

## > AQUA<sup>1</sup> PLUS HT

Water heaters heat pump for wall hang and floor installation with positive air temperatures



### MAIN FEATURES

- Air to water heat pump with integrated tank for hot water for sanitary use
- Passive defrosting system by air which limits the field of inlet air temperatures of not less than 4 °C
- Wall hang installation for unit (mod. 90) and floor installation for units (mod. 160, 200 and 260)
- Possibility of ducting the outlet of exhaust air
- For floor installation models possibility of such and discharge the air both vertically and horizontally
- Electrical booster heaters
- Simple and intuitive on board control panel
- Enameled steel water tank with polyurethane insulation 50mm
- Aluminum pipe condensing heat exchanger exterior to the tank
- Corrosion protection by magnesium anode
- Anti legionella cycle expected
- Activation by photovoltaic energy signal
- Made in Italy



The control use a simple programmable adjustment system.

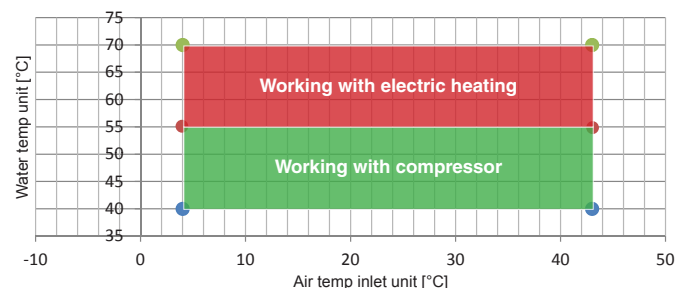
It allows you to select the various operating modes (Automatic, Economy and Overboost).

The main control provides for a series of daily and weekly timing controls so as to match the operation of the different hourly rate bands. The internal adjustment is also able to manage in a complete way and to optimize the intervention of integrations of energy coming from the electrical resistance at kit or from solar collection system.

### LIMITS OF USE

Temperature range:

The graph below shows the range of air and water temperatures by which is guaranteed the working.



### Supply voltage range

The table below shows the allowed conditions for power supply.

|          |           |         |
|----------|-----------|---------|
| Standard | 230-1-50  | V-ph-Hz |
| Range    | 207 - 254 | V       |

### Water hardness range

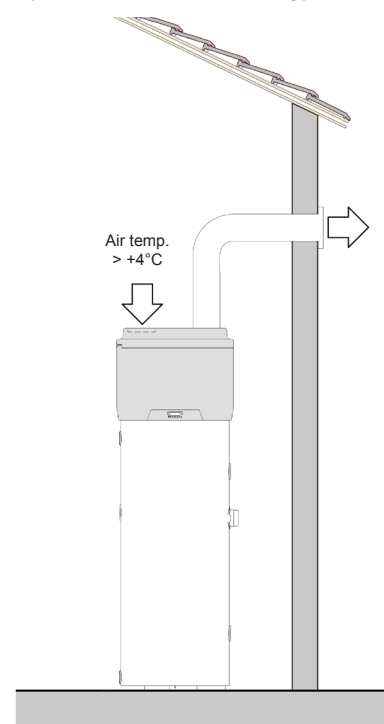
The table below shows the allowed water hardness

|                    |    |    |
|--------------------|----|----|
| Min water hardness | 15 | °F |
| Max water hardness | 40 | °F |

### APPLICATIONS

The air can 'be ducted in order to channel the flow in an appropriate way in different situations.

