



Producer: **Copeland**

Line: **Discus**

Model: **8DT-450X**

Cooling capacity [kW]: **89.17**

Displacement [m³/h]: **181.0**

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]	181.0
Cylinders quantity		8
Cylinder bore	[mm]	74.7
Cylinder stroke	[mm]	59.2
Oil charge	[l]	7.60
Oil type		POE RL32-3MAF
Type of lubrication		Oil pump
Net weight	[kg]	335.00
Gross weight	[kg]	356.00

Electrical data and limits

Power supply		400V/3Ph/50Hz
Maximum continuous current	[A]	90.7
Locked rotor amperage	[A]	441.0
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]	3 1/8
Discharge valve diameter	[inch]	1 5/8
Length	[mm]	835
Height	[mm]	610
Width	[mm]	475

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

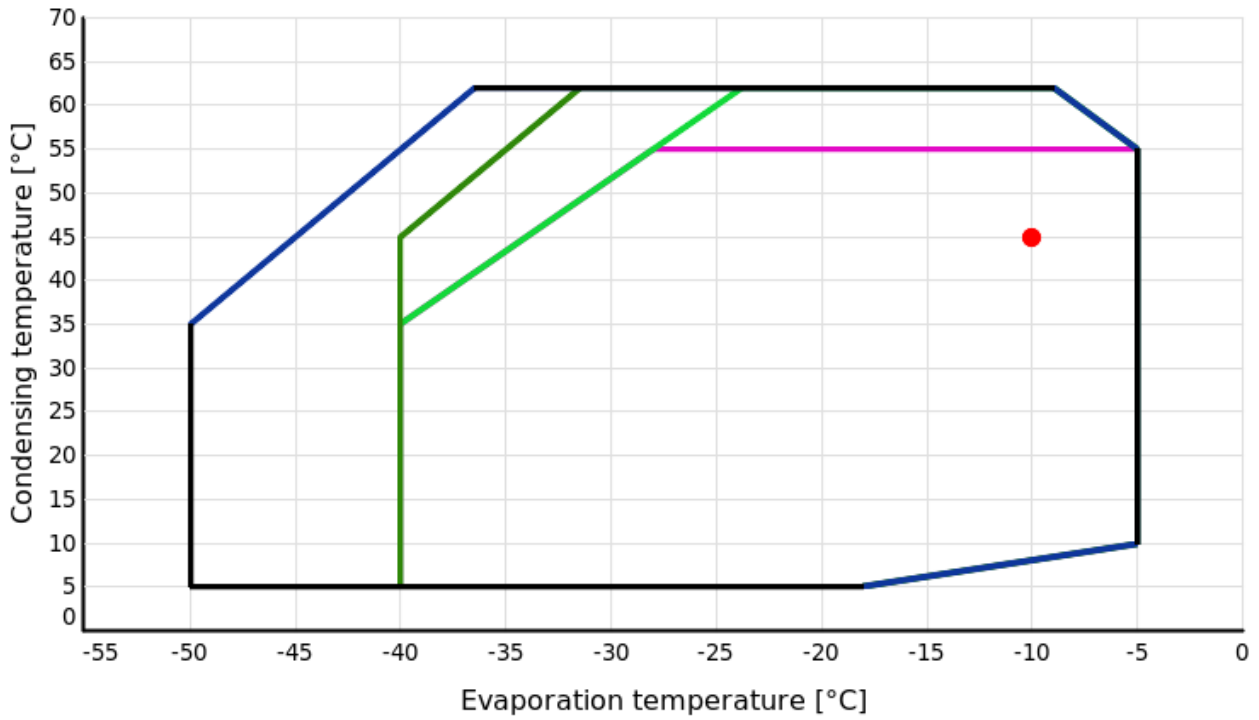
Cooling capacity

		Evaporation temperature [°C]										
		-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	
Condensation temperature [°C]	5	23.39	31.33	41.25	53.40	68.05	85.53	106.16				
	10	21.48	29.21	38.76	50.38	64.37	81.03	100.68	123.64	150.21	180.63	
	15	19.44	26.98	36.15	47.23	60.53	76.35	95.02	116.84	142.13	171.12	
	20	17.30	24.62	33.41	43.94	56.54	71.51	89.17	109.84	133.82	161.38	
	25	15.06	22.15	30.54	40.52	52.40	66.50	83.15	102.64	125.30	151.41	
	30	12.73	19.58	27.56	36.97	48.12	61.34	76.94	95.25	116.58	141.22	
	35	10.36	16.93	24.47	33.29	43.69	56.01	70.56	87.67	107.64	130.80	
	40		14.21	21.29	29.49	39.13	50.53	64.01	79.90	98.51	120.17	
	45		11.47	18.04	25.60	34.45	44.91	57.30	71.94	89.17	109.33	
	50			14.75	21.63	29.66	39.15	50.43	63.81	79.64	98.27	
	55			11.48	17.62	24.79	33.28	43.41	55.51	69.92	87.00	
	60				13.62	19.87	27.31	36.26	47.03	59.98		
	62				12.03	17.89	24.90	33.36	43.58	55.94		

Power consumption

		Evaporation temperature [°C]										
		-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	
Condensation temperature [°C]	5	12.71	14.32	15.94	17.50	18.94	20.19	21.19				
	10	13.18	14.99	16.82	18.62	20.31	21.84	23.13	24.13	24.76	24.96	
	15	13.57	15.58	17.64	19.68	21.65	23.46	25.06	26.39	27.37	27.95	
	20	13.85	16.08	18.38	20.68	22.93	25.05	26.97	28.64	29.99	30.94	
	25	14.01	16.47	19.03	21.60	24.14	26.58	28.84	30.86	32.59	33.94	
	30	14.04	16.74	19.56	22.43	25.28	28.04	30.65	33.05	35.16	36.93	
	35	13.91	16.87	19.98	23.14	26.31	29.42	32.39	35.17	37.69	39.88	
	40		16.85	20.25	23.73	27.24	30.70	34.05	37.23	40.16	42.80	
	45		16.67	20.37	24.18	28.03	31.86	35.61	39.19	42.56	45.65	
	50			20.32	24.47	28.69	32.90	37.05	41.06	44.88	48.43	
	55			20.09	24.59	29.19	33.80	38.36	42.81	47.09	51.12	
	60				24.53	29.52	34.54	39.53	44.43	49.18		
	62				24.45	29.60	34.78	39.96	45.04	49.98		

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
- Current operating conditions

Dimensions

