

Model: ZR12M3-TWD

Data

Type: Hermetic piston compressors

Producer: Copeland

Series: ZR

Model: ZR12M3-TWD

Technical data

Nominal motor power [HP]:	10
Displacement [m ³ /h]:	28,8
Sound pressure level :	67
Gross/Net weight [kg]:	111/100
Oil charge [dm ³]:	4,1

Electrical data

Power supply [V/~/Hz]:	1 3/8"
Locked rotor current [A]:	7/8"
Max. operating current [A]:	1 1/4"
Winding resistance [Ω]:	319/357

Connections

	<u>milimeters</u>	<u>inches</u>
Suction Rotolock valve connection:		1 3/4"
Discharge Rotolock valve connection:		1 1/4"
Suction connection with supplied sleeve:		1 3/8"
Discharge connection with supplied sleeve:		7/8"

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Capacity

R22

Cooling capacity [kW]

t_c \ t_e	-20	-15	-10	-5	0	5	10	15
20	13.44	16.77	20.60	25.03	30.14	36.03	-	-
25	12.86	16.14	19.89	24.19	29.13	34.82	41.34	-
30	12.22	15.44	19.09	23.26	28.04	33.51	39.78	46.94
35	11.51	14.68	18.23	22.26	26.86	32.12	38.14	45.00
40	10.75	13.85	17.30	21.19	25.61	30.66	36.42	42.99
45	-	12.98	16.32	20.07	24.30	29.13	34.63	40.90
50	-	-	15.30	18.89	22.94	27.54	32.77	38.74
55	-	-	-	17.68	21.54	25.90	30.87	36.53
60	-	-	-	-	20.09	24.22	28.92	34.26
65	-	-	-	-	18.62	22.51	26.93	31.96

Power input [kW]

t_c \ t_e	-20	-15	-10	-5	0	5	10	15
20	4.35	4.37	4.38	4.40	4.43	4.49	-	-
25	4.87	4.90	4.90	4.90	4.91	4.94	5.01	-
30	5.43	5.47	5.48	5.47	5.46	5.47	5.50	5.57
35	6.02	6.07	6.09	6.09	6.07	6.06	6.07	6.10
40	6.64	6.73	6.76	6.77	6.76	6.73	6.72	6.73
45	-	7.42	7.49	7.51	7.51	7.49	7.46	7.45
50	-	-	8.27	8.32	8.33	8.31	8.29	8.27
55	-	-	-	9.19	9.23	9.23	9.21	9.18
60	-	-	-	-	10.20	10.22	10.22	10.20
65	-	-	-	-	11.25	11.31	11.32	11.32

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Capacity

Current [A]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
20	11.38	11.42	11.43	11.45	11.49	11.57	-	-
25	11.85	11.88	11.89	11.88	11.89	11.93	12.02	-
30	12.36	12.41	12.42	12.40	12.39	12.40	12.45	12.56
35	12.94	13.02	13.03	13.02	13.00	12.98	13.00	13.07
40	13.59	13.70	13.74	13.74	13.71	13.69	13.68	13.72
45	-	14.47	14.54	14.56	14.55	14.52	14.51	14.52
50	-	-	15.45	15.50	15.51	15.49	15.47	15.48
55	-	-	-	16.55	16.59	16.60	16.59	16.59
60	-	-	-	-	17.81	17.85	17.87	17.87
65	-	-	-	-	19.18	19.26	19.30	19.33

Mass flow [kg/s]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
20	268.16	331.22	402.20	482.81	574.79	679.83	-	-
25	265.93	330.04	401.70	482.63	574.53	679.13	798.14	-
30	262.22	327.36	399.68	480.88	572.69	676.82	794.99	928.91
35	257.13	323.27	396.22	477.68	569.36	673.00	790.29	922.97
40	250.75	317.87	391.42	473.10	564.64	667.75	784.15	915.55
45	-	311.25	385.37	467.25	558.62	661.18	776.65	906.75
50	-	-	378.18	460.23	551.39	653.38	767.90	896.67
55	-	-	-	452.13	543.06	644.44	757.99	885.41
60	-	-	-	-	533.72	634.47	747.01	873.05
65	-	-	-	-	523.47	623.56	735.06	859.70

