
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 scroll compressors****Producer: Maneurop****Series: SM****Model: SM120****Data****Model: SM120****Technical data**

Displacement [m ³ /h]:	29
:	166,6
RPM [min ⁻¹]:	2900
Weight [kg]:	73
Oil charge [dm ³]:	3,3
Oil type:	160P
Maximum system test pressure low side / high side:	25 / 32
Maximum number of starts without softstart [1/h]:	12
Refrigerant charge limit [dm ³]:	10
Refrigerant:	R22

Connections

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

Approvals

CCC	-
CE	+
UL	+

R22**Model: SM120****Cooling capacity [W]****Capacity**

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	12 625	16 011	19 907	24 351	29 381	35 034	41 348	48 361
35	11 845	15 163	18 970	23 305	28 206	33 711	39 857	46 681
40	11 051	14 286	17 992	22 205	26 965	32 308	38 272	44 896
45	-	13 382	16 973	21 052	25 657	30 825	36 595	43 004
50	-	-	15 914	19 845	24 282	29 263	34 826	41 008
55	-	-	-	18 585	22 841	27 622	32 964	38 906
60	-	-	-	-	21 335	25 902	31 010	36 699
65	-	-	-	-	19 762	24 103	28 965	34 387

Power input [W]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	5 371	5 364	5 359	5 356	5 354	5 354	5 356	5 358
35	5 981	5 970	5 959	5 949	5 940	5 931	5 922	5 913
40	6 672	6 656	6 639	6 622	6 604	6 585	6 566	6 545
45	-	7 432	7 408	7 383	7 356	7 326	7 295	7 261
50	-	-	8 274	8 240	8 202	8 161	8 117	8 070
55	-	-	-	9 201	9 152	9 100	9 042	8 980
60	-	-	-	-	10 214	10 149	10 077	10 000
65	-	-	-	-	11 396	11 317	11 230	11 137

Current [A]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	12.34	12.33	12.32	12.31	12.29	12.26	12.23	12.19
35	12.94	12.93	12.92	12.90	12.87	12.84	12.80	12.75
40	13.67	13.65	13.63	13.61	13.58	13.54	13.49	13.44
45	-	14.51	14.49	14.46	14.42	14.38	14.33	14.26
50	-	-	15.50	15.47	15.42	15.37	15.31	15.24
55	-	-	-	16.64	16.59	16.53	16.46	16.38
60	-	-	-	-	17.95	17.88	17.80	17.70
65	-	-	-	-	19.50	19.42	19.33	19.23

Model: SM120**Capacity****Mass flow [kg/s]**

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	254.97	319.22	391.87	473.54	564.82	666.34	778.69	902.50
35	247.86	313.12	386.70	469.21	561.25	663.45	776.40	900.71
40	240.11	306.19	380.52	463.69	556.32	659.01	772.38	897.03
45	-	298.31	373.21	456.86	549.90	652.91	766.52	891.32
50	-	-	364.64	448.61	541.86	645.02	758.69	883.47
55	-	-	-	438.79	532.10	635.22	748.77	873.36
60	-	-	-	-	520.47	623.38	736.64	860.85
65	-	-	-	-	506.86	609.38	722.17	845.82

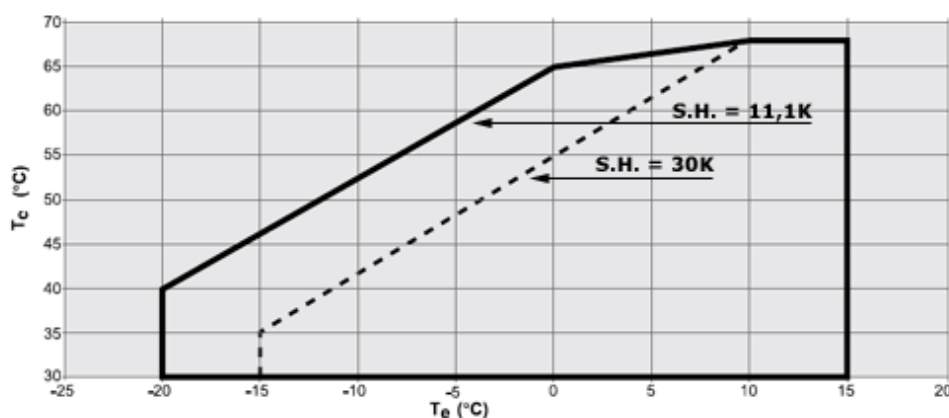
C.O.P. [W/W]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	2.35	2.98	3.71	4.55	5.49	6.54	7.72	9.03
35	1.98	2.54	3.18	3.92	4.75	5.68	6.73	7.89
40	1.66	2.15	2.71	3.35	4.08	4.91	5.83	6.86
45	-	1.80	2.29	2.85	3.49	4.21	5.02	5.92
50	-	-	1.92	2.41	2.96	3.59	4.29	5.08
55	-	-	-	2.02	2.50	3.04	3.65	4.33
60	-	-	-	-	2.09	2.55	3.08	3.67
65	-	-	-	-	1.73	2.13	2.58	3.09

