
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

**Model: SY300****Data****Type: Hermetic scroll compressors****Producer: Maneurop****Series: SY****Model: SY300****Technical data**

Displacement [m ³ /h]:	76,1
:	437,5
RPM [min ⁻¹]:	2900
Weight [kg]:	157
Oil charge [dm ³]:	8
Oil type:	320SZ
Maximum system test pressure low side / high side:	25 / 32
Maximum number of starts without softstart [1/h]:	12
Refrigerant charge limit [dm ³]:	20
Refrigerant:	R22

Connections

	<u>inches</u>
Suction Rotolock valve connection:	2 1/4"
Discharge Rotolock valve connection:	1 3/4"
Suction connection with supplied sleeve:	1 5/8"
Discharge connection with supplied sleeve:	1 1/8"

Approvals

CCC	-
CE	+
UL	+

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**R22****Model: SY300****Capacity****Cooling capacity [W]**

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	31 527	39 319	48 549	59 382	71 981	86 509	103 131	122 008
35	29 981	37 481	46 359	56 776	68 897	82 885	98 903	117 114
40	28 351	35 533	44 029	54 002	65 617	79 036	94 423	111 941
45	-	33 496	41 582	51 084	62 164	74 986	89 713	106 509
50	-	-	39 040	48 041	58 559	70 756	84 795	100 841
55	-	-	-	44 898	54 825	66 368	79 692	94 959
60	-	-	-	-	50 983	61 845	74 425	88 886
65	-	-	-	-	47 056	57 208	69 015	82 642

Power input [W]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	12 910	13 150	13 459	13 839	14 294	14 826	15 437	16 132
35	14 234	14 459	14 755	15 123	15 568	16 093	16 699	17 390
40	15 707	15 915	16 195	16 550	16 983	17 498	18 097	18 783
45	-	17 546	17 809	18 149	18 569	19 072	19 661	20 340
50	-	-	19 627	19 950	20 355	20 845	21 423	22 092
55	-	-	-	21 984	22 372	22 846	23 411	24 069
60	-	-	-	-	24 649	25 106	25 656	26 300
65	-	-	-	-	27 218	27 656	28 188	28 817

Current [A]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
35	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
40	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
45	-	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
50	-	-	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
55	-	-	-	-1.00	-1.00	-1.00	-1.00	-1.00
60	-	-	-	-	-1.00	-1.00	-1.00	-1.00
65	-	-	-	-	-1.00	-1.00	-1.00	-1.00

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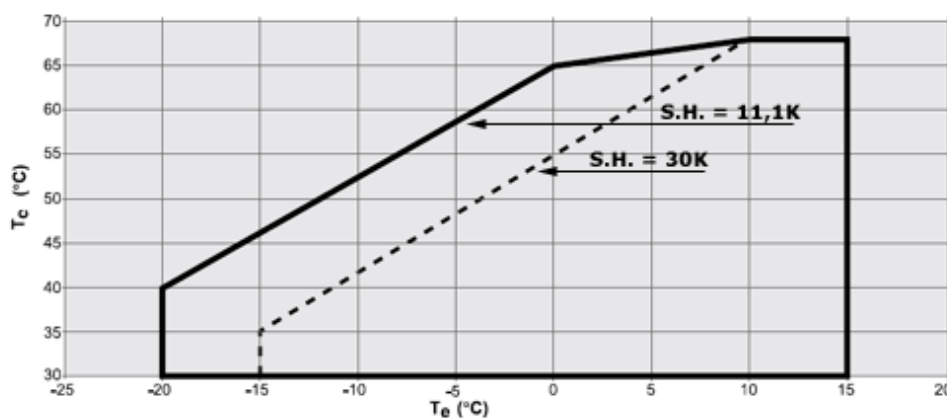
**Model: SY300****Capacity****Mass flow [kg/s]**

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	677.66	834.24	1 016.52	1 227.38	1 469.71	1 746.41	2 060.37	2 414.48
35	669.67	825.91	1 007.78	1 218.19	1 460.01	1 736.14	2 049.47	2 402.91
40	659.97	815.30	996.21	1 205.59	1 446.34	1 721.34	2 033.49	2 385.68
45	-	802.58	981.97	1 189.77	1 428.88	1 702.19	2 012.59	2 362.98
50	-	-	965.22	1 170.88	1 407.78	1 678.84	1 986.93	2 334.95
55	-	-	-	1 149.08	1 383.23	1 651.47	1 956.69	2 301.78
60	-	-	-	-	1 355.38	1 620.24	1 922.02	2 263.63
65	-	-	-	-	1 324.41	1 585.32	1 883.11	2 220.66

