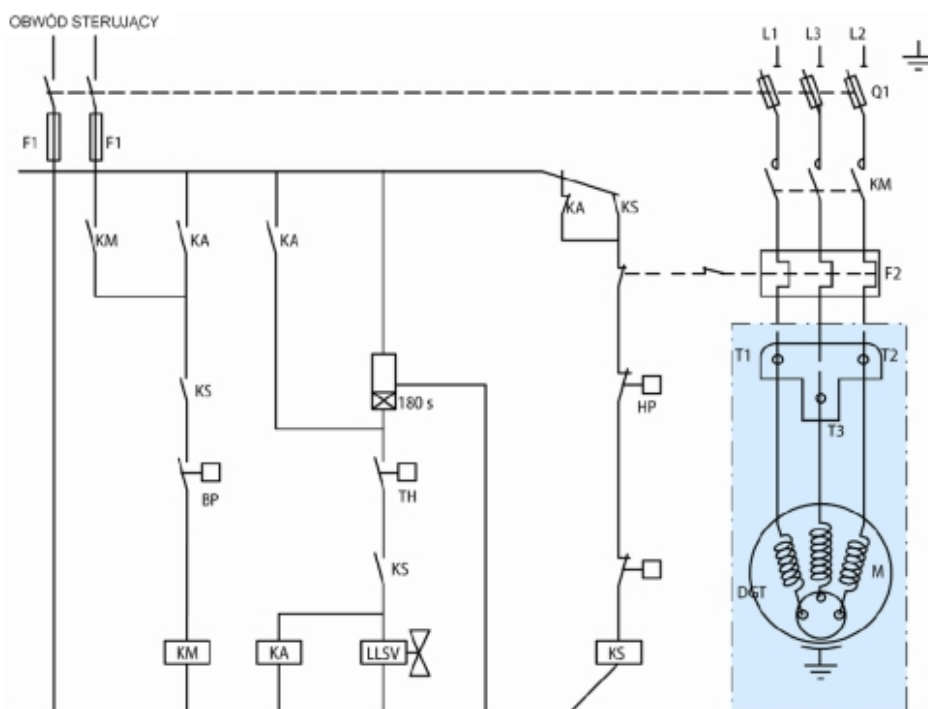
condensers A and C are replaced by one condenser of capacity A + C

Three-phase power supply

Electrical data

Motor voltage code:	3	4	6	7	9
Starting current [A]:	98	38	74		
Maximum Continuous	22	10	74		
Current (MCC) [A]:					
Winding resistance	0,95	4,56	0,95		
(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

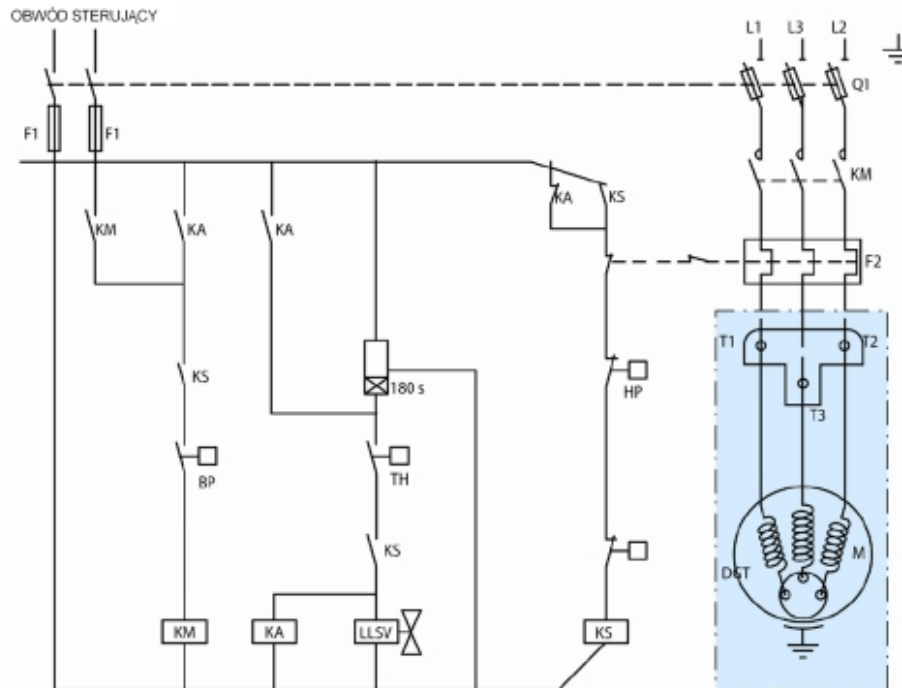
F2: External overload protection

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

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Equipment

- ▶ crankcase heater - PTC 35 W
- ▶ belt type heater - crankcase heater 55W, 230V
- ▶ Rotolock valves
 - suction: Rotolock valve connection 1 1/4", connection with supplied sleeve 5/8"
 - discharge: Rotolock valve connection 1", connection with supplied sleeve 1/2"
- ▶ soft-start kit - electronic softstart MCI 15C
- ▶ accoustic hood - acoustic shield of Danfoss catalogue number 7755001