
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: MT32****Technical data**

Cylinder count:	1
Displacement [m ³ /h]:	9,37
Cylinder capacity [cm ³]:	53,9
RPM [min ⁻¹]:	2900
Weight [kg]:	24
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>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	2 381	3 222	4 218	5 387	6 747	8 316	10 112	12 154	14 458
35	2 081	2 898	3 863	4 993	6 306	7 821	9 556	11 527	13 755
40	1 804	2 592	3 520	4 606	5 868	7 324	8 991	10 889	13 034
45	1 554	2 308	3 195	4 232	5 437	6 828	8 424	10 242	12 300
50	-	2 050	2 890	3 873	5 016	6 338	7 857	9 591	11 557
55	-	-	2 611	3 534	4 611	5 859	7 296	8 940	10 809
60	-	-	-	3 220	4 225	5 393	6 743	8 293	10 060
65	-	-	-	-	3 862	4 946	6 204	7 655	9 315

Power input [W]

$t_c \setminus t_e$	-25	-20	-15	-10	-5	0	5	10	15
30	1 377	1 564	1 737	1 890	2 014	2 103	2 147	2 140	2 074
35	1 413	1 609	1 796	1 966	2 111	2 223	2 294	2 318	2 285
40	1 439	1 649	1 852	2 041	2 208	2 346	2 447	2 503	2 506
45	1 457	1 682	1 903	2 114	2 306	2 472	2 604	2 694	2 735
50	-	1 707	1 949	2 183	2 402	2 599	2 765	2 892	2 973
55	-	-	1 988	2 249	2 498	2 727	2 928	3 095	3 219
60	-	-	-	2 310	2 590	2 854	3 094	3 302	3 471
65	-	-	-	-	2 680	2 981	3 261	3 513	3 729

Current [A]

$t_c \setminus t_e$	-25	-20	-15	-10	-5	0	5	10	15
30	2.88	3.07	3.27	3.45	3.61	3.72	3.78	3.76	3.67
35	2.93	3.13	3.34	3.54	3.73	3.87	3.97	4.01	3.96
40	2.96	3.17	3.40	3.63	3.85	4.04	4.18	4.27	4.27
45	2.97	3.21	3.47	3.73	3.98	4.21	4.40	4.54	4.61
50	-	3.24	3.52	3.82	4.12	4.39	4.64	4.84	4.97
55	-	-	3.57	3.91	4.25	4.58	4.89	5.15	5.35
60	-	-	-	4.00	4.39	4.78	5.14	5.47	5.75
65	-	-	-	-	4.53	4.98	5.41	5.81	6.17

Mass flow [kg/s]

$t_c \setminus t_e$	-25	-20	-15	-10	-5	0	5	10	15
30	48.50	65.04	84.11	106.03	131.12	159.67	192.02	228.47	269.32
35	43.96	60.63	79.82	101.83	126.99	155.60	187.98	224.44	265.29
40	39.61	56.29	75.47	97.46	122.58	151.12	183.41	219.76	260.48
45	35.58	52.16	71.21	93.05	117.99	146.35	178.43	214.54	255.01
50	-	48.35	67.15	88.72	113.37	141.41	173.16	208.93	249.02
55	-	-	63.42	84.60	108.84	136.45	167.74	203.03	242.63
60	-	-	-	80.82	104.52	131.58	162.29	196.99	235.97
65	-	-	-	-	100.55	126.92	156.95	190.92	229.17

