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: Copeland
Series: ZR

Model: ZR190KCE-TFD

Technical data

Displacement [m³/h]:	43,3
Sound power [dBA]:	82
Sound pressure level [dB]:	71
Net Weight [kg]:	66
Oil charge [dm³]:	3,3
Maximum high pressure [bar]:	32
Maximum standstill pressure [bar]:	20
Minimal lowside temperature [°C]:	-35
Maximum lowside temperature [°C]:	52
PED category:	2

Electrical data

Power supply [V/~/Hz]:	380-420/3/50Hz
Locked rotor current [A]:	174
Max. operating current [A]:	34,0
Winding resistance [Ω]:	0,8

Connections

	inches
Suction connection with supplied sleeve:	1 3/8"
Discharge connection with supplied sleeve:	7/8"

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R134a

Cooling capacity [kW]

t_c \ t_e	-15	-10	-5	0	5	10	15
25	16.54	20.31	24.55	29.38	34.87	41.12	-
30	15.51	19.24	23.42	28.13	33.47	39.53	46.42
35	14.42	18.13	22.24	26.84	32.04	37.92	44.59
40	13.23	16.92	20.97	25.48	30.54	36.25	42.71
45	11.90	15.58	19.58	24.00	28.94	34.48	40.74
50	-	14.07	18.03	22.37	27.19	32.58	38.63
55	-	12.35	16.27	20.54	25.25	30.49	36.36
60	-	-	14.28	18.48	23.09	28.18	33.87
65	-	-	12.00	16.15	20.66	25.62	31.14
70	-	-	-	13.50	17.92	22.76	28.12
75	-	-	-	10.50	14.84	19.57	24.76

Power input [kW]

t_c \ t_e	-15	-10	-5	0	5	10	15
25	4.73	4.84	4.94	5.05	5.16	5.26	-
30	5.26	5.36	5.45	5.55	5.65	5.76	5.86
35	5.85	5.94	6.03	6.12	6.21	6.30	6.40
40	6.53	6.60	6.68	6.76	6.84	6.93	7.01
45	7.29	7.35	7.41	7.48	7.55	7.63	7.70
50	-	8.20	8.25	8.31	8.36	8.42	8.49
55	-	9.17	9.20	9.24	9.28	9.33	9.38
60	-	-	10.27	10.29	10.32	10.35	10.38
65	-	-	11.48	11.48	11.49	11.50	11.52
70	-	-	-	12.82	12.80	12.79	12.79
75	-	-	-	14.31	14.27	14.24	14.22

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Current [A]

t_c \ t_e	-15	-10	-5	0	5	10	15
25	14.00	14.11	14.24	14.38	14.56	14.79	-
30	14.68	14.80	14.91	15.03	15.17	15.35	15.57
35	15.47	15.59	15.71	15.81	15.93	16.07	16.24
40	16.38	16.53	16.64	16.75	16.84	16.95	17.08
45	17.44	17.61	17.74	17.84	17.93	18.02	18.11
50	-	18.85	19.01	19.12	19.21	19.28	19.34
55	-	20.28	20.47	20.60	20.69	20.76	20.80
60	-	-	22.13	22.29	22.40	22.47	22.50
65	-	-	24.01	24.21	24.34	24.42	24.45
70	-	-	-	26.37	26.54	26.63	26.68
75	-	-	-	28.80	29.00	29.13	29.18

Mass flow [kg/h]

t_c \ t_e	-15	-10	-5	0	5	10	15
25	364.73	439.76	521.46	612.08	713.85	829.01	-
30	358.99	436.47	519.89	611.49	713.51	828.19	957.76
35	351.24	432.05	518.07	611.54	714.70	829.79	959.03
40	339.63	424.66	514.17	610.39	715.57	831.95	961.75
45	322.31	412.44	506.32	606.19	714.28	832.83	964.08
50	-	393.56	492.70	597.09	708.97	830.59	964.17
55	-	366.15	471.44	581.24	697.81	823.37	960.16
60	-	-	440.70	556.80	678.93	809.33	950.22
65	-	-	398.63	521.92	650.50	786.61	932.50
70	-	-	-	474.75	610.67	753.38	905.14
75	-	-	-	413.44	557.58	707.79	866.31

