



Producer: **Copeland**

Line: **Discus**

Model: **3DA-50X**

Cooling capacity [kW]: **15.11**

Displacement [m³/h]: **32.2**

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] | 32.2 |
| Cylinders quantity | | 3 |
| Cylinder bore | [mm] | 55.6 |
| Cylinder stroke | [mm] | 50.8 |
| Oil charge | [l] | 3.70 |
| Oil type | | POE RL32-3MAF |
| Type of lubrication | | Oil pump |
| Net weight | [kg] | 146.00 |
| Gross weight | [kg] | 157.00 |

Electrical data and limits

| | | |
|----------------------------|-------|---------------|
| Power supply | | 400V/3Ph/50Hz |
| Maximum continuous current | [A] | 15.9 |
| 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] | 655 |
| 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

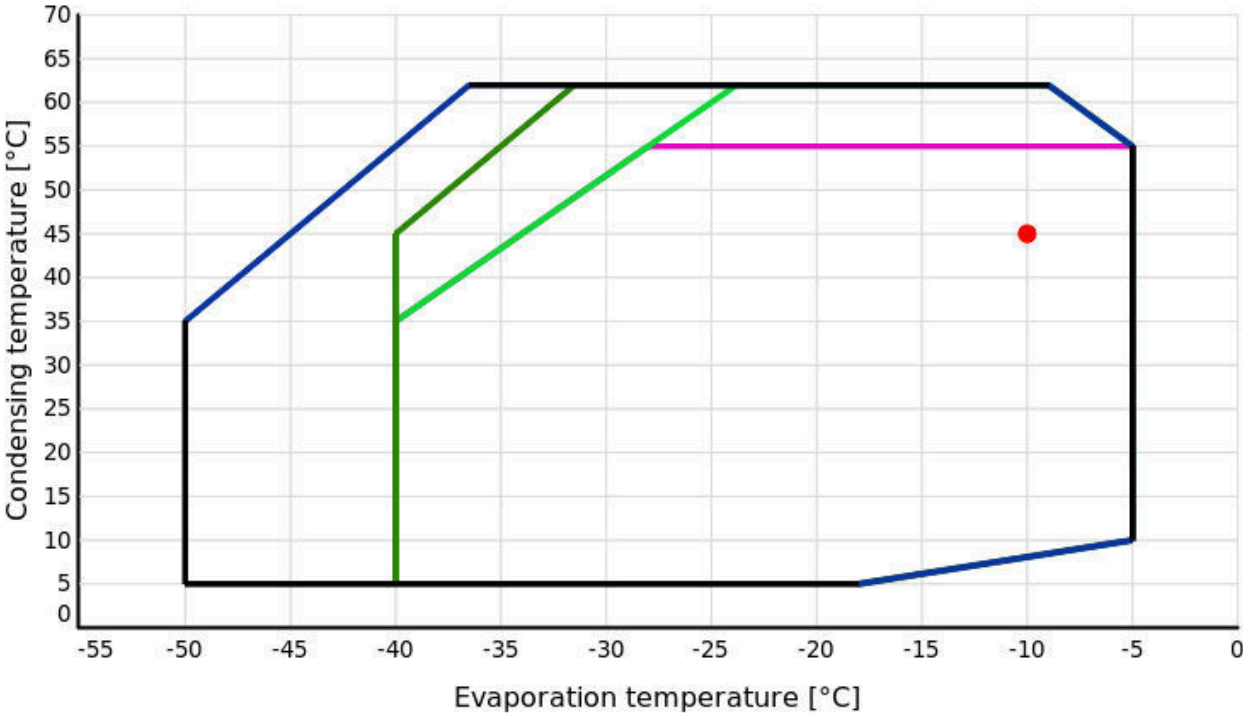
Cooling capacity

| | | Evaporation temperature [°C] | | | | | | | | | |
|-------------------------------|----|------------------------------|------|------|------|-------|-------|-------|-------|--------------|-------|
| | | -50 | -45 | -40 | -35 | -30 | -25 | -20 | -15 | -10 | -5 |
| Condensation temperature [°C] | 5 | 3.49 | 4.96 | 6.77 | 8.98 | 11.65 | 14.84 | 18.62 | | | |
| | 10 | 3.14 | 4.57 | 6.30 | 8.40 | 10.92 | 13.94 | 17.52 | 21.74 | 26.66 | 32.36 |
| | 15 | 2.79 | 4.18 | 5.83 | 7.82 | 10.20 | 13.04 | 16.42 | 20.40 | 25.05 | 30.44 |
| | 20 | 2.43 | 3.78 | 5.36 | 7.23 | 9.47 | 12.14 | 15.31 | 19.05 | 23.43 | 28.52 |
| | 25 | 2.07 | 3.37 | 4.87 | 6.63 | 8.73 | 11.23 | 14.19 | 17.69 | 21.80 | 26.59 |
| | 30 | 1.68 | 2.94 | 4.37 | 6.02 | 7.98 | 10.30 | 13.06 | 16.32 | 20.16 | 24.65 |
| | 35 | 1.29 | 2.49 | 3.84 | 5.39 | 7.20 | 9.35 | 11.91 | 14.93 | 18.50 | 22.69 |