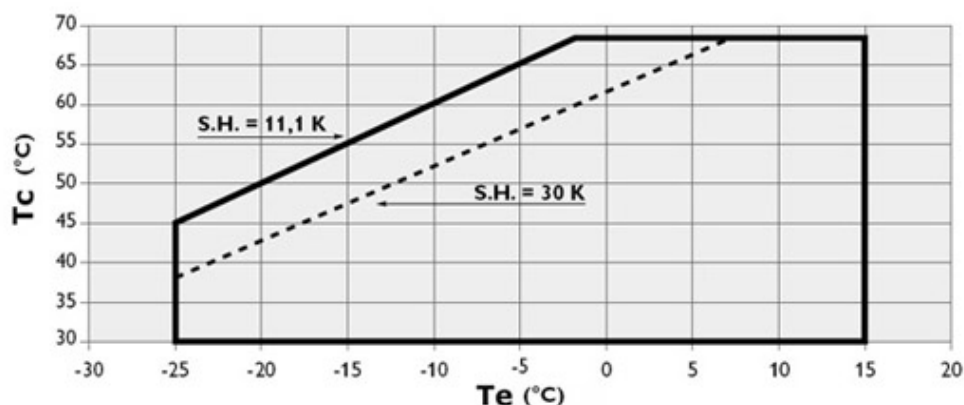
C.O.P. [W/W]

$t_c \setminus t_e$	-25	-20	-15	-10	-5	0	5	10	15
30	1.73	2.06	2.43	2.85	3.35	3.96	4.71	5.68	6.97
35	1.47	1.80	2.15	2.54	2.99	3.52	4.16	4.97	6.02
40	1.25	1.57	1.90	2.26	2.66	3.12	3.67	4.35	5.20
45	1.07	1.37	1.68	2.00	2.36	2.76	3.24	3.80	4.50
50	-	1.20	1.48	1.77	2.09	2.44	2.84	3.32	3.89
55	-	-	1.31	1.57	1.85	2.15	2.49	2.89	3.36
60	-	-	-	1.39	1.63	1.89	2.18	2.51	2.90
65	-	-	-	-	1.44	1.66	1.90	2.18	2.50

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

t_c - Condensing temperature [°C]

t_e - Evaporating temperature [°C]

