

Model: SZ380

Data

Type: Hermetic scroll compressors

Producer: Maneurop

Series: SZ

Model: SZ380

Technical data

Displacement [m ³ /h]:	92,4
:	531,2
RPM [min ⁻¹]:	2900
Weight [kg]:	158
Oil charge [dm ³]:	8,4
Oil type:	160SZ
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:	R407C, R134a

Connections

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

Approvals

CCC	-
CE	+
UL	+

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Capacity

R407C

Cooling capacity [W]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	40 505	49 857	60 957	74 036	89 325	107 055	127 457	150 763
35	38 484	47 540	58 259	70 872	85 611	102 705	122 387	144 887
40	36 309	45 027	55 324	67 431	81 578	97 997	116 918	138 572
45	34 003	42 344	52 178	63 738	77 253	92 955	111 074	131 842
50	31 591	39 514	48 846	59 817	72 659	87 603	104 880	124 721
55	-	36 563	45 350	55 693	67 822	81 968	98 362	117 235
60	-	-	41 718	51 391	62 766	76 073	91 543	109 407
65	-	-	-	-	57 515	69 942	84 448	101 263

Power input [W]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	15 398	15 787	16 190	16 602	17 019	17 440	17 859	18 273
35	17 090	17 486	17 902	18 334	18 780	19 235	19 697	20 161
40	18 981	19 372	19 791	20 234	20 698	21 178	21 672	22 176
45	21 121	21 498	21 910	22 354	22 825	23 321	23 837	24 370
50	23 564	23 917	24 312	24 745	25 214	25 714	26 243	26 796
55	-	26 679	27 047	27 461	27 917	28 412	28 942	29 504
60	-	-	30 168	30 552	30 985	31 464	31 986	32 547
65	-	-	-	-	34 471	34 925	35 428	35 978

Current [A]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	30.86	31.30	31.73	32.15	32.55	32.94	33.31	33.65
35	32.80	33.30	33.81	34.31	34.80	35.29	35.77	36.24
40	34.97	35.51	36.07	36.63	37.19	37.76	38.33	38.90
45	37.50	38.06	38.64	39.24	39.85	40.48	41.12	41.76
50	40.51	41.06	41.65	42.26	42.90	43.56	44.25	44.94
55	-	44.65	45.22	45.83	46.47	47.15	47.85	48.58
60	-	-	49.48	50.06	50.68	51.35	52.05	52.79
65	-	-	-	-	55.67	56.30	56.98	57.70

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Capacity

Mass flow [kg/s]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	790.84	960.23	1 156.46	1 383.25	1 644.32	1 943.36	2 284.09	2 670.22
35	783.87	953.96	1 150.87	1 378.33	1 640.03	1 939.70	2 281.04	2 667.76
40	774.31	944.54	1 141.58	1 369.15	1 630.94	1 930.68	2 272.07	2 658.83
45	762.08	931.90	1 128.51	1 355.62	1 616.95	1 916.21	2 257.10	2 643.33
50	747.08	915.93	1 111.56	1 337.67	1 597.98	1 896.20	2 236.03	2 621.19
55	-	896.56	1 090.65	1 315.20	1 573.94	1 870.56	2 208.77	2 592.30
60	-	-	1 065.69	1 288.13	1 544.73	1 839.20	2 175.25	2 556.59
65	-	-	-	-	1 510.28	1 802.04	2 135.37	2 513.96

C.O.P. [W/W]

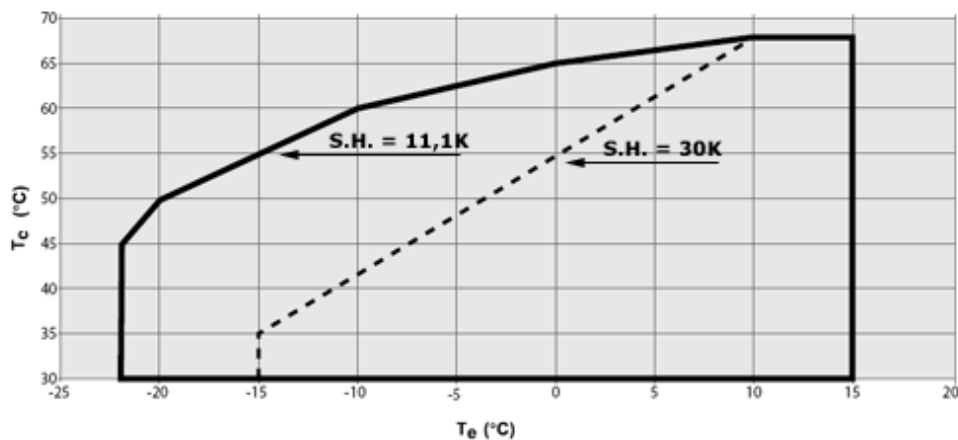
$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	2.63	3.16	3.77	4.46	5.25	6.14	7.14	8.25
35	2.25	2.72	3.25	3.87	4.56	5.34	6.21	7.19
40	1.91	2.32	2.80	3.33	3.94	4.63	5.39	6.25
45	1.61	1.97	2.38	2.85	3.38	3.99	4.66	5.41
50	1.34	1.65	2.01	2.42	2.88	3.41	4.00	4.65
55	-	1.37	1.68	2.03	2.43	2.89	3.40	3.97
60	-	-	1.38	1.68	2.03	2.42	2.86	3.36
65	-	-	-	-	1.67	2.00	2.38	2.81

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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Dimensions

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D	344 mm
H	770 mm
H1	203 mm
H2	695 mm

