



Producer: **Copeland**

Line: **Discus**

Model: **2DB-50X**

Cooling capacity [kW]: **13.52**

Displacement [m³/h]: **28.0**

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 ³ /h]	28.0
Cylinders quantity		2
Cylinder bore	[mm]	66.7
Cylinder stroke	[mm]	46.1
Oil charge	[l]	2.30
Oil type		POE RL32-3MAF
Type of lubrication		Oil pump
Net weight	[kg]	131.00
Gross weight	[kg]	140.00

Electrical data and limits

Power supply		400V/3Ph/50Hz
Maximum continuous current	[A]	13.4
Locked rotor amperage	[A]	55.0
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]	7/8
Length	[mm]	590
Height	[mm]	470
Width	[mm]	330

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

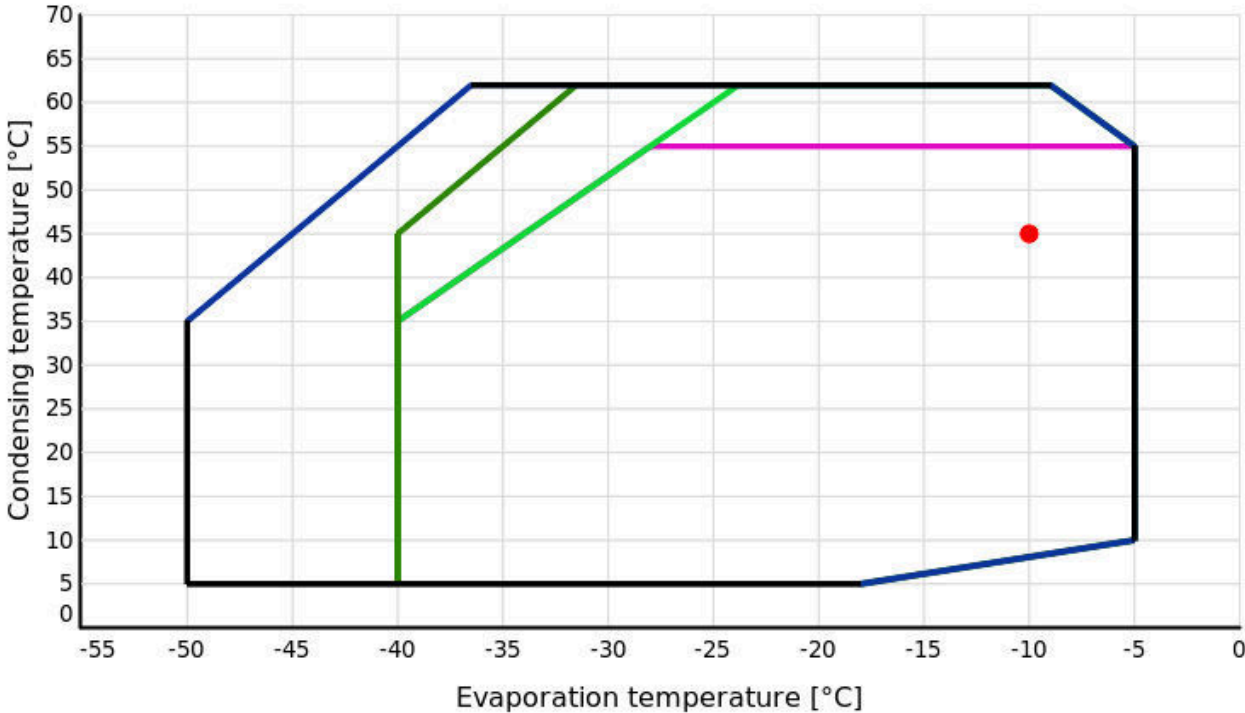
Cooling capacity

		Evaporation temperature [°C]									
		-50	-45	-40	-35	-30	-25	-20	-15	-10	-5
Condensation temperature [°C]	5	3.21	4.40	6.04	8.11	10.62	13.61	17.20			
	10	2.91	4.01	5.54	7.50	9.88	12.70	16.03	19.98	24.49	29.59
	15	2.60	3.61	5.04	6.87	9.12	11.79	14.93	18.59	22.85	27.68
	20	2.29	3.21	4.54	6.25	8.35	10.86	13.82	17.27	21.25	25.80
	25	1.98	2.82	4.03	5.62	7.58	9.93	12.71	15.95	19.69	23.97
	30	1.68	2.43	3.54	5.00	6.82	9.01	11.60	14.63	18.13	22.14
	35	1.39	2.07	3.06	4.40	6.07	8.09	10.49	13.31	16.58	20.33
	40		1.72	2.61	3.81	5.33	7.19	9.40	12.01	15.04	18.54
	45		1.39	2.18	3.25	4.62	6.30	8.33	10.72	13.52	16.76
	50			1.77	2.71	3.93	5.45	7.28	9.46	12.03	15.02
	55			1.41	2.22	3.28	4.62	6.26	8.23	10.56	13.30
	60				1.75	2.66	3.83	5.27	7.02	9.12	
	62				1.58	2.43	3.52	4.88	6.54	8.54	

Power consumption

		Evaporation temperature [°C]									
		-50	-45	-40	-35	-30	-25	-20	-15	-10	-5
Condensation temperature [°C]	5	1.85	2.11	2.38	2.64	2.86	3.01	3.05			
	10	1.87	2.16	2.47	2.78	3.06	3.28	3.41	3.43	3.31	3.01
	15	1.89	2.20	2.54	2.90	3.23	3.52	3.74	3.85	3.83	3.66
	20	1.90	2.22	2.59	2.99	3.38	3.74	4.03	4.24	4.32	4.26
	25	1.90	2.23	2.63	3.07	3.51	3.92	4.29	4.59	4.77	4.83
	30	1.90	2.24	2.66	3.13	3.61	4.09	4.53	4.91	5.19	5.35
	35	1.90	2.24	2.68	3.18	3.71	4.24	4.75	5.20	5.58	5.85
	40		2.24	2.69	3.22	3.79	4.37	4.94	5.47	5.94	6.31
	45		2.25	2.71	3.25	3.85	4.49	5.12	5.72	6.27	6.74
	50			2.72	3.28	3.92	4.59	5.28	5.95	6.58	7.14
	55			2.74	3.31	3.97	4.69	5.43	6.17	6.88	7.53
	60				3.35	4.03	4.78	5.57	6.37	7.15	
	62				3.36	4.05	4.82	5.63	6.45	7.26	

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