#### Energy use in the environment (technical room or laundry)



**TECHNICAL DATA**

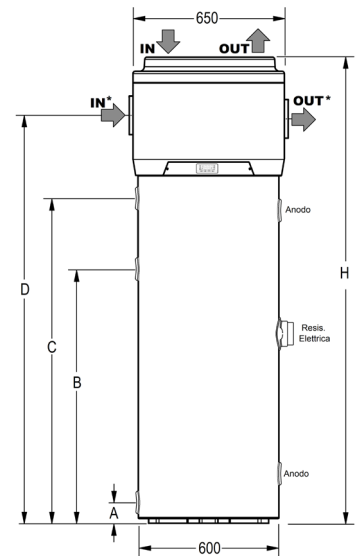
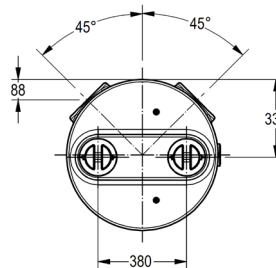
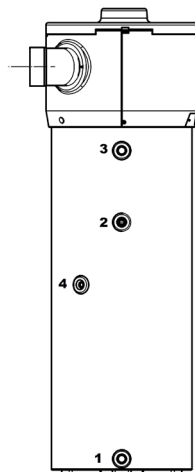
| Model                                    |  | 90 HT  | 160 HT    | 200 HT    | 260 HT    | -                 |
|--|--|--|-----------|-----------|-----------|-------------------|
| Heat pump                                | Supply   | 230-1-50                                     |           |           |           | V-f-Hz            |
|  | Heating capacity <sup>(ISO)</sup>                                | 1005   | 1600      | 1600      | 1600      | W                 |
|  | Total power input in heating <sup>(ISO)</sup>                    | 210  | 370       | 370       | 370       | W                 |
|  | COP <sup>(ISO)</sup>   | 4,79   | 4,32      | 4,32      | 4,32      | W/W               |
|  | Rated current input in heating <sup>(ISO)</sup>                  | 0,95   | 1,70      | 1,70      | 1,70      | A                 |
|  | Max power input  | 270  | 500       | 500       | 500       | W                 |
|  | Max current input  | 1,20   | 2,30      | 2,30      | 2,30      | A                 |
|  | Warming up time <sup>(EN) (1)</sup>                              | 5:30   | 6:41      | 7:16      | 9:44      | h:min             |
|  | Warming energy <sup>(EN) (1)</sup>                               | 1,20   | 2,68      | 2,83      | 3,74      | kWh               |
|  | Stand-by input <sup>(EN) (1)</sup>                               | 14   | 29        | 27,3      | 31        | W                 |
|  | Class of usage <sup>(EN) (1)</sup>                               | M  | L         | L         | XL        | Type              |
|  | Power consumption during cycle of use WEL-TC <sup>(EN) (2)</sup> | 2,20   | 4,43      | 4,18      | 6,17      | kWh               |
|  | COPDHW <sup>(EN) (1)</sup>                                       | 2,70   | 2,63      | 2,80      | 3,10      | W/W               |
|  | Reference temperature <sup>(EN) (1)</sup>                        | 50,8   | 55,9      | 51,4      | 53,7      | °C                |
|  | Max. quantity of water usable <sup>(EN) (2)</sup>                | 0,094  | 0,233     | 0,260     | 0,358     | m <sup>3</sup>    |
|  | Heating efficiency. Ref St. <sup>(EU)</sup>                      | 104  | 104       | 110       | 121       | %                 |
|  | Energy efficiency. Ref St. <sup>(EU)</sup>                       | A  | A         | A         | A         | -                 |
| Annual power consumption <sup>(EU)</sup> | 489  | 986  | 929       | 1384      | kWh/year  |                   |
| Electric heating                         | Capacity   | 1200   | 1500      | 1500      | 1500      | W                 |
|  | Input current  | 5,2  | 6,5       | 6,5       | 6,5       | A                 |
| Heat pump + electric heating             | Total power input  | 1410   | 1870      | 1870      | 1870      | W                 |
|  | Total current  | 6,15   | 8,20      | 8,20      | 8,20      | A                 |
|  | Max total power input  | 1470   | 2000      | 2000      | 2000      | W                 |
|  | Max current  | 6,40   | 8,80      | 8,80      | 8,80      | A                 |
| Tank                                     | Volume   | 87   | 158       | 199       | 255       | l                 |
|  | Max. operating pressure  | 0,7  | 0,7       | 0,7       | 0,7       | MPa               |
|  | Material   | enamelled steel                              |           |           |           | Type              |
|  | Protection   | Anodo di Mg                                  |           |           |           | Type              |
|  | Isolation type\thickness   | polyurethane / 50                            |           |           |           | tipo/mm           |
| Air circuit                              | Fan type   | Centrifugal                                  |           |           |           | Type              |
|  | Air flow   | 130  | 350 - 500 | 350 - 500 | 350 - 500 | m <sup>3</sup> /h |
|  | Pipe outlet diameter   | 125  | 160       | 160       | 160       | mm                |
|  | Max available pressure   | 120  | 200       | 200       | 200       | Pa                |
| Refrigerant circuit                      | Compressor   | Rotary                                       |           |           |           | Type              |
|  | Refrigerant  | R134a  |           |           |           | Type              |
|  | Evaporator   | finned copper-aluminum battery               |           |           |           | Type              |
|  | Condenser  | aluminum tube wrapped externally to the tank |           |           |           | Type              |
| Sound power level                        | 60   | 59   | 59        | 59        | dB(A)     |                   |
| Weight                                   | Net  | 48,5   | 70        | 80        | 100       | kg                |