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Image

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Electrical data

Starting current [A]:

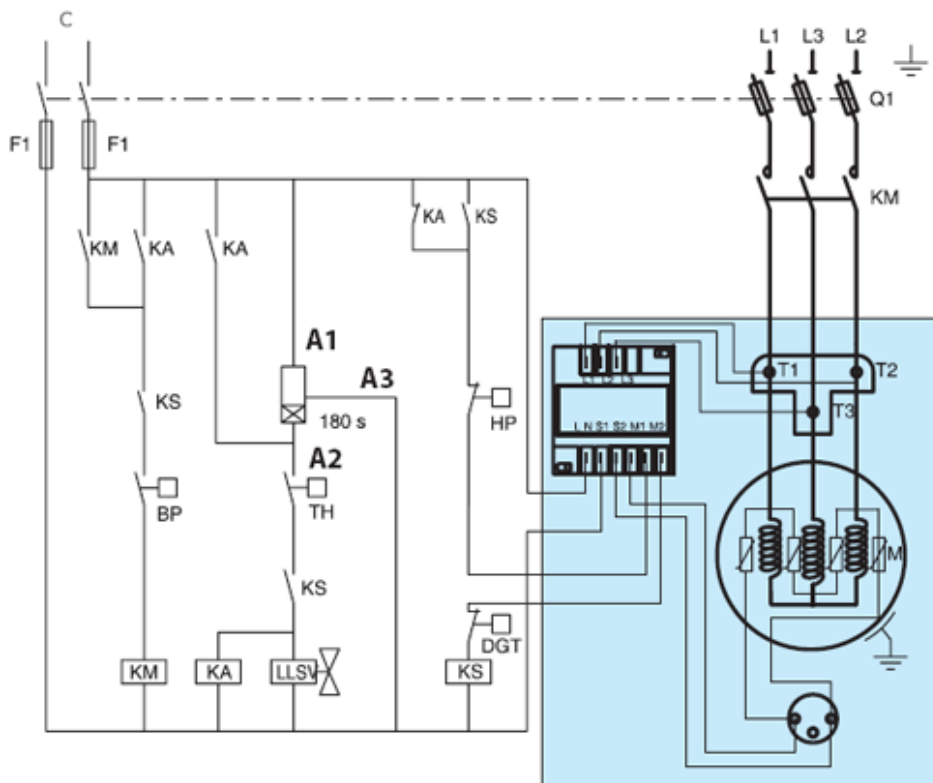
320

Maximum Continuous Current (MCC) [A]:

72

Winding resistance (between phases) [Ω]:

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

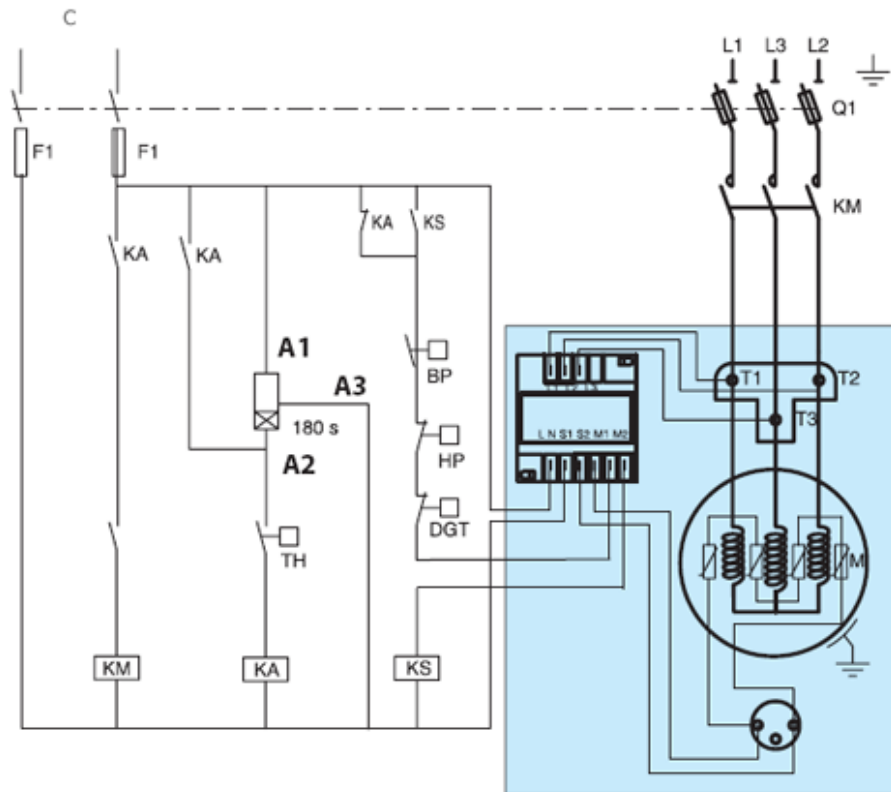
F1: Fuses / S: Thermal relay TI

F2: Thermal relay TI

M: Compressor's engine

DGT: Discharge gas thermostat

Connection diagram for systems without 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 / S: Thermal relay TI
- F2: Thermal relay TI
- M: Compressor's engine
- DGT: Discharge gas thermostat

Equipment

- ▶ oil equalization - thread adapter 1/2"
- ▶ belt type heater - crankcase heater -W, -V
- ▶ soft-start kit - electronic softstart -
- ▶ acoustic hood - acoustic shield of Danfoss catalogue number 7755022
- ▶ discharge thermostatic protection - discharge temperature protection accessory - Danfoss catalogue number 7750009