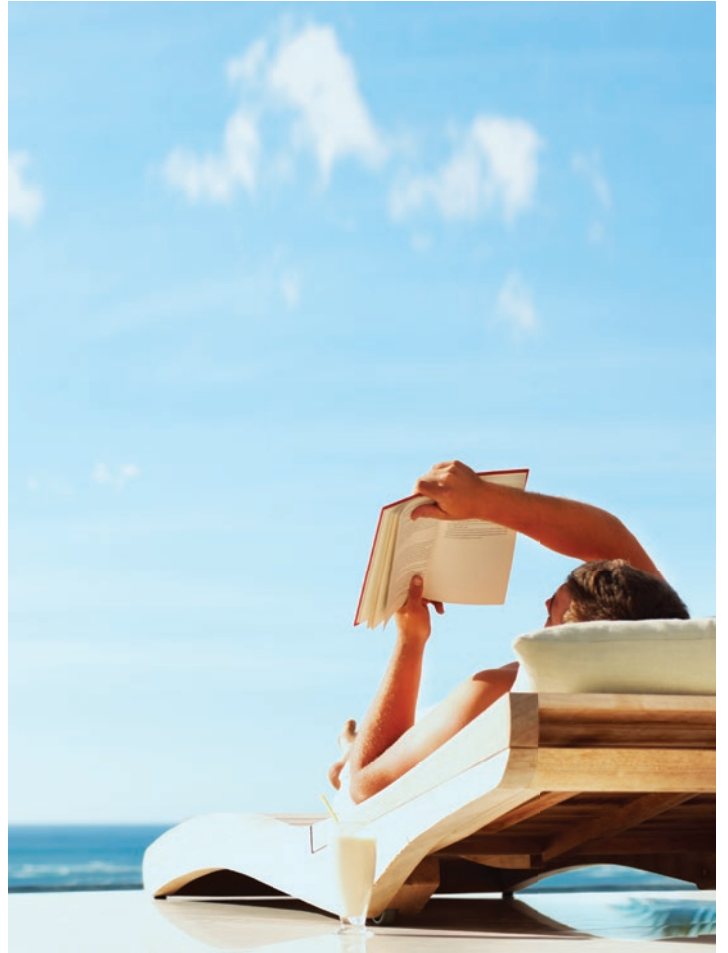


 **YORK**<sup>®</sup>  
INSTALL CONFIDENCE



YORK<sup>®</sup> AMICHI<sup>™</sup> – S Air-Cooled DC  
Inverter Reversible Heat pumps

# YORK® AMICHI™ – S

## Air-cooled DC Inverter Reversible Heat Pumps

Cooling capacities from 11.2 kW to 18 kW  
Heating capacities from 12.4 kW to 20.3 kW



### High Efficiency

#### Providing the lowest possible operating costs

Our new YORK® AMICHI™ – S is designed for real world efficiency. Part load performances meet the highest efficiency values and delivers performance beyond typical heat pump efficiency levels in cooling and heating. The new reversible heat pumps exceed the requirements for the Ecodesign regulations for Heat Pumps through an optimized combination of YORK® efficiency-enhancing technologies.

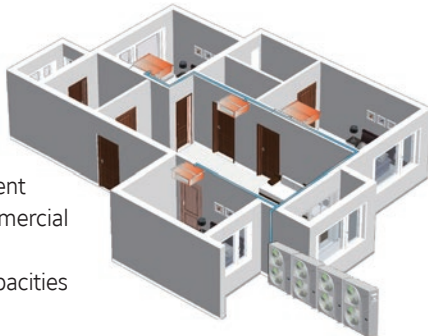
YORK® AMICHI™ – S uses high efficiency DC inverter compressor together with advanced variable frequency drive technology which ensures stable operation across the entire operating range. Compressor frequency range goes from 15 ~ 120%, to quickly and efficiently meet the needs of residential load changes. YORK® AMICHI™ – S units not only uses a high efficiency DC inverter compressor, but also dual fans equipped with high efficiency, low noise DC inverter motor which adjusts the air flow to exactly match the capacity in a more accurate and efficient way.