**Note**  
**(ISO)** : data according to the standard ISO 255-3  
**(EN)** : data according to the standard EN 16147:2011  
**(EU)** : data according to the standard EU 812/2013  
**(1)**: heating cycle: Ambient temperature = 15 ° C B.S. / 12 ° C B.U. • Initial water temperature = 10 ° C  
**(2)**: use temperature 40 ° C • inlet water temperature 10 ° C

**DIMENSIONAL**

**Mod. 90**

**Mod. 160 / 200 / 260**



**DIAMETER CONNECTIONS**

| Rif | MOD.                 | 90    | UM |
|-----|----------------------|-------|----|
| 1   | Inlet cooling water  | G 1/2 | "  |
| 2   | Outlet heating water | G 1/2 | "  |
| 3   | Condensate drain     | G 1/2 | "  |

**DIAMETER CONNECTIONS**

| Rif | MOD.                 | 160 / 200 / 260 | UM |
|-----|----------------------|-----------------|----|
| 1   | Inlet cooling water  | G 1             | "  |
| 2   | Recirculation        | G 3/4           | "  |
| 3   | Outlet heating water | G 1             | "  |
| 4   | Condensate drain     | G 1/2           | "  |

**UNIT**

| MOD. | 160  | 200  | 260  | UM |
|------|------|------|------|----|
| A    | 68   | 68   | 68   | mm |
| B    | 1085 | 1085 | 1085 | mm |
| C    | 894  | 1104 | 1394 | mm |
| D    | 1254 | 1464 | 1754 | mm |
| H    | 1504 | 1714 | 2004 | mm |

# > AQUA<sup>1</sup> PLUS LT

Water heaters heat pump for floor installation with negative air temperatures



## MAIN FEATURES

- Air to water heat pump with integrated tank for hot water for sanitary use
- Active defrosting by hot gas system to permit to works with air temperature from -7°C
- Possibility of ducting the outlet of exhaust air
- Floor installation
- Possibility of such and discharge the air both vertically and horizontally
- Electrical booster heaters
- Simple and intuitive on board control panel
- Enameled steel water tank with polyurethane insulation 50mm
- Aluminum pipe condensing heat exchanger exterior to the tank
- Additional solar coil included
- Twin magnesium anode
- Anti legionella cycle expected
- Activation by photovoltaic energy signal
- Made in Italy



The control use a simple programmable adjustment system.

