

## 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**

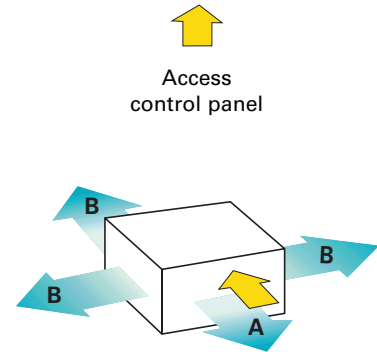
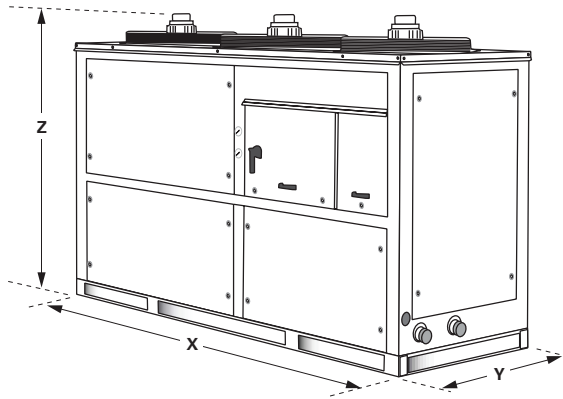
|  |                     | 200          | 250         | 300         | 400   | 450          | 490                                     | 500          | 600          | 700          | 800          | 900          | 925          |
|--|---------------------|--------------|-------------|-------------|---|--------------|---|--------------|--------------|--------------|--------------|--------------|--------------|
| <b>Cooling Capacity</b>                                  | (kW)                | <b>49.7</b>  | 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)                | <b>19.5</b>  | 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                                  |                     | <b>2.55</b>  | 2.63        | 2.71        | 2.68  | 2.70         | 2.56                                    | 2.69         | 2.78         | 2.72         | 2.82         | 2.68         | 2.65         |
| <b>Cooling Capacity</b>                                  | (kW)                | <b>45.3</b>  | <b>62.3</b> | <b>75.2</b> | <b>92.1</b>   | <b>119.3</b> | <b>125.4</b>                            | <b>123.0</b> | <b>156.8</b> | <b>171.6</b> | <b>200.0</b> | <b>227.6</b> | <b>251.2</b> |
| Power input in cooling                                   | (kW)                | <b>19.1</b>  | 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                                  |                     | <b>2.37</b>  | 2.45        | 2.57        | 2.35  | 2.66         | 2.52                                    | 2.41         | 2.58         | 2.46         | 2.56         | 2.48         | 2.49         |
| <b>Heating Capacity</b>                                  | (kW)                | <b>49.3</b>  | <b>61.1</b> | <b>74.2</b> | <b>101.7</b>  | <b>115.1</b> | <b>120.9</b>                            | <b>122.1</b> | <b>149.0</b> | <b>176.1</b> | <b>203.4</b> | <b>225.5</b> | <b>252.9</b> |
| Power input in Heating                                   | (kW)                | <b>20.3</b>  | 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                               |                     | <b>2.42</b>  | 2.45        | 2.44        | 2.37  | 2.52         | 2.48                                    | 2.47         | 2.47         | 2.53         | 2.41         | 2.44         | 2.50         |
| Refrigerant  |                     |              |             |             |   |              | <b>R407C</b>                            |              |              |              |              |              |              |
| Number of refrigerant circuit                            |                     | <b>1</b>     | 1           | 1           | 1   | 1            | 1                                       | 2            | 2            | 2            | 2            | 2            | 2            |
| Compressor type  |                     |              |             |             |   |              | <b>Scroll</b>                           |              |              |              |              |              |              |
| Number of capacity steps                                 |                     | <b>2</b>     | 2           | 2           | 2   | 2            | 2                                       | 4            | 4            | 4            | 4            | 4            | 4            |
| Number of compressors                                    |                     | <b>2</b>     | 2           | 2           | 3   | 2            | 2                                       | 4            | 4            | 6            | 6            | 6            | 4            |
| Evaporator type  |                     |              |             |             |   |              | <b>Brazed plate</b>                     |              |              |              |              |              |              |
| Evaporator water content                                 | (l)                 | <b>4.8</b>   | 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                         |                     |              |             |             |   |              | <b>Male ISO R7</b>                      |              |              |              |              |              |              |
| Evaporator water connection diameter                     | (inches)            | <b>2"</b>    | 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   |                     |              |             |             |   |              | <b>Copper tubes with aluminium fins</b> |              |              |              |              |              |              |
| Total airflow (standard unit)                            | (m <sup>3</sup> /h) | <b>20200</b> | 19100       | 26300       | 37300   | 37100        | 37100                                   | 38300        | 52700        | 55400        | 86300        | 83000        | 79300        |
| Number of fans   |                     | <b>2</b>     | 2           | 3           | 3   | 3            | 3                                       | 4            | 6            | 6            | 6            | 6            | 6            |
| Fan speed  |                     | <b>700</b>   | 700         | 700         | 680   | 680          | 680                                     | 700          | 700          | 700          | 680          | 680          | 680          |
| Sound power level (standard unit)                        | (dBA)               | <b>84</b>    | 85          | 86          | 87  | 90           | 91                                      | 88           | 89           | 89           | 94           | 95           | 95           |
| Sound power level (super quiet option)                   | (dBA)               | <b>78</b>    | 78          | 79          | 83  | 86           | 86                                      | 83           | 84           | 85           | 88           | 88           | 89           |
| Minimum operating outdoor air temperature - cooling mode | (°C)                |              |             |             | <b>10 (-10 or -18 with low ambient operation options)</b> |              |   |              |              |              |              |              |              |
| Minimum operating outdoor air temperature - heating mode | (°C)                |              |             |             |   |              | <b>-10</b>                              |              |              |              |              |              |              |
| Maximum operating conditions (2)                         | (°C)                |              |             |             | <b>CGAN 43/CXAN 42</b>                                    |              |   |              |              |              |              |              |              |
| Minimum leaving water temperature                        | (°C)                |              |             |             |   |              | <b>-12</b>                              |              |              |              |              |              |              |
| Maximum leaving water temperature (cooling/heating)      | (°C)                |              |             |             |   |              | <b>15/50 (3)</b>                        |              |              |              |              |              |              |

