

Outdoor chillers

Axial fans, scroll compressor
cooling-only or heat pump models
50-270 kW*

CGAN/CXAN



Tracer™ CH532



CGAN/CXAN

Customer benefits

- Packaged hydraulic module for easier installation: saving of time
- Low Sound version for sensitive environment: a high level of acoustic comfort
- Wide application flexibility for comfort and process applications to fit the customer's exact requirements

Main features

- Scroll Compressors
 - Hermetic, high efficiency, low vibration, low sound level
 - Full internal protections, internal temperature and bypass valve
 - Built-in oil level sight glass and oil charging valve
 - Compressor sound attenuating enclosure (super quiet units)
- External sheet metal parts are galvanized and finished with powder paint RAL 9002
- Access panels are quickly removable using a square key
- Disconnect switch/transformer
- Waterflow switch

Options

- Super quiet operation
- Integrated hydraulic module with or without buffer tank (footprint unchanged)
 - Single or double pump package
 - Copper fins or black epoxy-coated fins
 - Anti-freeze protection on waterside
 - 380, 400 and 415V power voltage
 - Phase reversal protection

- High and low pressure gauges
 - Soft starter up to size 300
 - High static pressure fans
 - Coil protection guards
 - Undersized or oversized water pump for information, contact your local sales office
 - **Factory-mounted LonTalk® serial link**
Allowing you to:
 - Modify the chilled or hot water temperature setpoint
 - Start or stop the unit
 - Switch from cooling to heating mode
 - Monitor water temperature setpoint, ambient air temperature, chiller operation, fans, water pumps, compressor alarms
 - TraneTracer Summit™ BMS direct compatibility
- LonTalk® is an open communication protocol used on AquaStream² and water terminal units.**

Control

Microprocessor control module with liquid crystal display operator interface controlling and indicating:

- Leaving water temperature
- History of the last 200 defaults
- Cold or hot water reset
- On/off scheduling
- Anti-freeze protection of evaporator, control defrost (CXAN)
- Remote control: dry contact for general fault
- Inputs for external water setpoint reset, auxiliary setpoint, and cooling/heating switch

