

# 30RB 162-802

## AIR-COOLED LIQUID CHILLERS WITH INTEGRATED HYDRONIC MODULE



AIR-COOLED LIQUID CHILLERS WITH INTEGRATED HYDRONIC MODULE 30RB 162-802

### Physical data, 30RB 162-262 "B" standard units (with plate heat exchanger)

| 30RB                                       |       | 162   | 182   | 202   | 232   | 262   |
|--|-------|---|-------|-------|-------|-------|
| <b>Nominal cooling capacity*</b>           | kW    | 163   | 180   | 205   | 222   | 259   |
| Nominal power input, standard unit*        | kW    | 55  | 60    | 70    | 72    | 95    |
| EER  | kW/kW | 2.99  | 3.00  | 2.91  | 2.99  | 2.71  |
| ESEER                                      | kW/kW | 3.85  | 3.69  | 3.99  | 4.07  | 3.87  |
| <b>Operating weight**</b>                  |       |   |       |       |       |       |
| Standard unit + option 15 + option 116C*** | kg    | 1615  | 1693  | 1792  | 1859  | 2042  |
| Unit with option 15                        | kg    | 1402  | 1480  | 1579  | 1638  | 1821  |
| Standard unit                              | kg    | 1296  | 1374  | 1473  | 1492  | 1675  |
| <b>Compressors</b>                         |       | Hermetic scroll, 48.3 r/s                         |       |       |       |       |
| <b>Refrigerant</b>                         |       | R-410A  |       |       |       |       |
| <b>Capacity control</b>                    |       | Pro-Dialog Plus                                   |       |       |       |       |
| <b>Condensers</b>                          |       | All aluminium micro-channel heat exchanger (MCHX) |       |       |       |       |
| <b>Fans</b>                                |       | Axial Flying Bird 4 with rotating shroud          |       |       |       |       |
| Quantity                                   |       | 3   | 4     | 4     | 4     | 4     |
| Total air flow (high speed)                | l/s   | 13542   | 18056 | 18056 | 18056 | 18056 |
| <b>Evaporator</b>                          |       | Twin-circuit plate heat exchanger                 |       |       |       |       |

### Physical data, 30RB 162-262 "B" units with option 280 (shell-and-tube heat exchanger) and 30RB 302-802 units

| 30RB                                       |       | 162   | 182   | 202   | 232   | 262   | 302   | 342   | 372   | 402   | 432   | 462   | 522   | 602   | 672   | 732   | 802   |
|--|-------|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Nominal cooling capacity*</b>           | kW    | 159   | 173   | 193   | 227   | 263   | 293   | 328   | 359   | 391   | 418   | 447   | 506   | 596   | 652   | 704   | 758   |
| Nominal power input, standard unit*        | kW    | 54  | 59    | 70    | 73    | 98    | 104   | 121   | 128   | 147   | 151   | 169   | 191   | 218   | 240   | 265   | 288   |
| EER  | kW/kW | 2.94  | 2.93  | 2.76  | 3.11  | 2.68  | 2.82  | 2.71  | 2.80  | 2.66  | 2.77  | 2.64  | 2.65  | 2.73  | 2.72  | 2.66  | 2.63  |
| ESEER                                      | kW/kW | 3.67  | 3.88  | 3.78  | 4.28  | 3.84  | 3.96  | 3.94  | 4.08  | 3.93  | 3.92  | 3.86  | 3.77  | 4.09  | 4.00  | 3.96  | 3.91  |
| <b>Operating weight**</b>                  |       |   |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Standard unit + option 15 + option 116C*** | kg    | 1960  | 2040  | 2130  | 2160  | 2330  | 3070  | 3266  | 3254  | 3480  | 4010  | 4200  | 4400  | -     | -     | -     | -     |
| Unit with option 15                        | kg    | 1780  | 1860  | 1950  | 1970  | 2150  | 2770  | 2966  | 3014  | 3140  | 3670  | 3810  | 3988  | 5166  | 5344  | 6024  | 6204  |
| Standard unit                              | kg    | 1710  | 1780  | 1880  | 1890  | 2060  | 2660  | 2856  | 2884  | 3010  | 3520  | 3660  | 3818  | 4966  | 5135  | 5794  | 5954  |
| <b>Compressors</b>                         |       | Hermetic scroll, 48.3 r/s                         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| <b>Refrigerant</b>                         |       | R-410A  |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| <b>Capacity control</b>                    |       | Pro-Dialog Plus                                   |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| <b>Condensers</b>                          |       | All aluminium micro-channel heat exchanger (MCHX) |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| <b>Fans</b>                                |       | Axial Flying Bird 4 with rotating shroud          |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Quantity                                   |       | 3   | 4     | 4     | 4     | 4     | 5     | 5     | 6     | 6     | 7     | 7     | 8     | 9     | 10    | 11    | 12    |
| Total air flow (high speed)                | l/s   | 13542   | 18056 | 18056 | 18056 | 18056 | 22569 | 22569 | 27083 | 27083 | 31597 | 31597 | 36111 | 40623 | 45139 | 49653 | 54167 |
| <b>Evaporator</b>                          |       | Direct expansion, shell-and-tube                  |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |

\*Nominal conditions: evaporator entering/leaving water temperature 12°C/7°C, outside air temperature 35°C, evaporator fouling factor 0.18 x 10<sup>-4</sup> (m<sup>2</sup> K)/W

\*\*Weight shown is a guideline only. To find out the unit refrigerant charge, please refer to the unit nameplate.

\*\*\*Option 116C = high-pressure dual-pump hydronic module option.

### Electrical data, 30RB 162-262 "B" standard units (plate heat exchanger) and units with option 280 (shell-and-tube heat exchanger) and 30RB 302-802 units

| 30RB (without hydronic module)                         | 162                            | 182   | 202   | 232   | 262   | 302   | 342   | 372   | 402   | 432   | 462   | 522   | 602   | 672     | 732     | 802     |         |
|--|--------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|---------|---------|---------|
| <b>Power circuit</b>                                   | V-ph-Hz 400-3-50 ± 10%         |       |       |       |       |       |       |       |       |       |       |       |       |         |         |         |         |
| <b>Control circuit supply</b>                          | 24 V, via internal transformer |       |       |       |       |       |       |       |       |       |       |       |       |         |         |         |         |
| <b>Maximum unit power input*</b>                       |                                |       |       |       |       |       |       |       |       |       |       |       |       |         |         |         |         |
| Circuits A + B/C                                       | kW                             | 76/-  | 85/-  | 98/-  | 102/- | 127/- | 140/- | 159/- | 172/- | 191/- | 204/- | 223/- | 255/- | 191/96  | 191/127 | 255/96  | 255/127 |
| <b>Nominal unit current draw**</b>                     |                                |       |       |       |       |       |       |       |       |       |       |       |       |         |         |         |         |
| Circuits A + B/C                                       | A                              | 101/- | 113/- | 129/- | 135/- | 167/- | 185/- | 209/- | 227/- | 251/- | 269/- | 293/- | 334/- | 251/125 | 251/167 | 334/125 | 334/167 |
| <b>Maximum start-up current, standard unit (Un)***</b> |                                |       |       |       |       |       |       |       |       |       |       |       |       |         |         |         |         |
| Circuits A + B/C                                       | A                              | 304/- | 353/- | 375/- | 348/- | 426/- | 448/- | 481/- | 502/- | 535/- | 557/- | 590/- | 645/- | 535/371 | 535/426 | 645/371 | 645/426 |

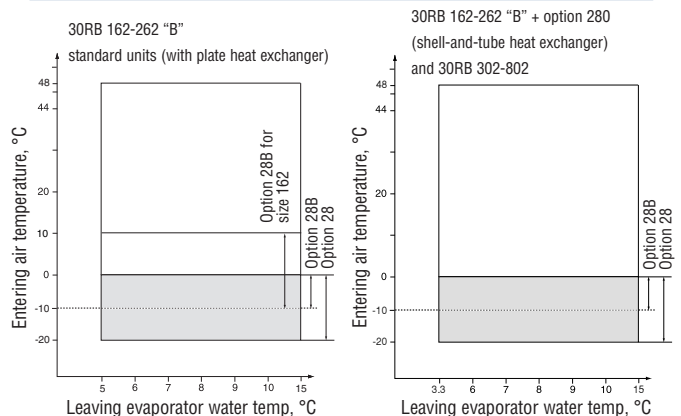
\* Power input of the compressor(s) + fan(s) at maximum unit operating conditions. Values given on the unit name plate.

