



Producer: **Copeland**

Line: **Discus**

Model: **3DC-100X**

Cooling capacity [kW]: **19.13**

Displacement [m³/h]: **38.0**

Refrigerant: **R22, R134a, R404A, R407A, R407C, R407F, R448A, R449A, R450A, R513A**

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

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

Data

Technical data

Displacement	[m ³ /h]	38.0
Cylinders quantity		3
Cylinder bore	[mm]	60.4
Cylinder stroke	[mm]	50.8
Oil charge	[l]	3.70
Oil type		POE RL32-3MAF
Type of lubrication		Oil pump
Net weight	[kg]	164.00
Gross weight	[kg]	175.00

Electrical data and limits

Power supply		400V/3Ph/50Hz
Maximum continuous current	[A]	20.5
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	R22, R134a, R404A, R407A, R407C, 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

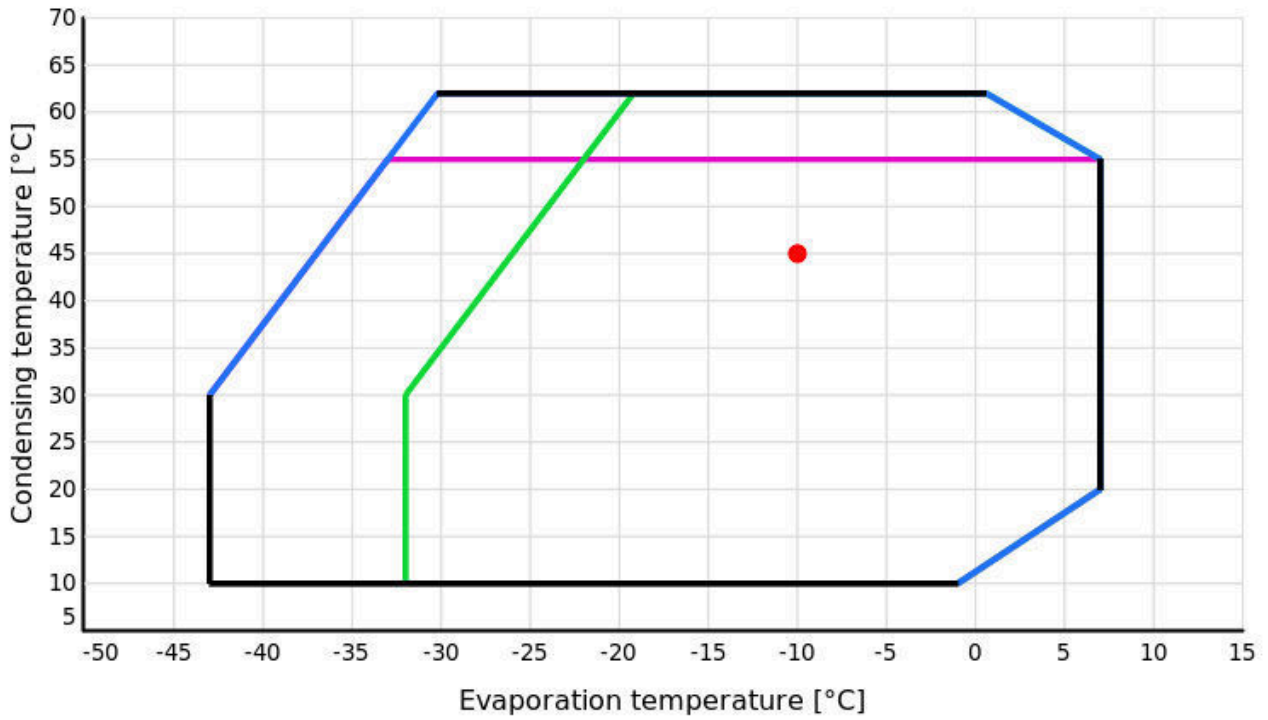
Cooling capacity

		Evaporation temperature [°C]											
		-40	-35	-30	-25	-20	-15	-10	-5	0	5	7	
Condensation temperature [°C]	10	7.98	10.51	13.57	17.23	21.60	26.79	32.88	39.92				
	15	7.31	9.78	12.72	16.23	20.40	25.32	31.13	37.86	45.56			
	20	6.59	8.99	11.82	15.17	19.13	23.80	29.29	35.69	43.04	51.38	55.00	
	25	5.83	8.15	10.86	14.04	17.80	22.22	27.39	33.43	40.41	48.36	51.83	
	30	5.04	7.28	9.86	12.87	16.40	20.56	25.43	31.12	37.70	45.24	48.54	
	35	4.24	6.38	8.81	11.64	14.95	18.84	23.40	28.73	34.91	42.04	45.16	
	40		5.46	7.74	10.37	13.45	17.06	21.30	26.26	32.05	38.74	41.69	
	45		4.54	6.65	9.08	11.90	15.22	19.13	23.73	29.11	35.36	38.13	
	50		3.63	5.56	7.76	10.33	13.35	16.92	21.13	26.09	31.91	34.49	
	55			4.48	6.44	8.73	11.44	14.65	18.48	23.02	28.38	30.78	
	60			3.43	5.13	7.13	9.50	12.35	15.78	19.88			
	62			3.03	4.61	6.49	8.73	11.43	14.68	18.61			

Power consumption

		Evaporation temperature [°C]											
		-40	-35	-30	-25	-20	-15	-10	-5	0	5	7	
Condensation temperature [°C]	10	3.49	3.89	4.24	4.51	4.68	4.72	4.60	4.31				
	15	3.62	4.08	4.50	4.85	5.11	5.25	5.24	5.06	4.69			
	20	3.73	4.25	4.74	5.17	5.52	5.76	5.87	5.81	5.56	5.09	4.84	
	25	3.82	4.40	4.96	5.48	5.92	6.26	6.47	6.53	6.42	6.09	5.90	
	30	3.87	4.52	5.15	5.75	6.28	6.73	7.05	7.24	7.25	7.07	6.93	
	35	3.88	4.59	5.30	5.99	6.61	7.16	7.60	7.91	8.05	8.01	7.94	
	40		4.63	5.41	6.18	6.90	7.55	8.11	8.54	8.82	8.92	8.91	
	45		4.60	5.47	6.32	7.14	7.90	8.57	9.13	9.54	9.79	9.84	
	50		4.52	5.46	6.41	7.32	8.19	8.98	9.66	10.21	10.61	10.72	
	55			5.40	6.43	7.45	8.42	9.33	10.14	10.83	11.37	11.54	
	60			5.26	6.38	7.50	8.58	9.61	10.55	11.38			
	62			5.18	6.34	7.50	8.63	9.70	10.69	11.58			

Application range



Legend

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

Dimensions