Application range

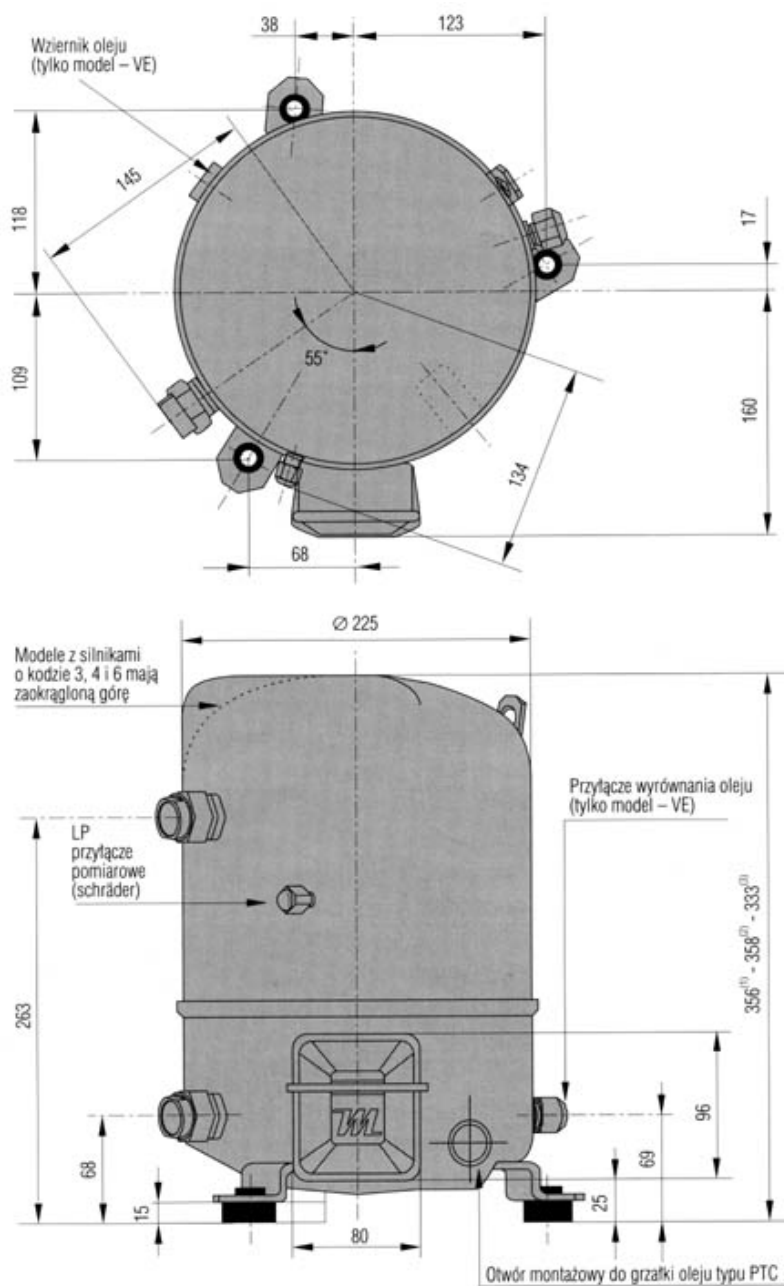
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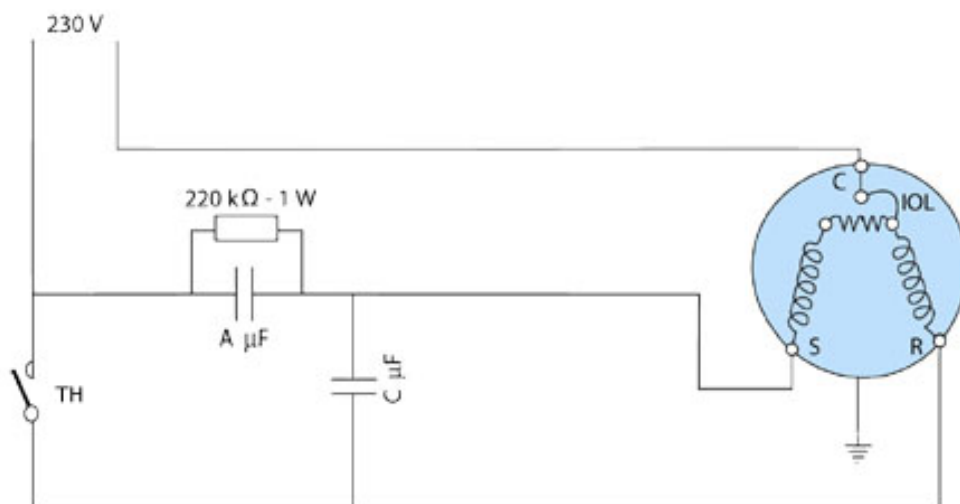


Single phase power supply

Electrical data

Motor voltage code:	1	5
Starting current [A]:	84	70
Maximum Continuous Current (MCC) [A]:	26,5	20
Winding resistance (between phases) (run/start) [Ω]:	0,64/2,85	0,9/4,3
Main condenser (A) (PSC/CSR) [μ F]:		25
Main condenser (C) (PSC/CSR) [μ F]:		10
Starting condenser (B) (CSR) [μ F]:		135
Starting relay (CSR):		3ARR3J4A4

PSC starting with additional winding



IOL: inner motor protection (klixon)

