

Monitoring relay - EMD-FL-RP-480 - 2900177

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Monitoring relay for effective power monitoring in 1- and 3-phase networks of 0...7.2 kW, underload, overload, window, motor winding temperature, error memory, supply voltage can be selected via power module, 2 PDTs

Product Description

Requirements pertaining to safety and system availability increase constantly – regardless of the industry. Processes are becoming more and more complex, not only in the mechanical engineering and chemical industry but also in system and automation technology. Demands on power engineering are also constantly on the rise. Error-free and therefore cost-effective operation can only be achieved through continuous monitoring of important network and system parameters. The electronic monitoring relays of the EMD series are available for various monitoring tasks. The operating states are indicated using colored LEDs, errors that may occur can be sent to a controller 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

- Temperature monitoring of the motor winding
- Monitoring range up to 7.2 kW
- Variable supply voltage range
- Detection of switched off loads
- Separately adjustable startup and response delays



Key commercial data

package_quantity	1
GTIN	4046356522632

Technical data

Dimensions

Width	45 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_N	480 V (3 N ~ 480/277 V)
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Input data

Input voltage range	0 V AC ... 480 V AC (1(N) ~, single-phase load)
Input voltage range	0 V AC ... 480 V AC (3(N) ~, 3-phase load)
Input current range	0.15 A ... 6 A (Range: 0.75 kW and 1.5 kW)
Input current range	0.3 A ... 12 A (Range: 3 kW and 6 kW)
Overload capacity	12 A permanent
Maximum temperature coefficient	≤ 0.02 %/K
Function	Underload, overload, window, winding temperature monitoring
Min. setting range	5 % ... 110 % (of P _N)
Max. setting range	10 % ... 120 % (of P _N)
Setting range for response delay	0.1 s ... 50 s
Setting range for starting delay	1 s ... 100 s
Basic accuracy	± 2 % (of scale end value)
Setting accuracy	≤ 5 % (of scale end value)
Repeat accuracy	± 2 %
Total cold resistance	< 1.5 kΩ
Response value	≥ 3.6 kΩ (Relay drops out)
Release value	≤ 1.8 kΩ (Relay picks up)
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, ≤ 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 range	110 V AC ... 500 V AC (see Power modules)
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General

Mechanical service life	Approx. 2 x 10 ⁷ cycles
Operating mode	100% operating factor
Mounting position	Any
Assembly instructions	on standard DIN rail NS 35 in accordance with EN 60715
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 applied for

Connection data

Conductor cross section stranded min.	0.25 mm ²
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Connection data

Conductor cross section stranded max.	2.5 mm ²
Conductor cross section solid min.	0.5 mm ²
Conductor cross section solid max.	2.5 mm ²
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	27250313
eCl@ss 4.1	27250313
eCl@ss 5.0	27371802
eCl@ss 5.1	27371802
eCl@ss 6.0	27371806
eCl@ss 7.0	27371806
eCl@ss 8.0	27371806

ETIM

ETIM 3.0	EC001440
ETIM 4.0	EC001440
ETIM 5.0	EC001440

UNSPSC

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

Drawings

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Block diagram

