

Monitoring relay - EMD-BL-PH-480-PT - 2903528

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Monitoring relay for monitoring the phase sequence and asymmetry of 3-phase voltages at 208 ... 480 V AC / 120 ... 277 V AC, configurable asymmetry, 1 changeover contact, with Push-in connection

Product Description


Safety and system availability requirements are constantly on the increase – across all industries. Processes are becoming more and more complex, not only in machine building and the chemical industry but also in building technology. The demands placed on energy technology are also constantly on the rise.

It is only by continuously monitoring key network and system parameters that error-free and therefore cost-effective operation can be achieved. Electronic monitoring relays from the EMD series are available for a wide range of monitoring tasks so that the consequences of errors can be avoided or kept within limits.

The operating states are signaled via color LEDs and any errors that occur can be sent to a controller via a floating contact or can shut down a section of the system. All device versions are equipped with response delays so that measured values outside the set monitoring range can be briefly tolerated.



Key Commercial Data

| | |
|--------------|---|
| Packing unit | 1 pc |
| GTIN |  4 046356 747240 |
| GTIN | 4046356747240 |

Technical data

Dimensions

| | |
|--------|---------|
| Width | 17.5 mm |
| Height | 89.5 mm |
| Depth | 65.5 mm |

Ambient conditions

| | |
|---|-----------------------------------|
| Ambient temperature (operation) | -25 °C ... 55 °C |
| Ambient temperature (storage/transport) | -25 °C ... 70 °C |
| Permissible humidity (operation) | 15 % ... 85 % |
| Degree of protection | IP40 (Housing) |
| | IP20 (Connection terminal blocks) |

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Technical data

Ambient conditions

| | |
|----------------|--------------|
| Noise immunity | EN 61000-6-2 |
|----------------|--------------|

Input data

| | |
|---|--|
| Nominal input voltage U_N | 480 V (3~ 208 ... 480 V/120 ... 277 V) |
| Function | Phase sequence |
| | Phase failure |
| | Asymmetry |
| Min setting range of the voltage threshold value | 187 V AC |
| Max. setting range of the voltage threshold value | 519 V AC |
| Setting range for response delay | 0.1 s ... 10 s |
| Basic accuracy | ≤ 5 % (of scale end value) |
| Setting accuracy | ± 5 % (of scale end value) |
| Repeat accuracy | ≤ 2 % |
| Asymmetry | 5 % ... 25% / OFF |
| Recovery time | > 500 ms |

Contact side

| | |
|---------------------------------------|-------------------------------------|
| Contact type | 1 floating changeover contact |
| Maximum switching voltage | 250 V AC (in acc. with IEC 60664-1) |
| Interrupting rating (ohmic load) max. | 1250 VA (5 A / 250 V AC) |
| Output fuse | 5 A (fast-blow) |

Power supply

| | |
|----------------|-----------------------------|
| Supply voltage | ±10 % (= measuring voltage) |
|----------------|-----------------------------|

General

| | |
|-------------------------------|--|
| Mechanical service life | 15x 10 ⁶ 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 |
| Housing insulation material | Polyamide PA 6.6, self-extinguishing |
| Color | gray |

Connection data

| | |
|----------------------------------|--|
| Connection method | Push-in connection |
| Stripping length | 8 mm |
| Conductor cross section solid | 0.14 mm ² ... 2.5 mm ² |
| Conductor cross section flexible | 0.14 mm ² ... 2.5 mm ² |
| Conductor cross section AWG | 26 ... 14 |

Standards and Regulations

| | |
|-------------------------------|--|
| Low Voltage Directive | Conformance with Low Voltage Directive |
| Electromagnetic compatibility | Conformance with EMC directive |

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Standards and Regulations

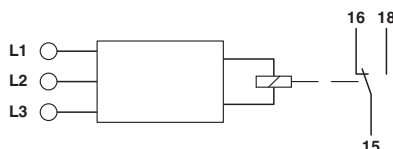
| | |
|--------------------------|------------------------|
| Noise emission | EN 61000-6-3 |
| Noise immunity | EN 61000-6-2 |
| Standards/regulations | DIN EN 60947-5-1 |
| Rated insulation voltage | 519 V (Supply circuit) |
| | 250 V (Output circuit) |
| Rated surge voltage | 4 kV |
| Insulation | Basic insulation |
| Pollution degree | 2 |
| Overvoltage category | III |

Environmental Product Compliance

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

Drawings

Block diagram



Classifications

eCl@ss

| | |
|---------------|----------|
| eCl@ss 10.0.1 | 27371803 |
| eCl@ss 11.0 | 27371803 |
| eCl@ss 4.0 | 27371100 |
| eCl@ss 4.1 | 27371100 |
| eCl@ss 5.0 | 27371800 |
| eCl@ss 5.1 | 27371800 |
| eCl@ss 6.0 | 27371800 |
| eCl@ss 7.0 | 27371803 |
| eCl@ss 9.0 | 27371803 |

ETIM

| | |
|----------|----------|
| ETIM 4.0 | EC001441 |
| ETIM 6.0 | EC001441 |
| ETIM 7.0 | EC001441 |

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Classifications

UNSPSC

| | |
|---------------|----------|
| UNSPSC 6.01 | 30211916 |
| UNSPSC 7.0901 | 39121535 |
| UNSPSC 11 | 39121535 |
| UNSPSC 12.01 | 39121535 |
| UNSPSC 13.2 | 39121106 |
| UNSPSC 18.0 | 39121106 |
| UNSPSC 19.0 | 39121106 |
| UNSPSC 20.0 | 39121106 |
| UNSPSC 21.0 | 39121106 |

Approvals

Approvals


Approvals

UL Listed / cUL Listed / EAC / EAC / cULus Listed


Ex Approvals

Approval details

| | | | |
|-----------|---|---|---------------|
| UL Listed |  | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 172140 |
|-----------|---|---|---------------|

| | | | |
|------------|---|---|---------------|
| cUL Listed |  | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 172140 |
|------------|---|---|---------------|

| | | |
|-----|---|-----------------|
| EAC |  | TR_TS_D_00573_c |
|-----|---|-----------------|

| | | |
|-----|---|-------------------------|
| EAC |  | RU*C- DE.*08.B.00010 |
|-----|---|-------------------------|

| | | |
|--------------|---|--|
| cULus Listed |  | |
|--------------|---|--|

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