# **Monitoring M-series**



12-220 VDC High voltage 2 x low voltage Earth fault +/-Battery test Mains fault

Separate relay outputs for all alarms and sum alarm.

LED-display shows settings and momentary values for DC-voltage, DC-current, mains voltage and earth fault.

19", wall or door mounting



# **Monitoring M-series - Technical data**

M-series monitors voltage, mains fault and earth fault. Also triggers battery-test.

Indication with blinking LED for each alarm. After the delay the relay goes into alarm mode and LED locks into blinking mode even if the faulty conditions clears. LED blinks until it is acknowledged with button. Auto reset can be enabled.

Potential free alarm relay outputs on the back for high voltage, low voltage 1, low voltage 2, earth fault, mains fault, battery fault and sum alarm.

Battery circuit test and battery capacity test with potential free relay. Configurable duration and interval.

Very easy to operate. Settings are configured by holding in the corresponding button. Then the value is shown in display and is set by pressing up/down buttons. Release the button and it's done.

By setting delay one step higher than max value, the corresponding alarm is blocked.

All settings is done at front panel. No need to open the unit.

Display of momentary current. Shunt input at backside (shunt is option).

Configurable hysteresis on all alarms.

Mains fault with 5V in/output to external mains fault relay, or by measuring the mains voltage. Configurable alarm level when using measuring mode.

Configured settings and unacknowledged alarms stored in non volatile memory. Secures operation even after external power failure.

Easy to read LED-display shows momentary voltage, current, earth fault level, mains voltage and settings.

For 19" (1HE), wall or door mounting. Mounting brackets as option.

### Input

9-36 VDC, 18-75 VDC or 70-300 VDC

#### Alarm levels

High/low voltage: 1-300V. Measurement at DC-input. Earth fault: 50-1000Kohm. Separate delays for all alarms: 1-1800 sec or blocked.

Separate delays for all alarms: 1-1800 sec of blocked. Separate settings levels/delays: High voltage, low voltage 1, low voltage 2, earth fault +/-, mains fault with voltage measurement.

#### Relay outputs

Potential free. Evey relay has 3 outputs. Common, closed when alarm, open when alarm. When no power to M-series all relays goes into alarm mode (NC). Rated load: 230VAC 8A, 30VDC 5A Relay outputs for: High voltage Low voltage 1 Low voltage 2 Earth fault Battery fault Battery test (triggering of rectifier) Mains fault Sum alarm

### Mains fault

By measuring mains voltage or by using external mains fault relay with 5V in/out provided by M-series.

#### Display:

4 character LED-display.

#### Dimensions

**19":** Width 19" (482,6mm), height 1HE (44,45mm), depth 197mm incl. earth connector, 164,5mm excl. earth connector.

**Wall:** Width w/o brackets 263mm, width with brackets 305mm, height w/o cable protection 163mm, height with cable protection 172mm, depth 63 mm.

#### **Power consumption**

Ca 4 Watts.

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	101100	101200	10000
Display of voltage (DC)	•	•	•
Display of current			•
Display of mains voltage			•
Display of earth fault	•	•	•
High voltage alarm	•	٠	•
Low voltage alarm 1	•	٠	•
Low voltage alarm 2	•	•	•
Earth fault alarm	•	٠	•
Battery test (circuit/capacity)			•
Mains fault alarm			•
DC-powered	•	٠	•
Separate relays for each alar	m	•	•

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M100 M200 M300