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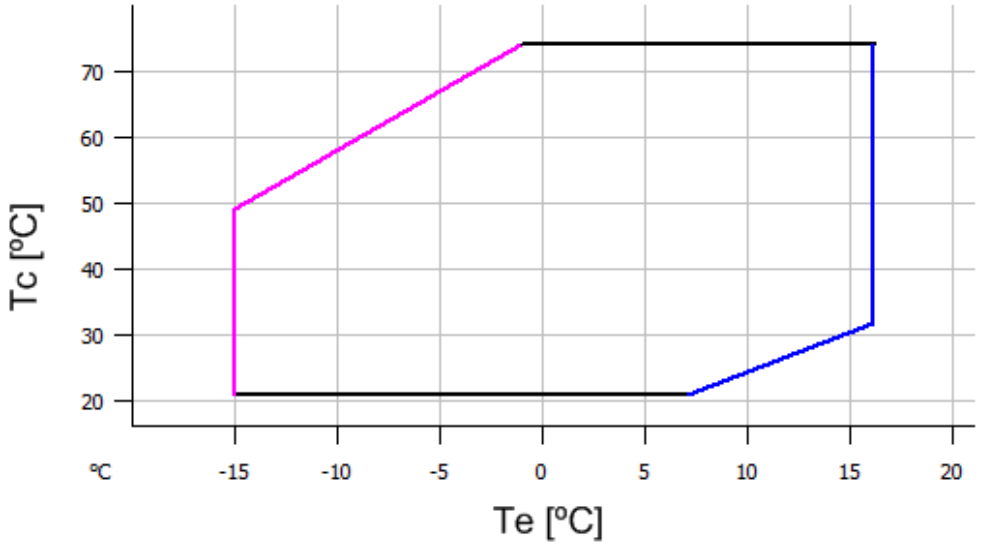
C.O.P. [W/W]

t_c \ t_e	-15	-10	-5	0	5	10	15
25	3.49	4.20	4.97	5.82	6.76	7.81	-
30	2.95	3.59	4.30	5.07	5.92	6.87	7.92
35	2.46	3.05	3.69	4.39	5.16	6.01	6.97
40	2.03	2.56	3.14	3.77	4.47	5.24	6.09
45	1.63	2.12	2.64	3.21	3.83	4.52	5.29
50	-	1.72	2.18	2.69	3.25	3.87	4.55
55	-	1.35	1.77	2.22	2.72	3.27	3.88
60	-	-	1.39	1.80	2.24	2.72	3.26
65	-	-	1.04	1.41	1.80	2.23	2.70
70	-	-	-	1.05	1.40	1.78	2.20
75	-	-	-	0.73	1.04	1.37	1.74

Application range



Maximum evaporating temperature
25ºC suction gas temperature
10K gas overheat

Operating conditions: 10K suction superheat, 0K subcooling
t_c - Condensing temperature [ºC]
t_e - Evaporating temperature [ºC]

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R407C

Cooling capacity [kW]

t_c \ t_e	-25	-20	-15	-10	-5	0	5	10	15	20
25	13.68	17.72	22.43	27.93	34.36	41.84	50.50	60.45	-	-
30	12.53	16.62	21.33	26.79	33.11	40.44	48.89	58.59	69.66	-
35	11.20	15.32	20.01	25.39	31.59	38.73	46.95	56.37	67.11	79.30
40	-	13.83	18.47	23.75	29.80	36.74	44.70	53.81	64.19	75.96
45	-	-	16.74	21.89	27.76	34.47	42.15	50.93	60.92	72.26
50	-	-	-	19.83	25.50	31.95	39.33	47.74	57.33	68.20
55	-	-	-	-	23.02	29.20	36.24	44.27	53.42	63.81
60	-	-	-	-	-	26.22	32.90	40.53	49.22	59.09
65	-	-	-	-	-	-	29.34	36.53	44.73	54.07

