# **Pump controller for water technology**

## The pump - compact controller MARE:

is built with plain text display, keypad and repair switch in the IP66 housing for the operation with a frequency controlled pump.

Power Range: 1 Pump 0,75kW - 2,2kW / 1PH 230V 50/60Hz +/- 15% Power Range: 1 Pump 0,75kW - 2,2kW / 3PH 230V 50/60Hz +/- 15% Power Range: 1 Pump 0,75kW - 90 kW / 3PH 400V 50/60Hz +/- 15%

Operating modes: pressure regulator, level controller, frequency converter,

Temperature controller, vacuum regulator.

Option: chain operation with two controllers,

Multi-operation with up to 4(6) controllers with MAR-MASTER control

All common applications of general water supply such as:

Pressure increase, level control, process water supply, etc. are optimal too realize.

A remote control or control by external system is easy to implement.

The controller is equipped with a frequency converter. It can also PM - Motors (synchronous motor) up to 400Hz.

The system is configured at the factory.



Power 230V 1PH	0,75kW / 4,5A	1,5kW/ 7A	2,2kW/ 10A
Power 230V 3PH	0,75kW/ 4,5A	1,5kW/ 7A	2,2kW/ 10A

Power 400V	0,75kW / 2A	1,5kW/ 4A	2,2kW/ 6,5A	4,0kW/ 9A	5,5kW/ 12A	7,5kW/ 17A
MARE	11kW/ 23A	15kW/ 32A	18,5kW/ 38A	22kW/ 44A	30kW/ 60A	37kW/ 75A
45kW/ 90A	55kW/ 110A	75kW/ 150A	90kW/ 180A			



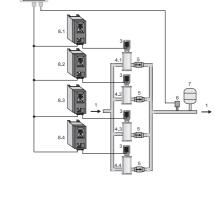
### Pumps compact controller MARE in IP66 housing for 1 pump

#### All features of the compact controller:

The controller is built with a repair switch in IP66 housing with freely programmable pump controller with keyboard and switchable backlit plain text display. The compact controller is specially designed for general water supply. The controller is equipped with frequency converter. It is also possible to control PM motors (synchronous motor) up to 400Hz.

#### Power range: 1x 0,75W - 1x 90kW

- ALU / ABS housing IP66
- Frequency converter with 50% / 1 min reserve
- Mode for IE4 PM motor
- Freely programmable pressure regulator with keyboard and backlit text display
- Display for all operating messages, set points and commissioning values
- five adjustable digital inputs
- An adjustable relay as a change
- · Standard thermistor input (option on terminal)
- Speed control system for 1 pump
- · Two controllers can be linked directly
- Option: Multi operation with MAR-Master controller
- Connection for a sensor 4..20mA and / or 0..10V
- Adjustable PI controller for fast pressure control
- Adjustable zero-flow cutoff to shut down the pump to standby.
- · Manual operation with adjustable fixed speed for the emergency supply in the event of sensor failure.
- Adjustable electronic dry run
- Adjustable electronic switching frequency monitoring
- · Adjustable electronic pressure monitoring
- Sensor monitoring with emergency switching to fixed speed.
- Adjustable operating mode
- · Adjustable motor characteristic
- · Error memory for 5 errors
- · Operating hours counter, start counter
- Temperature dependent fan control
- · Lockable repair switch
- Adjustable IT filter
- Interface: RS 485 Modbus slave
- Option: Running signal relay as make contact
- Option: PTC thermistor input



Example: Chain operation Operation with 2 pumps

Example: Multi operation with 4 pumps and MAR-MASTER







Presented by:



