
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: MT44

Technical data

Cylinder count:	2
Displacement [m ³ /h]:	13,26
Cylinder capacity [cm ³]:	76,2
RPM [min ⁻¹]:	2900
Weight [kg]:	35
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>milimeters</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	+

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

$t_c \setminus t_e$	-25	-20	-15	-10	-5	0	5	10	15
30	3 138	4 176	5 460	7 029	8 918	11 165	13 807	16 880	20 422
35	2 852	3 850	5 081	6 583	8 393	10 548	13 084	16 040	19 451
40	2 588	3 536	4 705	6 133	7 855	9 909	12 332	15 161	18 432
45	2 347	3 237	4 336	5 680	7 306	9 251	11 552	14 246	17 370
50	-	2 957	3 977	5 229	6 750	8 577	10 748	13 298	16 265
55	-	-	3 629	4 781	6 189	7 890	9 921	12 319	15 122
60	-	-	-	4 340	5 626	7 192	9 076	11 313	13 942
65	-	-	-	-	5 064	6 487	8 214	10 283	12 729

Power input [W]

$t_c \setminus t_e$	-25	-20	-15	-10	-5	0	5	10	15
30	1 552	1 813	2 053	2 259	2 419	2 522	2 556	2 508	2 368
35	1 663	1 939	2 197	2 427	2 616	2 752	2 823	2 817	2 723
40	1 752	2 045	2 326	2 583	2 803	2 975	3 086	3 126	3 081
45	1 815	2 130	2 436	2 722	2 977	3 188	3 343	3 431	3 439
50	-	2 188	2 523	2 843	3 135	3 388	3 590	3 730	3 794
55	-	-	2 584	2 940	3 274	3 572	3 824	4 018	4 141
60	-	-	-	3 012	3 389	3 736	4 041	4 293	4 478
65	-	-	-	-	3 478	3 877	4 238	4 551	4 802

Current [A]

$t_c \setminus t_e$	-25	-20	-15	-10	-5	0	5	10	15
30	5.05	5.23	5.41	5.59	5.74	5.85	5.88	5.83	5.67
35	5.13	5.33	5.54	5.74	5.93	6.07	6.15	6.14	6.04
40	5.20	5.41	5.65	5.89	6.11	6.30	6.43	6.48	6.44
45	5.25	5.49	5.75	6.03	6.30	6.53	6.71	6.83	6.85
50	-	5.54	5.84	6.16	6.47	6.76	7.00	7.18	7.28
55	-	-	5.90	6.27	6.64	6.98	7.29	7.54	7.71
60	-	-	-	6.36	6.78	7.19	7.57	7.89	8.14
65	-	-	-	-	6.90	7.38	7.83	8.23	8.57

Mass flow [kg/s]

$t_c \setminus t_e$	-25	-20	-15	-10	-5	0	5	10	15
30	63.83	84.34	108.99	138.42	173.28	214.24	261.94	317.03	380.17
35	60.14	80.53	105.04	134.32	169.02	209.80	257.31	312.20	375.13
40	56.75	76.78	100.91	129.80	164.10	204.47	251.55	306.00	368.46
45	53.74	73.16	96.68	124.94	158.59	198.30	244.71	298.47	360.24
50	-	69.74	92.40	119.78	152.56	191.37	236.86	289.70	350.53
55	-	-	88.13	114.41	146.06	183.73	228.07	279.74	339.40
60	-	-	-	108.88	139.16	175.45	218.40	268.67	326.90
65	-	-	-	-	131.93	166.60	207.91	256.53	313.11

C.O.P. [W/W]

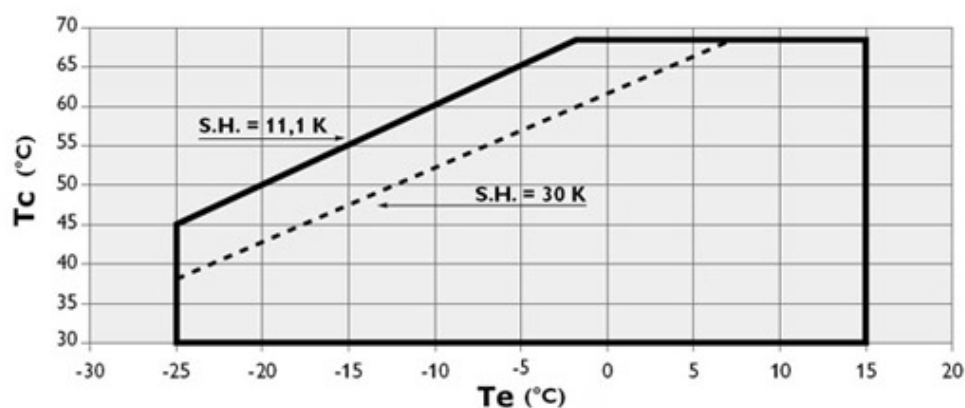
$t_c \setminus t_e$	-25	-20	-15	-10	-5	0	5	10	15
30	2.02	2.30	2.66	3.11	3.69	4.43	5.40	6.73	8.63
35	1.72	1.99	2.31	2.71	3.21	3.83	4.64	5.69	7.14
40	1.48	1.73	2.02	2.37	2.80	3.33	4.00	4.85	5.98
45	1.29	1.52	1.78	2.09	2.45	2.90	3.46	4.15	5.05
50	-	1.35	1.58	1.84	2.15	2.53	2.99	3.57	4.29
55	-	-	1.40	1.63	1.89	2.21	2.59	3.07	3.65
60	-	-	-	1.44	1.66	1.93	2.25	2.64	3.11
65	-	-	-	-	1.46	1.67	1.94	2.26	2.65

