



Producer: **Copeland**

Line: **ZS**

Model: **ZS45K4E-TFD**

Cooling capacity [kW]: **9.57**

Displacement [m<sup>3</sup>/h]: **17.1**

Refrigerant: **R22, R134a, R404A**

Capacity control: **None**

Power supply: **400V/3Ph/50Hz**

## Data

### Technical data

Displacement	[m <sup>3</sup> /h]	17.1
Oil charge	[l]	1.90
Oil type		POE RL32-3MAF
Internal free volume	[dm <sup>3</sup> ]	5.7
Net weight	[kg]	39.50

### Electrical data and limits

Power supply		400V/3Ph/50Hz
Maximum continuous current	[A]	12.0
Locked rotor amperage	[A]	74.0
Motor resistance main	[Ω]	2.27
Maximum suction pressure	[bar]	21.0
Maximum discharge pressure	[bar]	28.8
Maximum suction temperature	[°C]	50.0

### Dimensions

Suction connection thread diameter	[inch]	1 1/4
Discharge connection thread diameter	[inch]	1
Length	[mm]	241
Height	[mm]	438
Width	[mm]	244

### Other

Approved refrigerants	R22, R134a, R404A
Allowed oil types	POE RL32-3MAF, POE MOBIL EAL Arctic 22 CC
Capacity control	None
Protection rating	IP21 (IEC34)

## Performance

Nominal conditions: refrigerant: R404A, evaporation: -10°C (dew point), condensation: 45°C (dew point), superheating: 10K, subcooling: 0K

