



Producer: **Copeland**
 Line: **ZR**
 Model: **ZR16M3E-TWD**
 Cooling capacity [kW]: **20.01**
 Heat rejection [kW]: **28.74**
 Displacement [m³/h]: **35.5**
 Refrigerant: **R22, R134a, R407C**
 Capacity control: **None**
 Power supply: **400V/3Ph/50Hz**

Data

Technical data

Displacement	[m ³ /h]	35.5
Oil charge	[l]	4.10
Oil type		POE RL32-3MAF
Internal free volume	[dm ³]	20.2
Net weight	[kg]	95.00
Gross weight	[kg]	101.00

Electrical data and limits

Power supply		400V/3Ph/50Hz
Maximum continuous current	[A]	27.0
Locked rotor amperage	[A]	167.0
Motor resistance main	[Ω]	0.83
Maximum suction pressure	[bar]	20.0
Maximum discharge pressure	[bar]	32.0
Maximum suction temperature	[°C]	52.0
Minimum suction temperature	[°C]	-35.0

Dimensions

Suction tube diameter	[inch]	1 3/8
Discharge tube diameter	[inch]	7/8
Suction connection thread diameter	[inch]	1 3/4
Discharge connection thread diameter	[inch]	1 1/4
Length	[mm]	319
Height	[mm]	532
Width	[mm]	357

Other

Approved refrigerants	R22, R134a, R407C
Allowed oil types	POE RL32-3MAF, POE MOBIL EAL Arctic 22 CC
Capacity control	None
Protection rating	IP54 (IEC34)

Performance

Nominal conditions: refrigerant: R22, evaporation: -10°C (dew point), condensation: 45°C (dew point), superheating: 10K, subcooling: 0°C

Cooling capacity

		Evaporation temperature [°C]										
		-20	-15	-10	-5	0	5	7	10	12.5	15	
Condensation temperature [°C]	20	15.82	19.88	24.58	30.08	36.51	44.01					
	25	15.42	19.39	23.95	29.23	35.36	42.47	45.62	50.71			
	30	14.82	18.76	23.20	28.28	34.13	40.90	43.89	48.70	53.04	57.69	
	35	14.03	17.95	22.30	27.21	32.82	39.26	42.10	46.67	50.78	55.19	
	40	13.02	16.96	21.24	26.01	31.41	37.56	40.26	44.60	48.49	52.66	
	45		15.76	20.01	24.67	29.88	35.76	38.34	42.46	46.16	50.11	
	50			18.59	23.16	28.21	33.86	36.32	40.24	43.75	47.50	
	55				21.48	26.39	31.83	34.18	37.93	41.26	44.82	
	60					24.40	29.65	31.91	35.49	38.67	42.04	
	65					22.23	27.32	29.49	32.92	35.95	39.16	

