



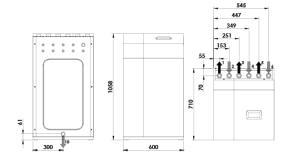
| SPECIFICATION                    | S VOLTA W-S 22 R410A                                     | UNITS   | S/L H   | S/L P         | S/L A           | S/L F         |
|----------------------------------|--|---------|---|---------------|-----------------|---------------|
| APPLICATION                      | Place of installation                                    | _       | Indoors   |               |                 |               |
|                                  | Type of brine system 1                                   | _       | Ground source / Air source / Hybrid source        |               |                 |               |
|                                  | DHW, Heating and Pool                                    | _       | $\checkmark$                                      | ✓             | ✓               | $\checkmark$  |
|                                  | Superheater (SH) system option                           | _       | ✓   | ✓             | ✓ by<br>default | ✓ by default  |
|                                  | Integrated Active cooling                                | _       | _   | _             | ✓               |               |
|                                  | Integrated Passive cooling                               | _       | _   | ✓             | _               | $\checkmark$  |
| PERFORMANCE                      | Modulation range of the compressor                       | %       | 15 to 100   |               |                 |               |
|                                  | Heating power output <sup>2</sup> , BOW35                | kW      | 4.0 to 22.8                                       |               |                 |               |
|                                  | COP <sup>2</sup> , BOW35                                 | _       | 4.9   |               |                 |               |
|                                  | Active cooling power output ², B35W7                     | kW      | — 4.2 to 22.0                                     |               |                 |               |
|                                  | EER <sup>2</sup> , B35W7                                 | _       | - 5.3   |               | 3               |               |
|                                  | Max. DHW temperature without / with support <sup>5</sup> | °C      | 63 / 70   |               |                 |               |
|                                  | Noise power emission level <sup>6</sup>                  | db      | 35 to 46  |               |                 |               |
|                                  | Energy label / ŋs / SCOP W35 average climate control     | _       | A+++ / 184% / 4.71                                |               |                 |               |
|                                  | Energy label / ŋs / SCOP W55 average climate control     | _       | A++ / 147% / 3.77                                 |               |                 |               |
| OPERATION<br>LIMITS              | Distribution / Set heating outlet temperature range      | °C      | 10 to 60 / 20 to 60                               |               |                 |               |
|                                  | Distribution / Set cooling outlet temperature range      | °C      | 5 to 35 / 7 to 25 5 to 35 / 7                     |               |                 |               |
|                                  | Brine inlet temperature range in heating applications    | °C      | -25 to 35   |               |                 |               |
|                                  | Brine inlet temperature range in cooling applications    | °C      | 10 to 60  |               |                 |               |
|                                  | Minimum / Maximum refrigerant circuit pressure           | bar     | 2 / 45  |               |                 |               |
|                                  | Production / Pre-load circuit pressure                   | bar     | 0.5 to 3.0 / 1.5                                  |               |                 |               |
|                                  | Brine / Pre-load circuit pressure                        | bar     | 0.5 to 3.0 / 0.7                                  |               |                 |               |
|                                  | Volume / Max. DHW storage tank pressure (VOLTA W L)      | I / bar | 165 / 8   |               |                 |               |
| WORKING FLUIDS                   | R410A Refrigerant load without SH / with SH              | kg      | 1   | .4            | 1.5             | 5             |
|                                  | Compressor oil type / load                               | kg      | POE / 1,18  |               |                 |               |
| CONTROL<br>ELECTRICAL DATA       | 1/N/PE 230 V / 50-60 Hz <sup>8</sup>                     | -       | ✓   |               |                 |               |
|                                  | Maximum recommended external protection <sup>9</sup>     | _       | C16A  |               |                 |               |
|                                  | Transformer primary circuit fuse                         | Α       | 0.5   |               |                 |               |
|                                  | Transformer secondary circuit fuse                       | Α       | 2.5   |               |                 |               |
| ELECTRICAL DATA:<br>SINGLE-PHASE | 1/N/PE 230 V / 50-60 Hz <sup>8</sup>                     | _       | ✓   |               |                 |               |
|                                  | Maximum recommended external protection <sup>9</sup>     | _       | C32A  |               |                 |               |
|                                  | Maximum consumption <sup>2</sup> , BOW35                 | kW / A  | 5.5 / 23.9  |               |                 |               |
|                                  | Maximum consumption <sup>2</sup> , BOW55                 | kW/A    | 5.5 / 23.9  |               |                 |               |
|                                  | Minimum / Maximum starting current <sup>7</sup>          | Α       | 2.6 / 12.5  |               |                 |               |
|                                  | Correction of cosine Ø                                   | _       | 0.96 / 1  |               |                 |               |
| ELECTRICAL DATA:<br>THREE-PHASE  | 3/N/PE 400 V / 50-60Hz <sup>8</sup>                      | _       | <b>√</b>  |               |                 |               |
|                                  | Maximum recommended external protection <sup>9</sup>     | _       | C16A  |               |                 |               |
|                                  | Maximum consumption ², BOW35                             | kW/A    | 6.0 / 8.7   |               |                 |               |
|                                  | Maximum consumption <sup>2</sup> , BOW55                 | kW/A    | 6.0 / 8.7   |               |                 |               |
|                                  | Minimum / Maximum starting current <sup>7</sup>          | Α       | 0.9 / 4.2   |               |                 |               |
|                                  | Correction of cosine Ø                                   | _       | 0.96/1  |               |                 |               |
| DIMENSIONS/<br>WEIGHT            | Height x width x depth                                   | mm      | VOLTA W S: 1058x600x710 · VOLTA W L: 1851x600x720 |               |                 |               |
|                                  | Empty weight (without assembly)                          | kg      | S 185 · L 247                                     | S 193 · L 255 | S 185 · L 247   | S 193 · L 255 |