Power input [kW]

t_c \ t_e	-25	-20	-15	-10	-5	0	5	10	15	20
25	6.77	6.86	6.93	7.02	7.16	7.37	7.68	8.13	-	-
30	7.57	7.67	7.74	7.80	7.89	8.03	8.26	8.60	9.08	-
35	8.44	8.57	8.65	8.70	8.76	8.85	9.00	9.25	9.62	10.15
40	-	9.57	9.67	9.73	9.77	9.83	9.92	10.10	10.37	10.78
45	-	-	10.82	10.89	10.93	10.97	11.03	11.14	11.33	11.64
50	-	-	-	12.20	12.25	12.28	12.32	12.38	12.51	12.73
55	-	-	-	-	13.73	13.77	13.80	13.84	13.91	14.06
60	-	-	-	-	-	15.44	15.48	15.50	15.55	15.64
65	-	-	-	-	-	-	17.36	17.38	17.41	17.47

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Current [A]

t_c \ t_e	-25	-20	-15	-10	-5	0	5	10	15	20
25	19.54	19.58	19.62	19.68	19.80	19.99	20.29	20.72	-	-
30	20.14	20.20	20.24	20.28	20.34	20.47	20.67	20.98	21.43	-
35	20.87	20.98	21.03	21.07	21.11	21.18	21.31	21.53	21.85	22.32
40	-	21.91	22.01	22.07	22.10	22.14	22.22	22.36	22.59	22.93
45	-	-	23.18	23.27	23.33	23.36	23.41	23.50	23.65	23.89
50	-	-	-	24.70	24.79	24.84	24.88	24.94	25.03	25.20
55	-	-	-	-	26.51	26.59	26.65	26.69	26.75	26.86
60	-	-	-	-	-	28.62	28.71	28.76	28.81	28.88
65	-	-	-	-	-	-	31.08	31.16	31.22	31.28

Mass flow [kg/h]

t_c \ t_e	-25	-20	-15	-10	-5	0	5	10	15	20
25	277.68	356.27	445.00	546.01	661.46	793.46	944.17	1 115.72	-	-
30	267.80	350.10	442.25	546.39	664.65	799.18	952.11	1 125.59	1 321.75	-
35	253.00	339.06	434.67	541.97	663.09	800.18	955.38	1 130.83	1 328.66	1 551.03
40	-	322.74	421.86	532.36	656.39	796.09	953.60	1 131.06	1 330.60	1 554.38
45	-	-	403.41	517.16	644.14	786.49	946.36	1 125.87	1 327.17	1 552.41
50	-	-	-	495.98	625.96	771.00	933.26	1 114.87	1 317.98	1 544.72
55	-	-	-	-	601.43	749.22	913.92	1 097.67	1 302.62	1 530.90
60	-	-	-	-	-	720.75	887.93	1 073.87	1 280.71	1 510.58
65	-	-	-	-	-	-	854.90	1 043.07	1 251.84	1 483.34

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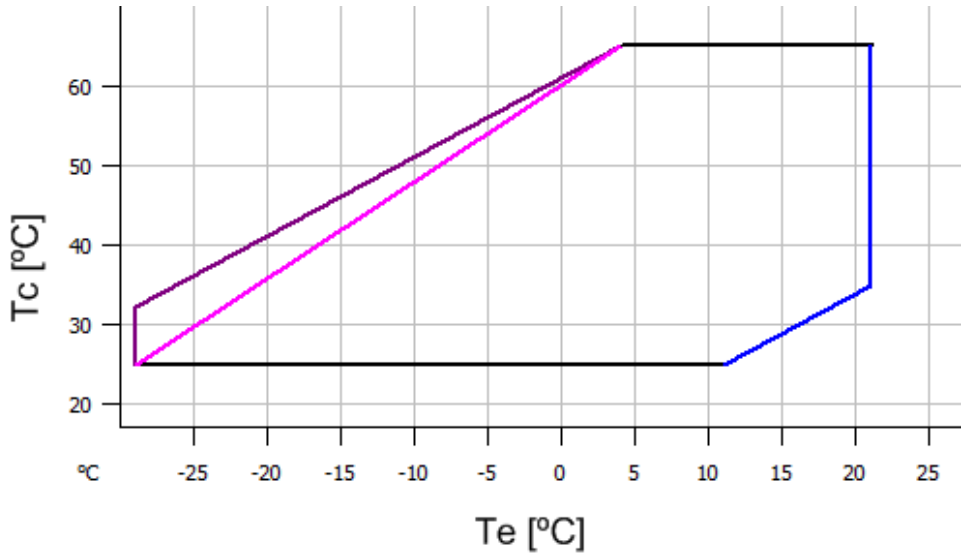
C.O.P. [W/W]

