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 piston compressors
Producer: Copeland
Series: ZR

Model: ZR22K3E-TFD

Technical data

Nominal motor power [HP]:	2
Displacement [m³/h]:	5,3
Sound pressure level :	54
Gross/Net weight [kg]:	26/22
Oil charge [dm³]:	1

Electrical data

Power supply [V/~/Hz]:	380-420/3/50Hz
Locked rotor current [A]:	24
Max. operating current [A]:	4,2
Winding resistance [Ω]:	8,64

Connections

	milimeters	inches
Suction Rotolock valve connection:		-
Discharge Rotolock valve connection:		-
Suction connection with supplied sleeve:		3/4"
Discharge connection with supplied sleeve:		1/2"

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R22

Cooling capacity [kW]

t_c \ t_e	-20	-15	-10	-5	0	5	10
30	2.11	2.67	3.33	4.09	4.95	5.93	7.04
35	1.98	2.52	3.15	3.88	4.70	5.64	6.69
40	1.85	2.38	2.99	3.68	4.47	5.37	6.38
45	-	2.22	2.81	3.48	4.24	5.10	6.07
50	-	-	2.61	3.26	4.00	4.83	5.76
55	-	-	-	3.01	3.72	4.52	5.42
60	-	-	-	-	3.39	4.17	5.04
65	-	-	-	-	2.99	3.75	4.60

Power input [kW]

t_c \ t_e	-20	-15	-10	-5	0	5	10
30	0.99	0.99	0.99	0.98	0.96	0.95	0.94
35	1.13	1.12	1.12	1.11	1.10	1.10	1.10
40	1.28	1.27	1.26	1.25	1.25	1.24	1.24
45	-	1.46	1.44	1.42	1.40	1.40	1.40
50	-	-	1.65	1.62	1.59	1.58	1.57
55	-	-	-	1.87	1.83	1.80	1.78
60	-	-	-	-	2.13	2.08	2.05
65	-	-	-	-	2.51	2.44	2.38

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Current [A]

t_c \ t_e	-20	-15	-10	-5	0	5	10
30	2.30	2.30	2.29	2.28	2.26	2.25	2.23
35	2.45	2.45	2.44	2.43	2.42	2.41	2.41
40	2.63	2.62	2.60	2.59	2.58	2.57	2.58
45	-	2.84	2.81	2.78	2.76	2.75	2.76
50	-	-	3.07	3.02	2.99	2.97	2.96
55	-	-	-	3.34	3.28	3.24	3.22
60	-	-	-	-	3.66	3.59	3.55
65	-	-	-	-	4.14	4.04	3.96

Mass flow [kg/s]

t_c \ t_e	-20	-15	-10	-5	0	5	10
30	45.17	56.63	69.67	84.44	101.07	119.73	140.55
35	44.17	55.59	68.54	83.16	99.62	118.04	138.58
40	43.13	54.62	67.60	82.21	98.60	116.92	137.31
45	-	53.29	66.42	81.14	97.59	115.91	136.27
50	-	-	64.54	79.48	96.11	114.57	135.01
55	-	-	-	76.79	93.72	112.44	133.08
60	-	-	-	-	89.97	109.06	130.04
65	-	-	-	-	84.41	103.99	125.42

