

## 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 AquaStream<sup>2</sup> 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

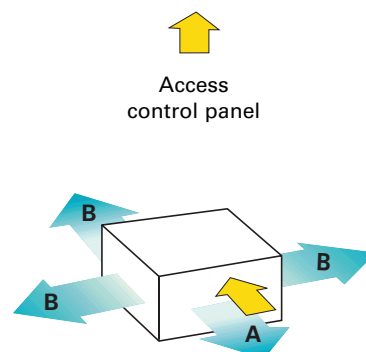
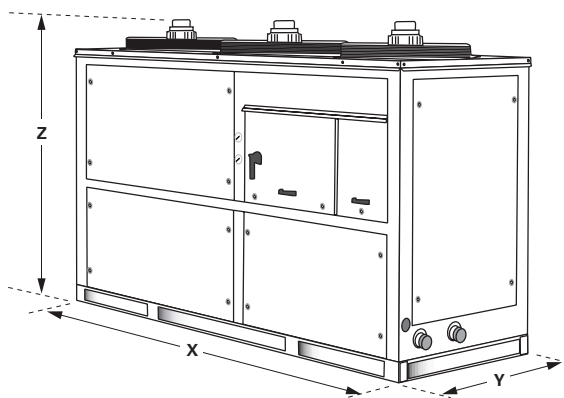
|                                                          |          | 200                                                | 250   | 300    | 400    | 450    | 490    | 500    | 600    | 700   | 800   | 900   | 925   |
|----------------------------------------------------------|----------|----------------------------------------------------|-------|--------|--------|--------|--------|--------|--------|-------|-------|-------|-------|
| 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                                          |          | Brazed 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)<br>(mm) |      |      | Water tank<br>additional<br>height<br>(mm) | Operating<br>weight<br>(kg) | Shipping<br>weight<br>(kg) | Water tank<br>net weight<br>(kg) | Water tank<br>content<br>(l) | Minimum clearances<br>(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 |

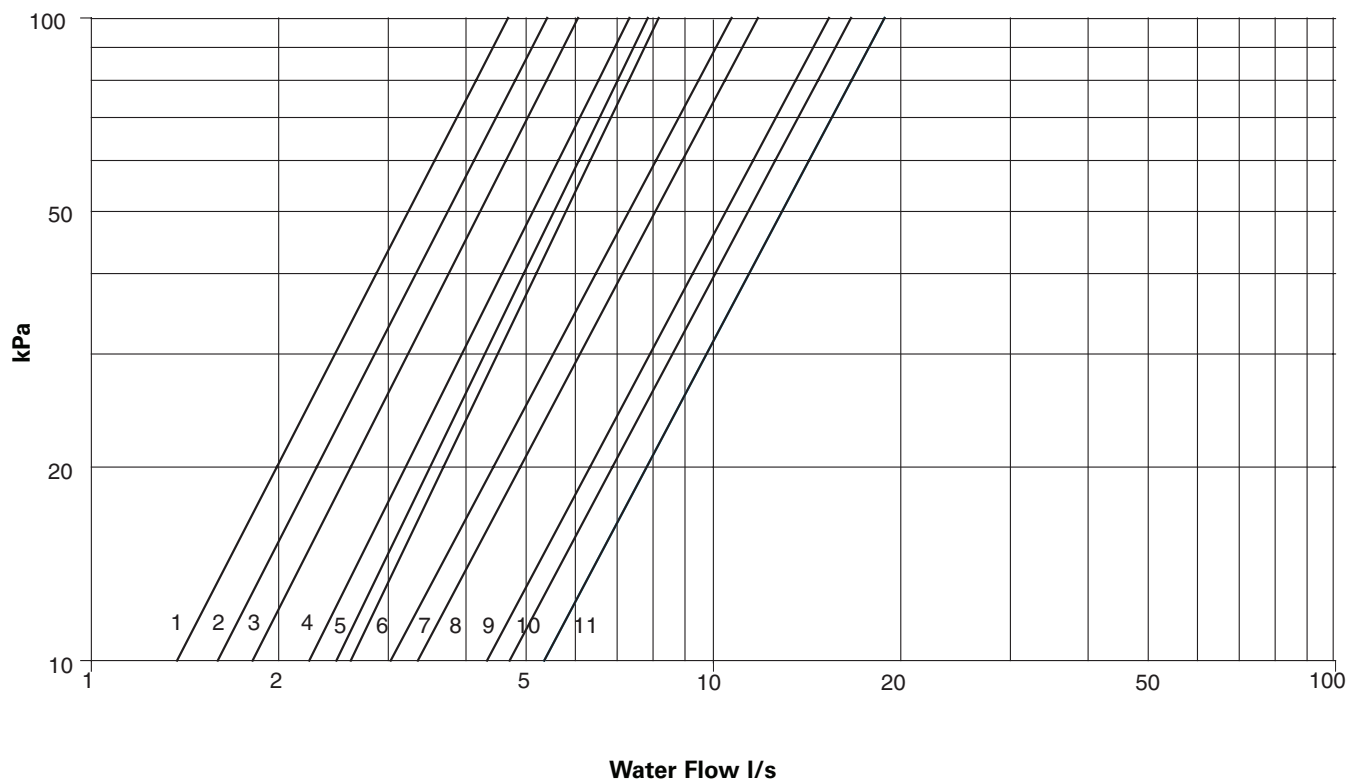
(1) Without hydraulic module or buffer tank, with aluminium fins