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

t_c - Condensing temperature [°C]

t_e - Evaporating temperature [°C]

Application range



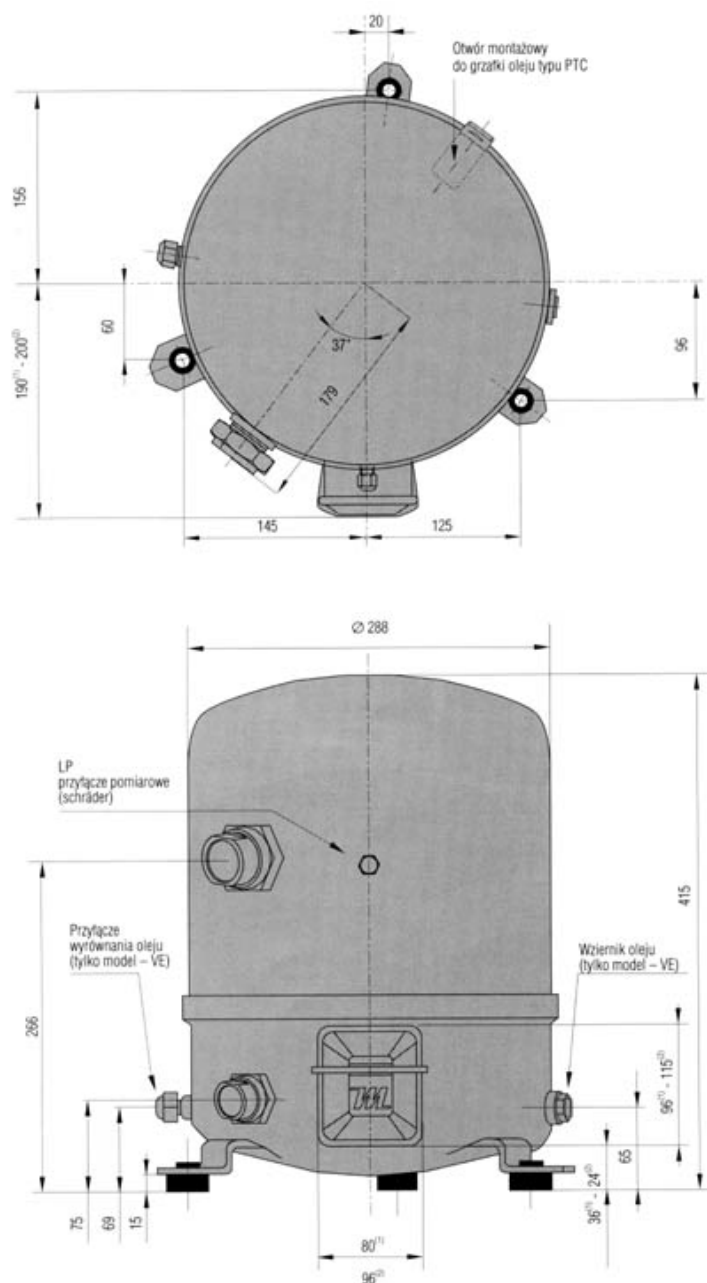
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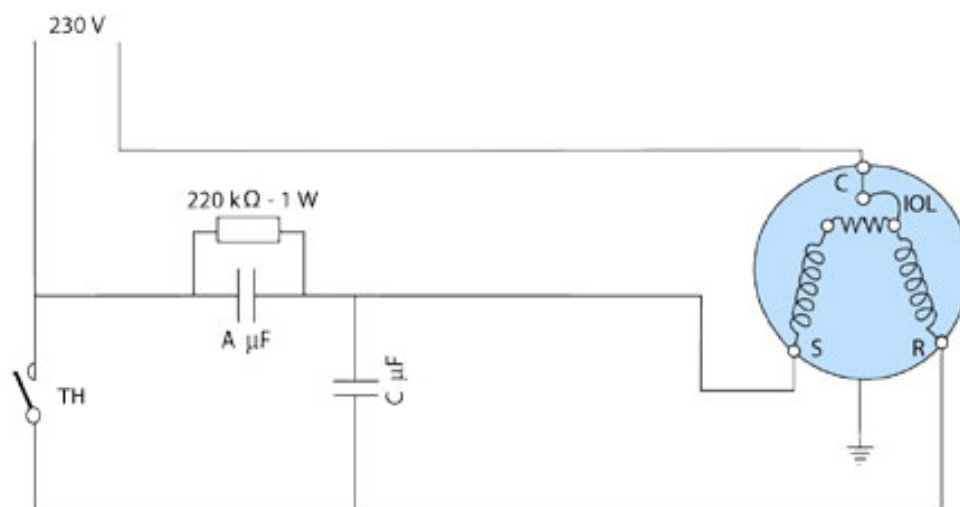


