

# MP 204

## Electronic motor protection

### ➤ Electronic pump protection made simple

You know you can trust your BM booster. But that does not mean it cannot benefit from extra protection against external threats. That is why we created the new MP 204 motor protection unit. Made especially for pumps by pump specialists, it was designed to bring you pump protection that is as simple to use as it is efficient. Our engineers crammed it full of all the protection features you need – but kept it easy to install, set, and use.

The MP 204 motor protection unit is suitable for all booster modules in the BM range: BM, BMB, BME, BMET, BMEX, and BMP.



## Made for pumps by pump experts

### Protect your BM booster against external threats

The MP 204 protects pump motors against undervoltage, overvoltage and other variations in power supply. So even if your external power supply is not entirely steady, your BM booster will continue its steady performance. Your pump motors will also be protected against the overheating that accompanies such variations and reduces pump lifetime.

Phase errors are a frequent cause of problems for pumps of this type. After you set the relevant phase (1 or 3) during set-up, the learning function of the MP 204 registers the correct phase and reacts if things are not right.

The MP 204 also monitors pump power consumption. As reduced power consumption is a strong indication that the pump is about to run dry, the MP 204 will immediately stop the pump if the power consumption drops below 60%.

Maximum uptime is ensured, preventing interruptions in boosting performance. All this in a unit that can be set up for operation in just 2 minutes.

### True RMS measurement for maximum accuracy

The MP 204 uses true RMS measurement by sampling each cycle 256 times. This ensures accurate measuring of current and voltage – even in very adverse conditions where heavy loads disturb the power grid.

### Simple set-up a priority

Simple installation and set-up was a major priority for the MP 204 designers. Mounting is done by means of four screws or by sliding the unit onto a mounting rail, and the entire set-up can be completed in just two minutes. The simple menu is used to set four parameters: rated motor amps, nominal voltage, trip class, and no. of motor phases. After just 120 seconds of setting, the unit is ready to go.

### Access more functions with R 100 remote control

The R 100 remote control from Grundfos gives you access to even more options. For example, you can adjust factory settings, carry out service and troubleshooting, and get readouts of data stored in the MP 204 unit.

### Ready for bus communication

While many customers require motor protection only, the MP 204 is also prepared for expansion if such requirements should change in future. It allows for monitoring and communication via GENibus – a Grundfos-designed bus for exchange of pump data, alarms, status information, and setpoints. This enables users to connect the MP 204 to e.g. SCADA systems

### Handles currents up to 1,000A

On its own, the MP 204 will handle currents up to 120A. For applications involving greater currents, the unit can be fitted with external current transformers available from stock at Grundfos .



### Technical data – MP204

• Enclosure class:	IP 20
• Ambient temperature:	-20 to +60°C
• Relative humidity:	99%
• Voltage range:	80-610VAC
• Current range:	3-999A
• Frequency:	47 – 63 Hz
• IEC trip class:	1 – 45
• Special Grundfos trip class:	0.1 – 30 s
• Voltage variations:	-25/+15% of nominal voltage
• Approvals:	EN 60947, EN 60355, UL/CSA 508
• Marking:	SE, cUL, C-tick

### Monitoring parameters

• Insulation resistance before start-up
• Temperature (Tempcon, PT sensor and PTC/thermal switch)
• Overload / underload
• Overvoltage / undervoltage
• Phase sequence
• Phase missing
• Power factor (cos φ)
• Power consumption
• Harmonic distortion
• Current asymmetry
• Run and start capacitor (single-phase)
• Operating hours and number of starts