\*\* Nominal unit current draw at nominal conditions: evaporator entering/leaving water temperature 12°C/7°C, outdoor air temperature 35°C. The current values are given at 400 V nominal voltage.

\*\*\* Maximum instantaneous starting current at 400 V nominal voltage and operating limit values with compressor in across-the-line start (maximum operating current of the smallest compressor(s) + fan current + locked rotor current of the largest compressor).

**Note:** Units 30RB 602-802 have two electrical connection points.

### Operating range



**Note:** Evaporator  $\Delta T = 5$  K. The evaporator is protected against frost down to -20°C.

□ Standard unit operating at full load.

□ Operating range, units equipped with options 28 and 288 "Winter operation".



**AQUASNAP™**  
with PURON® refrigerant

Model shown is with low-noise option

PRO-DIALOG +



Pro-Dialog Plus operator interface

### OPTIONS AND ACCESSORIES

- Special condenser treatments\*
- Unit for low leaving water temperature from +3°C to -10°C (162-402)\*
- Units for indoor installation with discharge ducts\*
- Low and very low noise levels\*
- Grilles on all four unit faces\*
- Enclosure panels on each end of Cu/Al coils\*
- Electronic starter (162-522)\*
- Winter operation down to -10°C or -20°C\*
- Evaporator (including water piping) and evaporator and hydronic module frost protection (162-522)\*
- Partial heat reclaim\*
- Total heat reclaim (262-522)\*
- Twinning\*
- Main disconnect switch with or without fuse (302-802)\*
- Evaporator (all units) or evaporator and hydronic module (302-522) with aluminium jacket\*
- Compressor suction valve (302-802) or suction and discharge valves (162-522)\*
- High and low-pressure single or dual-pump hydronic modules (162-522)\*
- JBus, Bacnet or LonTalk gateways\*
- Direct-expansion free-cooling system (232-522)\*
- Energy Management Module EMM\*\*\*
- Fitted safety valves\*
- Conformance with Australian or Russian codes\*
- Unit storage above 48°C\*
- MCHX anti-corrosion protection
- Shell-and-tube heat evaporator (162-262)\*
- Connection sleeve\*\*
- Scrolling Marquee Interface\*\*
- Power cable connection side extension (302-802)\*\*

\* Option / \*\* Accessory / \*\*\* Option/Accessory

### FEATURES

- Five sizes with plate heat exchanger with nominal cooling capacities from 163 to 259 kW and sixteen sizes with shell-and-tube heat exchanger with cooling capacities from 159 to 758 kW.
- State-of-the-art Aquasnap Puron liquid chillers featuring the latest technological innovations and operating on the ozone-friendly refrigerant R410A.
- All-aluminium micro-channel condenser (MCHX) for extra efficiency
- Integrated hydronic module (option) with water pump and expansion tank.
- Low-noise scroll compressors with low vibration levels
- V-shaped condenser coils, allowing quieter air flow across the coil
- Low-noise 4th generation Flying Bird fans, now even quieter. Simplified electrical connections
- Fast commissioning, as all units are systematically run tested before shipment
- Economical operation with increased energy efficiency at part load and dynamic superheat management.
- Leak-tight refrigerant circuit and reduced maintenance costs
- Auto-adaptive control algorithm and automatic compressor unloading for increased reliability
- Exceptional endurance tests

### Dimensions (mm)

|              | A    | B    | C    |
|--------------|------|------|------|
| 30RB 162-262 | 2457 | 2253 | 2297 |
| 30RB 602-672 | 5992 | 2253 | 2297 |
| 30RB 732-802 | 7186 | 2253 | 2297 |

Please refer to the specific product literature for the service clearances required.

