

## MONOVALENT WATER HEATERS FOR HEAT PUMP SYSTEMS (D1)



Water heaters type: indirect

Installation: floor standing

Capacity: 200, 300 and 500L.

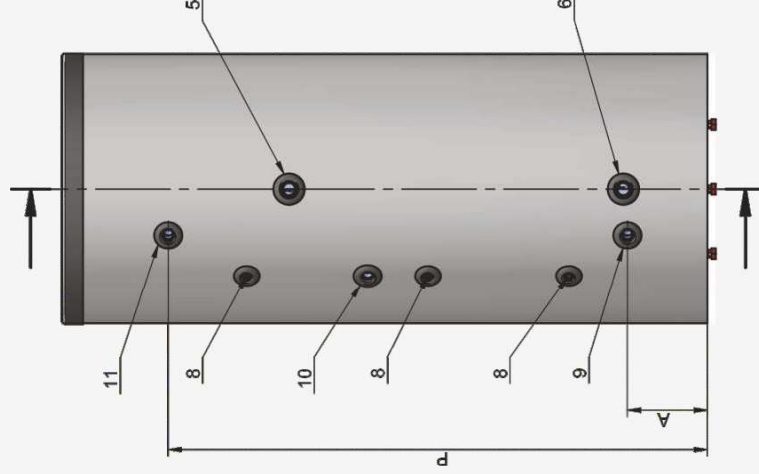
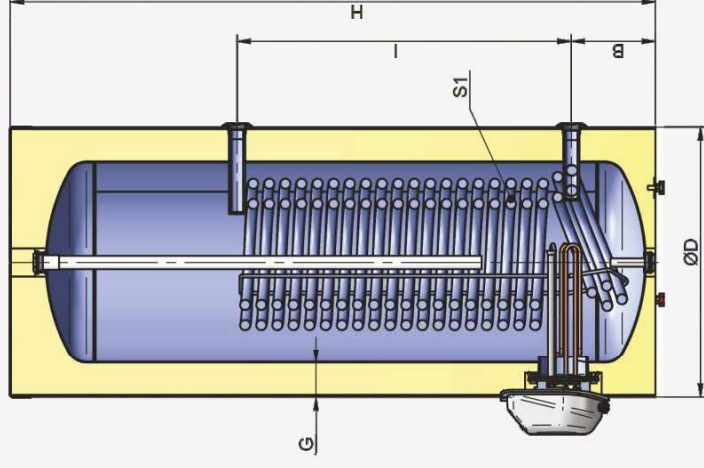
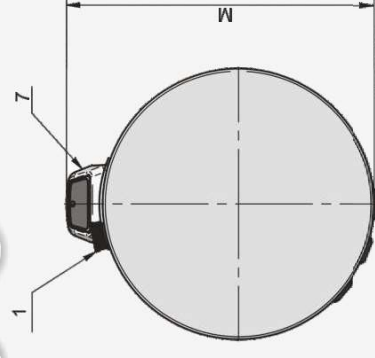
Water tank: enameled

These models have an enlarged surface area of the heat exchanger and are extremely suitable for operation with low-temperature energy sources such as heat pump system and solar installations. The powerful heat exchanger is made of two concentrically positioned coils, with input-output collector connections. This design feature of the appliance allows effective energy absorption from the two heat sources.



### DESCRIPTION

- Energy class B. The appliances have insulation of directly injected CFC Free PPU with low thermal conductivity of 0.023 W/m<sup>2</sup>K and thickness exceeding 80 mm to guarantee lower losses.
- SHIELD technology – the water tank has zirconia-based coating with lithium and cobalt oxides applied through liquid processing to make the coating more durable and resistant to high temperatures, linear expansions and high corrosion resistance.
- Two-stage anticorrosion protection – with 2 heavy magnesium anode protectors.
- Recirculation coupling.
- The appliance is optimized for integration in HVAC systems with automated control – it has three thermal sensor couplings.
- Housing of synthetic wear-proof material with INOX color.
- Precise thermometer.



