REQUPA

rainwater recovery system



Water Recovery

Description

This plug-and-play, scalable rainwater recovery system is designed to collect, temporarily store, and supply rainwater for non-potable applications, such as toilet flushing, laundry, cleaning, and lawn irrigation.

The system is mounted on a plastic pallet and integrates temporary storage, level control, emergency backup, pressure build-up, and control with fault alerts into a single unit. Additionally, the system is equipped with an externally mounted submersible pump featuring a floating suction inlet and a float switch (optional level sensor).

The system is available in various booster pump configurations and can be expanded with a range of options and accessories. The integrated display provides the user with immediate insight into the system's operating status. This ensures a reliable and efficient water supply while conserving drinking water.

Applications

- Apartment complexes and residential neighborhoods
- Commercial and office environments
- Hotels and recreational parks
- Educational, healthcare, and government buildings
- Industrial and utility buildings

Specifications

- Hybrid water tank: 350 liter
- Capacity up to: 14.4 m³/h
- Head up to: 69.6 m
- Max. operating pressure: 10 bar
- Noise level: 60 dB(A) ± 3 dB
- Protection class: IP54

Connections

- Power connection: 1~230 V, 50 Hz
- Pressure outlet: G 2 (M)
- Rainwater pump: G 1¼ (F)
- Rainwater inlet: G 1½ (M*)
- Drinking water replenishment (automatic drinking water refill): G ¾ (F)
- Overflow: PVC 90
- Drain valve: G 1 (F)

* When using an optional anti-siphon valve / inlet valve: female thread (F).

Operation

The system provides a fully automatic water supply by drawing rainwater from an external rainwater tank or well. A submersible pump transports the rainwater to the system and stores it temporarily.

If there is insufficient rainwater available, the system automatically switches to potable water, ensuring that the water supply for non-potable applications remains guaranteed at all times. This system is equipped with an EN 1717 Type AA safety unit, certified according to Belgaqua standards.

The booster pump activates based on water demand. Through frequency control, it delivers the required flow rate and pressure. The pump speed is continuously adjusted to maintain stable system pressure.

Advantages

- Plug-and-play, delivered ready to use
- Fully automatic operation with smart level control and switchover to drinking water
- Automatic control of the drinking water faucet
- Frequency-controlled booster pump(s), energy-efficient, quiet, and demand-driven
- Flexible connection options for the pressure manifold
- Intuitive HMI for easy operation and clear alarm and fault signaling
- Integration with building management system (BMS) possible

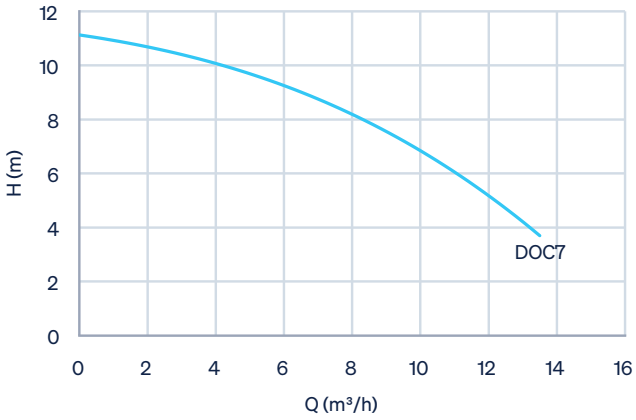
Options

- Secondary booster pump for parallel operation or redundancy
- Upgrade of the booster pump(s) (capacity / head)
- Additional capacity for the hybrid water tank
- Larger expansion tank
- Level sensor for the external rainwater tank
- Anti-siphon/inlet valve on the rainwater inlet
- Pressure-reducing valve for the drinking water faucet

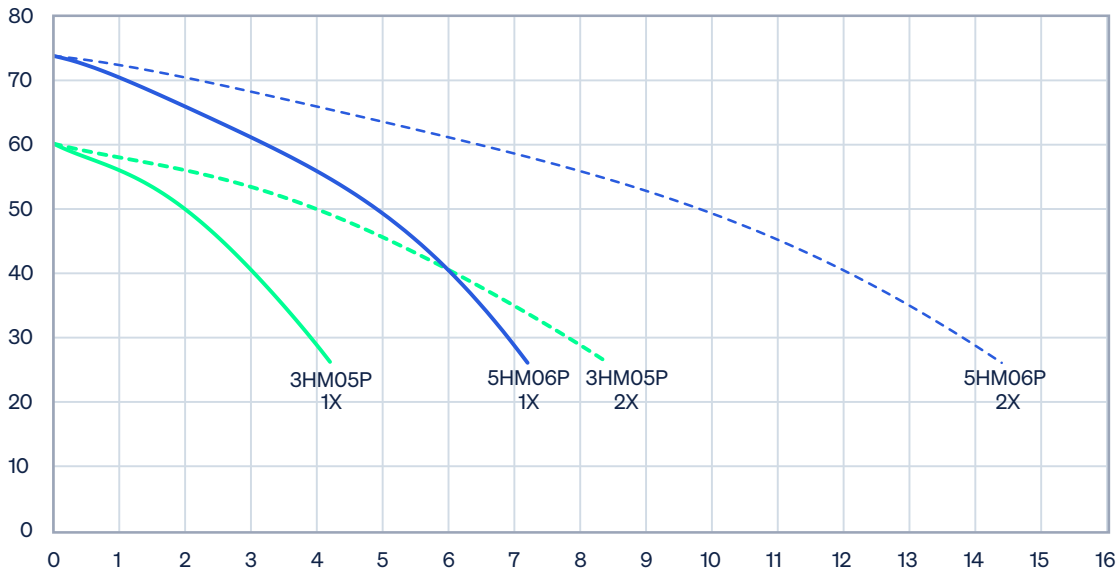
Accessories

- Sealing cap for the pressure manifold
- Two overflow ports, one of which is capped
- Drain valve for the hybrid water tank

