**MV53**

**AC Voltage monitoring relay**

DIN Rail mounting according to DIN 43 880

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**Type:** MV53 /... V

Voltage monitoring relay with over- and under voltage thresholds.

Adjustable alarm delay. Alarm LED. Threshold setting by DIP switch.

1 change over alarm contact 6 A 250 V. Very suitable for protecting of contactor coils against under voltage (under voltage → low Z of coil → over current → defective).

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**Monitoring function**

Threshold settings in % of nominal voltage.

Do not set 0 % for both thresholds.

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**Measuring circuit data**

Nominal voltage $V_{nom}$, type:

<table>
<thead>
<tr>
<th>Type</th>
<th>AC 115 V</th>
<th>AC 230 V</th>
</tr>
</thead>
</table>

Over voltage setting range (2.5 % steps): 0 % ... 17.5 % from $V_{nom}$

Under voltage setting range (5 % steps): 0 % ... - 35 % from $V_{nom}$

Frequency range: 45 ... 65 Hz

Accuracy: ± 3 %

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**Time data**

Fault detection time: 100 ms

Alarm delay adjustment range: 25 ms ... 2.5 s

Voltage failure buffering: ≥ 10 ms

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**Contacts**

Type / Material: 1 CO, micro disconnection /AgNi

Rated operational current: 6 A

Max. inrush current (10 ms): 15 A

Max. switching voltage: 250 V

Max. AC load AC-1 (Fig.1): 1500 VA

Max. DC load DC-1, 24 V / 220 V (Fig.2): 120 W / 65 W

Recommended min. contact load: 100 mA / 5 V

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**Power supply**

Nominal voltage:

- AC 115 V
- AC 230 V

Operating voltage range:

- 65 ... 135 V
- 130 ... 270 V

Power consumption:

- 2.2 W
- 2.2 W

Frequency range:

- 45 ... 65 Hz
- 45 ... 65 Hz

Surge immunity EN 6100-4-5:

- 2 kV
- 2 kV

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**Insulation**

Test voltage open contact: 1 kVrms 1 minute

Test voltage between contact and power supply: 2 kVrms 1 minute

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**General specifications**

Ambient temperature storage /operation: -40 ... +85 °C / -25 ... +60 °C

Mechanical life of contacts:

- 20 x 10⁶ operations

Conductor cross section:

- Stranded wire 2.5 mm², 2 x 1.5 mm²

Ingress protection degree:

- Housing: IP 40, terminals: IP 20

Max. Screw torque: 0.4 Nm

Housing material: Lexan

Weight: 80 g

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**Standard types**

AC 115 50 / 60 Hz

AC 230 50 / 60 Hz

**Technical approvals, conformities**