### Technical Specifications - 30XW India Chillers

<table>
<thead>
<tr>
<th>Model</th>
<th>30XW0552P</th>
<th>30XW0756</th>
<th>30XW0902</th>
<th>30XW0956</th>
<th>30XW1052</th>
<th>30XW1156</th>
<th>30XW1152P</th>
<th>30XW1262</th>
<th>30XW1306</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Nominal Cooling Capacity</strong> (kW)</td>
<td>571</td>
<td>747</td>
<td>856</td>
<td>1073</td>
<td>1139</td>
<td>1144</td>
<td>1242</td>
<td>1290</td>
<td></td>
</tr>
<tr>
<td><strong>Input Power</strong> (kW)</td>
<td>96</td>
<td>128</td>
<td>148</td>
<td>161</td>
<td>192</td>
<td>193</td>
<td>195</td>
<td>218</td>
<td>221</td>
</tr>
<tr>
<td><strong>Refrigerant</strong></td>
<td>R-134A</td>
<td>R-134A</td>
<td>R-134A</td>
<td>R-134A</td>
<td>R-134A</td>
<td>R-134A</td>
<td>R-134A</td>
<td>R-134A</td>
<td>R-134A</td>
</tr>
<tr>
<td><strong>Cooling Water Flow</strong> (USGPM)</td>
<td>390</td>
<td>510</td>
<td>581</td>
<td>639</td>
<td>732</td>
<td>781</td>
<td>848</td>
<td>882</td>
<td></td>
</tr>
<tr>
<td><strong>Condensation (H2O)</strong> (kPa)</td>
<td>26</td>
<td>30</td>
<td>44</td>
<td>54</td>
<td>66</td>
<td>79</td>
<td>97</td>
<td>84</td>
<td></td>
</tr>
<tr>
<td><strong>Electrical Data</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Power Supply</strong></td>
<td>400V±10% - 3Ph - 50Hz</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Start-up Method</strong></td>
<td>Star-delta Start</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Control Power Supply</strong></td>
<td>24V via internal transformer</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Control</strong></td>
<td>Pro-dialog Plus, Electronic Expansion Valve</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Nominal Conditions:**
- Nominal cooling temperature: 4.4°F leaving water temperature; 2.4 USGPM/Tr water flow rate; 0.0001 (hr-sqft-F)/BTU fouling factor
- Nominal condenser temperature: 85°F entering water temperature; 3.0 USGPM/Tr water flow rate; 0.00025 (hr-sqft-F)/BTU fouling factor

For more details, please contact our Carrier India sales office:

- **Factory & Corporate Office:**
  - Carrier Airconditioning & Refrigeration Ltd, Kherki Daula Post, Narsingpur, Gurgaon 122004, Tel: 0124-4825500

- **Sales Offices:**
  - Delhi/NCR: 0124-2706000
  - Ghaziabad: 0120-4183260
  - Lucknow: 0522-4158703/4158710
  - Chandigarh: 0172-5007549/5007550
  - Jaipur: 0141-4109080
  - Indore: 0731-4070378
  - Mumbai: 022-61700700
  - Ahmedabad: 079-44820400
  - Pune: 020-67045100
  - Kolkata: 033-40524354
  - Chennai: 044-66448888
  - Bangalore: 080-43442000
  - Hyderabad: 040-41100222
  - Cochin: 0484-4029001/0

**CIN:** U74999HR1992FLC036104 / **Website:** www.carrierindia.com / **E-mail:** bssindia@carrier.utc.com

This catalogue provides certain general information only and is intended for general guidance only. Carrier is not liable for any damage arising out of the use of the catalogue. The manufacturer reserves the right to change any product specification without prior notice.
Carrier is a part of UTC Building & Industrial Systems, a unit of United Technologies Corp. (UTC), a leading provider to the aerospace and building systems industries worldwide. UTC was ranked at 151st position in Fortune 500 list of global corporations in 2014.

Built on Dr. Willis Carrier’s invention of modern air conditioning in 1902, Carrier’s research, expertise and innovation have resulted in market leading solutions. We recognize the vital importance of maintaining a responsible balance between the comfort we create today and the world we live in tomorrow. Millions of people trust Carrier’s leadership in delivering efficient solutions. To know more, please visit http://www.carrier.com.

Over the years, Carrier India has significantly contributed in promoting sustainability. Carrier is the only company in the world to be a founding member of the Green Building Councils of the U.S., Argentina, China, India, Singapore and France. In fact, Carrier was instrumental in launching the U.S. Green Building Council® (USGBC) in 1993 and was the first company in the world to join the organization.

It invests in R&D resources to advance energy efficiency, ozone layer protection and low global warming technologies in its products. Carrier’s AdvanTE3C Solutions Center is a natural evolution of Carrier’s approach to sustainability and supports customers around the world in developing strategic, energy-efficient and custom-engineered building solutions.

ACE (Achieving Competitive Excellence) is our proprietary operating system to ensure world-class quality in our products and processes. With its relentless focus on increasing efficiency and reducing waste, ACE is integral to the company’s performance model. The company’s facilities worldwide are using the operating system to improve quality and customer satisfaction while lowering cost.

Carrier’s presence in India dates back to 1986, when Carrier India was established. In the year 1988, the first manufacturing facility was commissioned in Gurgaon, Haryana. Spread in an area of 19 acres, this state-of-the-art facility consists of highly automated manufacturing unit, an excellent R&D Center and an advanced Quality Clinic. Currently, products manufactured in this facility include Cassettes, Ducted Splits, Package Units, Air Cooled & Water Cooled Screw Chillers, Air Cooled & Water Cooled Reciprocating Chillers, Fan Coil Units, Air Handling Units, Refrigeration products and Fire & Security products.