- Air source/Hybrid source by replacing/combining the ground source circuit by/with one or more VOLTA W-O. Consult the VOLTA W-O manual for more detailed information.
- In compliance with EN 14511, this includes the consumption of the circulation pumps and the compressor driver.
- Considering brine and production flow rates in compliance with EN 14511.
- Considering a heat slope from 20°C to 50°C in absence of consumption.
- Considering support provided by the emergency electrical heater or the SH system. Maximum DHW temperature with the SH system can be limited by the compressor discharge temperature.
- 6. In compliance with EN 12102.
- 7. Starting current depends on the working conditions of the hydraulic circuits.
- 8. The admissible voltage range for proper operation of the heat pump is  $\pm 10\%$ .
- Maximum consumption can vary significantly according to working conditions, or if the compressor's operation range is restricted. Consult the technical service manual for more detailed information.
- 10. Certification in process.



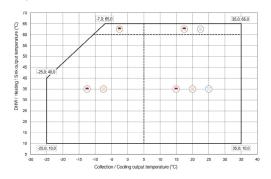
# Dimensions and hydraulic connections

#### **VOLTA W S**



- 1. Heating/Cooling Outlet 1 1/4" M
- Heating/Cooling Inlet 1 1/4" M Brine Outlet 1 1/4" M
- Brine Inlet 1 1/4" M
- DHW system Outlet 1 1/4 " M
- 6. DHW System Inlet 1 1/4" M
- CW Inlet 1 " F DHW Outlet 1 " F
- 9. DHW Recirculation Inlet 3/4 " F
- Drain 16 mm

## **Operational chart**



## Installation management



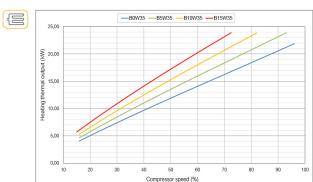


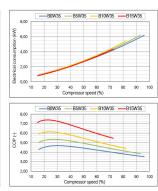




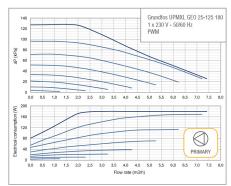
# **Performance curves**

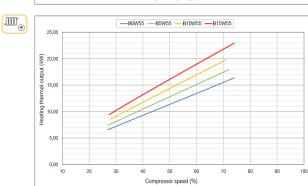
#### Thermal performance

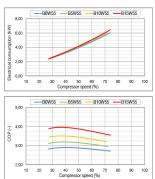


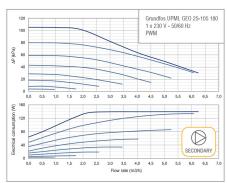


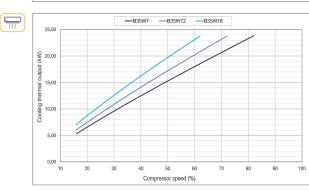


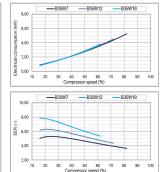


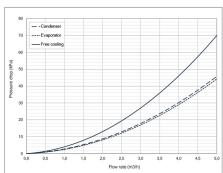














0845 880 5862 | essaircon.com