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

t_c - Condensing temperature [°C]

t_e - Evaporating temperature [°C]

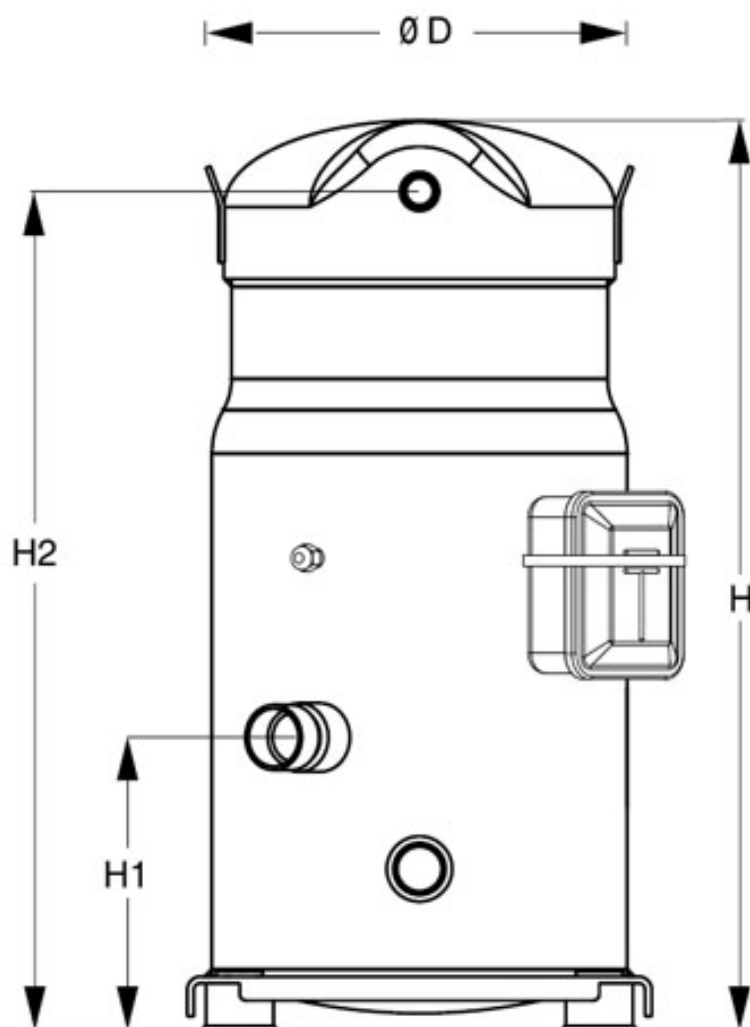
Application range

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Email : gacosarl@gmail.com / benkobbi_fares@yahoo.fr**Model: SM120****Dimensions**

D	254
H	558
H1	178 mm
H2	515 mm

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Model: SM120

Image



Model: SM120**Electrical**

Starting current [A]:

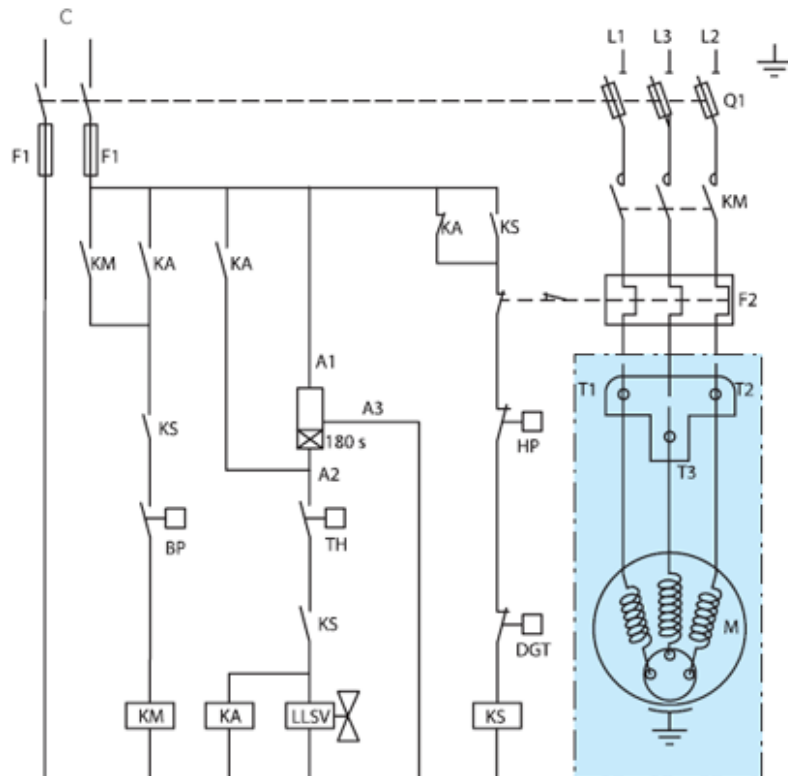
130

Maximum Continuous Current (MCC) [A]:

29

Winding resistance (between phases) [Ω]:

1,05

Connection diagram for systems with refrigerant suction

TH: Thermostat

180 s: ATI electronic timer

KA: Control transmitter CI 4-2

LLSV: Electromagnetic liquid valve

KM: Main contactor CI

KS: Fuses' switch

BP: Low pressure switch

HP: High pressure switch

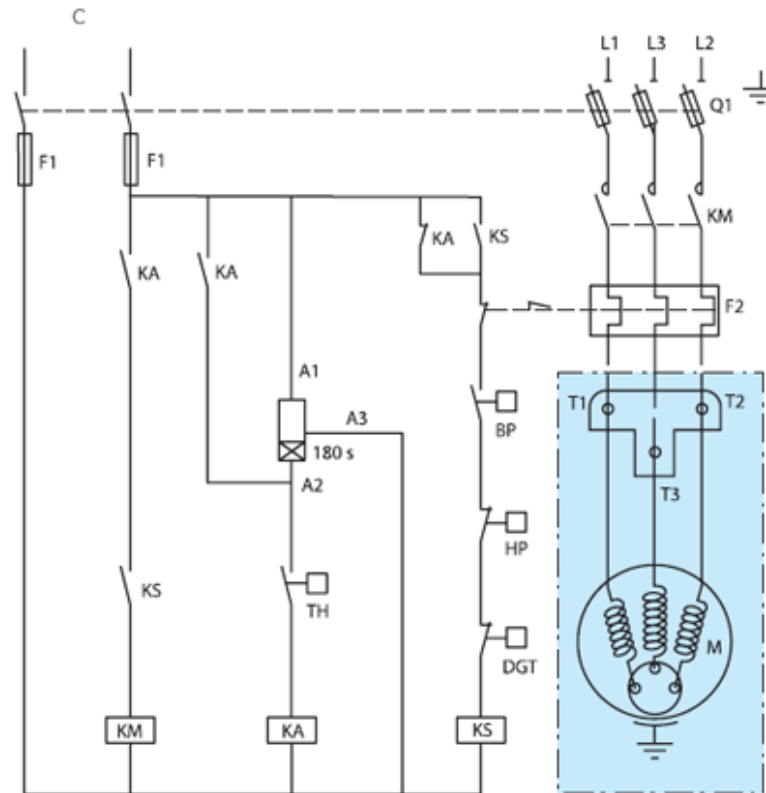
Q1: Safety switch

F1: Fuses

F2: Thermal relay TI

M: Compressor's engine

DGT: Discharge gas thermostat

Model: SM120**Electrical****Connection diagram for systems without refrigerant suction**

TH: Thermostat

180 s: ATI electronic timer

KA: Control transmitter CI 4-2

KM: Main contactor CI

KS: Fuses' switch

BP: Low pressure switch

HP: High pressure switch

Q1: Safety switch

F1: Fuses

F2: Thermal relay TI

M: Compressor's engine

DGT: Discharge gas thermostat

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Model: SM120**Equipment****Equipment**

- ▶ oil equalization - thread adapter 3/8"
- ▶ belt type heater - crankcase heater 65W, 230V
- ▶ soft-start kit - electronic softstart MCI 25C
- ▶ accoustic hood - acoustic shield of Danfoss catalogue number 7755010
- ▶ discharge thermostatic protection - discharge temperature protection accessory - Danfoss catalogue number 7750009