


## EMD-FL-3V-500

Order No.: 2867979

<http://eshop.phoenixcontact.de/phoenix/treeViewClick.do?UID=2867979>

Monitoring relay for monitoring 3-phase voltages of 350...650 V AC, undervoltage, window, phase sequence, phase failure, asymmetry, supply voltage can be selected using power module, 2 PDTs



Commercial data	
GTIN (EAN)	
sales group	H216
Pack	1 pcs.
Customs tariff	85364900
Catalog page information	Page 655 (IF-2009)

### Product notes

WEEE/RoHS-compliant since:  
09/04/2006



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### 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.

### Technical data

#### Input data

Nominal input voltage $U_N$	3 ~ 500 V
Maximum temperature coefficient	< 0.1 %/K
Function	Undervoltage, window, asymmetry, phase sequence, phase failure
Min. setting range	-30 % ... 20 % (From $U_N$ )
Max. setting range	-20 % ... 30 % (From $U_N$ )
Min setting range of the voltage threshold value	350 V AC ... 600 V AC
Max. setting range of the voltage threshold value	400 V AC ... 650 V AC
Setting range for response delay	0.1 s ... 10 s
Basic accuracy	$\pm 5$ % (of scale end value)
Setting accuracy	$\leq 5$ % (of scale end value)
Repeat accuracy	$\leq 2$ %
Asymmetry	5 % ... 25% / OFF
Recovery time	500 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, $\leq 5$ mm spacing) 1250 VA (5 A/250 V AC, module not aligned, $\geq 5$ mm spacing)
Output fuse	5 A (fast-blow)

#### Power supply

Supply voltage range	110 V AC ... 500 V AC (see Power modules)
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#### General data

Width	45 mm
Height	90 mm
Depth	113 mm
Mechanical service life	Approx. $2 \times 10^7$ cycles
Operating mode	100% operating factor

Ambient temperature (operation)	-25 °C ... 55 °C
	-25 °C ... 40 °C (corresponds to UL 508)
Ambient temperature (storage/transport)	-25 °C ... 70 °C
Mounting position	Any
Assembly instructions	on TS 35 profile rail acc. to 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	600 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 mm <sup>2</sup>
Conductor cross section stranded max.	2.5 mm <sup>2</sup>
Conductor cross section solid min.	0.5 mm <sup>2</sup>
Conductor cross section solid max.	2.5 mm <sup>2</sup>
Conductor cross section AWG/kcmil min.	20
Conductor cross section AWG/kcmil max	14
Stripping length	8 mm
Type of connection	Screw connection

#### Certificates / Approvals



Certification

CUL Listed, UL Listed

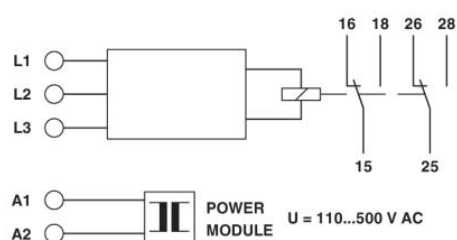
#### Additional products

Item	Designation	Description
<b>General</b>		
2885281	EMD-SL-PS45-110AC	Power modules, pluggable, for EMD-FL-..., supply voltage: 88 V AC ... 121 V AC

2885744	EMD-SL-PS45-120AC	Power modules, pluggable, for EMD-FL-..., supply voltage: 108 V AC ... 132 V AC
2885294	EMD-SL-PS45-230AC	Power modules, pluggable, for EMD-FL-..., supply voltage: 195 V AC ... 264 V AC
2885304	EMD-SL-PS45-400AC	Power modules, pluggable, for EMD-FL-..., supply voltage: 323...456 V AC
2885317	EMD-SL-PS45-500AC	Power modules, pluggable, for EMD-FL-..., supply voltage: 425...550 V AC

**Diagrams/Drawings**

Block diagram



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