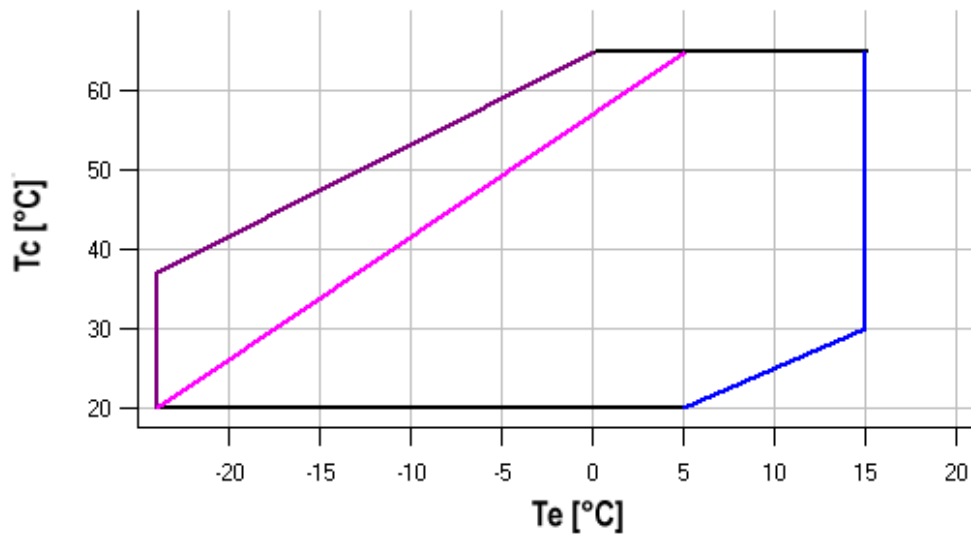
Model: ZR12M3-TWD

Capacity

C.O.P. [W/W]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
20	3.09	3.84	4.70	5.69	6.81	8.03	-	-
25	2.64	3.30	4.05	4.93	5.93	7.05	8.26	-
30	2.25	2.83	3.49	4.25	5.13	6.13	7.24	8.43
35	1.91	2.42	2.99	3.66	4.42	5.30	6.29	7.37
40	1.62	2.06	2.56	3.13	3.79	4.55	5.42	6.39
45	-	1.75	2.18	2.67	3.24	3.89	4.64	5.49
50	-	-	1.85	2.27	2.75	3.31	3.95	4.68
55	-	-	-	1.92	2.33	2.81	3.35	3.98
60	-	-	-	-	1.97	2.37	2.83	3.36
65	-	-	-	-	1.65	1.99	2.38	2.82

Application range



- Maximum evaporating temperature
- 25°C suction gas temperature
- 10K gas overheat

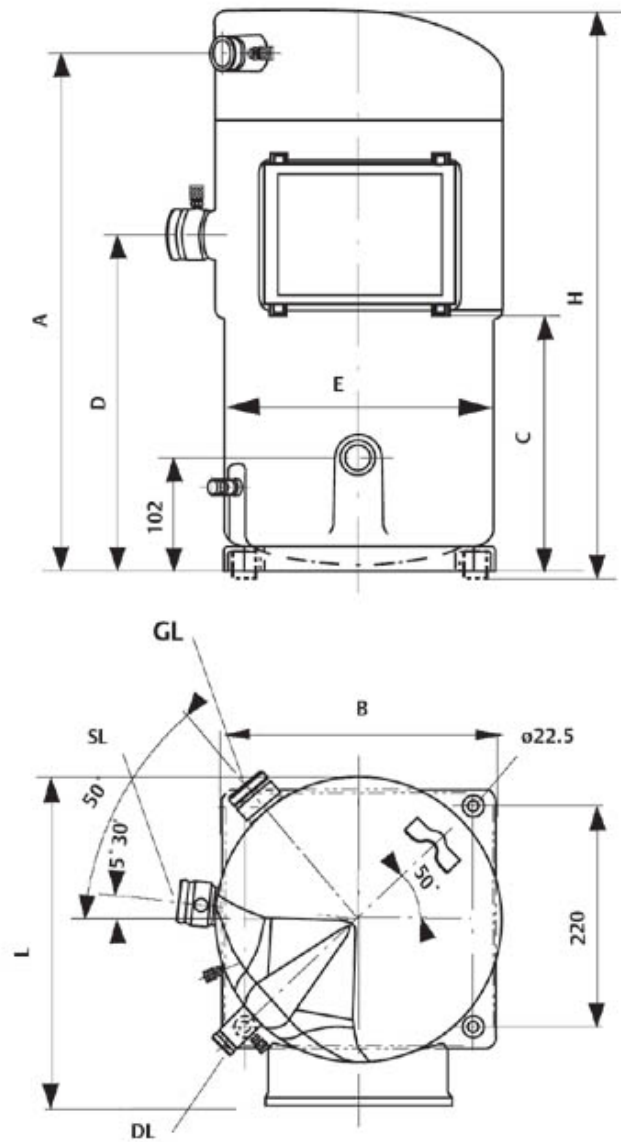
Operating conditions: 10K suction superheat, 0K subcooling

t_c - Condensing temperature [°C]

t_e - Evaporating temperature [°C]

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Dimensions



A	497 mm
B	268 mm
C	224 mm
D	318 mm
E	283 mm
H	538 mm
L	360 mm

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Image