General data


Unit size

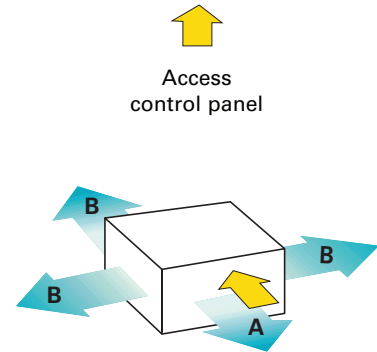
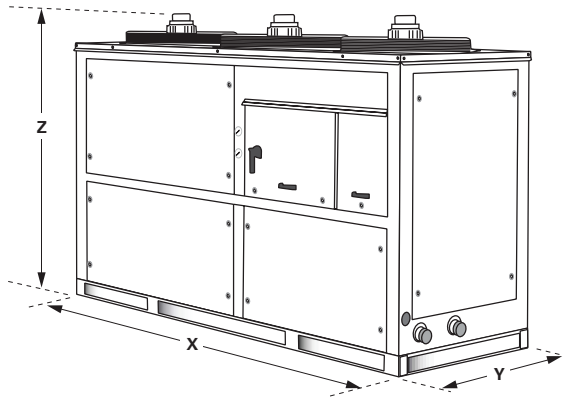
| | | 200 | 250 | 300 | 400 | 450 | 490 | 500 | 600 | 700 | 800 | 900 | 925 |
|--|----------|--|-------|--------|--------|--------|--------|--------|--------|-------|-------|-------|-------|
| Cooling Capacity | (kW) | 49.7 | 64.1 | 78.1 | 104.4 | 120.8 | 130.1 | 132.1 | 161.0 | 188.1 | 219.5 | 243.8 | 268.2 |
| Power input in cooling | (kW) | 19.5 | 24.4 | 28.8 | 38.9 | 44.7 | 50.8 | 49.1 | 57.9 | 69.1 | 77.9 | 91.1 | 101.3 |
| Energy Efficiency Ratio | | 2.55 | 2.63 | 2.71 | 2.68 | 2.70 | 2.56 | 2.69 | 2.78 | 2.72 | 2.82 | 2.68 | 2.65 |
| Cooling Capacity | (kW) | 45.3 | 62.3 | 75.2 | 92.1 | 119.3 | 125.4 | 123.0 | 156.8 | 171.6 | 200.0 | 227.6 | 251.2 |
| Power input in cooling | (kW) | 19.1 | 25.4 | 29.3 | 39.2 | 44.8 | 49.7 | 51.1 | 60.7 | 69.8 | 78.2 | 91.6 | 100.9 |
| Energy Efficiency Ratio | | 2.37 | 2.45 | 2.57 | 2.35 | 2.66 | 2.52 | 2.41 | 2.58 | 2.46 | 2.56 | 2.48 | 2.49 |
| Heating Capacity | (kW) | 49.3 | 61.1 | 74.2 | 101.7 | 115.1 | 120.9 | 122.1 | 149.0 | 176.1 | 203.4 | 225.5 | 252.9 |
| Power input in Heating | (kW) | 20.3 | 24.9 | 30.4 | 43.0 | 45.7 | 48.7 | 49.5 | 60.4 | 69.6 | 84.5 | 92.6 | 101.1 |
| Coefficient Of Performance | | 2.42 | 2.45 | 2.44 | 2.37 | 2.52 | 2.48 | 2.47 | 2.47 | 2.53 | 2.41 | 2.44 | 2.50 |
| Refrigerant | | R407C | | | | | | | | | | | |
| Number of refrigerant circuit | | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 |
| Compressor type | | Scroll | | | | | | | | | | | |
| Number of capacity steps | | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 4 |
| Number of compressors | | 2 | 2 | 2 | 3 | 2 | 2 | 4 | 4 | 6 | 6 | 6 | 4 |
| Evaporator type | | Braze plate | | | | | | | | | | | |
| Evaporator water content | (l) | 4.8 | 5.9 | 6.9 | 9.0 | 11.3 | 12.6 | 17.2 | 19.8 | 25.6 | 29.0 | 32.3 | 35.7 |
| Evaporator water connection type | | Male ISO R7 | | | | | | | | | | | |
| Evaporator water connection diameter | (inches) | 2" | 2" | 2 1/2" | 2 1/2" | 2 1/2" | 2 1/2" | 2 1/2" | 2 1/2" | 3" | 3" | 3" | 3" |
| Condenser type | | Copper tubes with aluminium fins | | | | | | | | | | | |
| Total airflow (standard unit) | (m³/h) | 20200 | 19100 | 26300 | 37300 | 37100 | 37100 | 38300 | 52700 | 55400 | 86300 | 83000 | 79300 |
| Number of fans | | 2 | 2 | 3 | 3 | 3 | 3 | 4 | 6 | 6 | 6 | 6 | 6 |
| Fan speed | | 700 | 700 | 700 | 680 | 680 | 680 | 700 | 700 | 700 | 680 | 680 | 680 |
| Sound power level (standard unit) | (dBA) | 84 | 85 | 86 | 87 | 90 | 91 | 88 | 89 | 89 | 94 | 95 | 95 |
| Sound power level (super quiet option) | (dBA) | 78 | 78 | 79 | 83 | 86 | 86 | 83 | 84 | 85 | 88 | 88 | 89 |
| Minimum operating outdoor air temperature - cooling mode | (°C) | 10 (-10 or -18 with low ambient operation options) | | | | | | | | | | | |
| Minimum operating outdoor air temperature - heating mode | (°C) | -10 | | | | | | | | | | | |
| Maximum operating conditions (2) | (°C) | CGAN 43/CXAN 42 | | | | | | | | | | | |
| Minimum leaving water temperature | (°C) | -12 | | | | | | | | | | | |
| Maximum leaving water temperature (cooling/heating) | (°C) | 15/50 (3) | | | | | | | | | | | |

(1) At Eurovent conditions (cooling: water 12°C/7°C - air: 35°C/heating: water 40°C/45°C-air:DB 7°C/WB 6°C). Ratings based on sea level altitude and evaporator fouling factor of 0.044 m²K/kW

(2) Cooling: water 12/7°C

(3) Above 0°C ambient. For applications below 0°C ambient, contact your local sales office.