Our comprehensive Environment, Health & Safety (EH&S) program establishes a framework and provides tools for implementing our EH&S practices into our business & culture. The Carrier Gurgaon facility holds a distinctive record of delivering over 17 million man hours without a lost work day incident, clearly citing the measures of safety followed here.

Carrier India has 14 sales and service offices, more than 800 sales and service channel partners - throughout the country, ensuring efficient solutions and quality services at customer’s doorstep. To know more visit http://www.carrierindia.com.

Progressing All Technologies Simultaneously

The main objective of Carrier is to achieve optimal balance between technological progress and environmental care - synonymous with performance and guarantee for our future.

The AquaForce™ range is currently available from India factory in 9 models from 571 kW to 1292 kW and offers the best solution for any individual project and site requirement.
Multiple Circuit Design

Independent refrigerant circuits
Independent electrical circuits

Efficient Heat Exchanger

High efficiency flooded evaporator
Inbuilt electronic flow switch
Auto setting basis cooler size and fluid type

Environmentally Sustainable

HFC-134a refrigerant
Refrigerant of the HFC group with zero ozone depletion potential
Leak-tight refrigerant circuit
Reduction of leaks as no capillary tubes and flare connections are used
Verification of pressure transducers and temperature sensors without transferring refrigerant charge

Features and Benefits

Reliable Screw Compressor

- Carrier's own ‘06’ semi-hermetic screw compressor with direct driven motor
- Variable capacity slide valve
- Oversized bearing and suction gas cooled motor
- All components are easily accessible on site — minimized down time
- Patented line-design rotors and microprocessor control – guaranteed accurate refrigerant meshing & enhanced service life

Compact Foot Print

- 1.0 m ~ 1.2 m width – easy through standard doorway
- Saves plant room space – reduces investment
- Best choice for retrofit projects

Auto Adaptive Control

- Automatic compressor unloading in case of abnormally high condensing pressure
- Patented control algorithm preventing excessive compressor cycling

Quick & Easy Installation

- Simplified electrical connection
  • Main disconnect switch with high trip capacity
  • Transformer to supply integrated control circuit
  • Victaulic connection on evaporator & condenser
  • 2 pass design – Inlet/Outlet on same side
  • Only electrical wiring & piping connection needed at site

Safe Operation

- Reversal/phase losing protection
- Compressor protected against thermal overload, high pressure and low oil pressure
- Automatic compressor unloading in case of exceeding condensing temperature
- Protection against current imbalance and electrical overload
- Low chilled water temperature protection

Exceptional Endurance Test

- Exceptional endurance tests
  • Partnerships with specialised laboratories and use of limit simulation tools (finite element calculation) for the design of critical components
  • Transport simulation test in the laboratory on a vibrating table and then on endurance circuit.

Economizer System*

- Economizer system with EXV permits considerable increase in cooling capacity and contributes to optimized efficiency
- Electronic expansion valve (EXV) allows operation at lower condensing pressure and improved utilization of evaporator heat exchange surface (superheat control)

Auto Adaptive Control

- Quick & Easy Installation
- Simplified electrical connection
  • Main disconnect switch with high trip capacity
  • Transformer to supply integrated control circuit
- Simplified hydronic connection
  • Victaulic connection on evaporator & condenser
  • 2 pass design – Inlet/Outlet on same side
  • Only electrical wiring & piping connection needed at site

AHRI-550/590 and 551/591 Certified

*For select models only
Remote Management (standard)

The 30XW series chiller is equipped with an RS485 serial port that offers multiple remote control, monitoring and diagnostic possibilities. Carrier offers a vast choice of control products, specially designed to control, manage and supervise the operation of an air conditioning system. Please consult your Carrier representative for more information.

Energy management
- Internal time schedule clock controls chiller on/off time and operation at a second set-point.
- Set-point reset based on the return water temperature.
- Master/slave control of two chillers operating in parallel with operating time equalization and automatic changeover in case of a unit fault.

Easy-to-use
- User interface with large touch screen -12 cm x 9.9 cm (optional) for intuitive access to the operating parameters. The information is in clear text and can be displayed in local language (please contact your Carrier representative).

Pro-Dialog Plus Control

Pro-Dialog Plus combines intelligence with operating simplicity. The control constantly monitors all machine parameters and precisely manages the operation of compressors, electronic expansion devices and the evaporator water pump for optimum energy efficiency.

Energy management
- Internal time schedule clock controls chiller on/off time and operation at a second set-point.
- Set-point reset based on the return water temperature.
- Master/slave control of two chillers operating in parallel with operating time equalization and automatic changeover in case of a unit fault.

Operating Range

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaporator</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Entering temperature at start-up</td>
<td>–</td>
<td>35°C</td>
</tr>
<tr>
<td>Leaving temperature during operation</td>
<td>3.3°C</td>
<td>20°C</td>
</tr>
<tr>
<td>Entering/leaving temperature difference at full load</td>
<td>2.8°C</td>
<td>11.1°C</td>
</tr>
<tr>
<td>Condenser</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Entering temperature at start-up</td>
<td>13°C</td>
<td>–</td>
</tr>
<tr>
<td>Leaving temperature during operation</td>
<td>19°C</td>
<td>50°C</td>
</tr>
<tr>
<td>Entering/leaving temperature difference at full load</td>
<td>2.8°C</td>
<td>11.1°C</td>
</tr>
</tbody>
</table>

Wiring Diagram