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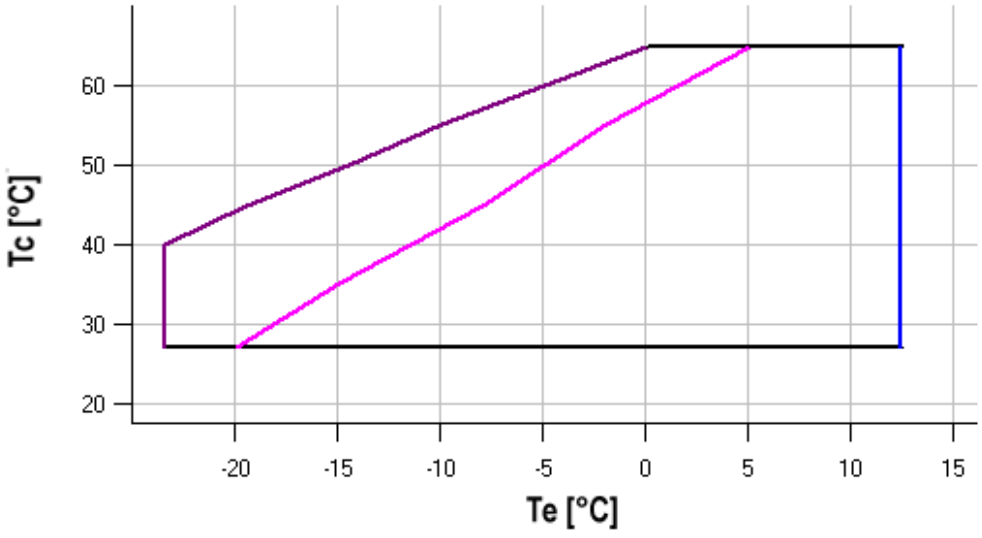
C.O.P. [W/W]

t_c \ t_e	-20	-15	-10	-5	0	5	10
30	2.12	2.70	3.38	4.19	5.13	6.22	7.46
35	1.75	2.24	2.82	3.49	4.26	5.13	6.10
40	1.44	1.87	2.36	2.94	3.59	4.32	5.13
45	-	1.53	1.96	2.46	3.02	3.65	4.35
50	-	-	1.58	2.02	2.51	3.06	3.66
55	-	-	-	1.60	2.03	2.51	3.04
60	-	-	-	-	1.59	2.00	2.46
65	-	-	-	-	1.19	1.54	1.93

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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R134a

Cooling capacity [kW]

t_c \ t_e	-20	-15	-10	-5	0	5	10	15
30	1.23	1.59	2.05	2.60	3.26	4.02	4.90	-
35	1.15	1.50	1.93	2.46	3.08	3.81	4.65	-
40	1.06	1.40	1.82	2.32	2.91	3.61	4.40	5.32
45	-	1.29	1.69	2.17	2.74	3.40	4.16	5.02
50	-	1.17	1.56	2.02	2.56	3.19	3.91	4.73
55	-	-	1.41	1.85	2.36	2.96	3.65	4.43
60	-	-	-	1.66	2.16	2.73	3.38	4.12
65	-	-	-	1.46	1.93	2.48	3.10	3.80
70	-	-	-	-	1.68	2.20	2.79	3.46
75	-	-	-	-	1.41	1.91	2.47	3.10

Power input [kW]

t_c \ t_e	-20	-15	-10	-5	0	5	10	15
30	0.72	0.72	0.71	0.70	0.69	0.67	0.64	-
35	0.81	0.81	0.80	0.79	0.78	0.76	0.74	-
40	0.92	0.91	0.90	0.89	0.88	0.87	0.85	0.82
45	-	1.03	1.02	1.01	0.99	0.98	0.96	0.94
50	-	1.18	1.16	1.14	1.12	1.11	1.09	1.07
55	-	-	1.32	1.29	1.27	1.25	1.23	1.21
60	-	-	-	1.47	1.44	1.42	1.39	1.37
65	-	-	-	1.67	1.63	1.60	1.57	1.54
70	-	-	-	-	1.85	1.81	1.77	1.74
75	-	-	-	-	2.10	2.05	2.00	1.96

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Current [A]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	1.81	1.79	1.79	1.79	1.79	1.77	1.74	-
35	1.91	1.89	1.88	1.88	1.88	1.87	1.84	-
40	2.03	2.00	1.99	1.98	1.98	1.98	1.96	1.92
45	-	2.15	2.12	2.11	2.11	2.10	2.08	2.05
50	-	2.33	2.29	2.27	2.26	2.25	2.23	2.20
55	-	-	2.49	2.46	2.44	2.42	2.40	2.37
60	-	-	-	2.69	2.66	2.63	2.61	2.57
65	-	-	-	2.97	2.92	2.88	2.85	2.81
70	-	-	-	-	3.23	3.18	3.13	3.08
75	-	-	-	-	3.59	3.52	3.46	3.40

