



Producer: **Copeland**

Line: **Discus**

Model: **3DS-100X**

Cooling capacity [kW]: **25.14**

Displacement [m<sup>3</sup>/h]: **49.9**

Refrigerant: **R134a, R404A, R407A, R407F, R448A, R449A, R450A, R513A**

Capacity control: **None, Step (option), Inverter (option)**

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

## Data

### Technical data

Displacement	[m <sup>3</sup> /h]	49.9
Cylinders quantity		3
Cylinder bore	[mm]	61.9
Cylinder stroke	[mm]	63.5
Oil charge	[l]	3.70
Oil type		POE RL32-3MAF
Type of lubrication		Oil pump
Net weight	[kg]	162.00
Gross weight	[kg]	173.00

### Electrical data and limits

Power supply		400V/3Ph/50Hz
Maximum continuous current	[A]	24.4
Locked rotor amperage	[A]	121.0
Maximum motor frequency	[Hz]	60
Minimum motor frequency	[Hz]	25
Maximum suction pressure	[bar]	22.5
Maximum discharge pressure	[bar]	32.5

### Dimensions

Suction valve diameter	[inch]	1 3/8
Discharge connection thread diameter	[inch]	1 1/8
Length	[mm]	680
Height	[mm]	480
Width	[mm]	370

### Other

Approved refrigerants	R134a, R404A, R407A, R407F, R448A, R449A, R450A, R513A
Allowed oil types	POE RL32-3MAF, POE MOBIL EAL Arctic 22 CC
Capacity control	None, Step (option), Inverter (option)
Protection rating	IP54 (IEC34)

## Performance

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

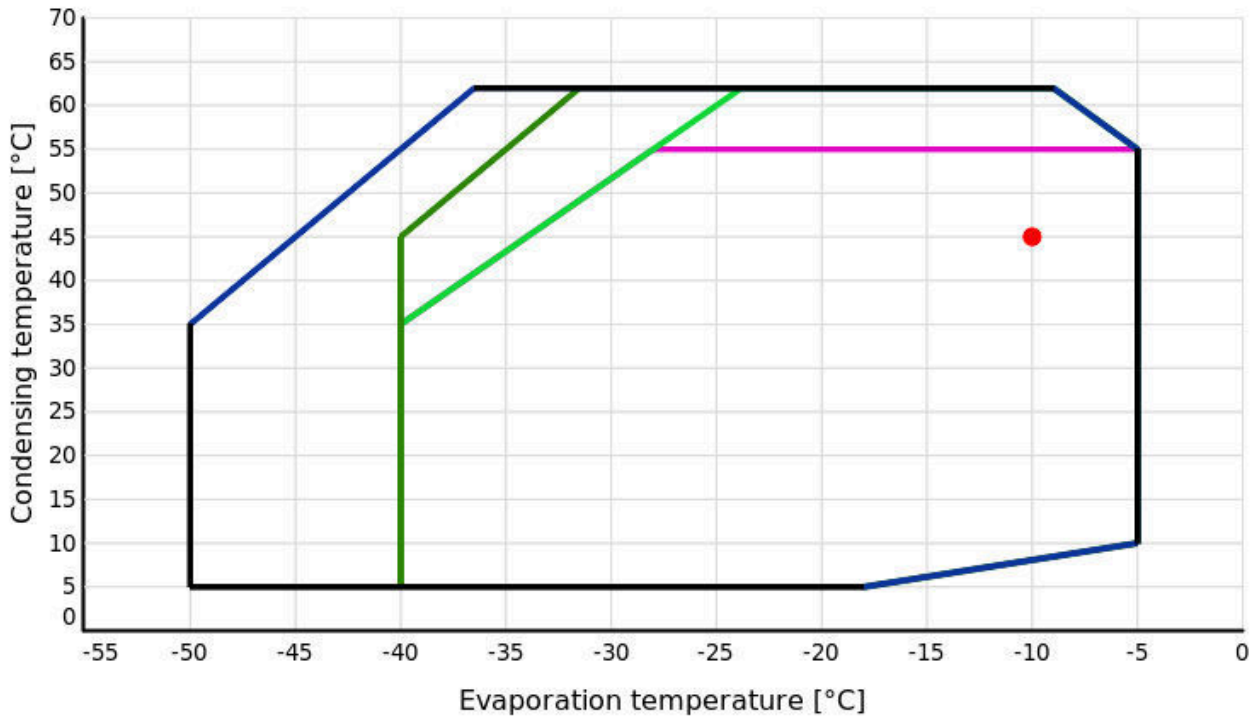
### Cooling capacity

		Evaporation temperature [°C]										
		-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	
Condensation temperature [°C]	5	6.39	8.62	11.45	14.96	19.22	24.30	30.44				
	10	5.87	8.00	10.70	14.03	18.06	22.88	28.61	35.40	43.25	52.22	
	15	5.33	7.37	9.93	13.08	16.89	21.45	26.85	33.19	40.61	49.12	
	20	4.77	6.72	9.15	12.12	15.71	20.00	25.09	31.06	38.03	46.06	
	25	4.19	6.06	8.36	11.15	14.52	18.54	23.31	28.92	35.47	43.04	
	30	3.59	5.38	7.55	10.17	13.31	17.06	21.52	26.77	32.90	40.01	
	35	2.98	4.69	6.72	9.16	12.09	15.57	19.71	24.60	30.33	36.98	
	40		3.98	5.88	8.15	10.85	14.07	17.89	22.42	27.74	33.94	
	45		3.26	5.03	7.12	9.59	12.54	16.06	20.22	<b>25.14</b>	30.89	
	50			4.17	6.07	8.32	11.00	14.20	18.01	22.52	27.83	
	55			3.30	5.02	7.04	9.45	12.33	15.77	19.88	24.75	
	60				3.96	5.74	7.87	10.43	13.51	17.21		
	62					3.53	5.22	7.23	9.66	12.59	16.13	

### Power consumption

		Evaporation temperature [°C]										
		-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	
Condensation temperature [°C]	5	3.56	3.99	4.43	4.84	5.19	5.45	5.59				
	10	3.65	4.14	4.64	5.13	5.58	5.94	6.20	6.31	6.25	5.98	
	15	3.73	4.28	4.85	5.42	5.96	6.43	6.80	7.04	7.11	7.00	
	20	3.80	4.40	5.04	5.69	6.32	6.89	7.38	7.75	7.96	7.99	
	25	3.85	4.51	5.22	5.95	6.66	7.34	7.94	8.43	8.78	8.96	
	30	3.88	4.59	5.36	6.17	6.98	7.76	8.47	9.09	9.58	9.91	
	35	3.88	4.64	5.48	6.37	7.26	8.14	8.97	9.71	10.33	10.81	
	40		4.66	5.57	6.53	7.51	8.49	9.43	10.29	11.05	11.68	
	45		4.64	5.61	6.65	7.72	8.79	9.84	10.83	<b>11.72</b>	12.49	
	50			5.61	6.72	7.87	9.05	10.20	11.31	12.34	13.26	
	55			5.55	6.73	7.98	9.25	10.51	11.74	12.91	13.97	
	60				6.69	8.02	9.39	10.76	12.11	13.41		
	62					6.66	8.02	9.43	10.84	12.24	13.59	

**Application range**



**Legend**

- Suction gas temperature: 20°C
- Suction gas temperature: 0°C
- Suction gas temperature: 0°C, additional head cooling
- Suction gas temperature: 20°C, ASERCOM certified

## Dimensions