 SPECIFICATIONS

| Parameters   |                |           |                 |                 |
|--|----------------|-----------|-----------------|-----------------|
| Model  | ...            | FV20067D1 | FV30067D1       | FV50080D1       |
| Volume group   | ...            | 200       | 300             | 500             |
| Energy efficiency class  | ...            | B         | B               | B               |
| Standing loss  | W              | 48        | 50              | 71              |
| Rated pressure   | Mpa            | 0.8       | 0.8             | 0.8             |
| Volume   | L              | 182       | 249             | 441             |
| Insulation thickness   | mm             | 85        | 85              | 80              |
| Gross weight   | kg             | 89        | 121             | 192             |
| Heat exchanger (main heat)   |                |           |                 |                 |
| Operating pressure   | Mpa            | 1         | 1               | 1               |
| Maximum temperature of the heating fluid   | °C             | 110       | 110             | 110             |
| Maximum temperature in the tank heated by a heat exchanger. Appliance without / with auxiliary electric immersion heating element. | °C             | 95/85     | 95/85           | 95/85           |
| Surface area   | m <sup>2</sup> | 2.07      | 3.11            | 5.06            |
| Volume   | L              | 10        | 15              | 33.2            |
| NL [2]   | ...            | 7         | 13              | 25              |
| Continuous output according DIN 4708   | kW             | 59        | 81              | 135             |
| Flow rate according DIN 4708   | L/min          | 24        | 33              | 55              |
| Power according EN 12897   | kW             | 36        | 47              | 65              |
| Heat-up time according EN 12897  | min            | 16.5      | 16.5            | 20              |
| Pressure loss  | mbar           | 40        | 45              | 65              |
| Maximum amount of drained water MIX 40°C according EN12897 when ST's energy source is off  | L              | 305       | 401             | 675             |
| Electrical part (auxiliary heating)  |                |           |                 |                 |
| Rated voltage  | V              | 0/230-    | 0/230- /400 3N- | 0/230- /400 3N- |
| Rated electrical power   | kW             | 0/3       | 0/3/6/9         | 0/3/6/9         |
| Heat-up time with electric heating element (up to 70°C) [3]  | min            | ---/230   | ---/320/161/107 | ---/570/285/190 |
| Maximum temperature in the tank when heated with electric heating element  | °C             | 75        | 75              | 75              |
| Connections  |                |           |                 |                 |
| 1: Thermometer   |                | Yes       | Yes             | Yes             |
| 5: S1 - Feed   |                | G1 F      | G1 F            | G1 1/4 F        |
| 6: S1 - Return   |                | G1 F      | G1 F            | G1 1/4 F        |
| 7: Flange with a heating element   |                | Yes       | Yes             | Yes             |
| 8: Socket for thermostat   |                | G1/2 F    | G1/2 F          | G1/2 F          |
| 9: Fresh water inlet - Drain   |                | G3/4 F    | G3/4 F          | G1 F            |
| 10: Recirculation  |                | G3/4 F    | G3/4 F          | G3/4 F          |
| 11: Hot water outlet   |                | G3/4 F    | G3/4 F          | G1 F            |
| Dimensions   |                |           |                 |                 |
| A  | mm             | 190       | 190             | 230             |
| B  | mm             | 200       | 200             | 240             |
| D  | mm             | 670       | 670             | 800             |
| G  | mm             | 85        | 85              | 80              |
| H  | mm             | 1215      | 1605            | 1765            |
| I  | mm             | 560       | 830             | 890             |
| M  | mm             | 760       | 760             | 890             |
| P  | mm             | 950       | 1330            | 1455            |

- All values in the table are approximate.
- The declared values of the NL coefficient are determined according to DIN 4708 under the following conditions:
  - Water temperature entering inlet pipe of the appliance heat exchanger - 80 °C.
  - Cold water temperature entering the appliance - 10 °C.
  - Water heating temperature in the appliance - 60 °C.
- The heat-up time with the electric resistance heater is for actual capacity.

Note : Transformation of the coefficient of performance at different water temperatures in the tank:

- 65 °C - 1,0\*NL
- 55 °C - 0,75\*NL
- 50 °C - 0,55\*NL
- 45 °C - 0,3\*NL