Mass flow [kg/s]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	28.92	36.85	46.42	57.74	70.90	86.00	103.14	-
35	28.49	36.47	46.02	57.25	70.26	85.13	101.97	-
40	27.77	35.89	45.53	56.76	69.71	84.45	101.09	119.73
45	-	34.96	44.77	56.11	69.08	83.79	100.34	118.80
50	-	33.51	43.58	55.12	68.23	83.00	99.53	117.92
55	-	-	41.81	53.64	66.97	81.90	98.52	116.93
60	-	-	-	51.50	65.16	80.34	97.14	115.67
65	-	-	-	48.55	62.61	78.14	95.23	113.96
70	-	-	-	-	59.18	75.15	92.61	111.66
75	-	-	-	-	54.70	71.21	89.14	108.59

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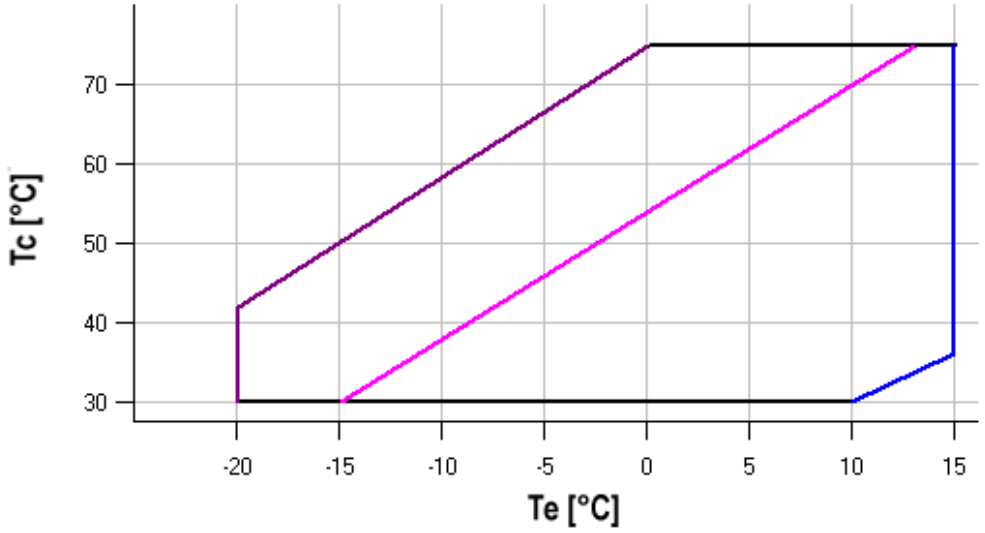
C.O.P. [W/W]

t_c \ t_e	-20	-15	-10	-5	0	5	10	15
30	1.70	2.23	2.89	3.72	4.74	6.01	7.64	-
35	1.41	1.86	2.43	3.12	3.96	4.99	6.28	-
40	1.15	1.54	2.02	2.60	3.31	4.16	5.20	6.48
45	-	1.25	1.66	2.16	2.75	3.46	4.32	5.35
50	-	0.99	1.35	1.77	2.27	2.87	3.58	4.43
55	-	-	1.07	1.43	1.86	2.36	2.96	3.67
60	-	-	-	1.13	1.50	1.93	2.43	3.02
65	-	-	-	0.87	1.18	1.55	1.97	2.47
70	-	-	-	-	0.91	1.22	1.58	1.99
75	-	-	-	-	0.67	0.93	1.23	1.59