t_c \ t_e	-25	-20	-15	-10	-5	0	5	10	15	20
25	2.02	2.58	3.23	3.98	4.80	5.68	6.57	7.43	-	-
30	1.65	2.17	2.76	3.43	4.20	5.04	5.92	6.81	7.67	-
35	1.33	1.79	2.31	2.92	3.61	4.38	5.22	6.09	6.97	7.82
40	-	1.44	1.91	2.44	3.05	3.74	4.50	5.33	6.19	7.05
45	-	-	1.55	2.01	2.54	3.14	3.82	4.57	5.38	6.21
50	-	-	-	1.63	2.08	2.60	3.19	3.86	4.58	5.36
55	-	-	-	-	1.68	2.12	2.63	3.20	3.84	4.54
60	-	-	-	-	-	1.70	2.13	2.61	3.17	3.78
65	-	-	-	-	-	-	1.69	2.10	2.57	3.10

Application range



Maximum evaporating temperature
25ºC suction gas temperature
10K gas overheat

Operating conditions: 10K suction superheat, 0K subcooling
t_c - Condensing temperature [ºC]
t_e - Evaporating temperature [ºC]

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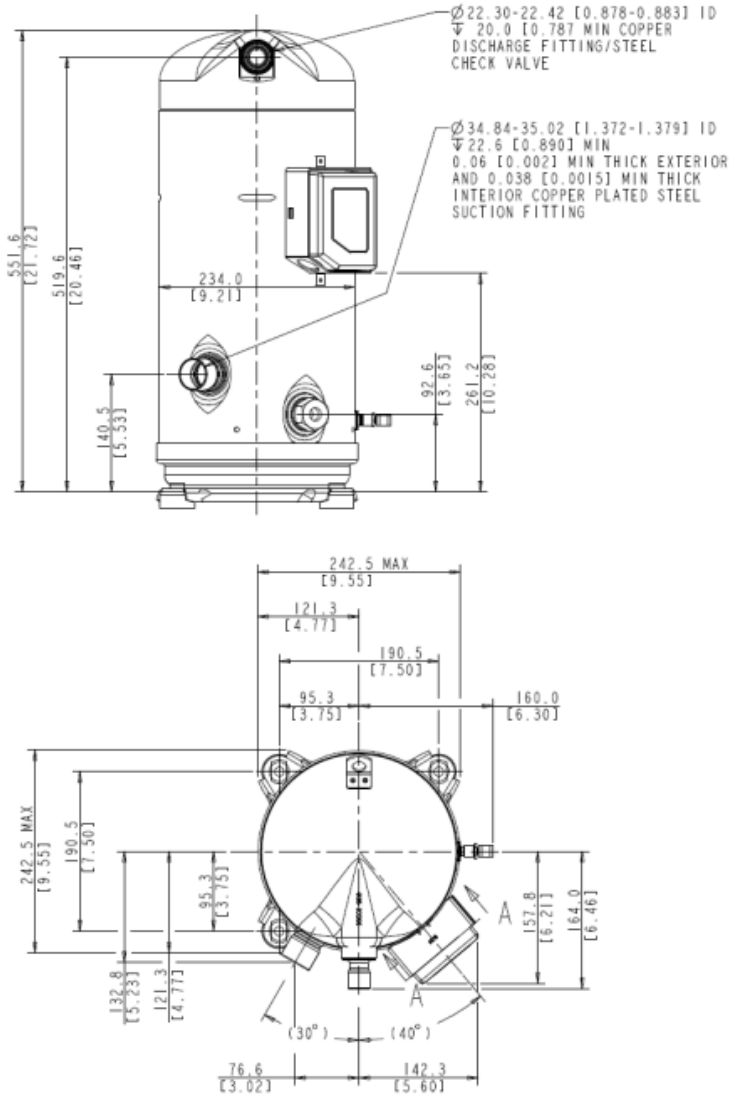

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