(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 m<sup>2</sup>°K/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 |

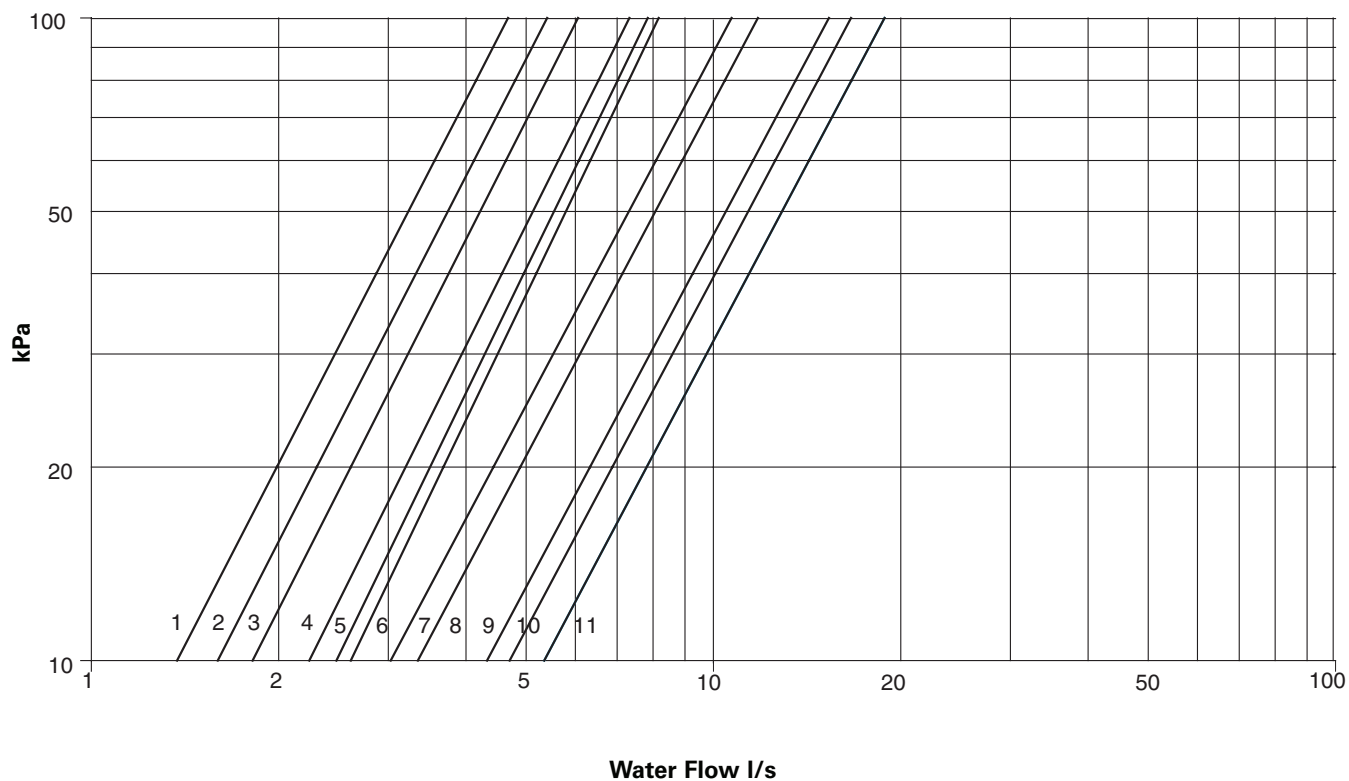
(1) Without hydraulic module or buffer tank, with aluminium fins