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	-20	-15	-10	-5	0	5	10	15
30	1.88	2.39	3.02	3.77	4.66	5.67	6.81	8.08
35	1.74	2.23	2.85	3.59	4.45	5.43	6.55	-
40	1.61	2.08	2.67	3.38	4.21	5.17	6.25	-
45	-	1.91	2.47	3.15	3.95	4.87	5.91	-
50	-	-	2.28	2.91	3.67	4.54	5.53	-
55	-	-	-	2.67	3.37	4.19	5.13	-
60	-	-	-	-	3.06	3.82	4.70	-
65	-	-	-	-	-	3.44	4.25	-

Power input [kW]

t_c \ t_e	-20	-15	-10	-5	0	5	10	15
30	0.95	0.94	0.94	0.94	0.93	0.92	0.91	0.88
35	1.07	1.07	1.07	1.07	1.06	1.05	1.03	-
40	1.21	1.21	1.21	1.21	1.20	1.19	1.17	-
45	-	1.37	1.37	1.37	1.37	1.35	1.32	-
50	-	-	1.56	1.56	1.55	1.53	1.50	-
55	-	-	-	1.76	1.75	1.73	1.70	-
60	-	-	-	-	1.98	1.96	1.92	-
65	-	-	-	-	-	2.22	2.18	-

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Current [A]

t_c \ t_e	-20	-15	-10	-5	0	5	10	15
30	2.13	2.12	2.12	2.11	2.11	2.10	2.08	2.04
35	2.27	2.26	2.26	2.26	2.25	2.24	2.21	-
40	2.43	2.43	2.43	2.43	2.42	2.41	2.37	-
45	-	2.62	2.63	2.63	2.63	2.61	2.57	-
50	-	-	2.87	2.88	2.87	2.85	2.80	-
55	-	-	-	3.16	3.15	3.12	3.07	-
60	-	-	-	-	3.47	3.44	3.39	-
65	-	-	-	-	-	3.82	3.75	-

Mass flow [kg/s]

t_c \ t_e	-20	-15	-10	-5	0	5	10	15
30	39.58	49.44	61.50	75.70	92.03	110.42	130.84	153.25
35	38.47	48.50	60.76	75.23	91.86	110.61	131.43	-
40	37.32	47.40	59.77	74.39	91.22	110.21	131.33	-
45	-	46.17	58.53	73.20	90.12	109.25	130.56	-
50	-	-	57.07	71.67	88.58	107.75	129.14	-
55	-	-	-	69.84	86.62	105.71	127.08	-
60	-	-	-	-	84.26	103.17	124.40	-
65	-	-	-	-	-	100.14	121.13	-

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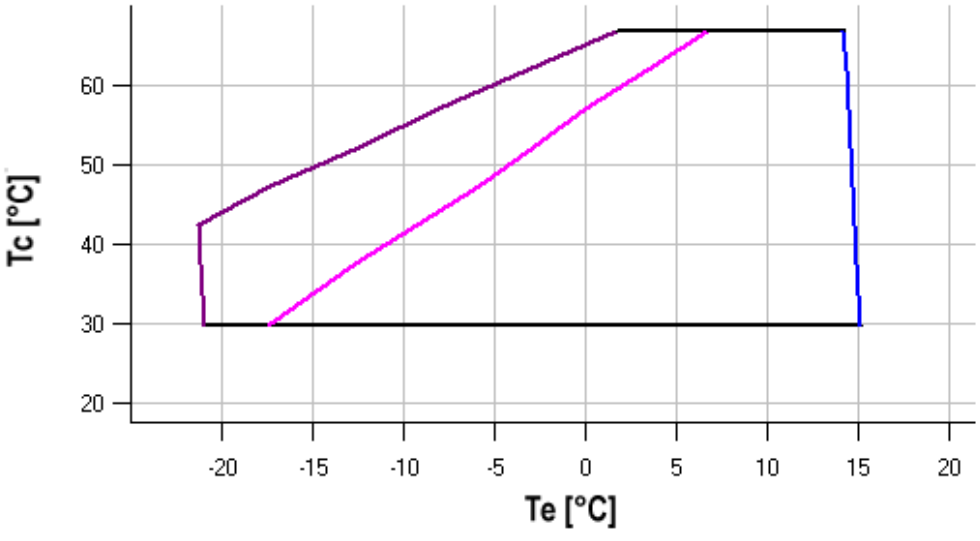
C.O.P. [W/W]

