
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: MT28

Technical data

Cylinder count:	1
Displacement [m ³ /h]:	8,36
Cylinder capacity [cm ³]:	48,1
RPM [min ⁻¹]:	2900
Weight [kg]:	23
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]:	71
Sound power with accoustic hood [dB]:	64

Connections

	<u>millimeters</u>	<u>inches</u>
Suction Rotolock valve connection:		1"
Discharge Rotolock valve connection:		1"
Suction connection with supplied sleeve:		1/2"
Discharge connection with supplied sleeve:		3/8"

Approvals

CCC	+
CE	+
UL	+

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



R22

Cooling capacity [W]

$t_c \setminus t_e$	-25	-20	-15	-10	-5	0	5	10	15
30	2 155	2 953	3 877	4 939	6 149	7 520	9 062	10 788	12 709
35	1 926	2 706	3 607	4 639	5 814	7 144	8 640	10 314	12 178
40	1 694	2 453	3 326	4 325	5 461	6 747	8 193	9 811	11 614
45	1 460	2 193	3 035	3 997	5 091	6 328	7 721	9 280	11 016
50	-	1 927	2 734	3 656	4 703	5 889	7 224	8 719	10 387
55	-	-	2 424	3 301	4 299	5 428	6 702	8 130	9 726
60	-	-	-	2 933	3 877	4 947	6 156	7 514	9 032
65	-	-	-	-	3 439	4 446	5 586	6 869	8 308

Power input [W]

$t_c \setminus t_e$	-25	-20	-15	-10	-5	0	5	10	15
30	1 183	1 349	1 497	1 620	1 710	1 758	1 757	1 697	1 572
35	1 206	1 383	1 547	1 689	1 801	1 875	1 902	1 876	1 787
40	1 218	1 409	1 590	1 753	1 890	1 992	2 052	2 061	2 011
45	1 218	1 425	1 626	1 813	1 976	2 109	2 203	2 250	2 242
50	-	1 430	1 654	1 866	2 060	2 226	2 357	2 444	2 479
55	-	-	1 672	1 913	2 139	2 340	2 510	2 640	2 722
60	-	-	-	1 952	2 212	2 452	2 664	2 839	2 970
65	-	-	-	-	2 279	2 559	2 815	3 038	3 220

Current [A]

$t_c \setminus t_e$	-25	-20	-15	-10	-5	0	5	10	15
30	2.96	3.10	3.25	3.38	3.48	3.54	3.54	3.46	3.30
35	2.98	3.14	3.30	3.45	3.58	3.67	3.70	3.67	3.56
40	3.00	3.17	3.35	3.52	3.68	3.81	3.89	3.90	3.85
45	3.00	3.18	3.39	3.59	3.79	3.95	4.08	4.15	4.15
50	-	3.19	3.42	3.66	3.89	4.11	4.29	4.41	4.48
55	-	-	3.44	3.72	4.00	4.26	4.50	4.69	4.83
60	-	-	-	3.78	4.10	4.42	4.72	4.98	5.19
65	-	-	-	-	4.21	4.59	4.95	5.28	5.57

Mass flow [kg/s]

$t_c \setminus t_e$	-25	-20	-15	-10	-5	0	5	10	15
30	44.16	59.85	77.56	97.49	119.83	144.79	172.56	203.33	237.31
35	40.74	56.63	74.53	94.63	117.12	142.20	170.07	200.92	234.95
40	37.19	53.23	71.25	91.45	114.02	139.17	167.08	197.95	231.98
45	33.42	49.54	67.62	87.87	110.46	135.60	163.49	194.32	228.29
50	-	45.46	63.55	83.77	106.32	131.41	159.21	189.94	223.78
55	-	-	58.92	79.06	101.52	126.48	154.14	184.71	218.36
60	-	-	-	73.65	95.94	120.72	148.18	178.52	211.93
65	-	-	-	-	89.49	114.03	141.23	171.28	204.39

C.O.P. [W/W]