Dimensions, weights and clearances



Weights (1)

| Unit size | Dimensions (1) (mm) | | | Water tank additional height (mm) | Operating weight (kg) | Shipping weight (kg) | Water tank net weight (kg) | Water tank content (l) | Minimum clearances (mm) | |
|-----------------|------------------------|-------------|-------------|--|-----------------------------|----------------------------|----------------------------------|------------------------------|----------------------------|-------------|
| | X | Y | Z | | | | | | A | B |
| CGAN 200 | 2800 | 1100 | 1897 | 400 | 748 | 743 | 396 | 370 | 1300 | 1000 |
| CGAN 250 | 2800 | 1100 | 1897 | 400 | 842 | 834 | 396 | 370 | 1300 | 1000 |
| CGAN 300 | 3200 | 1100 | 1897 | 400 | 968 | 954 | 437 | 410 | 1300 | 1000 |
| CGAN 400 | 3200 | 1100 | 2074 | 400 | 1143 | 1124 | 437 | 410 | 1300 | 1000 |
| CGAN 450 | 3200 | 1100 | 2074 | 400 | 1267 | 1260 | 437 | 410 | 1300 | 1000 |
| CGAN 490 | 3200 | 1100 | 2074 | 400 | 1292 | 1284 | 437 | 410 | 1300 | 1000 |
| CGAN 500 | 3400 | 2300 | 1897 | 400 | 1623 | 1588 | 644 | 570 | 1300 | 1000 |
| CGAN 600 | 3400 | 2300 | 1897 | 400 | 1818 | 1778 | 644 | 570 | 1300 | 1000 |
| CGAN 700 | 3400 | 2300 | 1995 | 400 | 2087 | 2030 | 644 | 570 | 1300 | 1000 |
| CGAN 800 | 3400 | 2300 | 2100 | 400 | 2245 | 2181 | 644 | 570 | 1300 | 1000 |
| CGAN 900 | 3400 | 2300 | 2100 | 400 | 2423 | 2344 | 644 | 570 | 1300 | 1000 |
| CGAN 925 | 3400 | 2300 | 2100 | 400 | 2456 | 2377 | 644 | 570 | 1300 | 1000 |
| CXAN 200 | 2800 | 1100 | 1897 | 400 | 776 | 771 | 396 | 370 | 1300 | 1000 |
| CXAN 250 | 2800 | 1100 | 1897 | 400 | 870 | 862 | 396 | 370 | 1300 | 1000 |
| CXAN 300 | 3200 | 1100 | 1897 | 400 | 996 | 982 | 437 | 410 | 1300 | 1000 |
| CXAN 400 | 3200 | 1100 | 2074 | 400 | 1182 | 1163 | 437 | 410 | 1300 | 1000 |
| CXAN 450 | 3200 | 1100 | 2074 | 400 | 1302 | 1295 | 437 | 410 | 1300 | 1000 |
| CXAN 490 | 3200 | 1100 | 2074 | 400 | 1331 | 1323 | 437 | 410 | 1300 | 1000 |
| CXAN 500 | 3400 | 2300 | 1897 | 400 | 1677 | 1642 | 644 | 570 | 1300 | 1000 |
| CXAN 600 | 3400 | 2300 | 1897 | 400 | 1872 | 1832 | 644 | 570 | 1300 | 1000 |
| CXAN 700 | 3400 | 2300 | 1995 | 400 | 2166 | 2109 | 644 | 570 | 1300 | 1000 |
| CXAN 800 | 3400 | 2300 | 2100 | 400 | 2324 | 2260 | 644 | 570 | 1300 | 1000 |
| CXAN 900 | 3400 | 2300 | 2100 | 400 | 2502 | 2423 | 644 | 570 | 1300 | 1000 |
| CXAN 925 | 3400 | 2300 | 2100 | 400 | 2535 | 2456 | 644 | 570 | 1300 | 1000 |

