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Monitoring relay for monitoring phase sequence, phase failure and asymmetry,  $342 \dots 477 \text{ V AC}$ , supply from measurement supply, 2 PDTs

#### **Product Description**

Increasingly higher demands are being placed on safety and system availability – across all sectors. Processes are becoming more and more complex, not only in mechanical engineering and the chemical industry, but also in plant and automation technology. Demands on power engineering are also increasing constantly. Error-free and therefore cost-effective operation can only be achieved through continuous monitoring of important network and system parameters. Electronic monitoring relays in the EMD series are available for a wide range of monitoring tasks to avoid the consequences of errors or to keep them within limits. The operating states are indicated using colored LEDs, errors that may occur can be sent to a control system via a floating contact or can shut down a part of the system. Some device versions are equipped with startup and response delays in order to briefly tolerate measured values outside the set monitoring range.

#### **Product Features**

- Adjustable response delay
- Adjustable asymmetry
- Adjustable via potentiometer on the front
- ✓ Variable supply voltage range



### Key commercial data

package_quantity	1
GTIN	4017918952679

#### Technical data

#### **Dimensions**

Width	22.5 mm
Height	90 mm
Depth	113 mm

#### Ambient conditions

Ambient temperature (operation)	-25 °C 55 °C
Ambient temperature (operation)	-25 °C 40 °C (corresponds to UL 508)
Ambient temperature (storage/transport)	-25 °C 70 °C

#### Input data

Nominal input voltage U <sub>N</sub>	400 V (3 N ~ 400/230 V)
Function	Phase sequence, phase failure, asymmetry



# Technical data

### Input data

Min setting range of the voltage threshold value	342 V AC
Max. setting range of the voltage threshold value	457 V AC
Setting range for response delay	≤ 350 ms (fixed setting)
Setting range for starting delay	≤ 500 ms (fixed setting)
Asymmetry	Fixed, approx. 30 %
Recovery time	< 100 ms

### Contact side

Contact type	2 floating PDT contacts
Maximum switching voltage	250 V AC (in acc. with IEC 60664-1)
Interrupting rating (ohmic load) max.	750 VA (3 A/250 V AC, module aligned, ≤ 5 mm spacing)
Interrupting rating (ohmic load) max.	1250 VA (5 A/250 V AC, module not aligned, ≥ 5 mm spacing)
Output fuse	5 A (fast-blow)

#### Power supply

Supply voltage	From the measured voltage
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#### General

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Mechanical service life	Approx. 2 x 10 <sup>7</sup> cycles
Operating mode	100% operating factor
Mounting position	any
Assembly instructions	on standard DIN rail NS 35 in accordance with EN 60715
Electromagnetic compatibility	Conformance with EMC Directive 2004/108/EC
Surge voltage category	III, basic insulation (as per EN 50178)
Housing insulation material	Polyamide PA, self-extinguishing
Color	green
Rated insulation voltage	300 V (According to EN 50178)
Conformance	CE-compliant
UL, USA / Canada	UL/C-UL listed UL 508

### Connection data

Conductor cross section stranded min.	0.25 mm²
Conductor cross section stranded max.	2.5 mm²
Conductor cross section solid min.	0.5 mm²
Conductor cross section solid max.	2.5 mm²
Conductor cross section AWG/kcmil min.	20
Conductor cross section AWG/kcmil max	14
Stripping length	8 mm
Connection method	Screw connection

### classifications

### eCl@ss

eCl@ss 4.0	27371105
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# classifications

# eCl@ss

eCI@ss 4.1	27371105
eCl@ss 5.0	27371801
eCl@ss 5.1	27371801
eCl@ss 6.0	27371801
eCl@ss 7.0	27371801
eCl@ss 8.0	27371801

#### **ETIM**

ETIM 2.0	EC001438
ETIM 3.0	EC001438
ETIM 4.0	EC001438
ETIM 5.0	EC001438

#### **UNSPSC**

UNSPSC 6.01	30211916
UNSPSC 7.0901	39121535
UNSPSC 11	39121535
UNSPSC 12.01	39121535
UNSPSC 13.2	39121535

# approvals

UL Listed / cUL Listed / cULus Listed /

### Approval details

UL Listed (II)

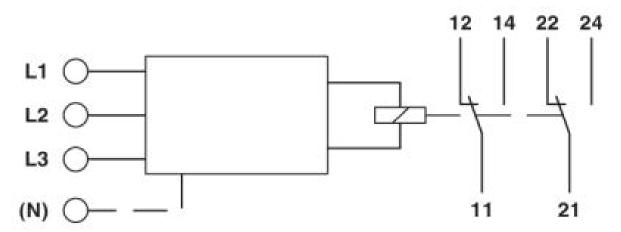
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Drawings



Block diagram



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