



Producer: **Copeland**  
 Line: **ZH**  
 Model: **ZH48KVE-TWD**  
 Cooling capacity [kW]: **48.72**  
 Heat rejection [kW]: **61.89**  
 Displacement [m<sup>3</sup>/h]: **42.8**  
 Refrigerant: **R407C**  
 Capacity control: **None**  
 Power supply: **400V/3Ph/50Hz**

## Data

### Technical data

Displacement	[m <sup>3</sup> /h]	42.8
Oil charge	[l]	4.14
Oil type		POE RL32-3MAF
Internal free volume	[dm <sup>3</sup> ]	18.4
Net weight	[kg]	112.00
Gross weight	[kg]	119.00

### Electrical data and limits

Power supply		400V/3Ph/50Hz
Maximum continuous current	[A]	36.0
Locked rotor amperage	[A]	198.0
Motor resistance main	[Ω]	0.72
Maximum suction pressure	[bar]	22.6
Maximum discharge pressure	[bar]	32.0
Maximum suction temperature	[°C]	50.0
Minimum suction temperature	[°C]	-35.0

### Dimensions

Suction tube diameter	[inch]	1 5/8
Discharge tube diameter	[inch]	1 1/8
Length	[mm]	368
Height	[mm]	579
Width	[mm]	323

### Other

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

## Performance

Nominal conditions: refrigerant: R407C, evaporation: 5°C (dew point), condensation: 50°C (dew point), superheating: 10K, subcooling: 0°C

### Cooling capacity [kW]

		Evaporation temperature [°C]												
		-25	-20	-15	-10	-5	0	5	7	10	12.5	15	20	25
Condensation temperature [°C]	17	19.25	23.53	28.48										
	20	18.95	23.20	28.14	33.79									
	25	18.43	22.64	27.52	33.12	39.49	46.68							
	30	17.91	22.06	26.87	32.39	38.68	45.78	53.74	57.19	62.63				
	35	17.39	21.46	26.19	31.61	37.80	44.79	52.64	56.03	61.40	66.14	71.12		
	40	16.90	20.87	25.48	30.79	36.85	43.72	51.43	54.77	60.05	64.72	69.63	80.21	91.85
	45	16.43	20.28	24.76	29.94	35.86	42.57	50.13	53.41	58.59	63.18	68.00	78.41	89.87
	50	16.00	19.70	24.04	29.06	34.82	41.37	<b>48.72</b>	51.92	56.99	61.48	66.20	76.41	87.65
	55	15.62	19.15	23.31	28.16	33.73	40.06	47.24	50.35	55.30	59.68	64.29	74.27	85.28
	60		18.63	22.61	27.23	32.60	38.73	45.69	48.72	53.53	57.79	62.29	72.02	
	65			21.91	26.34	31.45	37.35	44.06	46.99	51.64	55.77	60.13		
	67			21.64	25.97	31.01	36.78	43.39	46.27	50.86	54.93	59.24		

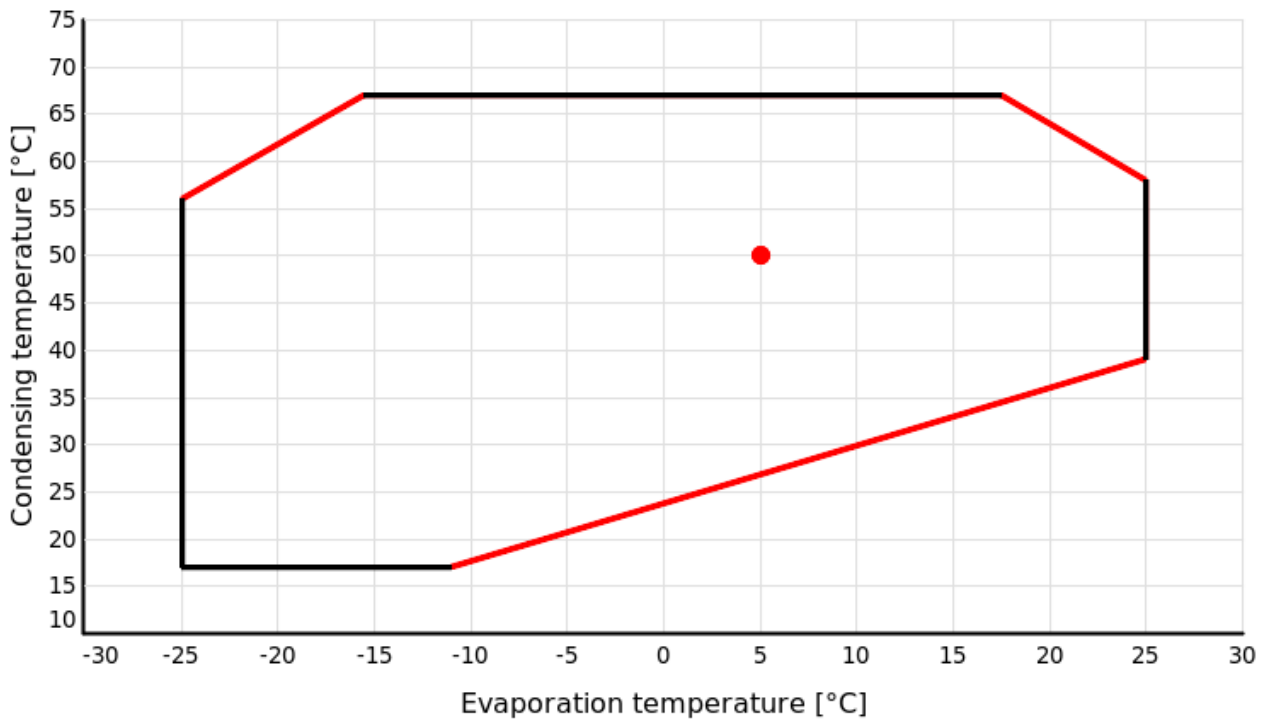
### Heat rejection [kW]