C.O.P. [W/W]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	2.44	2.99	3.61	4.29	5.04	5.84	6.68	7.56
35	2.11	2.59	3.14	3.75	4.43	5.15	5.92	6.73
40	1.81	2.23	2.72	3.26	3.86	4.52	5.22	5.96
45	-	1.91	2.33	2.81	3.35	3.93	4.56	5.24
50	-	-	1.99	2.41	2.88	3.39	3.96	4.56
55	-	-	-	2.04	2.45	2.90	3.40	3.95
60	-	-	-	-	2.07	2.46	2.90	3.38
65	-	-	-	-	1.73	2.07	2.45	2.87

Operating conditions: suction superheat: 10 K, subcooling: 0 K

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

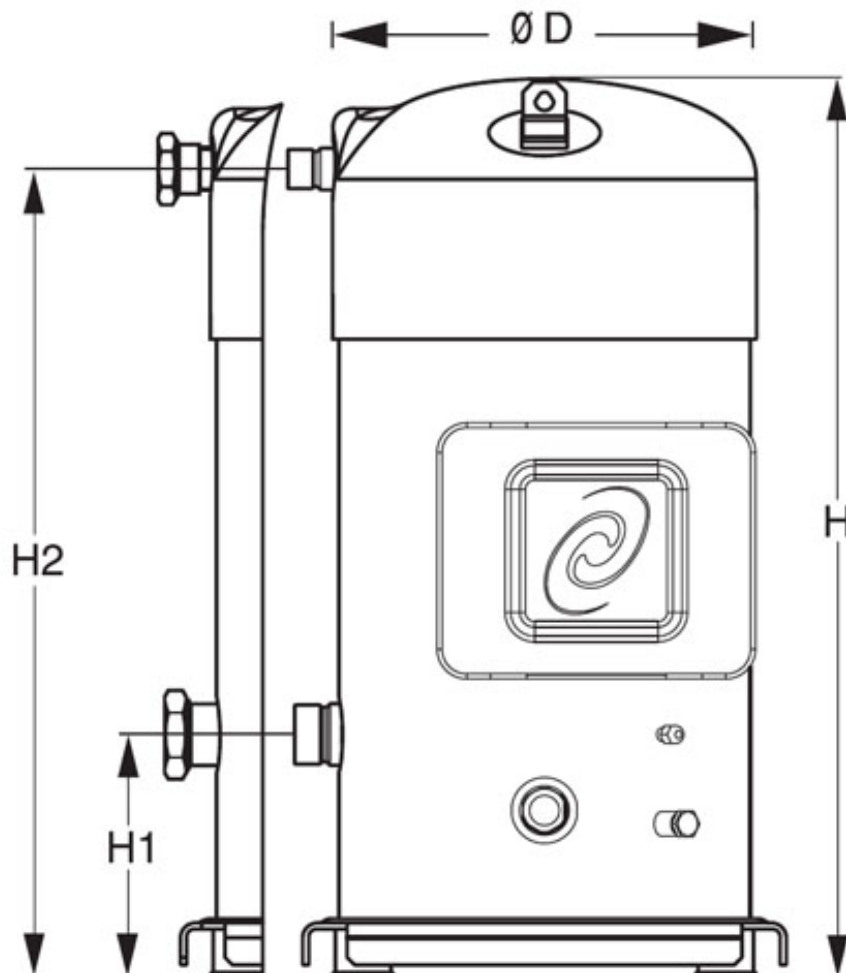
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**Model: SY300****Dimensions**