### Easy Installation & Operation

#### Modular concept

The small packaged YORK® AMICHI™ – S heat pump comes as standards with a hydronic loop circulating pump, expansion tank, water flow switch, safety valve, fill valve and wye-strainer, saving space in the room and making installations easy and fast. The pumps can provide up to 150kPa available static pressure.

The units are designed for modular installations (up to 4 module combinations among all the models) to meet the needs of different residential and light commercial building demands. This permits installed capacities from 11.2-72 kW.

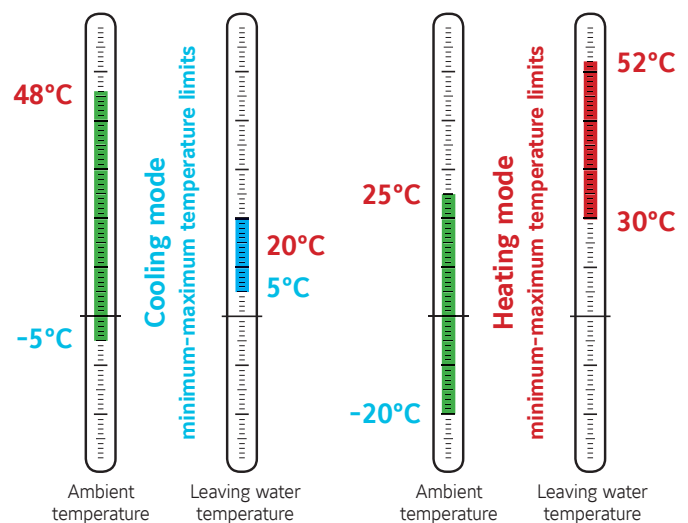


### Perfect Comfort in a Wide Operating Range

#### Wide operating envelope with lower sound levels

With the wide operating range, YORK® AMICHI™ – S is perfect for all climates. It does not matter if the ambient temperature in summer is 48°C or if in winter is -20°C, as the unit will maintain the efficiency in stable operation, to provide users with the most comfortable air conditioning experience.

With the heating outlet water temperatures up to 52°C, the unit is perfect for radiant panels.



### Low Sound Optimized

Thanks to the YORK® AMICHI™ – S component design, the unit sound emissions are as low as 54 dB(A) Sound Pressure at full load, reducing to as low as 40 dB(A) at part load operation.

YORK® AMICHI™ – S also has Silent Mode available, which reduces the sound level emissions by 5 dB(A) below full load levels.

