
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: Danfoss-Maneurop****Series: SH****Model: SH380****Technical data**

Displacement [m ³ /h]:	60
Swept volume [cm ³ /rev]:	345
RPM [min ⁻¹]:	2900
Weight [kg]:	164
Oil charge [dm ³]:	7,2
Oil type:	160SZ
Maximum system test pressure low side / high side:	30/45
Maximum number of starts without softstart [1/h]:	12
Refrigerant charge limit [dm ³]:	14,5
Sound power [dB]:	84
Refrigerant:	R410A

Connections

	<u>millimeters</u>	<u>inches</u>
Suction connection with supplied sleeve:	41	1 5/8"
Discharge connection with supplied sleeve:	35	1 3/8"

R410A**Cooling capacity [W]**

$t_c \setminus t_e$	-25	-20	-15	-10	-5	0	5	10	15
20	38 730	47 538	57 973	70 235	84 525	101 046	119 998	-	-
25	36 775	45 464	55 692	67 662	81 574	97 629	116 028	136 973	-
30	34 685	43 197	53 162	64 780	78 255	93 786	111 574	131 822	154 731
35	32 482	40 758	50 400	61 610	74 589	89 537	106 657	126 149	148 215
40	-	38 168	47 429	58 172	70 596	84 904	101 297	119 975	141 141
45	-	35 446	44 269	54 485	66 298	79 907	95 514	113 320	133 527
50	-	-	40 939	50 572	61 713	74 565	89 328	106 204	125 394
55	-	-	-	46 451	56 864	68 900	82 761	98 648	116 763
60	-	-	-	-	51 770	62 932	75 833	90 673	107 653
65	-	-	-	-	-	56 681	68 563	82 298	98 087

Power input [W]

$t_c \setminus t_e$	-25	-20	-15	-10	-5	0	5	10	15
20	13 659	13 676	13 709	13 741	13 753	13 729	13 652	-	-
25	15 199	15 211	15 253	15 307	15 356	15 383	15 371	15 303	-
30	16 862	16 855	16 892	16 956	17 028	17 093	17 132	17 130	17 068
35	18 703	18 664	18 683	18 742	18 824	18 912	18 989	19 039	19 043
40	-	20 692	20 678	20 719	20 798	20 896	20 998	21 085	21 142
45	-	22 993	22 934	22 944	23 005	23 100	23 212	23 324	23 420
50	-	-	25 505	25 470	25 499	25 578	25 687	25 810	25 931
55	-	-	-	28 352	28 337	28 384	28 477	28 598	28 730
60	-	-	-	-	31 572	31 575	31 638	31 743	31 873
65	-	-	-	-	-	35 204	35 223	35 299	35 413

Current [A]

$t_c \setminus t_e$	-25	-20	-15	-10	-5	0	5	10	15
20	28.67	28.76	28.78	28.74	28.66	28.55	28.42	-	-
25	30.53	30.67	30.75	30.77	30.75	30.71	30.66	30.61	-
30	32.49	32.67	32.78	32.85	32.88	32.89	32.89	32.91	32.95
35	34.65	34.85	34.99	35.08	35.15	35.19	35.24	35.30	35.39
40	-	37.34	37.49	37.59	37.67	37.74	37.81	37.90	38.02
45	-	40.24	40.38	40.48	40.56	40.64	40.72	40.82	40.96
50	-	-	43.78	43.87	43.93	43.99	44.07	44.17	44.31
55	-	-	-	47.85	47.89	47.92	47.98	48.06	48.19
60	-	-	-	-	52.54	52.54	52.55	52.60	52.70
65	-	-	-	-	-	57.95	57.91	57.91	57.96

Mass flow [kg/h]