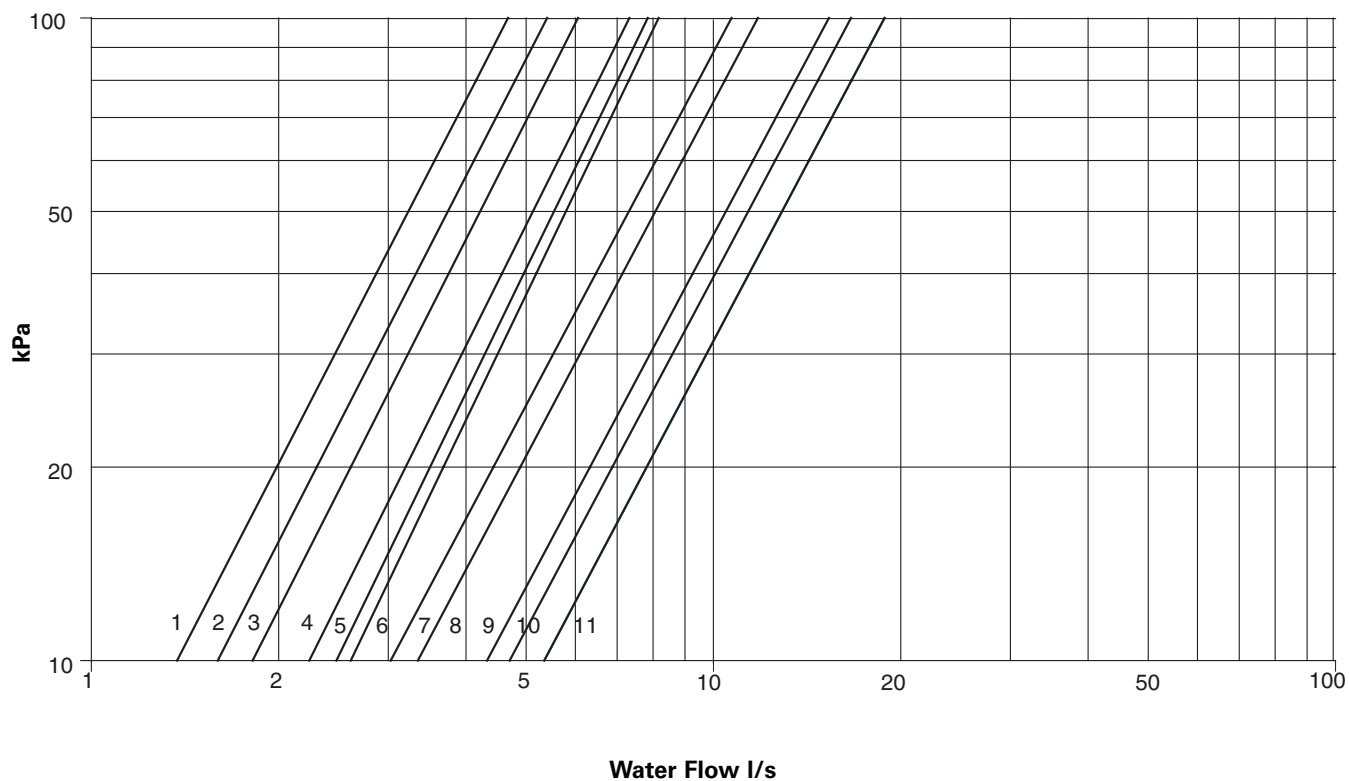
(1) Without hydraulic module or buffer tank, with aluminium fins

Electrical data

| Unit size | | 200 | 250 | 300 | 400 | 450 | 490 | 500 | 600 | 700 | 800 | 900 | 925 |
|-----------------------|--------------------|----------|-----|-----|------|------|------|-----|-----|-----|-----|-----|-----|
| Power supply | (V/Ph/Hz) | 400/3/50 | | | | | | | | | | | |
| Standard starter type | | Direct | | | | | | | | | | | |
| Start-up amps | (A) | 148 | 203 | 215 | 236 | 327 | 336 | 259 | 282 | 300 | 334 | 354 | 450 |
| Maximum amps | (A) | 47 | 57 | 69 | 89 | 102 | 111 | 113 | 136 | 153 | 188 | 208 | 225 |
| Maximum cable size | (mm ²) | 16 | 35 | 35 | 50 | 50 | 50 | 50 | 95 | 95 | 95 | 150 | 150 |
| Fan motor power (1) | (kW) | 0.6 | 0.6 | 0.6 | 1.05 | 1.05 | 1.05 | 0.6 | 0.6 | 0.6 | 1.5 | 1.5 | 1.4 |

