


## EMD-FL-3V-400

Order No.: 2866064

<http://eshop.phoenixcontact.de/phoenix/treeViewClick.do?UID=2866064>

Monitoring relay for monitoring 3-phase voltages of 280...520 V AC, undervoltage, window, phase sequence, phase failure, asymmetry, wide-range power supply unit, 2 PDTs



| Commercial data          |  |
|--------------------------|--|
| GTIN (EAN)               | <br>4 017918 975029 |
| sales group              | H216   |
| Pack                     | 1 pcs.   |
| Customs tariff           | 85364900   |
| Catalog page information | Page 654 (IF-2009)   |

### Product notes

WEEE/RoHS-compliant since:  
08/31/2006



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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 N ~ 400/230 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  | 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                  | 0.1 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)<br>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 | 24 V AC ... 240 V AC -15 % ... +10 %<br>24 V DC ... 240 V DC -20 % ... +25 % |
|----------------------|--|

### General data

|                         |                                |
|-------------------------|--------------------------------|
| Width                   | 22.5 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                | 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 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



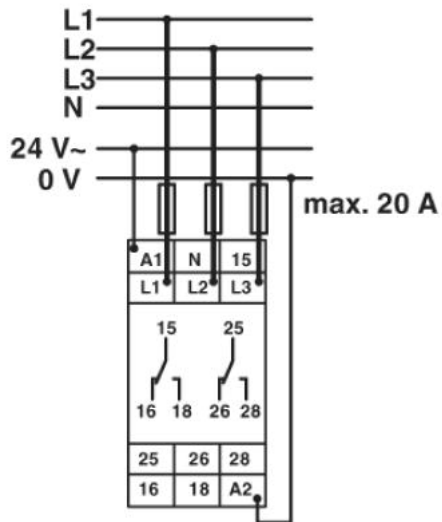
Certification

CUL Listed, UL Listed

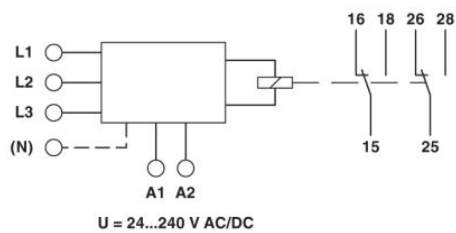
**Diagrams/Drawings**

Application drawing

Connection example



Block diagram



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#### Как с нами связаться

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