## 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    | (mm <sup>2</sup> ) | 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 |

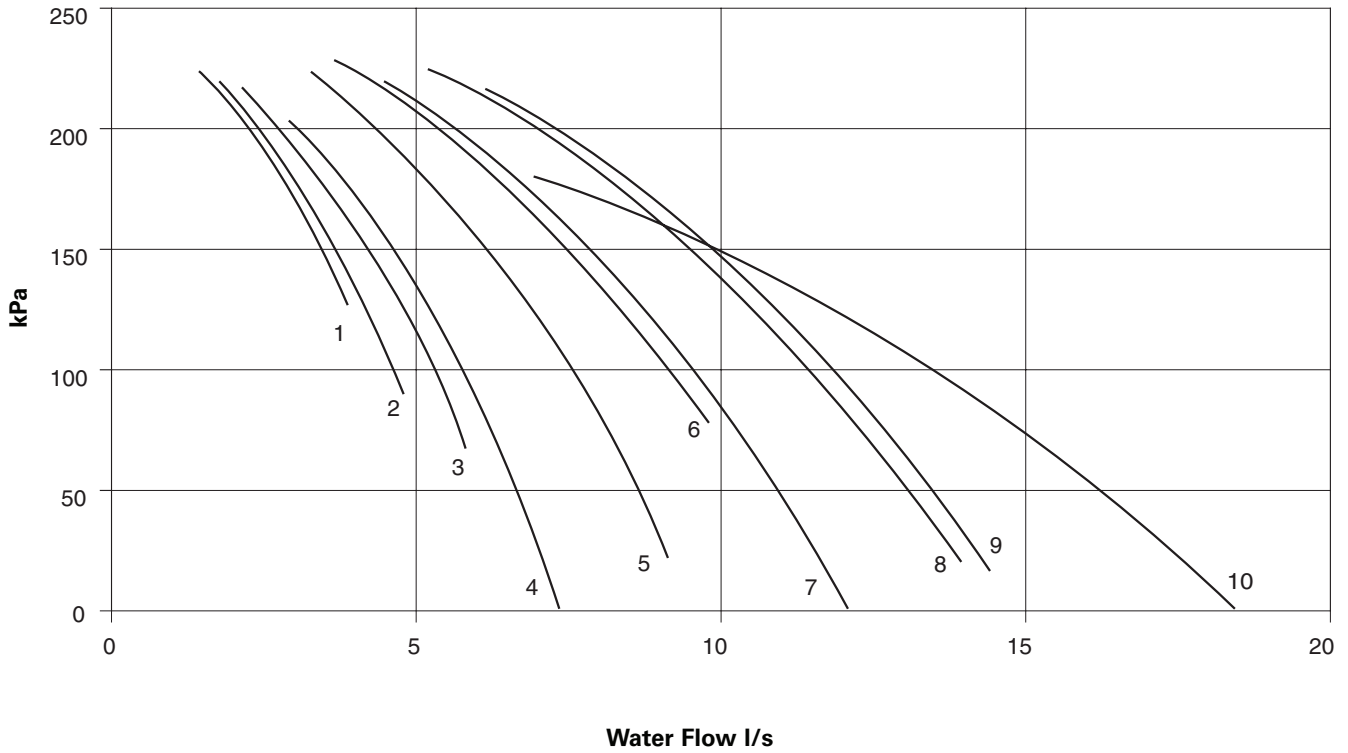
(1) Per fan standard unit

## 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 m<sup>2</sup>K/kW