



Producer: **Copeland**  
 Line: **ZR**  
 Model: **ZR19M3E-TWD**  
 Cooling capacity [kW]: **24.56**  
 Heat rejection [kW]: **35.04**  
 Displacement [m<sup>3</sup>/h]: **42.8**  
 Refrigerant: **R22, R134a, R407C**  
 Capacity control: **None**  
 Power supply: **400V/3Ph/50Hz**

## Data

### Technical data

Displacement	[m <sup>3</sup> /h]	42.8
Oil charge	[l]	4.10
Oil type		POE RL32-3MAF
Internal free volume	[dm <sup>3</sup> ]	21.2
Net weight	[kg]	107.00
Gross weight	[kg]	113.00

### Electrical data and limits

Power supply		400V/3Ph/50Hz
Maximum continuous current	[A]	32.0
Locked rotor amperage	[A]	198.0
Motor resistance main	[Ω]	0.72
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 5/8
Discharge tube diameter	[inch]	1 1/8
Suction connection thread diameter	[inch]	2 1/4
Discharge connection thread diameter	[inch]	1 3/4
Length	[mm]	321
Height	[mm]	579
Width	[mm]	349

### 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	22.91	27.23	32.42	38.61	45.91	54.45					
	25	21.08	25.47	30.64	36.73	43.86	52.13	55.80	61.69			
	30	19.43	23.87	29.02	35.00	41.94	49.94	53.47	59.14	64.23	69.65	
	35	17.89	22.38	27.49	33.36	40.10	47.83	51.23	56.67	61.54	66.73	
	40	16.43	20.95	26.02	31.77	38.30	45.74	49.00	54.21	58.86	63.82	
	45		19.53	<b>24.56</b>	30.17	36.49	43.63	46.75	51.72	56.15	60.87	
	50			23.04	28.51	34.61	41.45	44.42	49.15	53.36	57.83	
	55				26.75	32.61	39.14	41.96	46.44	50.42	54.64	
	60					30.46	36.66	39.33	43.56	47.30	51.27	
	65					28.09	33.95	36.47	40.44	43.94	47.65	

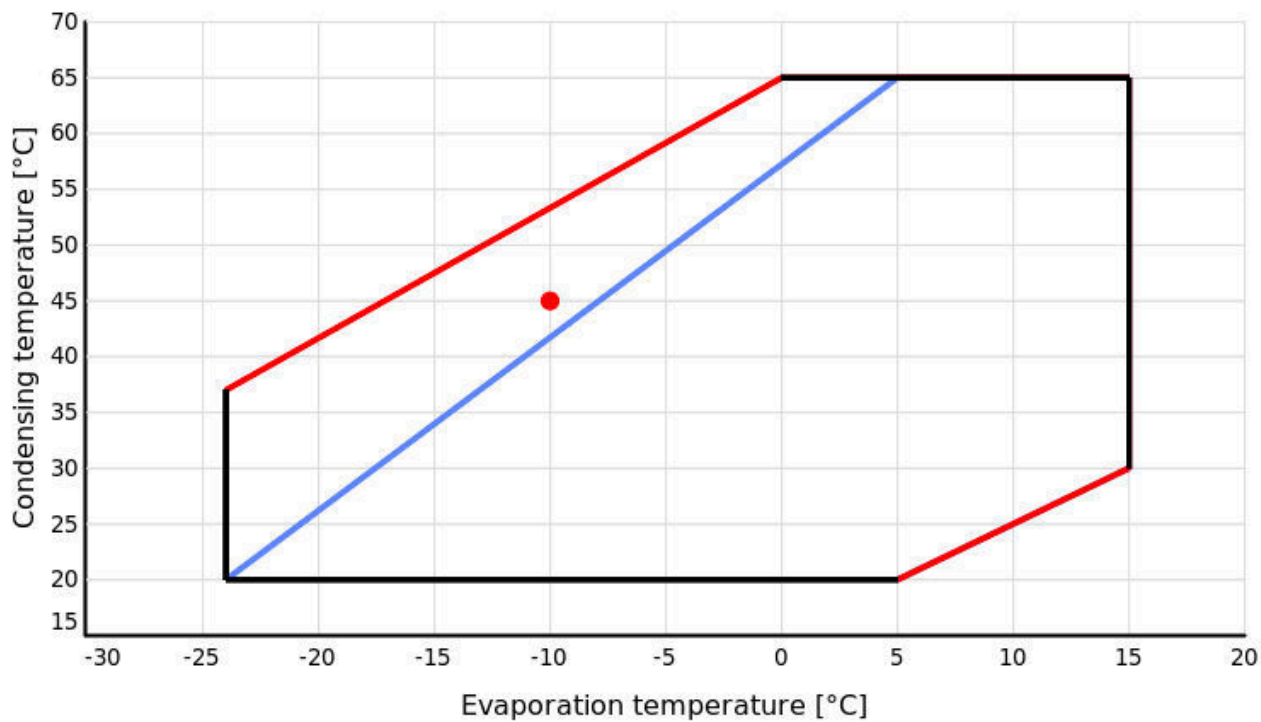
### Heat rejection

		Evaporation temperature [°C]										
		-20	-15	-10	-5	0	5	7	10	12.5	15	
Condensation temperature [°C]	20	28.96	33.27	38.45	44.67	52.05	60.75					
	25	27.88	32.27	37.44	43.54	50.71	59.09	62.82	68.83			
	30	27.00	31.48	36.64	42.62	49.58	57.65	61.22	66.97	72.15	77.70	
	35	26.28	30.84	35.99	41.87	48.62	56.38	59.80	65.29	70.23	75.51	
	40	25.68	30.33	35.47	41.24	47.78	55.23	58.50	63.74	68.44	73.45	
	45		29.91	<b>35.04</b>	40.70	47.04	54.18	57.30	62.29	66.74	71.49	
	50			34.65	40.21	46.34	53.18	56.15	60.88	65.10	69.58	
	55				39.72	45.65	52.19	55.01	59.49	63.47	67.69	
	60					44.93	51.17	53.85	58.07	61.81	65.77	
	65					44.15	50.09	52.61	56.59	60.09	63.78	

**Power consumption**

		Evaporation temperature [°C]									
		-20	-15	-10	-5	0	5	7	10	12.5	15
Condensation temperature [°C]	20	6.37	6.36	6.35	6.38	6.46	6.63				
	25	7.15	7.16	7.16	7.17	7.22	7.32	7.39	7.52		
	30	7.97	8.01	8.02	8.02	8.05	8.11	8.15	8.24	8.34	8.47
	35	8.83	8.91	8.95	8.95	8.96	9.00	9.02	9.08	9.15	9.24
	40	9.74	9.88	9.95	9.97	9.98	9.99	10.00	10.04	10.08	10.14
	45		10.92	<b>11.04</b>	11.09	11.10	11.11	11.11	11.12	11.14	11.18
	50			12.22	12.31	12.35	12.35	12.35	12.35	12.36	12.37
	55				13.66	13.72	13.74	13.74	13.74	13.73	13.73
	60					15.24	15.28	15.29	15.28	15.27	15.27
	65					16.91	16.98	17.00	17.00	17.00	16.98

**Application range**



**Legend**

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

**Dimensions**

