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Monitoring relay for monitoring 3-phase voltages of 280...520 V AC, window, with neutral conductor connection, supply voltage can be selected using power module, 1 PDT

#### **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.

#### Why buy this product

- ✓ Variable supply voltage range
- Adjustable response delay
- Adjustable asymmetry



## **Key Commercial Data**

Packing unit	1 STK
GTIN	4 017918 996512
GTIN	4017918996512

#### Technical data

#### **Dimensions**

Width	22.5 mm
Height	90 mm
Depth	113 mm

#### Ambient conditions

Ambient temperature (operation)	-25 °C 55 °C



## Technical data

## Ambient conditions

	-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>	3 N ~ 400/230 V
Maximum temperature coefficient	< 0.1 %/K
Function	Window, with neutral conductor connection
Min. setting range	-30 % 20 % (From U <sub>N</sub> )
Max. setting range	-20 % 30 % (From U <sub>N</sub> )
Min setting range of the voltage threshold value	280 V AC 480 V AC
Max. setting range of the voltage threshold value	320 V AC 520 V AC
Setting range for response delay	0.2 s 10 s
Basic accuracy	± 5 % (of scale end value)
Setting accuracy	≤ 5 % (of scale end value)
Repeat accuracy	≤ 2 %
Voltage influence	≤ 0.5 %
Recovery time	500 ms

#### Contact side

Contact type	1 floating PDT		
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)		
	1250 VA (5 A/250 V AC, module not aligned, ≥ 5 mm spacing)		
Output fuse	5 A (fast-blow)		

## Power supply

Supply voltage range	24 V AC 230 V AC (see Power modules)
	24 V DC (see Power modules)

#### General

Mechanical service life	approx. 2x 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
Overvoltage category	III, basic insulation (as per EN 50178)
Housing insulation material	Polyamide PA, self-extinguishing
Color	green
Rated insulation voltage	300 V (acc. to EN 50178)
Conformance	CE-compliant
UL, USA/Canada	UL/C-UL listed UL 508

#### Connection data



## Technical data

## Connection data

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

## Standards and Regulations

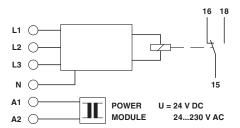
Electromagnetic compatibility	Conformance with EMC Directive 2004/108/EC
Noise emission	EN 61000-6-3
Noise immunity	EN 61000-6-2
Low Voltage Directive	Conformance with LV directive 2006/95/EC
Conformance	CE-compliant
UL, USA/Canada	UL/C-UL listed UL 508

## **Environmental Product Compliance**

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

## **Drawings**

## Block diagram



## Approvals

## Approvals

Approvals

UL Listed / cUL Listed / EAC / cULus Listed

Ex Approvals



## Approvals

## Approval details

UL Listed	UL	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 172140
cUL Listed	c UL	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 172140
EAC	EAC		RU C- DE.A*30.B.01082
cULus Listed	C (UL) US		

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