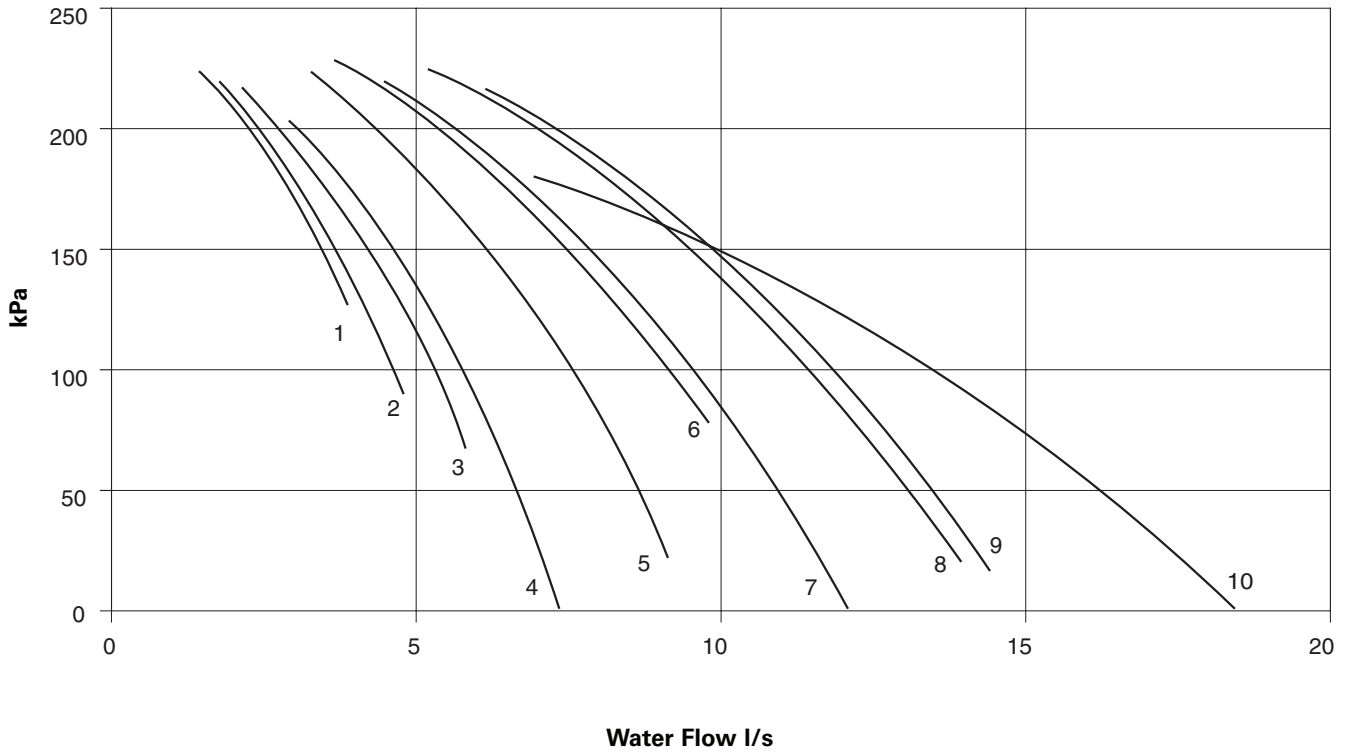
(1) Per fan standard unit

Evaporator water pressure drop



- | | |
|-------------------|------------------------|
| 1 = CGAN/CXAN 200 | 7 = CGAN/CXAN 500 |
| 2 = CGAN/CXAN 250 | 8 = CGAN/CXAN 600 |
| 3 = CGAN/CXAN 300 | 9 = CGAN/CXAN 700 |
| 4 = CGAN/CXAN 400 | 10 = CGAN/CXAN 800 |
| 5 = CGAN/CXAN 450 | 11 = CGAN/CXAN 900/925 |
| 6 = CGAN/CXAN 490 | |

Chiller available pressure - hydraulic module option



- | | |
|-------------------|------------------------|
| 1 = CGAN/CXAN 200 | 6 = CGAN/CXAN 600 |
| 2 = CGAN/CXAN 250 | 7 = CGAN/CXAN 700 |
| 3 = CGAN/CXAN 300 | 8 = CGAN/CXAN 800 |
| 4 = CGAN/CXAN 400 | 9 = CGAN/CXAN 900 |
| 5 = CGAN/CXAN 500 | 10 = CGAN/CXAN 900/925 |

Performance data - CGAN

| Evaporator Leaving Water Temperature (°C) | Unit size | Condenser Entering Air Temperature (°C) | | | | | | | |
|---|-----------|---|------------------------|---------------------------|------------------------|---------------------------|------------------------|---------------------------|------------------------|
| | | 30 | | 35 | | 40 | | 43 | |
| | | Cooling capacity (1) (kW) | Total power input (kW) | Cooling capacity (1) (kW) | Total power input (kW) | Cooling capacity (1) (kW) | Total power input (kW) | Cooling capacity (1) (kW) | Total power input (kW) |
| 5 | 200 | 49.0 | 17.2 | 46.3 | 19.2 | 43.4 | 21.4 | 41.5 | 23.0 |
| | 250 | 63.2 | 21.4 | 59.8 | 23.9 | 56.1 | 26.8 | 53.7 | 28.6 |
| | 300 | 76.8 | 25.5 | 72.8 | 28.3 | 68.6 | 31.4 | 65.9 | 33.5 |
| | 400 | 102.6 | 34.5 | 97.4 | 38.2 | 91.7 | 42.4 | 88.1 | 45.2 |
| | 450 | 120.4 | 39.3 | 113.3 | 43.7 | 105.7 | 48.6 | 101.0 | 51.8 |
| | 490 | 129.9 | 44.8 | 122.1 | 49.7 | 113.8 | 55.1 | - | - |
| | 500 | 131.3 | 43.1 | 123.9 | 48.1 | 115.8 | 53.7 | 110.8 | 57.4 |
| | 600 | 159.4 | 51.3 | 150.8 | 56.8 | 141.6 | 63.0 | 135.8 | 67.1 |
| | 700 | 186.9 | 60.8 | 176.2 | 67.7 | 164.7 | 75.5 | 157.5 | 80.7 |
| | 800 | 217.1 | 69.5 | 205.3 | 76.6 | 192.9 | 84.6 | 185.0 | 89.9 |
| | 900 | 242.1 | 80.8 | 228.6 | 89.2 | 214.2 | 98.7 | 205.1 | 104.9 |
| 925 | 269.1 | 89.9 | 252.4 | 99.1 | 234.9 | 109.2 | - | - | |
| 7 | 200 | 52.6 | 17.5 | 49.7 | 19.5 | 46.6 | 21.8 | 44.6 | 23.4 |
| | 250 | 67.8 | 21.9 | 64.1 | 24.4 | 60.1 | 27.3 | 57.6 | 29.2 |
| | 300 | 82.3 | 26.0 | 78.1 | 28.8 | 73.6 | 32.0 | 70.7 | 34.1 |
| | 400 | 110.0 | 35.2 | 104.4 | 38.9 | 98.3 | 43.1 | 94.5 | 46.0 |
| | 450 | 128.3 | 40.3 | 120.8 | 44.7 | 112.9 | 49.6 | - | - |
| | 490 | 138.2 | 45.9 | 130.1 | 50.8 | 121.4 | 56.2 | - | - |
| | 500 | 140.1 | 44.0 | 132.1 | 49.1 | 123.6 | 54.8 | - | - |
| | 600 | 170.2 | 52.3 | 161.0 | 57.9 | 151.3 | 64.2 | 145.1 | 68.3 |
| | 700 | 199.4 | 62.0 | 188.0 | 69.1 | 175.8 | 77.0 | - | - |
| | 800 | 232.0 | 70.8 | 219.5 | 77.9 | 206.2 | 86.0 | 197.8 | 91.4 |
| | 900 | 258.3 | 82.5 | 243.9 | 91.1 | 228.5 | 100.7 | - | - |
| 925 | 285.7 | 92.1 | 268.3 | 101.3 | 249.9 | 111.4 | - | - | |
| 9 | 200 | 56.3 | 17.8 | 53.2 | 19.9 | 49.9 | 22.2 | 47.8 | 23.8 |
| | 250 | 72.4 | 22.4 | 68.5 | 24.9 | 64.2 | 27.9 | 61.5 | 29.8 |
| | 300 | 88.0 | 26.5 | 83.5 | 29.4 | 78.7 | 32.6 | 75.6 | 34.7 |
| | 400 | 117.7 | 35.8 | 111.7 | 39.6 | 105.2 | 43.9 | 101.1 | 46.7 |
| | 450 | 136.4 | 41.3 | 128.5 | 45.8 | 120.2 | 50.7 | - | - |
| | 490 | 146.8 | 47.1 | 138.2 | 52.0 | 129.2 | 57.4 | - | - |
| | 500 | 149.1 | 45.0 | 140.6 | 50.1 | 131.5 | 55.9 | - | - |
| | 600 | 181.3 | 53.4 | 171.6 | 59.1 | 161.2 | 65.4 | 154.6 | 69.5 |
| | 700 | 212.4 | 63.4 | 200.3 | 70.5 | 187.3 | 78.6 | - | - |
| | 800 | 247.4 | 72.1 | 234.1 | 79.4 | 219.9 | 87.6 | 211.0 | 92.9 |
| | 900 | 274.9 | 84.4 | 259.5 | 93.1 | 243.2 | 102.8 | - | - |
| 925 | 302.9 | 94.4 | 284.6 | 103.6 | 265.4 | 113.6 | - | - | |

(1) At evaporator outlet, ratings are based on evaporator temperature drop of 5°C
 Ratings based on sea level altitude and evaporator fouling factor of 0.044 m²K/kW