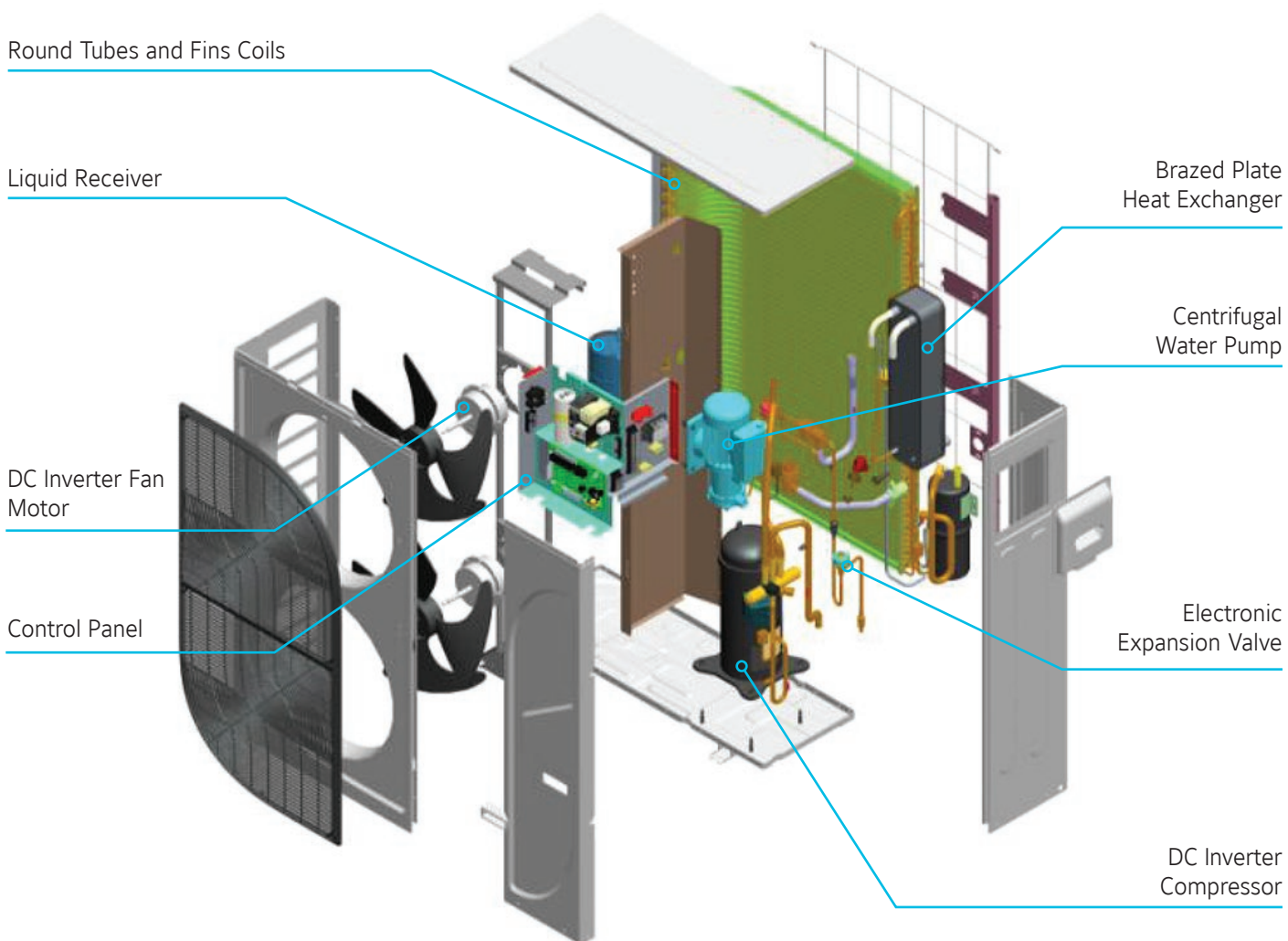
# Total & Easy Control

## Exactly control at real time

**YORK® AMICHI™ - S** unit comes with RS485 interface, through the Modbus protocol, together with easy access and user-friendly real-time control.