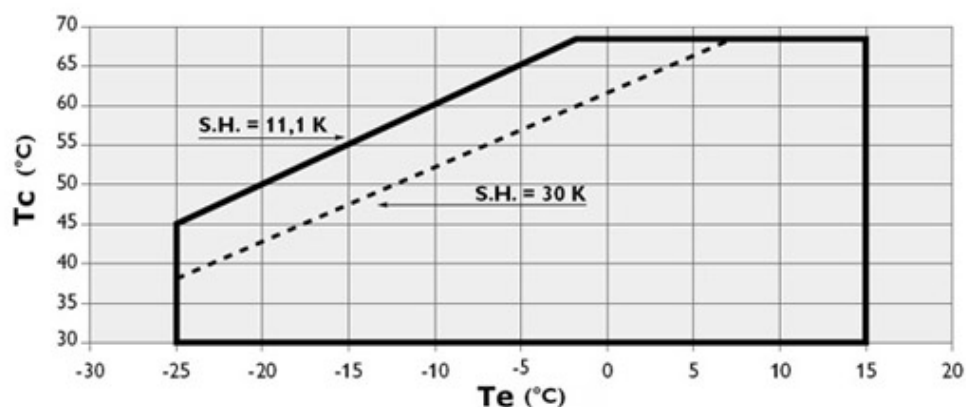
$t_c \setminus t_e$	-25	-20	-15	-10	-5	0	5	10	15
30	1.82	2.19	2.59	3.05	3.60	4.28	5.16	6.36	8.09
35	1.60	1.96	2.33	2.75	3.23	3.81	4.54	5.50	6.81
40	1.39	1.74	2.09	2.47	2.89	3.39	3.99	4.76	5.78
45	1.20	1.54	1.87	2.21	2.58	3.00	3.50	4.12	4.91
50	-	1.35	1.65	1.96	2.28	2.65	3.07	3.57	4.19
55	-	-	1.45	1.73	2.01	2.32	2.67	3.08	3.57
60	-	-	-	1.50	1.75	2.02	2.31	2.65	3.04
65	-	-	-	-	1.51	1.74	1.98	2.26	2.58

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

t_c - Condensing temperature [°C]

t_e - Evaporating temperature [°C]