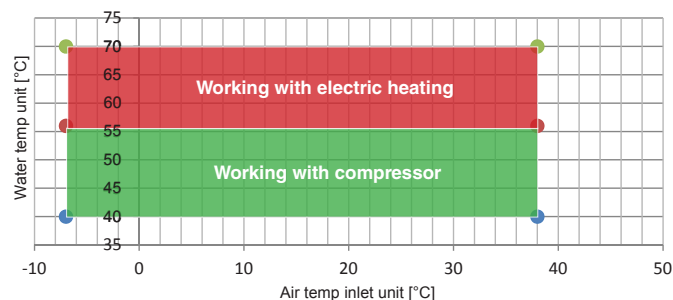
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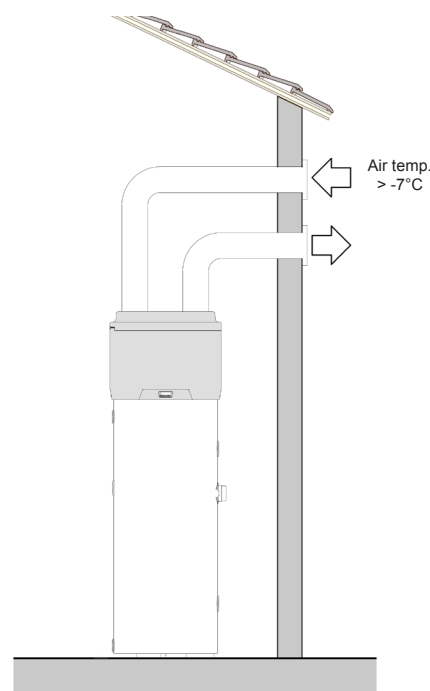
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| Max water hardness | 40 | °F |

## APPLICATIONS

The air can 'be ducted in order to channel the flow in an appropriate way in different situations.

### Works with outside ai



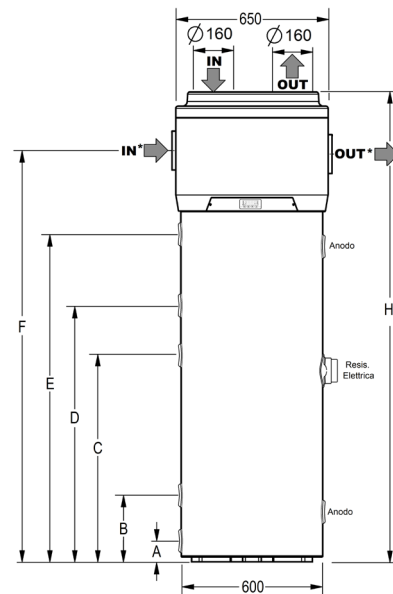
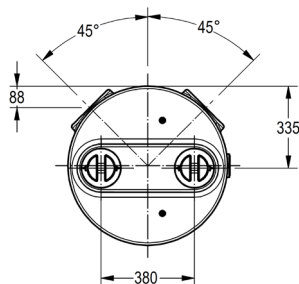
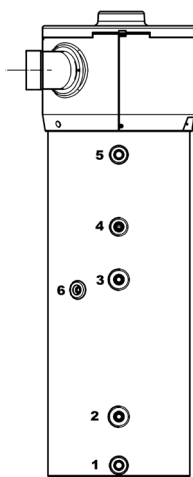
**TECHNICAL DATA**

