Reversible Air-To-Water Screw Heat Pumps

Model RTXB
Cooling capacity 476-1052 kW
Heating capacity 545-1105 kW
RTXB Heat Pump Chillers,
a Sustainable Solution for Heating and Cooling

Unit description
- Screw compressors
- ECO-PROFILE axial fans statically and dynamically balanced
- Water side heat exchangers shell and tube type with water connections
- Air side heat exchangers high efficiency finned coils with seamless copper tubes expanded into corrugated aluminium
- Electronic expansion valve
- Intelligent microprocessor-based controller
- Casing and panels in galvanised and painted steel

Options
- Single and dual water pump packages, with or without water tank
- EC motor brushless fans
- Compressors stepless capacity control
- Soft starter
- On/off condensing control
- Condensing control with variable fan speed modulation
- Power factor correction to cos phi 0.91
- Automatic circuit breakers for compressors and/or fans
- Numbered wires
- Star – Delta
- Low outdoor temperature kit (cooling mode)

Accessories
- Remote control display
- Serial card RS485 for Modbus
- Serial card with BACnet protocol TCP/IP or MS/TP
- Serial card for LonTalk
- Flow switch
- Automatic water filling
- Water strainer
- Kit flanges
- Victaulic kit
- Water gauges
- Rubber or spring anti vibration mounts

Sophisticated and user-friendly microprocessor-based controller, available with a choice of several optional serial cards for BMS connection.
General technical data

<table>
<thead>
<tr>
<th>Model</th>
<th>RTXB 140</th>
<th>150</th>
<th>160</th>
<th>180</th>
<th>190</th>
<th>220</th>
<th>250</th>
<th>300</th>
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</thead>
</table>

**Cooling (1)**
- Cooling capacity kW: 476 515 555 634 649 767 909 1052
- Compressors power input kW: 164 180 188 177 183 217 259 318
- Total EER (incl. fans) 2.62 2.60 2.66 3.15 3.14 3.14 3.14 3.00

**Heating (2)**
- Heating capacity kW: 545 568 614 671 710 815 958 1105
- Compressors power input kW: 137 144 152 162 172 200 234 283
- Total COP (incl. fans) 3.52 3.51 3.54 3.61 3.62 3.59 3.63 3.50
- Number of refrigerant circuits 2 2 2 2 2 2 2 2
- Number of compressors 2 2 2 2 2 2 2 2
- Type of compressors Screw
- Exchanger type Shell & tube
- Sound pressure level (3) dB(A) 60 61 61 62 62 62 62 63
- Sound power level dB(A) 93 94 94 95 95 95 95 96
- Sound pressure level (L) (3) dB(A) 57 58 58 60 60 60 60 61
- Sound power level (L) dB(A) 90 91 91 93 93 93 93 94
- Sound pressure level (S) (3) dB(A) 55 56 56 57 57 57 57 58
- Sound power level (S) dB(A) 88 89 89 90 90 90 90 91
- Maximum power input kW: 204 234 237 250 277 329 372 440
- Maximum full load current A: 361 414 420 444 491 582 658 778
- Full load starting current A: 669 746 752 776 833 886 808 1008
- Electrical power supply V/Ph/Hz 400/3+n/50

(1) Outdoor temperature 35°C - chilled water temperature 12/7°C
(2) Outdoor temperature 7°C 90% R.H. - hot water temperature 40/45°C
(3) Calculated according to ISO 3744 at 10 m distance from the unit

**Advantages**
- Eco-friendly and high efficient refrigerant R134a, with no negative impact on stratospheric ozone layer (ODP=0).
- A suitable refrigerant choice for high ambient temperature applications.
- Compact design for easy installation in new and existing buildings
- Sophisticated and user friendly microprocessor-based controller
- Several optional serial cards for BMS connection
### Dimensions and weights

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### Hydraulic options

- (1): Single pump - Low head pressure
- (2): Single pump - Medium head pressure
- (3): Single pump - High head pressure
- (4): Dual pump - Low head pressure
- (5): Dual pump - Medium head pressure
- (6): Dual pump - High head pressure

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