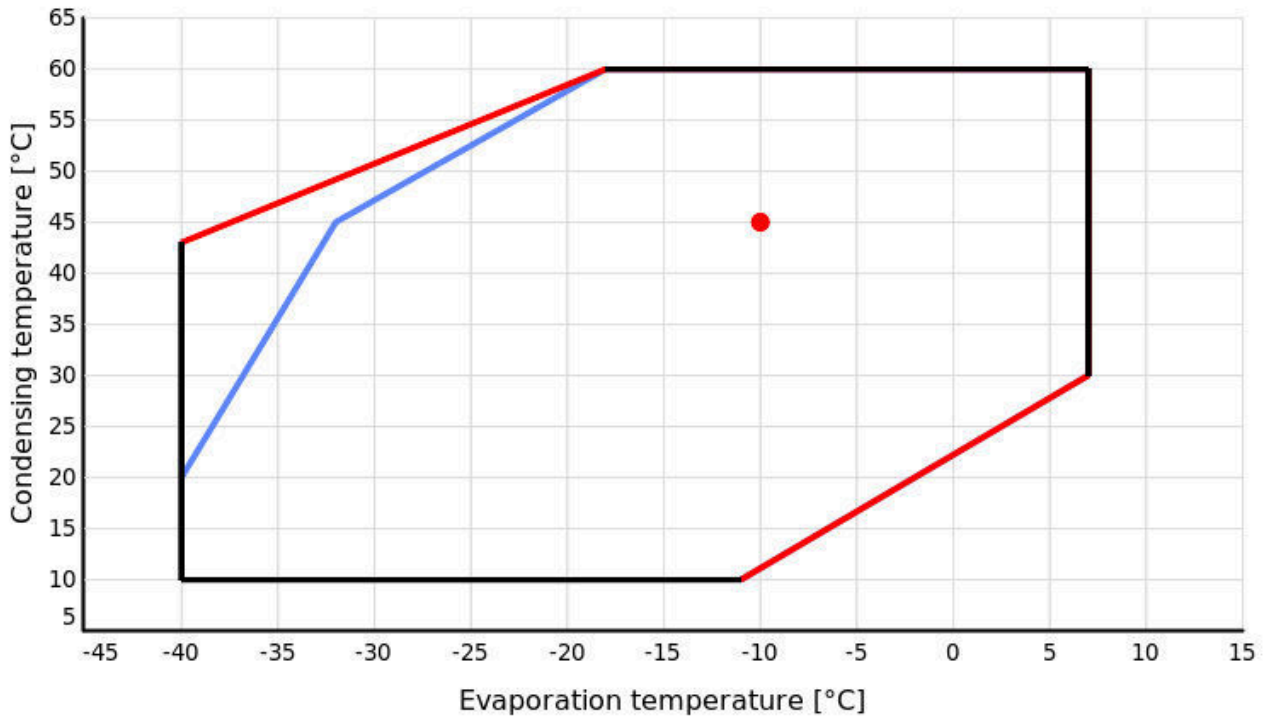
### Cooling capacity

		Evaporation temperature [°C]										
		-40	-35	-30	-25	-20	-15	-10	-5	0	5	7
Condensation temperature [°C]	10	4.15	5.31	6.71	8.40	10.40	12.78					
	15	3.92	5.04	6.37	7.96	9.86	12.11	14.75				
	20	3.70	4.76	6.02	7.52	9.32	11.44	13.94	16.86			
	25	3.48	4.48	5.66	7.08	8.76	10.76	13.12	15.88	19.08		
	30	3.25	4.19	5.30	6.61	8.19	10.06	12.27	14.87	17.90	21.39	22.93
	35	3.01	3.89	4.91	6.14	7.59	9.33	11.40	13.84	16.69	20.01	21.47
	40	2.75	3.57	4.51	5.63	6.98	8.58	10.50	12.78	15.45	18.58	19.97
	45		3.23	4.09	5.11	6.33	7.80	<b>9.57</b>	11.68	14.18	17.12	18.43
	50			3.64	4.55	5.65	6.99	8.60	10.54	12.86	15.61	16.85
	55				4.94	6.13	7.58	9.35	11.49	14.05	15.21	
60					5.23	6.52	8.12	10.07	12.44	13.52		

### Power consumption

		Evaporation temperature [°C]										
		-40	-35	-30	-25	-20	-15	-10	-5	0	5	7
Condensation temperature [°C]	10	2.06	2.15	2.26	2.39	2.54	2.72					
	15	2.21	2.30	2.41	2.54	2.70	2.87	3.06				
	20	2.38	2.48	2.59	2.72	2.87	3.04	3.23	3.44			
	25	2.57	2.67	2.79	2.92	3.07	3.24	3.43	3.63	3.85		
	30	2.79	2.89	3.01	3.14	3.29	3.46	3.65	3.85	4.07	4.30	4.40
	35	3.03	3.13	3.26	3.39	3.55	3.72	3.90	4.10	4.31	4.54	4.64
	40	3.29	3.40	3.53	3.67	3.83	4.00	4.18	4.38	4.59	4.82	4.91
	45		3.71	3.84	3.99	4.14	4.32	<b>4.50</b>	4.70	4.91	5.13	5.22
	50			4.18	4.33	4.49	4.67	4.85	5.05	5.26	5.48	5.57
	55				4.88	5.06	5.25	5.45	5.65	5.87	5.96	
60					5.49	5.68	5.88	6.09	6.31	6.40		

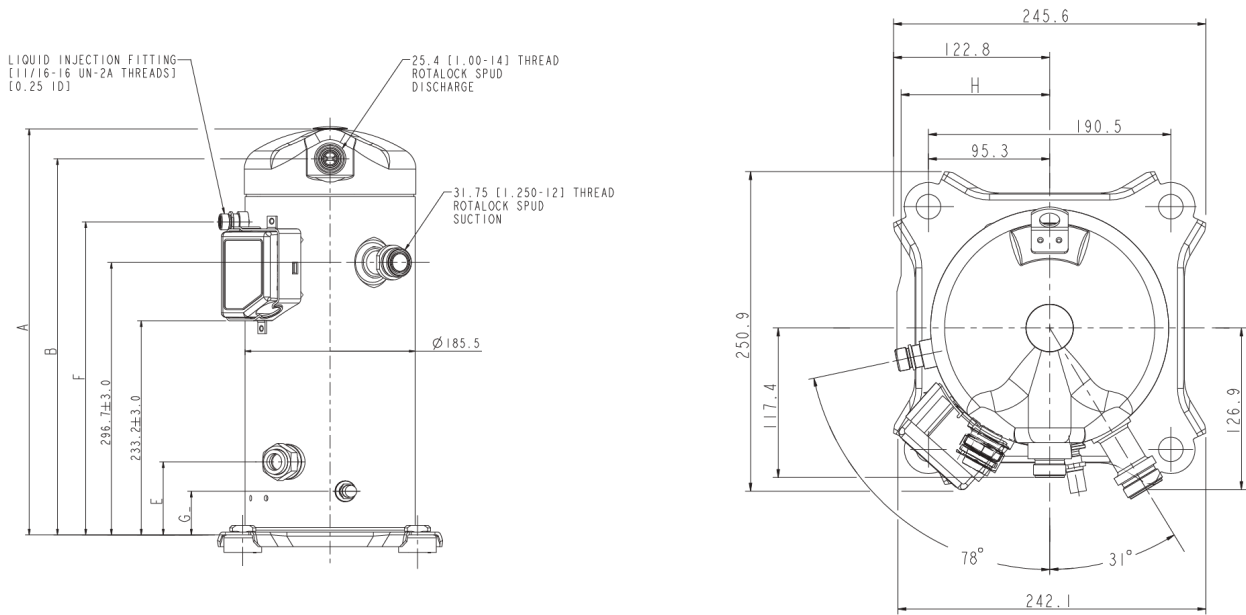
**Application range**



**Legend**

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

## Dimensions



## Dimensions

Dimension A	[mm]	437,7
Dimension B	[mm]	409,6
Dimension E	[mm]	79,5
Dimension G	[mm]	47,5