## Components layout



# Technical features

| Model                            |   | YVAG012           | YVAG014                         | YVAG016     | YVAG018     |             |
|----------------------------------|---|-------------------|---------------------------------|-------------|-------------|-------------|
| <b>Performance</b>               | Nominal Cooling Capacity                  | kW                | 11.2                            | 14          | 15.5        | 18          |
|                                  | Cooling Power Input                       | kW                | 4.2                             | 5.5         | 5.9         | 7.3         |
|                                  | EER                                       |                   | 2.55                            | 2.55        | 2.63        | 2.8         |
|                                  | Nominal Heating Capacity                  | kW                | 12.4                            | 15.2        | 16.5        | 22          |
|                                  | Heating Power Input                       | kW                | 3.2                             | 4.0         | 4.4         | 6.6         |
|                                  | COP                                       |                   | 3.83                            | 3.78        | 3.75        | 3.33        |
|                                  | SCOP                                      |                   | 3.57                            | 3.70        | 3.77        | 3.57        |
|                                  | $\eta_{s,h}$                              |                   | 140                             | 145         | 148         | 143         |
| <b>Refrigerant</b>               | Sound Pressure Level                      | dB(A)             | 54                              | 55          | 55          | 60          |
|                                  | Refrigerant charge R410A                  | kg                | 2.8                             | 3.3         | 4.0         | 4.0         |
| <b>Compressor</b>                | Type                                      |                   | Rotary DC Inverter              |             |             |             |
|                                  | Quantity                                  | #                 | 1                               | 1           | 1           | 1           |
| <b>Air side heat exchanger</b>   | Fan motor type                            |                   | Brushless DC Fan Motor          |             |             |             |
|                                  | Fans quantity                             | #                 | 2                               | 2           | 2           | 2           |
|                                  | Airflow                                   | m <sup>3</sup> /h | 2500 ~ 6600                     | 2500 ~ 6600 | 2500 ~ 6600 | 2500 ~ 6600 |
|                                  | Working ambient temperature cooling mode  |                   | -5 ~ 48°C                       |             |             |             |
|                                  | Working ambient temperature heating mode  |                   | -20 ~ 25°C                      |             |             |             |
| <b>Water side heat exchanger</b> | Type                                      |                   | Braze Plate Heat Exchanger      |             |             |             |
|                                  | Pump Type                                 |                   | Multiple-stage centrifugal pump |             |             |             |
|                                  | Nominal water flow                        | m <sup>3</sup> /h | 1.9                             | 2.4         | 2.7         | 3.1         |
|                                  | Unit external head                        | kPa               | 150                             | 130         | 120         | 110         |
|                                  | Working range water leaving temp. cooling |                   | 5 ~ 15°C                        |             |             |             |
|                                  | Working range water leaving temp. heating |                   | 30 ~ 52°C                       |             |             |             |
| <b>Dimensions &amp; Weight</b>   | Height                                    | mm                | 995                             |             |             |             |
|                                  | Width                                     | mm                | 360                             |             |             |             |
|                                  | Depth                                     | mm                | 1320                            |             |             |             |
|                                  | Operating weight                          | kg                | 126                             | 128         | 141         | 141         |
| <b>Electrical</b>                | Power supply                              | V/ph/Hz           | 230V/1ph/50Hz                   |             |             |             |

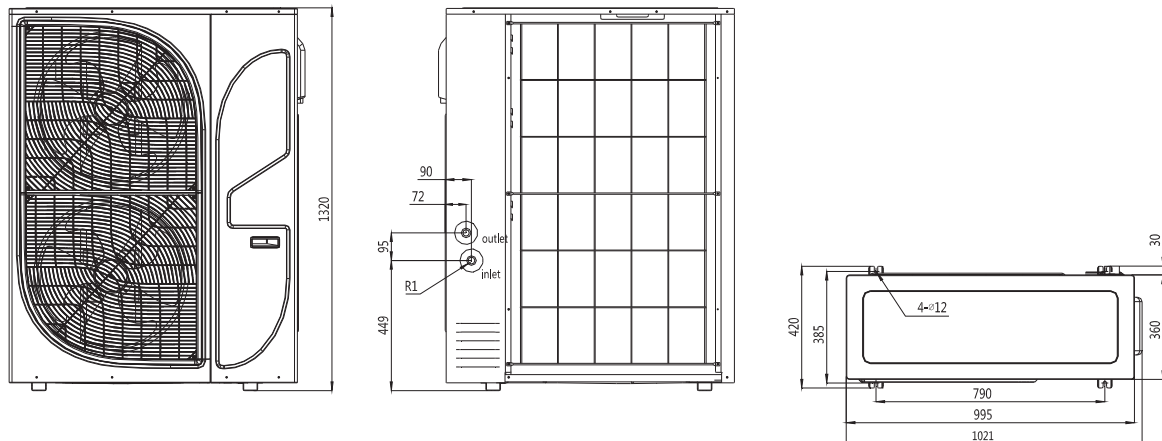
Net values at Eurovent nominal conditions:

Cooling capacities in kW given for 12/7°C water leaving temperature  $\Delta t$  5°C and 35°C ambient temperature

Heating capacities in kW given for 30/35°C water leaving temperature and 7°C ambient temperature

For Ecodesign calculations, please contact your JCI representative.

## Dimensions and hydraulic connections



Manufacturer reserves the rights to change specifications without prior notice.

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ADVANCED PRODUCT INFORMATION

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