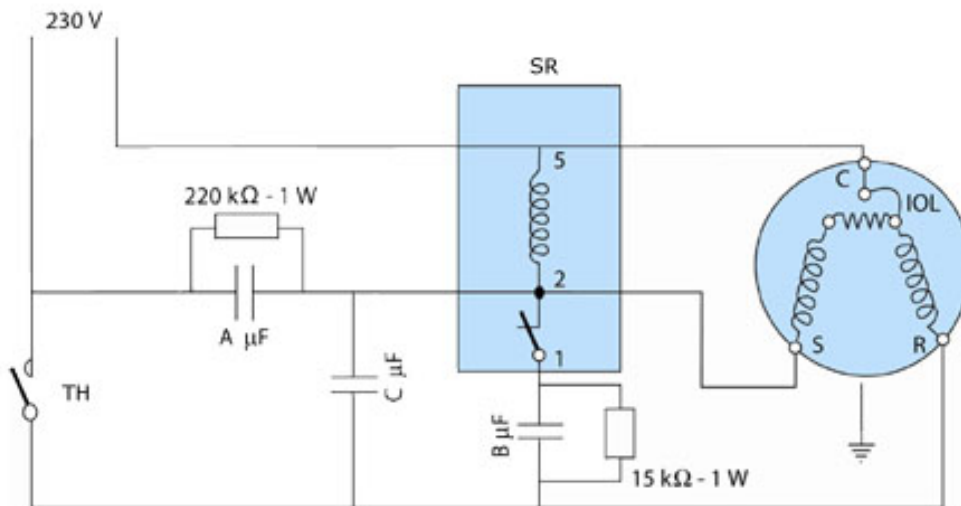
A, C: main condensers

C: starting condenser / S: common

TH: thermostat

SR: movement transmitter

CSR starting with additional winding



IOL: inner motor protection (klixon)