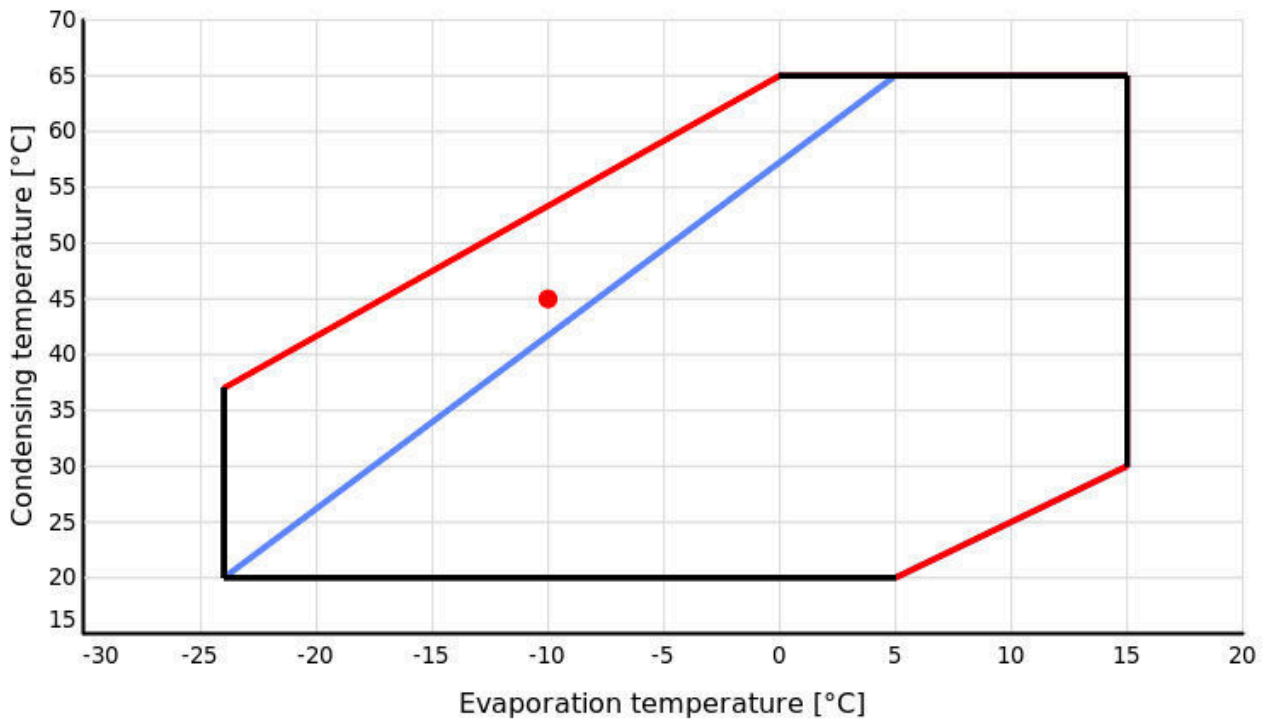
Heat rejection

		Evaporation temperature [°C]										
		-20	-15	-10	-5	0	5	7	10	12.5	15	
Condensation temperature [°C]	20	21.07	25.18	29.97	35.57	42.16	49.89					
	25	21.21	25.25	29.87	35.21	41.44	48.72	51.95	57.19			
	30	21.22	25.22	29.71	34.83	40.75	47.61	50.66	55.58	60.03	64.81	
	35	21.06	25.08	29.48	34.42	40.07	46.56	49.44	54.07	58.25	62.74	
	40	20.74	24.80	29.16	33.97	39.38	45.55	48.27	52.64	56.57	60.80	
	45		24.39	28.74	33.45	38.67	44.56	47.14	51.27	54.99	58.96	
	50			28.21	32.86	37.94	43.59	46.04	49.96	53.47	57.21	
	55				32.19	37.15	42.60	44.95	48.68	52.00	55.54	
	60					36.31	41.60	43.85	47.42	50.58	53.93	
	65					35.40	40.55	42.73	46.16	49.18	52.36	

Power consumption

		Evaporation temperature [°C]										
		-20	-15	-10	-5	0	5	7	10	12.5	15	
Condensation temperature [°C]	20	5.52	5.59	5.67	5.78	5.95	6.19					
	25	6.10	6.17	6.22	6.30	6.41	6.58	6.67	6.83			
	30	6.73	6.80	6.85	6.90	6.97	7.07	7.13	7.24	7.35	7.49	
	35	7.40	7.50	7.56	7.59	7.63	7.68	7.72	7.79	7.86	7.95	
	40	8.12	8.26	8.33	8.37	8.39	8.41	8.43	8.46	8.51	8.56	
	45		9.08	9.19	9.24	9.26	9.27	9.27	9.28	9.29	9.32	
	50			10.13	10.21	10.24	10.24	10.24	10.23	10.23	10.23	
	55				11.28	11.33	11.34	11.33	11.32	11.31	11.29	
	60					12.54	12.57	12.57	12.55	12.54	12.51	
	65					13.86	13.93	13.94	13.94	13.92	13.90	

Application range



Legend

- Suction gas superheating: 10 K
- Suction gas temperature: 25°C