t_c \ t_e	-20	-15	-10	-5	0	5	10	15
30	1.98	2.53	3.21	4.02	4.99	6.14	7.51	9.18
35	1.63	2.09	2.66	3.36	4.19	5.18	6.36	-
40	1.33	1.71	2.20	2.79	3.50	4.34	5.35	-
45	-	1.40	1.80	2.30	2.89	3.61	4.47	-
50	-	-	1.46	1.87	2.37	2.97	3.69	-
55	-	-	-	1.51	1.92	2.42	3.02	-
60	-	-	-	-	1.54	1.95	2.44	-
65	-	-	-	-	-	1.55	1.95	-

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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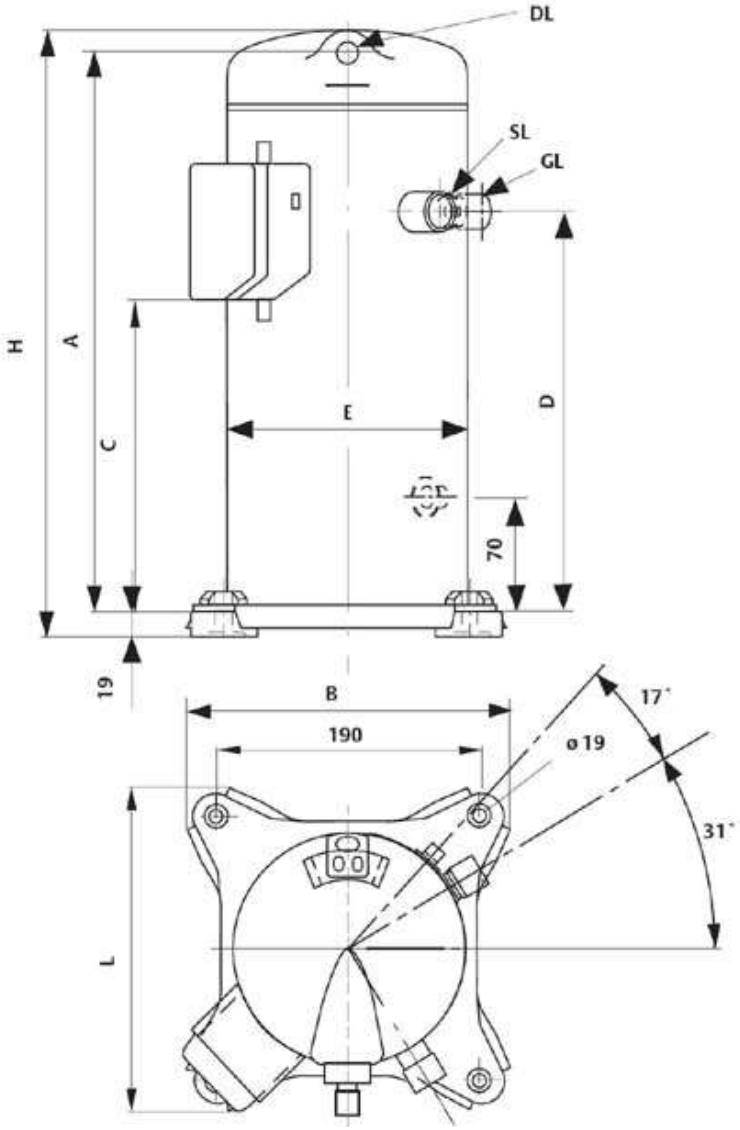

A	338
B	240
C	202 mm
D	245 mm
E	165 mm
H	383 mm
L	231 mm

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