| Model                                      |  | 200 LT                                       | 260 LT  | -                 |
|--|--|--|---------|-------------------|
| Heat pump                                  | Supply   | 230-1-50                                     |         | V-f-Hz            |
|  | Heating capacity <sup>(ISO)</sup>                                | 1820   | 1820    | W                 |
|  | Total power input in heating <sup>(ISO)</sup>                    | 430  | 430     | W                 |
|  | COP <sup>(ISO)</sup>   | 4,23   | 4,23    | W/W               |
|  | Rated current input in heating <sup>(ISO)</sup>                  | 2,00   | 2,00    | A                 |
|  | Max power input  | 530  | 530     | W                 |
|  | Max current input  | 2,43   | 2,43    | A                 |
|  | Warming up time <sup>(EN) (1)</sup>                              | 8:17   | 10:14   | h:min             |
|  | Warming energy <sup>(EN) (1)</sup>                               | 3,25   | 3,99    | kWh               |
|  | Stand-by input <sup>(EN) (1)</sup>                               | 29   | 29      | W                 |
|  | Class of usage <sup>(EN) (1)</sup>                               | L  | XL      | Type              |
|  | Power consumption during cycle of use WEL-TC <sup>(EN) (2)</sup> | 3,97   | 6,19    | kWh               |
|  | COPDHW <sup>(EN) (1)</sup>                                       | 2,94   | 3,08    | W/W               |
|  | Reference temperature <sup>(EN) (1)</sup>                        | 53,7   | 52,7    | °C                |
|  | Max. quantity of water usable <sup>(EN) (2)</sup>                | 0,275  | 0,342   | m <sup>3</sup>    |
|  | Electric heating   | Heating efficiency. Ref St. <sup>(EU)</sup>  | 117     | 121               |
| Energy efficiency. Ref St. <sup>(EU)</sup> |  | A  | A       | -                 |
| Annual power consumption <sup>(EU)</sup>   |  | 879  | 1393    | kWh/year          |
| Capacity                                   |  | 1500   | 1500    | W                 |
| Heat pump + electric heating               | Input current  | 6,5  | 6,5     | A                 |
|  | Total power input  | 1960   | 1960    | W                 |
|  | Total current  | 8,5  | 8,5     | A                 |
|  | Max total power input  | 2030   | 2030    | W                 |
| Tank                                       | Max current  | 8,93   | 8,93    | A                 |
|  | Volume   | 196  | 248     | l                 |
|  | Max. operating pressure  | 0,7  | 0,7     | MPa               |
|  | Material   | enamelled steel                              |         | Type              |
| Air circuit                                | Protection   | Anodo di Mg                                  |         | Type              |
|  | Isolation type/thickness   | polyurethane / 50                            |         | tipo/mm           |
|  | Fan type   | Centrifugal                                  |         | tipo              |
|  | Air flow   | 350-500                                      | 350-500 | m <sup>3</sup> /h |
| Refrigerant circuit                        | Pipe outlet diameter   | 160  | 160     | mm                |
|  | Max available pressure   | 200  | 200     | Pa                |
|  | Compressor   | Rotary                                       |         | Type              |
|  | Refrigerant  | R134a  |         | Type              |
| Solar coil                                 | Evaporator   | finned copper-aluminum battery               |         | Type              |
|  | Condenser  | aluminum tube wrapped externally to the tank |         | Type              |
|  | Material   | enamelled steel                              |         | Type              |
|  | Total area   | 0,6  | 1,0     | m <sup>2</sup>    |
| Sound power level                          | Maximum pressure   | 0,7  | 0,7     | Mpa               |
|  | Weight   | 60   | 60      | dB(A)             |
| Weight                                     | Net  | 99   | 115,2   | kg                |

**Note**  
 (ISO) : data according to the standard ISO 255-3  
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 (EU) : data according to the standard EU 812/2013  
 (1): heating cycle: Ambient temperature = 15 ° C B.S. / 12 ° C B.U. • Initial water temperature = 10 ° C  
 (2): use temperature 40 ° C • inlet water temperature 10 ° C

**DIMENSIONAL**

Mod. 200 / 260



**DIAMETER CONNECTIONS**

| Rif | MOD.                 | 200 / 260 | UM |
|-----|----------------------|-----------|----|
| 1   | Inlet cooling water  | G 1       | "  |
| 2   | Solar coil           | G 1" 1/4  | "  |
| 3   | Solar coil           | G 1" 1/4  | "  |
| 4   | Recirculation        | G 3/4     | "  |
| 5   | Outlet heating water | G 1       | "  |
| 6   | Condensate drain     | G 1/2     | "  |

**UNIT**

| MOD. | 200  | 260  | UM |
|------|------|------|----|
| A    | 68   | 68   | mm |
| B    | 275  | 275  | mm |
| C    | 570  | 860  | mm |
| D    | 1085 | 1085 | mm |
| E    | 1104 | 1394 | mm |
| F    | 1464 | 1754 | mm |
| H    | 1714 | 2004 | mm |