		Evaporation temperature [°C]												
		-25	-20	-15	-10	-5	0	5	7	10	12.5	15	20	25
Condensation temperature [°C]	17	25.04	29.51	34.69										
	20	25.12	29.57	34.72	40.67									
	25	25.24	29.67	34.76	40.61	47.33	55.05							
	30	25.34	29.78	34.82	40.58	47.16	54.69	63.28	67.04	73.04				
	35	25.45	29.90	34.91	40.59	47.05	54.41	62.77	66.43	72.27	77.47	83.00		
	40	25.60	30.07	35.05	40.66	47.01	54.21	62.37	65.93	71.61	76.67	82.04	93.78	106.93
	45	25.79	30.30	35.27	40.82	47.06	54.11	62.08	65.55	71.08	76.00	81.23	92.63	105.40
	50	26.06	30.61	35.58	41.09	47.24	54.15	<b>61.89</b>	65.27	70.66	75.44	80.51	91.59	103.98
	55	26.42	31.01	35.99	41.46	47.52	54.27	61.87	65.16	70.40	75.06	79.99	90.73	102.76
	60		31.54	36.54	41.96	47.94	54.59	62.02	65.24	70.34	74.87	79.66	90.10	
	65			37.22	42.64	48.54	55.07	62.34	65.47	70.44	74.84	79.50		
	67			37.54	42.95	48.85	55.31	62.51	65.62	70.54	74.89	79.49		

**Power consumption [kW]**

		Evaporation temperature [°C]												
		-25	-20	-15	-10	-5	0	5	7	10	12.5	15	20	25
Condensation temperature [°C]	17	6.20	6.40	6.64										
	20	6.62	6.82	7.04	7.35									
	25	7.31	7.54	7.75	8.01	8.39	8.94							
	30	7.98	8.29	8.52	8.77	9.08	9.54	10.19	10.53	11.12				
	35	8.67	9.07	9.37	9.63	9.92	10.31	10.85	11.13	11.63	12.13	12.70		
	40	9.38	9.91	10.30	10.61	10.91	11.26	11.73	11.97	12.39	12.81	13.30	14.54	16.16
	45	10.11	10.81	11.33	11.72	12.06	12.41	12.83	13.04	13.41	13.77	14.19	15.26	16.67
	50	10.89	11.79	12.47	12.97	13.38	13.76	<b>14.17</b>	14.36	14.69	15.01	15.38	16.30	17.54
	55	11.73	12.85	13.72	14.37	14.89	15.32	15.75	15.94	16.25	16.54	16.88	17.70	18.79
	60		14.02	15.11	15.93	16.58	17.12	17.61	17.81	18.12	18.40	18.71	19.46	
	65			16.63	17.69	18.49	19.16	19.73	19.95	20.29	20.57	20.88		
	67			17.29	18.44	19.34	20.05	20.66	20.90	21.24	21.54	21.85		

**Application range**



**Legend**

- █ Suction gas superheating: 10 K
- Current operating conditions

**Dimensions**