Application range



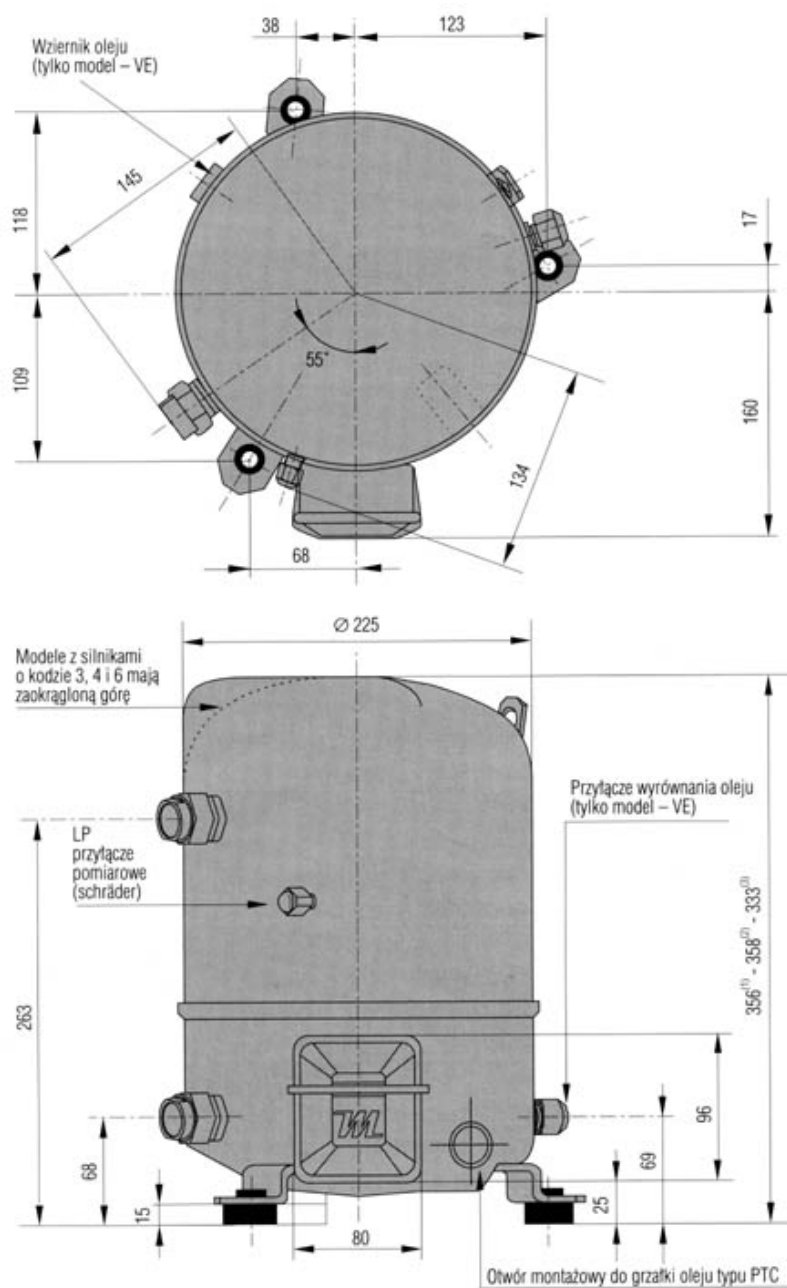
GACO SARL

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



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

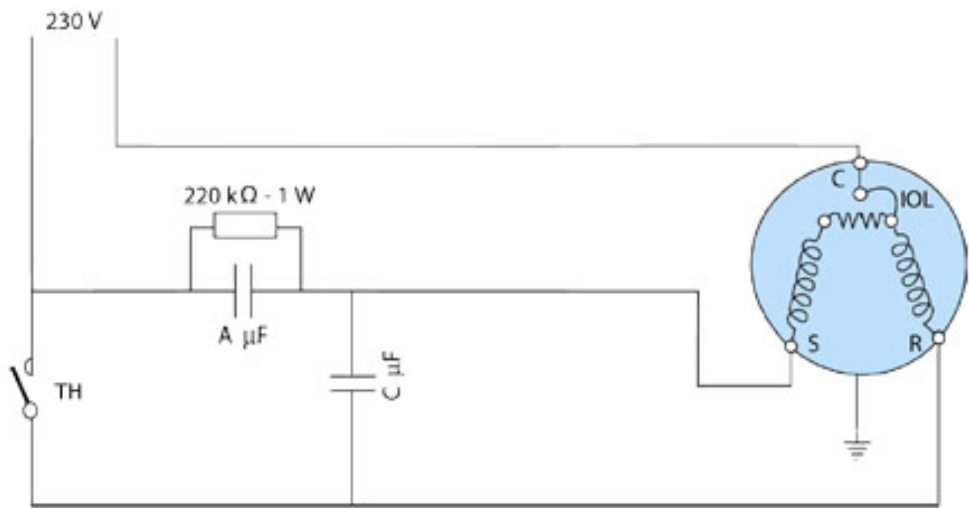


Single phase power supply

Electrical data

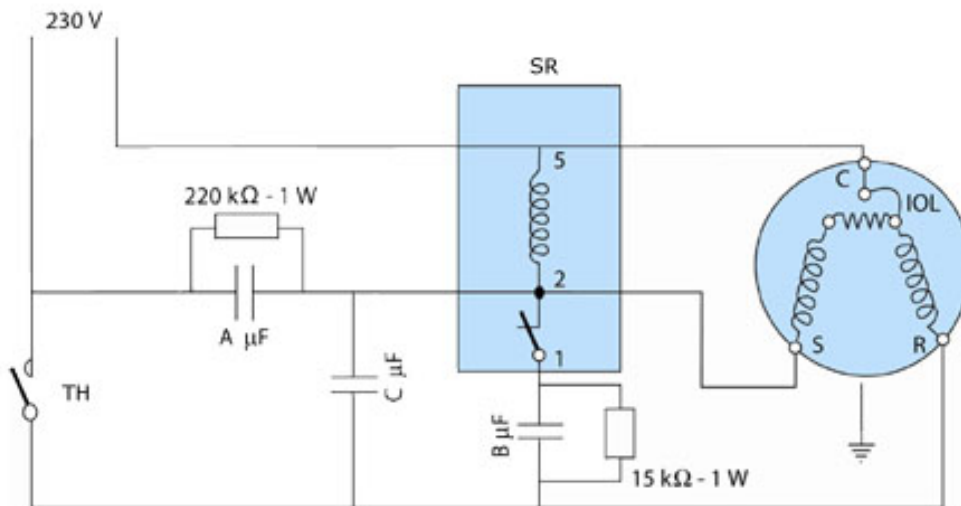
Motor voltage code:	1	5
Starting current [A]:	81	55
Maximum Continuous Current (MCC) [A]:	25	16
Winding resistance (between phases) (run/start) [Ω]:	0,74/1,85	1,16/3,24
Main condenser (A) (PSC/CSR) [μ F]:		20
Main condenser (C) (PSC/CSR) [μ F]:		10
Starting condenser (B) (CSR) [μ F]:		100
Starting relay (CSR):		3ARR3J4A4