Single phase power supply

Electrical data

Motor voltage code:	1	5
Starting current [A]:	97	
Maximum Continuous Current (MCC) [A]:	31	
Winding resistance (between phases)	0,45/1,9	/
(run/start) [Ω]:		

PSC starting with additional winding



IOL: inner motor protection (klixon)

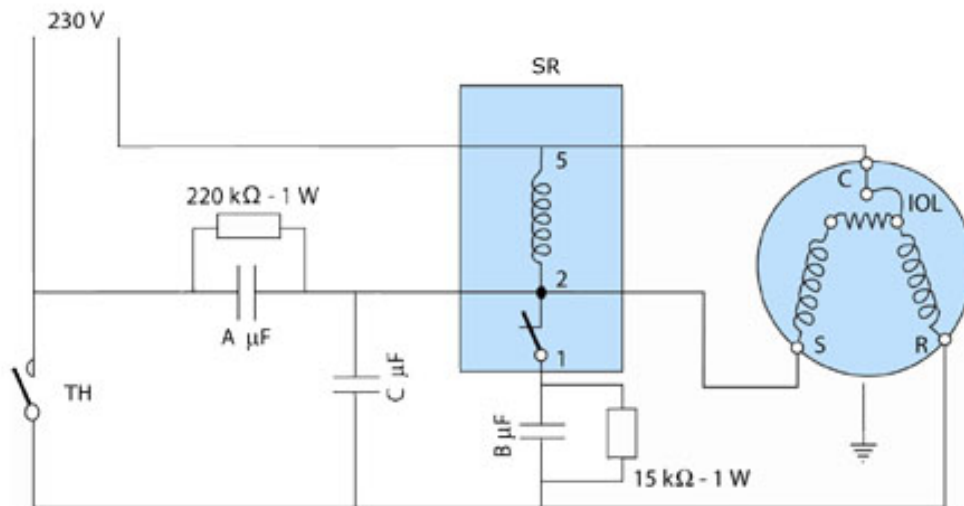
A, C: main condensers

C: starting condenser / S: common

TH: thermostat

SR: movement transmitter

CSR starting with additional winding



IOL: inner motor protection (klixon)