D	344 mm
H	740 mm
H1	196 mm
H2	667 mm

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Model: SY300

Image



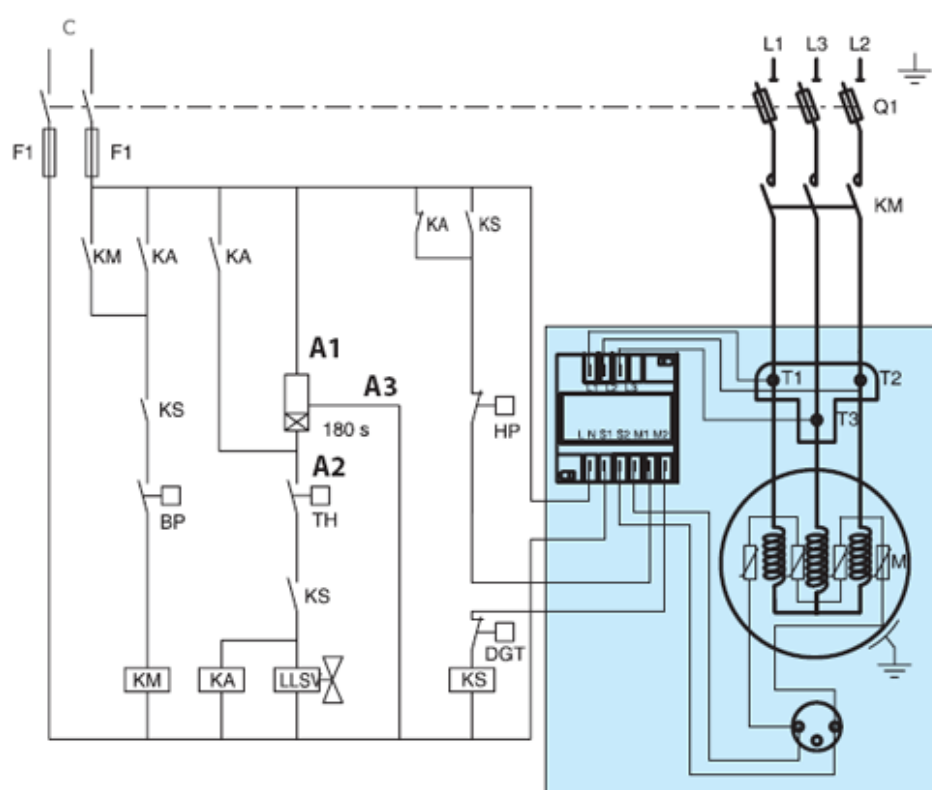
Model: SY300

Electrical

Electrical data

Starting current [A]:	270
Maximum Continuous Current (MCC) [A]:	69
Winding resistance (between phases) [Ω]:	0,516

Connection diagram for systems with refrigerant suction



TH: Thermostat

180s: 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

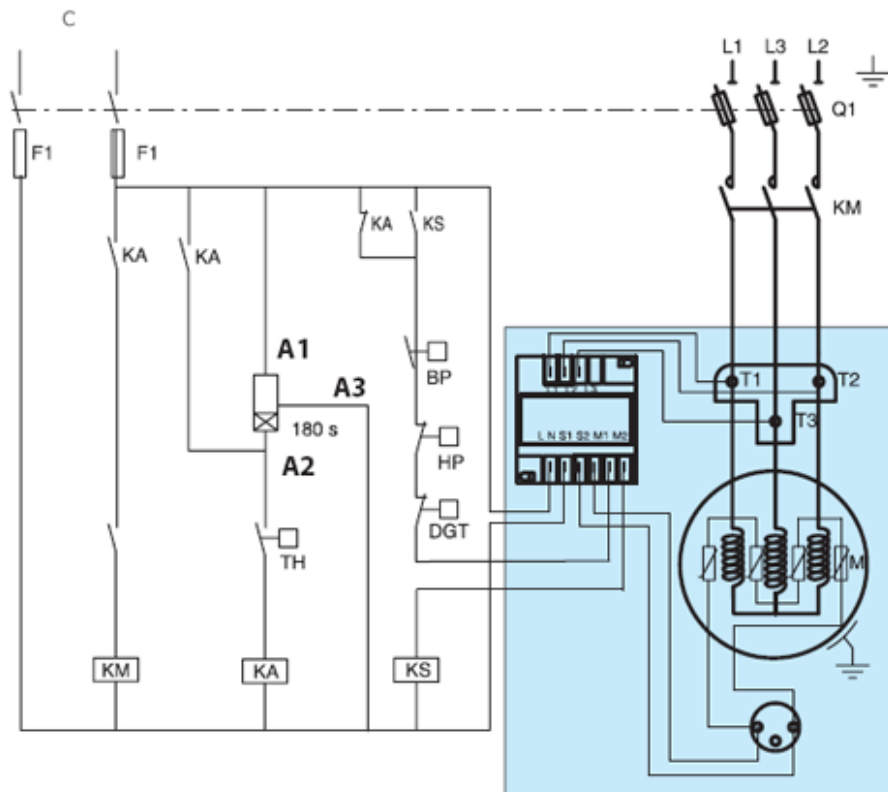
Q1: Safety switch

F1: Fuses / S: Thermal relay TI

F2: Thermal relay TI

M: Compressor's engine

DGT: Discharge gas thermostat

Model: SY300**Electrical****Connection diagram for systems without refrigerant suction**

TH: Thermostat

180s: 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 / S: Thermal relay TI

F2: Thermal relay TI

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Model: SY300

Equipment

Equipment

- ▶ oil equalization - thread adapter 1/2"
- ▶ belt type heater - crankcase heater 130W, 230V
- ▶ soft-start kit - electronic softstart MCI 50C
- ▶ accoustic hood - acoustic shield of Danfoss catalogue number 7755016
- ▶ discharge thermostatic protection - discharge temperature protection accessory - Danfoss catalogue number 7750009