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

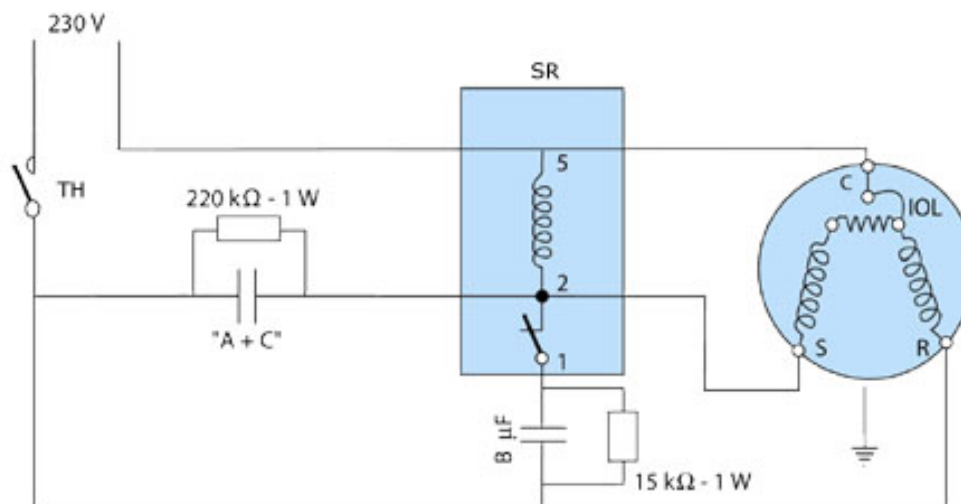
B: starting condenser

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

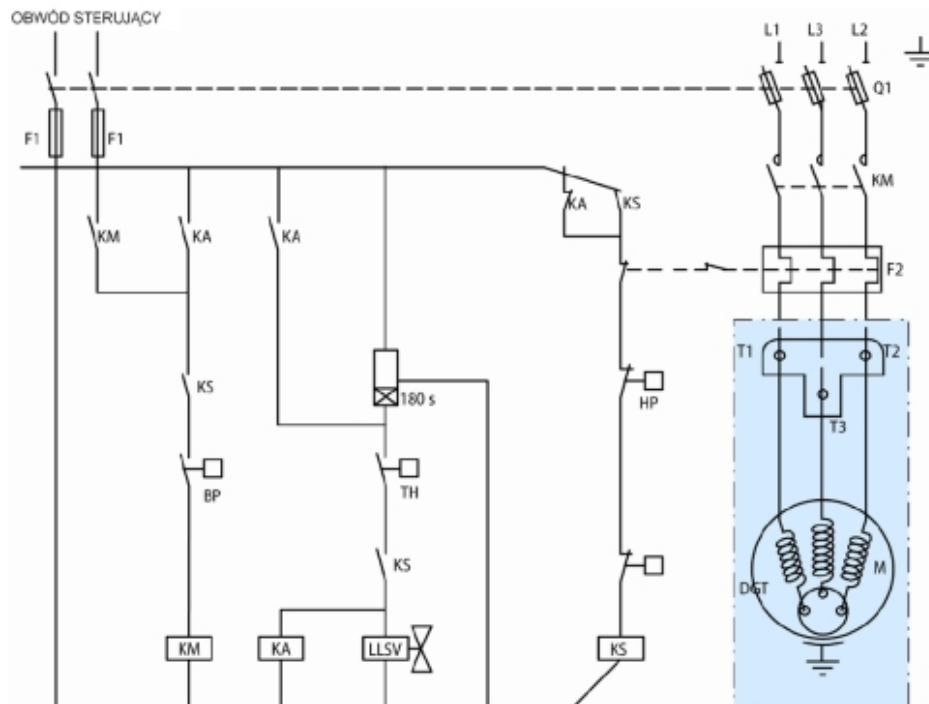
condensers A and C are replaced by one condenser of capacity A + C

Three-phase power supply

Electrical data

Motor voltage code:	3	4	6	7	9
Starting current [A]:	57	23	41	20	32
Maximum Continuous	16	7,5	41	6	8,5
Current (MCC) [A]:					
Winding resistance	1,37	7,11	2,3	10,6	4,8
(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

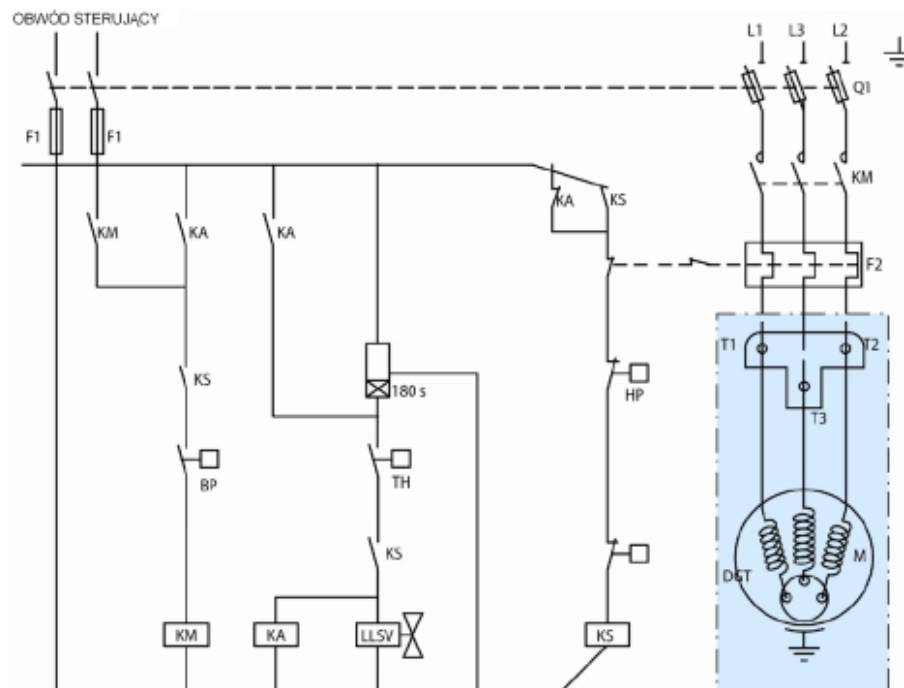
F2: External overload protection

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

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



Equipment

- ▶ crankcase heater - PTC 35 W
- ▶ belt type heater - crankcase heater 55W, 230V
- ▶ Rotolock valves
 - suction: Rotolock valve connection 1", connection with supplied sleeve 1/2"
 - discharge: Rotolock valve connection 1", connection with supplied sleeve 3/8"
- ▶ soft-start kit - electronic softstart MCI 15C
- ▶ accoustic hood - acoustic shield of Danfoss catalogue number 7755001