A, C: main condensers

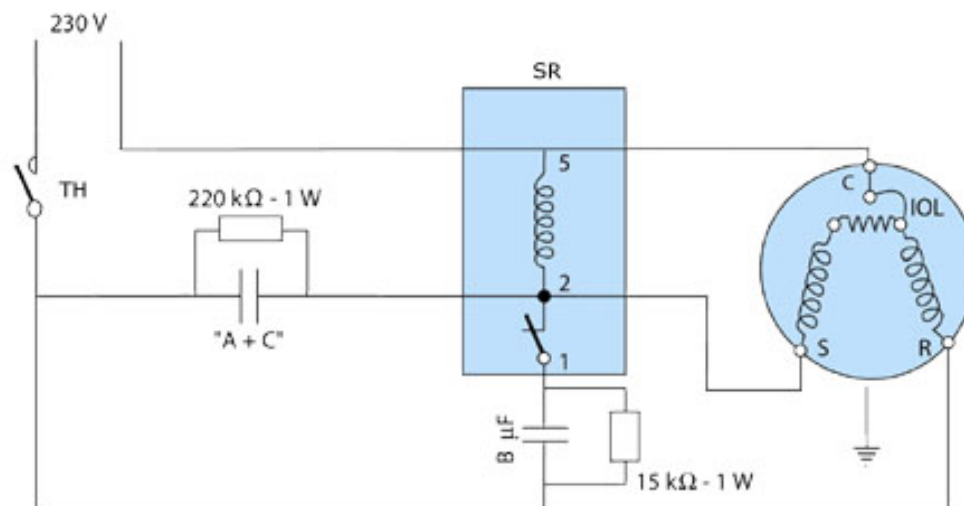
B: starting condenser

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

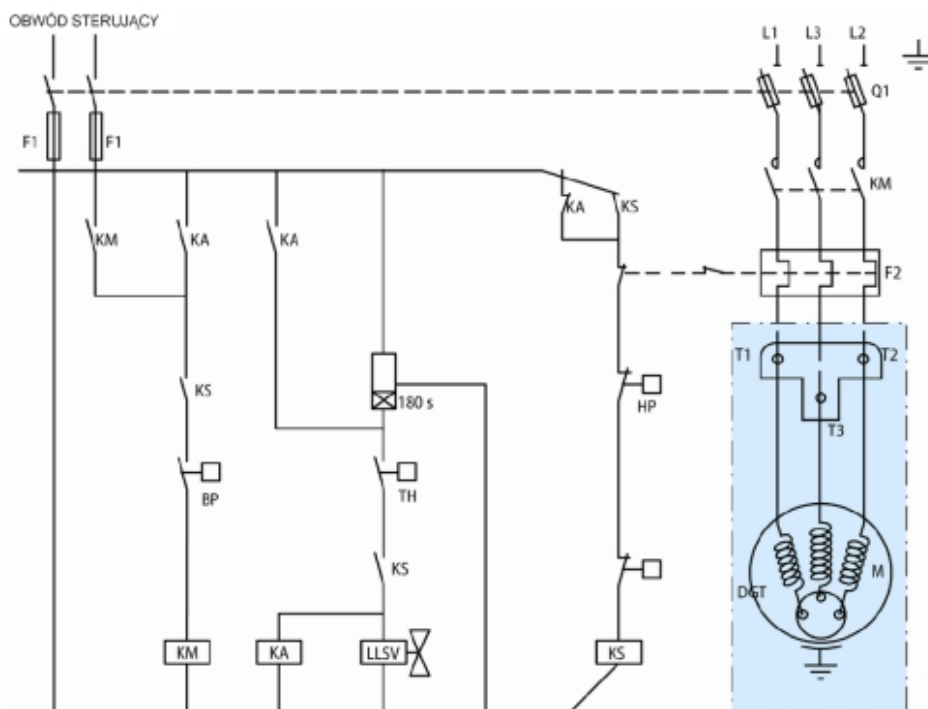
condensers A and C are replaced by one condenser of capacity A + C

Three-phase power supply

Electrical data

Motor voltage code:	3	4	6	7	9
Starting current [A]:	115	42	85	44	78
Maximum Continuous	22	9,5	85	8,5	13
Current (MCC) [A]:					
Winding resistance	0,74	3,8	1,13	5,83	1,68
(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

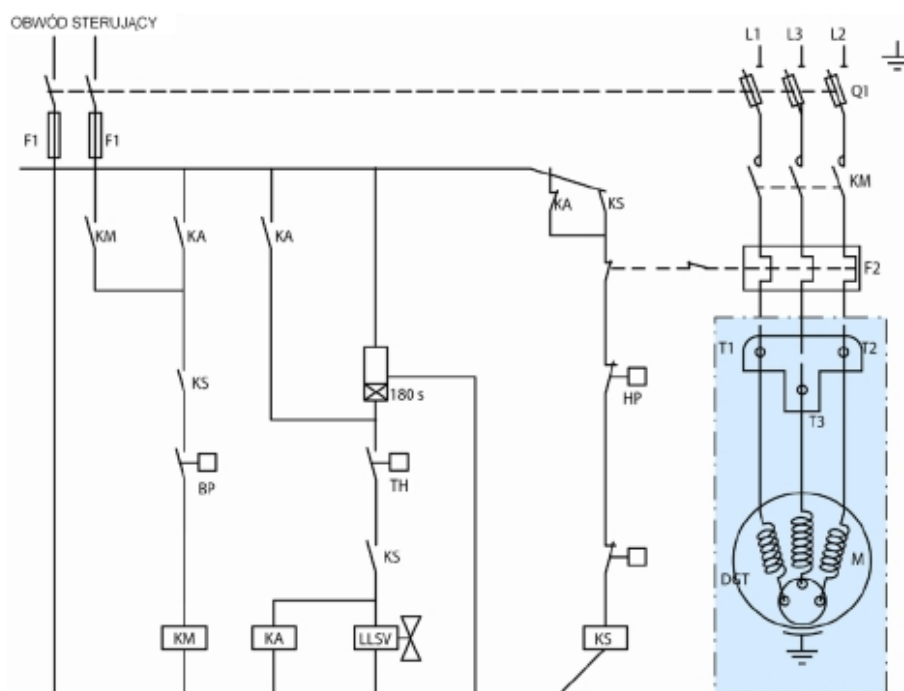
F2: External overload protection

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