

Antifreeze system for
monoblock heat pumps
SARG1

nr kat. SARG1V3

Operating description:

The system is a complete set for emergency circulation of water in a monoblock heat pump system. It enables protection against freezing of water in the heat pump in the event of a power cut, immobilization (e.g. due to a flow error) or activation of circuit breakers. The built-in controller automatically starts the pump included in the set, built into the installation. The circulation pump works according to the designed algorithm, shortening the periods between individual cycles depending on the measured water temperature - forcing circulation between the upper source and the heat pump condenser. The system also takes into account the measurement of the outside air temperature in order to assess the necessity to operate in the anti-frost protection mode. The controller has an antistop function of the circulation pump.

Functionality:

- anti-freeze protection for the heat pump condenser with a bypass pump,
- preventing stagnation of the bypass pump,
- maximum operation time due to the fact that the bypass pump can be turned on depending on the outside temperature, the time that the bypass pump is turned on depends on the outside temperature and water temperature,
- acoustic signaling of alarm states, detection of alarm states of the bypass pump (no operation of the pump despite its actuation, too high power consumption by the pump) detection of excessive battery discharge, and in the event of its occurrence, information about the need to replace the battery with a new one,
- self-diagnosis of the electronic system,
- algorithm of optimal battery charging depending on changes in the system temperature,
- signaling the correct connection of the system.

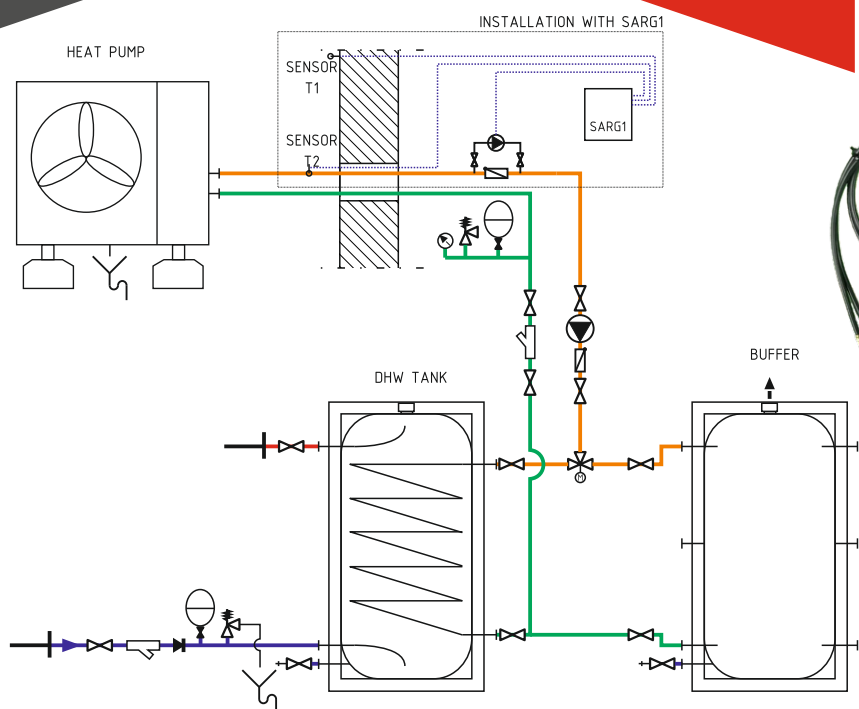


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Set components:

- controller with autodiagnostic system,
- 2 temperature sensors,
- battery
- impulse charger,
- circulation pump,
- set of bypass fittings.



Battery module	
Housing	Plastigrey colour
Dimensions	248 x 196 x 96
Weight	5,5 kg
Battery capacity	18 Ah
Output voltage	12 V
Temperature sensor type	NTC10k
Max. backup time	up to 48 h
Charger	
Output voltage	15 V DC
Input voltage	100-240 V AC / 50 Hz
Charging current	1 A
Pump	
Max. flow	800 l/h
Max pump head	5 m
Noise	< 35 dB
Temperature working range	0 - 60°C
Bypass fitting set	
Main pipe dimension	DN25
Hose	1/2"
T-piece connections	1" Rp
Flap valve	1" flap