

Invention relates to the field of water supply and is intended for use in domestic water supply systems, including for water intake from wells and reservoirs with a variable dynamic water level.

Autonomous water supply system with automatic control of submersible pump 1, which includes electric motor and pump unit, comprises discharge line 2 equipped with hydraulic accumulator 3 and check valve 4, and electronic control unit 5. Housing 6 of control unit 5 contains flow chamber 7, hydraulically integrated into discharge line 2, which consists of two pipelines 8 and 9 arranged in series and connecting submersible pump 1 to consumer. Pressure sensor 10 and dry-run protection sensor 11 are installed in flow chamber 7, wherein electronic control unit 5 contains frequency converter 12 designed to regulate the rotational speed of submersible pump's electric motor 1 depending on the set pressure under dynamic flow conditions of water pumped through flow chamber 7. Frequency converter 12 is mounted on radiator plate 13, which is installed in flow chamber 7. Dry-run protection sensor 11 is designed as shutter 14, hinged within housing 6 of electronic control unit 5, with the possibility of blocking outlet opening 15 of pipeline 8 leading into flow chamber 7. Shutter 14 contains at least one permanent magnet 16, which is designed to interact with Hall effect sensor 17 mounted in wall of housing 6 of electronic control unit 5 in the area of outlet opening 15 of pipeline 8 entering flow chamber 7.

Technical result of invention is an increase in the operational reliability of autonomous water supply system by ensuring stable pressure during dynamic water consumption by the user and effective heat dissipation from the components of electronic control unit.