

INVERTER SYSTEM – IVR-05

Our Intelligent Pump Controller, IVR-05 model, is an easy-to-use control and protection device for direct connection of deep-well pumps, surface pumps, submersible pumps, etc., maintaining a constant, set water pressure by changing the rotational speed of the pump motor. The IVR-05 inverter utilises the SPWM technology (sinusoidal pulse width modulation) and a highly-efficient spatial vector, using V/F VVVF control (variable velocity, variable frequency).

APPLICATION:

- The IVR-05 can be used to increase water pressure in various systems such as residential houses, commercial premises, industry, water treatment stations, agriculture etc.
- Ease of installation and use. No need to have the device connected by a qualified service technician
- Advanced technology, PID algorithm control, technology dedicated to pump drive control
- Trustworthy and reliable. The device has various integrated protection features. Protection against dry running, short-circuit, overload, undervoltage, overvoltage, impeller blocking etc.
- Energy efficient. The controller effectively saves 20% - 60% of electric energy.
- It meets the requirements regarding CE product safety and fulfils the environmental protection requirements.



Thanks to real-time pressure analysis, the inverter adjusts the rotational speed of a pump to system’s demand at a given time. Variable rotational speed of the pump stabilises pressure, thus reducing water and current consumption.

Its important feature that distinguishes the controller from popular on/off control devices is:

- Energy efficiency. Compared to the traditional water supply method, the constant pressure water supply system with frequency converter saves 30%-60% of energy.
- Simple operation: easy to use, all functions can be terminated by pressing a button without the need to hire programming specialists.
- Long-term reliability of the co-operating pumps: the average torque and shaft wear are reduced due to decreasing the average rotational speed, which increases the pump operational lifetime. Due to the built-in soft start and stop function, the device allows to eliminate the water hammer (the water hammer is a sudden pressure increase that occurs at rapid stopping or starting of liquid flow.)
- Fully protected: the system incorporates the most versatile overcurrent, overvoltage, undervoltage, short-circuit, impeller blocking and dry-running protection technology without the need to install probes/sensors in the well.
- Possibility of controlling several pumps supplying the system.

PARAMETERS

Model	Motor power (W)	Input voltage Frequency (V/Hz)	Output load (A)	Output voltage (V)	Output freq. (Hz)
IVR-05	750-2200	1 faza 230 V 50/60 Hz	10,5	3 fazy 3x230 V	20-50 Hz