| | 40 | | 2.03 | 3.30 | 4.73 | 6.41 | 8.38 | 10.73 | 13.52 | 16.82 | 20.71 |
| | 45 | | 1.54 | 2.72 | 4.05 | 5.58 | 7.38 | 9.53 | 12.08 | 15.11 | 18.71 |
| | 50 | | | 2.12 | 3.34 | 4.72 | 6.35 | 8.29 | 10.61 | 13.37 | 16.67 |
| | 55 | | | 1.51 | 2.60 | 3.84 | 5.29 | 7.02 | 9.10 | 11.60 | 14.60 |
| | 60 | | | | 1.85 | 2.93 | 4.20 | 5.71 | 7.55 | 9.78 | |
| | 62 | | | | 1.55 | 2.56 | 3.75 | 5.18 | 6.92 | 9.04 | |

Power consumption

| | | Evaporation temperature [°C] | | | | | | | | | |
|-------------------------------|----|------------------------------|------|------|------|------|------|------|------|-------------|------|
| | | -50 | -45 | -40 | -35 | -30 | -25 | -20 | -15 | -10 | -5 |
| Condensation temperature [°C] | 5 | 2.11 | 2.46 | 2.78 | 3.06 | 3.28 | 3.42 | 3.49 | | | |
| | 10 | 2.17 | 2.56 | 2.93 | 3.25 | 3.53 | 3.75 | 3.89 | 3.94 | 3.90 | 3.74 |
| | 15 | 2.20 | 2.64 | 3.06 | 3.44 | 3.78 | 4.06 | 4.27 | 4.40 | 4.45 | 4.38 |
| | 20 | 2.22 | 2.70 | 3.17 | 3.60 | 4.00 | 4.35 | 4.64 | 4.86 | 4.98 | 5.01 |
| | 25 | 2.21 | 2.73 | 3.25 | 3.75 | 4.21 | 4.63 | 4.99 | 5.29 | 5.50 | 5.62 |
| | 30 | 2.17 | 2.74 | 3.31 | 3.86 | 4.39 | 4.88 | 5.32 | 5.70 | 6.00 | 6.22 |
| | 35 | 2.09 | 2.71 | 3.34 | 3.95 | 4.54 | 5.11 | 5.62 | 6.08 | 6.47 | 6.79 |
| | 40 | | 2.65 | 3.33 | 4.00 | 4.66 | 5.30 | 5.89 | 6.44 | 6.92 | 7.33 |
| | 45 | | 2.54 | 3.28 | 4.01 | 4.74 | 5.45 | 6.12 | 6.75 | 7.33 | 7.83 |
| | 50 | | | 3.18 | 3.98 | 4.78 | 5.56 | 6.31 | 7.03 | 7.70 | 8.30 |
| | 55 | | | 3.03 | 3.90 | 4.76 | 5.62 | 6.46 | 7.27 | 8.03 | 8.73 |
| | 60 | | | | 3.76 | 4.70 | 5.64 | 6.56 | 7.45 | 8.31 | |
| | 62 | | | | 3.69 | 4.66 | 5.63 | 6.58 | 7.51 | 8.41 | |

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

