



# **Inverter Hybrid Boiler System**



The unique inverter technology provides highly pleasant atmosphere to a building with lower energy consumption.

#### Eco-Friendly & high efficiency Inverter Hybrid Boiler System

Connected with a heat pump outdoor unit, the inverter hybrid boiler system makes heating, floor heating and hot tap water possible. In addition, it consumes lower electricity and minimizes carbon dioxide emission significantly, comparing with a conventional fossil fuel boiler and a conventional electric boiler.



**Economics** | High efficiency provides up to 65% saving versus a conventional boiler



Convenience | Smart remote control and monitoring system (optional)



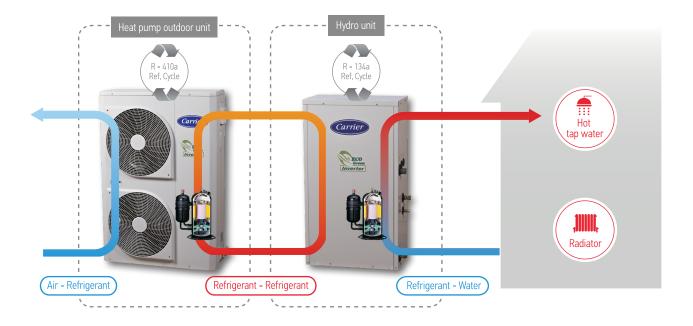
Low Noise | Low noise level



Installation | Compact split system for easy installation and maintenance

### Principle of the Inverter Hybrid Boiler System

The Inverter Hybrid Boiler System is suitable for sanitary hot water production and space heating, where up to 80°C water temperature is required, with the unique technologies of a dual cascade compression and of optimal plate heat transfer. Since it consumes lower electricity consumption and minimizes carbon dioxide emission, compared with a conventional fossil fuel boiler, it is an ultra-energy saving, eco-friendly, high efficiency solution for space heating and sanitary hot water production.



### Usage of the Inverter Hybrid Boiler System

With the dual inverter cascade compression technology, the high efficiency inverter hybrid boiler system can be applicable for the purposes of heating and hot water utilities.

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Dual inverter cascade compression technology is applied



R-410a and R-134a refrigerants are applied for minimizing ozone depletion potential



For replacing a conventional boiler











School House Hospital Hotel Facilities

## **Technical Specifications**

| Inverter Hybrid Boiler System(30AWH-025Q) |                          |                    |       |         |  |  |  |  |
|---|--------------------------|--------------------|-------|---------|--|--|--|--|
| Heating Capactity                         |                          |                    | [KW]  | 24,5    |  |  |  |  |
| Electricity                               | Integrated<br>Efficiency | COP                | [W/W] | 3,31(1) |  |  |  |  |
|   | Max power consumption    | (System required)  | [KW]  | 11,86   |  |  |  |  |
|   | Leakage Breaker          | (3Ph with neutral) | [A]   | 25      |  |  |  |  |
| Hot Water                                 | Inlet Temp.              | Usage range        | [°C]  | 15 ~ 80 |  |  |  |  |
|   | Outlet Temp.             | Max.               | [°C]  | 80      |  |  |  |  |
|   | Flow rate                | Usage range        | [LPM] | 20 ~ 60 |  |  |  |  |

| Outdoor unit specification (30AWH-025QO) |                                |      |   |  |  |  |  |
|--|--------------------------------|------|---|--|--|--|--|
| Power input                              |                                | -    | 3Ph. with NEUTRAL,<br>400VAC/50Hz         |  |  |  |  |
| Compressor                               | Spec Refrigerant<br>(charging) | -    | DC Inverter Twin Rotary<br>R410A (2,540g) |  |  |  |  |
| Size & weight                            | Dimension<br>Weight            | [mm] | W900 x H1360 x D320                       |  |  |  |  |
|  |                                | [kg] | 95  |  |  |  |  |
| Refrigerant<br>piping<br>(R-410a)        | Liquid pipe(φ)<br>Gas pipe(φ)  | [mm] | 9,52                                      |  |  |  |  |
|  |                                | [mm] | 15,88                                     |  |  |  |  |
| Ambient temp range                       |                                | [°C] | -20 ~ 40                                  |  |  |  |  |

 $<sup>^{(1)}</sup>$  Outdoor temperature 7/6°C DB/WB, EWT/LWT 40/45°C, Heating Capacity 16,7 KW.

| Indoor unit specification (30AWH-025QI)        |                                   |       |   |  |  |  |
|--|-----------------------------------|-------|---|--|--|--|
| Power  | input                             | -     | 3Ph. with NEUTRAL,<br>400VAC/50Hz         |  |  |  |
| Compressor                                     | Spec<br>Refrigerant<br>(charging) | -     | DC Inverter Twin Rotary<br>R134a (1,800g) |  |  |  |
| Heat exchanger 1<br>(refrigerant –refrigerant) | Spec                              | -     | BPHE<br>(Brazed Plate Heat Exchanger)     |  |  |  |
| Heat exchange 2<br>(refrigerant – water)       | Spec<br>Pressure loss             | [kPa] | BPHE<br>(Brazed Plate Heat Exchanger)     |  |  |  |
| Cina Cassainda                                 | Dimension<br>Weight               | [mm]  | W570 x H1030 x D330                       |  |  |  |
| Size & weight                                  |                                   | [kg]  | 93  |  |  |  |
| Outdoor unit                                   | Liquid pipe (φ)<br>Gas pipe (φ)   | [mm]  | 9,52                                      |  |  |  |
| connection piping<br>(R410a)                   |                                   | [mm]  | 15,88                                     |  |  |  |
| Water pipe size                                | Inlet pipe (φ)                    | [mm]  | 25  |  |  |  |
| (hot water)                                    | Outlet pipe (φ )                  | [mm]  | 25  |  |  |  |
| Ambient ter                                    | mp range                          | [°C]  | 5 ~ 40                                    |  |  |  |



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