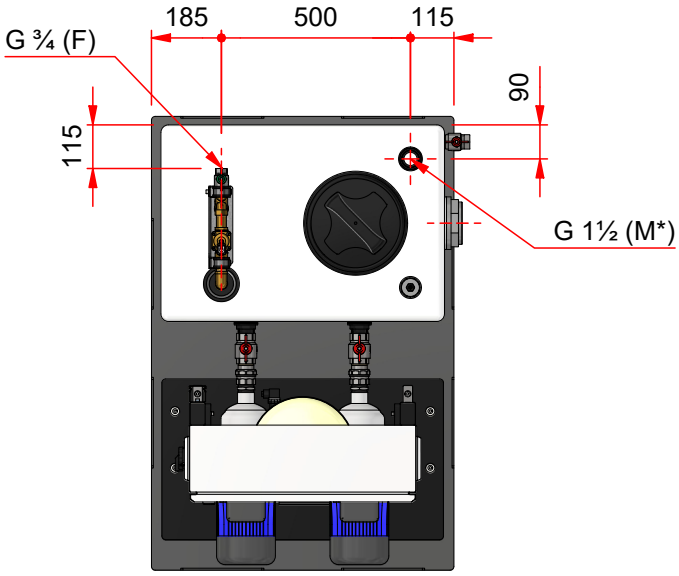
Rainwater Pump Performance Curve

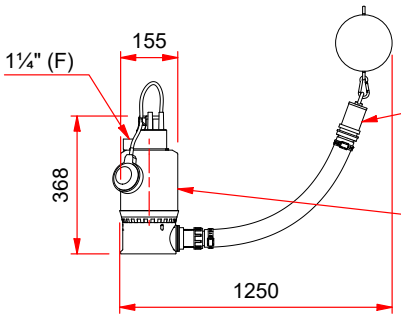


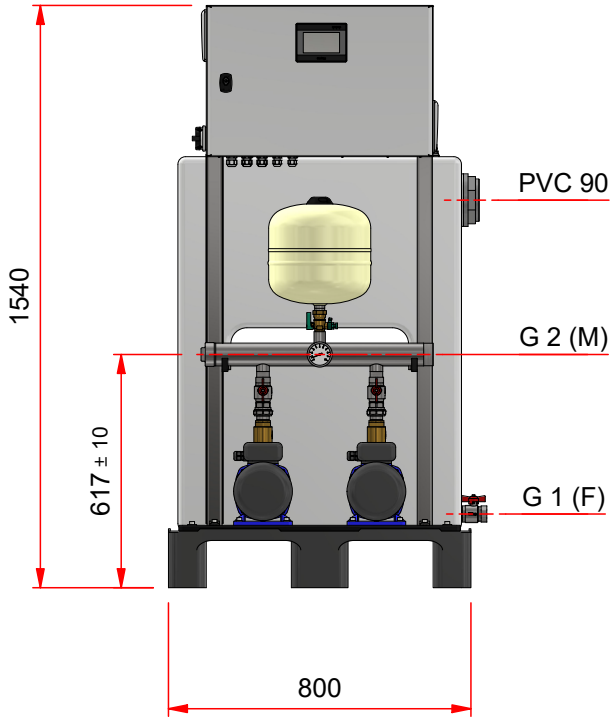
Booster Pump Curve

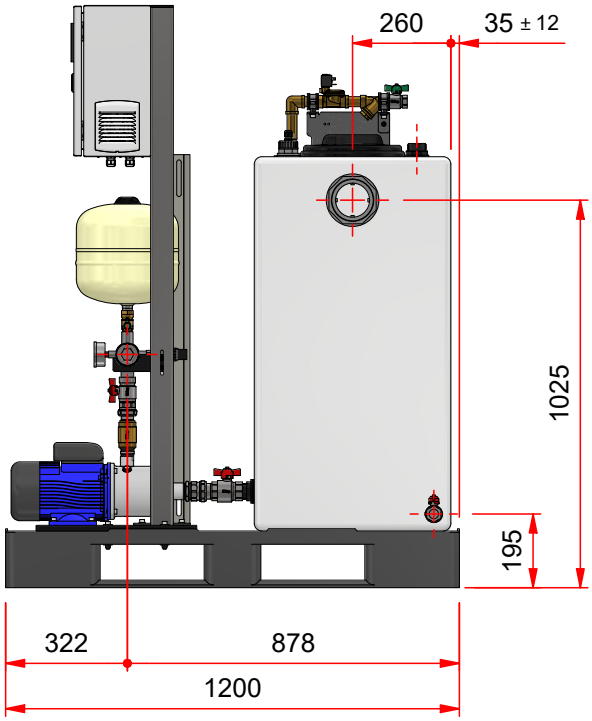


Dimensions


185
500
115
G ¾ (F)
115
90
G 1½ (M*)


155
1¼" (F)
368
1250


1540
PVC 90
G 2 (M)
617 ± 10
G 1 (F)
800


260
35 ± 12
1025
195
322
878
1200