



EC Fans



Brazed Plate Heat Exchanger



Condenser Coils



Optiview™ LT Controller
(Verasys™ Compatible)



Suction Accumulator

DC Inverter Scroll

Fixed-speed Scrolls

Exceeding Efficiency Standards

The YORK® Amichi™ Series Air-cooled DC Inverter Scroll Chiller and Heat Pump have been designed to meet tomorrow's efficiency standards today. Delivering performance beyond typical chiller and heat pump efficiency levels, the YORK® Amichi™ Series meets or exceeds stringent regulatory requirements (see chart, below) through an optimized combination of YORK® efficiency-enhancing technologies.

- **Direct current (DC) inverter technology** provides variable capacity control and allows Amichi™ Series chiller compressors to operate more efficiently across all cooling-load and ambient temperature conditions versus constant-speed chillers that use a step unloading design.
- **Electronically commutated (EC) fans** use more efficient motors and better aerodynamics to improve overall system efficiency and sound performance, particularly at part-load. At reduced ambient temperatures, the head pressure control varies fan speeds to optimize the system efficiency and ensure reliable operation. This combination of variable speed compressor and fans provides a displacement power factor as high as 0.93, lowering electricity costs.
- **High efficiency brazed plate heat exchanger** uses less refrigerant and transfers heat from the liquid to refrigerant more efficiently, providing excellent heat transfer performance in a compact size. This also results in a lower water side pressure drop, allowing the use of smaller pumps and further minimizing building power consumption.
- **Tandem compressor design** uses several circuits, which improves off-design and part-load efficiency by using the entire surface area of the heat exchanger at all conditions while also providing partial redundancy.

| ECODESIGN REGULATIONS CATEGORY: | EFFICIENCY METRIC: | TOMORROW'S STANDARDS MET TODAY: |
|---------------------------------|--------------------|---|
| Comfort Heating | SCOP/ηsh | Amichi™ Heat Pump: Sept. 2017 Compliant (Tier 2) |
| Comfort Cooling | SEER/ηsc | Amichi™ Chiller: Jan. 2021 Compliant (Tier 2) |
| Process Cooling (Med. Temp.) | SEPR | Amichi™ Chiller: July 2018 Compliant (Tier 2) |
| Process Cooling (High Temp.) | SEPR | Amichi™ Chiller: Jan. 2021 Compliant (Tier 2) |

| Model | | Amichi™ Series Chiller and Heat Pump | | | | | | | | | | |
|---------------------------|---|--------------------------------------|---------------------|-------|-------|-------|-------|----------------------------|-------|-------|-------|--|
| | | 0045 | 0065 | 0080 | 0100 | 0130 | 0160* | 0200* | 0230* | 0260* | | |
| Performance | Cooling capacity c/o units | kW | 44 | 60 | 77 | 99 | 122 | 164 | 189 | 219 | 255 | |
| | EER | | 2.87 | 2.78 | 3.08 | 2.99 | 2.94 | 3 | 3 | 3 | 3 | |
| | SEER | | 4.30 | 4.21 | 4.35 | 4.37 | 4.33 | Meet Ecodesign Regulations | | | | |
| | η _{s,c} | | 169 | 166 | 171 | 172 | 170 | Meet Ecodesign Regulations | | | | |
| | Cooling capacity h/p units | kW | 44 | 60 | 77 | 99 | 122 | 164 | 189 | 219 | 255 | |
| | Heating capacity h/p units | kW | 50 | 61 | 88 | 100 | 132 | 167 | 190 | 232 | 256 | |
| | COP | | 3.03 | 3.04 | 3.27 | 3.18 | 2.98 | 3.04 | 2.99 | 3.03 | 2.98 | |
| | SCOP | EER | 3.32 | 3.28 | 3.39 | 3.36 | 3.31 | Meet Ecodesign Regulations | | | | |
| | η _{s,h} | | 130 | 128 | 133 | 131 | 129 | Meet Ecodesign Regulations | | | | |
| | Sound power level STD / LN | dB(A) | 80/75 | 82/77 | 81/77 | 83/79 | 84/80 | 87/81 | 89/82 | 91/84 | 92/85 | |
| Refrigerant | Refrigerant circuits | # | 1 | 1 | 2 | 2 | 2 | 3 | 3 | 4 | 4 | |
| | Refrigerant (R410A) charge | kg | 9.5 | 12.3 | 17.6 | 20.5 | 22.8 | 29.5 | 32 | 43.3 | 46 | |
| Compressor | Compressor type | DC scroll inverter + scroll | | | | | | | | | | |
| | Capacity steps | % | Stepless (inverter) | | | | | | | | | |
| | Quantity | # | 2 | 2 | 3 | 3 | 4 | 5 | 6 | 7 | 8 | |
| Air side heat exchanger | Fan motor type | EC motor | | | | | | | | | | |
| | Fans quantity | # | 1 | 1 | 2 | 2 | 2 | 3 | 3 | 4 | 4 | |
| | Working ambient temp. cooling mode | -18 ~ 48°C | | | | | | | | | | |
| | Working ambient temp. heat. mode | -15 ~ 25°C | | | | | | | | | | |
| Water side heat exchanger | Type | Plate heat exchanger | | | | | | | | | | |
| | Unit water volume (w/o pump kit) | l | 9 | 10 | 11 | 14 | 15 | 27 | 29 | 32 | 34 | |
| | Nominal water flow | l/s | 2.1 | 2.9 | 3.7 | 4.7 | 5.8 | 7.4 | 9.1 | 10.5 | 11.9 | |
| | Pressure drop | kPa | 25 | 24 | 23 | 30 | 38 | 23 | 29 | 41 | 38 | |
| | Working range water leaving temp. cooling | -8 ~ 20°C | | | | | | | | | | |
| | Working range water leaving temp. heating | 25 ~ 55°C | | | | | | | | | | |
| Dimensions & weight | Height (w/o pump kit) | mm | 2440 | | | | | | 2500 | | | |
| | Width (w/o pump kit) | mm | 1200 | | | | | | 3050 | | | |
| | Depth (w/o pump kit) | mm | 1500 | | | | 2240 | | | | | |
| | Operating weight (w/o pump kit) | kg | 575 | 598 | 875 | 901 | 979 | 1922 | 2003 | 2235 | 2316 | |

* models with preliminary info.

Chiller: Cooling only units models.

Heat Pump: Air to water heat pump models.

Nominal conditions: Cooling capacities in kW given for 7°C water leaving temperature Δt 5°C and 35°C ambient temperature.

Heating capacities in kW given for 45°C water leaving temperature and 7°C ambient temperature.

Ratings in accordance with EN14511 and EN14825.