$t_c \setminus t_e$	-25	-20	-15	-10	-5	0	5	10	15
20	679.85	830.60	1 003.93	1 203.42	1 432.68	1 695.30	1 994.89	-	-
25	673.12	826.36	1 002.11	1 203.99	1 435.57	1 700.47	2 002.28	2 344.60	-
30	663.81	818.88	996.42	1 200.01	1 433.27	1 699.79	2 003.17	2 347.00	2 734.89
35	651.96	808.20	986.86	1 191.53	1 425.80	1 693.29	1 997.58	2 342.27	2 730.97
40	-	794.34	973.47	1 178.55	1 413.20	1 680.99	1 985.54	2 330.44	2 719.29
45	-	777.34	956.28	1 161.12	1 395.47	1 662.93	1 967.08	2 311.53	2 699.88
50	-	-	935.31	1 139.26	1 372.67	1 639.12	1 942.22	2 285.57	2 672.77
55	-	-	-	1 113.00	1 344.80	1 609.61	1 911.00	2 252.59	2 637.98
60	-	-	-	-	1 311.91	1 574.41	1 873.44	2 212.62	2 595.54
65	-	-	-	-	-	1 533.55	1 829.57	2 165.68	2 545.48

C.O.P. [W/W]

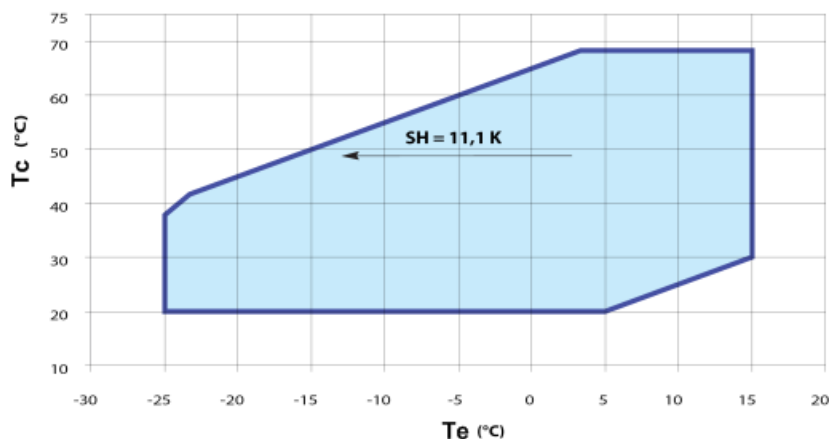
$t_c \setminus t_e$	-25	-20	-15	-10	-5	0	5	10	15
20	2.84	3.48	4.23	5.11	6.15	7.36	8.79	-	-
25	2.42	2.99	3.65	4.42	5.31	6.35	7.55	8.95	-
30	2.06	2.56	3.15	3.82	4.60	5.49	6.51	7.70	9.07
35	1.74	2.18	2.70	3.29	3.96	4.73	5.62	6.63	7.78
40	-	1.84	2.29	2.81	3.39	4.06	4.82	5.69	6.68
45	-	1.54	1.93	2.37	2.88	3.46	4.11	4.86	5.70
50	-	-	1.61	1.99	2.42	2.92	3.48	4.11	4.84
55	-	-	-	1.64	2.01	2.43	2.91	3.45	4.06
60	-	-	-	-	1.64	1.99	2.40	2.86	3.38
65	-	-	-	-	-	1.61	1.95	2.33	2.77