## 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    | (mm²)     | 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 |

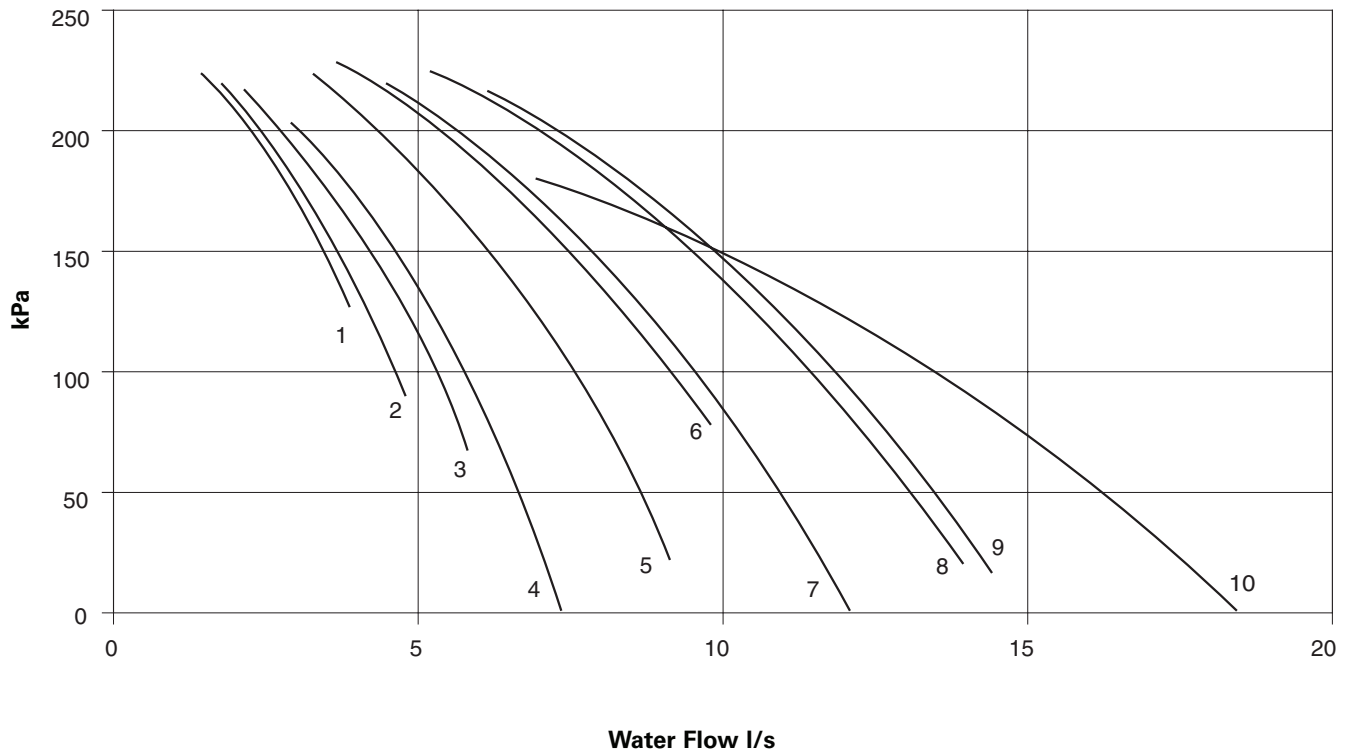
(1) Per fan standard unit

## 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

|                                           |           | Condenser Entering Air Temperature (°C) |                        |                           |                        |                           |                        |                           |                        |
|-------------------------------------------|-----------|-----------------------------------------|------------------------|---------------------------|------------------------|---------------------------|------------------------|---------------------------|------------------------|
|                                           |           | 30                                      |                        | 35                        |                        | 40                        |                        | 43                        |                        |
| Evaporator Leaving Water Temperature (°C) | Unit size | 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                   |
| 7                                         | 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                  | -                         | -                      |
|                                           | 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                   |
| 9                                         | 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                  | -                         | -                      |
|                                           | 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                   | -                         | -                      |
| 9                                         | 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