A, C: main condensers

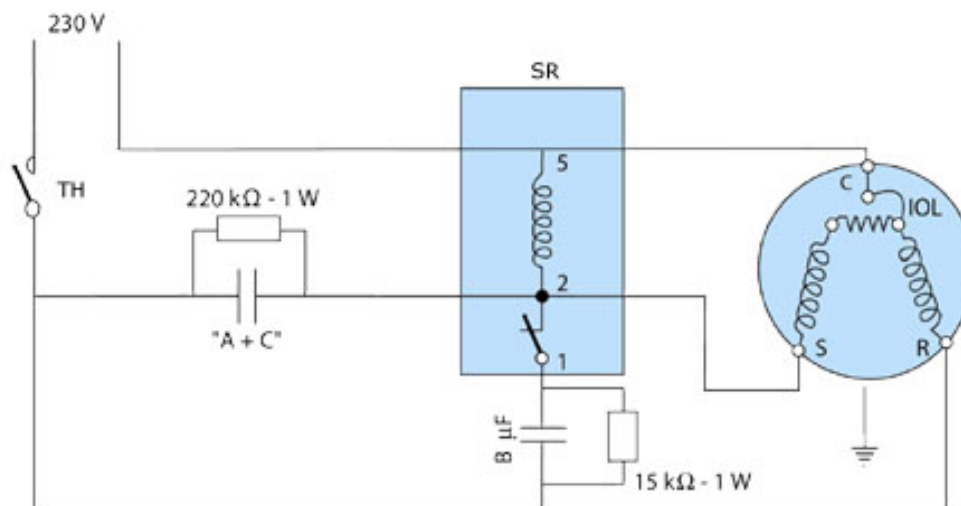
B: starting condenser

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

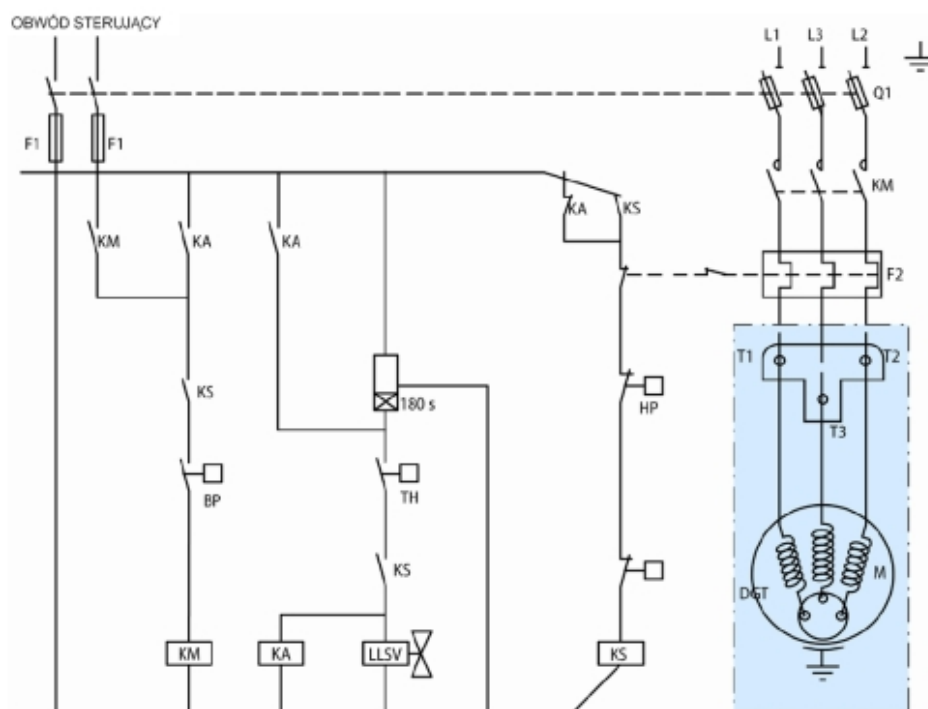
condensers A and C are replaced by one condenser of capacity A + C

Three-phase power supply

Electrical data

Motor voltage code:	3	4	6	7	9
Starting current [A]:	60	25	60	22	35
Maximum Continuous	18	8	60	5,5	9
Current (MCC) [A]:					
Winding resistance	1,27	6,15	1,27	8,9	4,2
(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

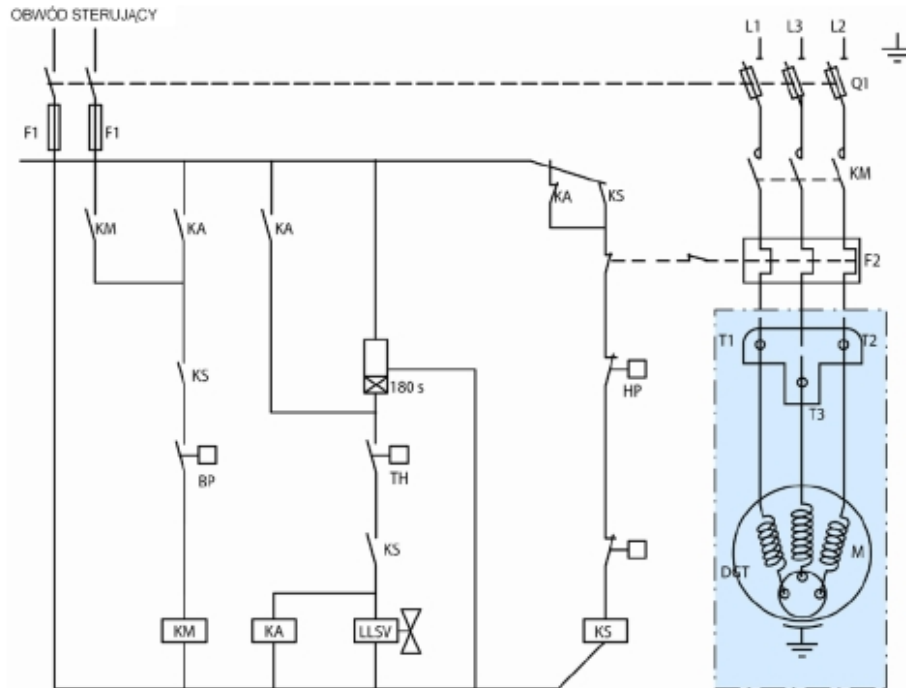
F2: External overload protection

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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Q1: Fused disconnect

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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