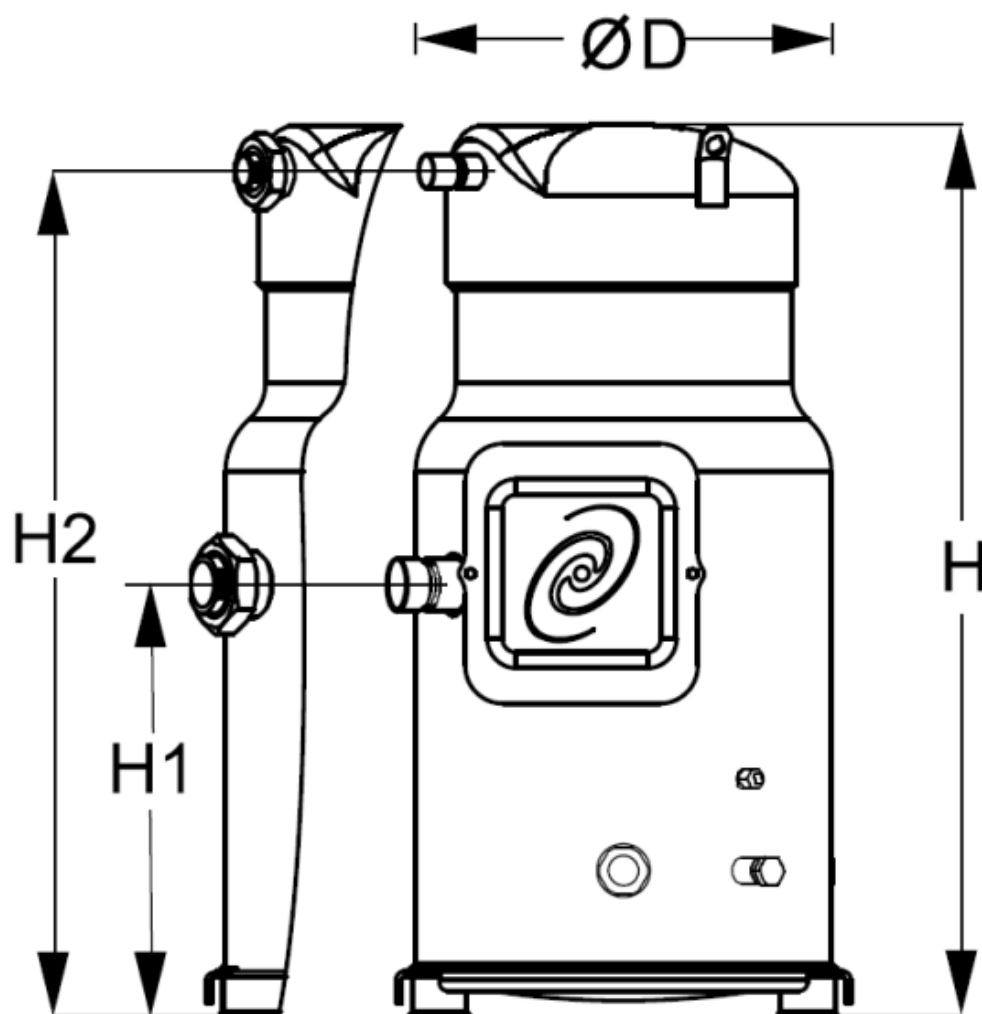
Operating conditions: superheating: 11.1 K, subcooling: 8.3 K

t_c - Condensing temperature [°C]

t_e - Evaporating temperature [°C]

Application range





D [mm]: 333,2

H [mm]: 754,8

H1 [mm]: 330,5

H2 [mm]: 695,8

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Single phase power supply

Motor voltage code:

4

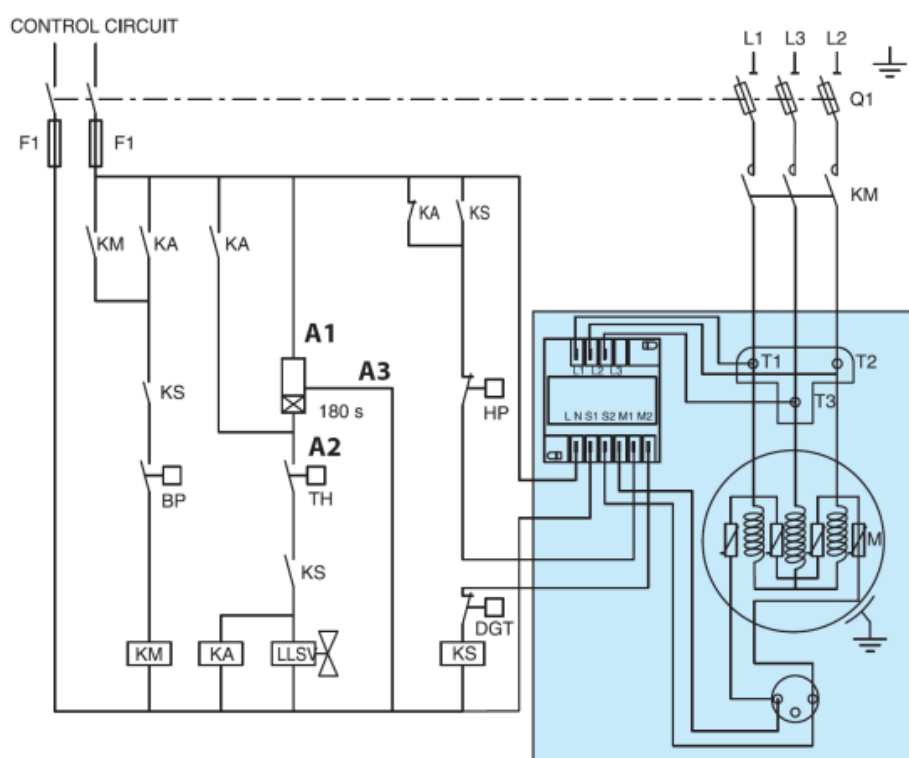
Power supply:

400V/3/50Hz

Maximum Continuous Current (MCC) [A]:

61,5

Wiring diagram with pump-down cycle



TH: Control device

180 s: Optional short cycle timer (3min) 5 pts

KA: Control relay

LLSV: Liquid Line Solenoid valve

KM: Compressor contactor

KS: Safety lock out relay

BP: Pump-down control and low pressure switch

HP: High pressure safety switch

Q1: Fused disconnect

F1: Fuses / S: External overload protection

F2: External overload protection

M: Compressor's engine

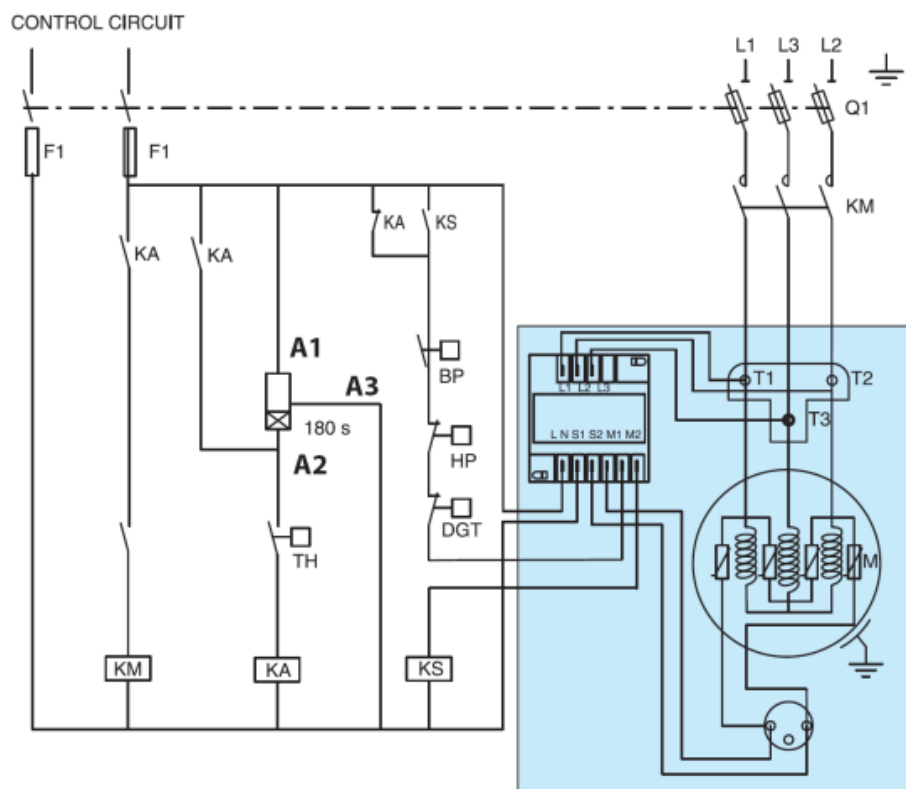
thM: Motor safety thermostat

DGT: Discharge gas thermostat

MPM: Motor Protection Module

S: Thermistor chain

Wiring diagram without pump-down cycle



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