Monitoring relay - EMD-FL-PF-400 - 2885809

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Monitoring relay for load monitoring (cos φ = 0,1 ... 1) in 1- and 3-phase networks, underload, overload, window, error memory, wide-range power supply unit, 2 PDTs

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

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

RoHS

Key Commercial Data

Packing unit	1 STK
GTIN	4 046356 100779
GTIN	4046356100779
Weight per Piece (excluding packing)	168.400 g
Custom tariff number	85364900
Country of origin	Austria

Technical data

Note

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Technical data

Note

Utilization restriction	EMC: class A product, see manufacturer's declaration in the download area

Dimensions

Width	22.5 mm
Height	90 mm
Depth	113 mm

Ambient conditions

Ambient temperature (operation)	-25 °C ... 55 °C
	-25 °C ... 40 °C (corresponds to UL 508)
Ambient temperature (storage/transport)	-25 °C ... 70 °C

Input data

Nominal input voltage U_N	3 N ~ 415/240 V
Input voltage range	40 V AC ... 415 V AC (1(N) ~, single-phase load)
	40 V AC ... 415 V AC (3(N) ~, 3-phase load)
Input current range	0.5 A ... 10 A (Connection terminal blocks: L1i and L1k)
Overload capacity	12 A permanent
Maximum temperature coefficient	≤ 0.1 %/K
Function	Underload, overload, Window
Setting range for response delay	0.1 s ... 40 s
Setting range for starting delay	1 s ... 100 s
Basic accuracy	± 5 % (At cos ϕ = 0.8)
Setting accuracy	≤ 5 % (At cos ϕ = 0.8)
Repeat accuracy	± 1.8 %
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)
	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 ... 240 V AC -15 % ... +10 %
	24 V DC ... 240 V DC (-20 % ... +25 %)

General

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

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Technical data

General

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

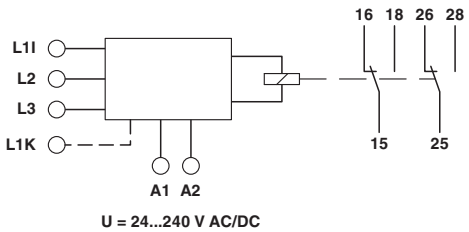
Conductor cross section flexible min.	0.25 mm²
Conductor cross section flexible max.	2.5 mm²
Conductor cross section solid min.	0.5 mm²
Conductor cross section solid max.	2.5 mm²
Conductor cross section AWG min.	20
Conductor cross section AWG max.	14
Stripping length	8 mm
Connection method	Screw connection

Standards and Regulations

Electromagnetic compatibility	Conformance with EMC Directive 2004/108/EC
Noise emission	EN 61000-6-4
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

Drawings

Block diagram



Classifications

eCl@ss

eCl@ss 4.0	27371105
eCl@ss 4.1	27371105
eCl@ss 5.0	27371801

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Classifications

eCl@ss

eCl@ss 5.1	27371801
eCl@ss 6.0	27371801
eCl@ss 7.0	27371801
eCl@ss 8.0	27371806
eCl@ss 9.0	27371806

ETIM

ETIM 2.0	EC001438
ETIM 3.0	EC001438
ETIM 4.0	EC001438
ETIM 5.0	EC001443
ETIM 6.0	EC001443

UNSPSC

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

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Approvals

EAC		EAC-Zulassung
EAC		RU C-DE.A*30.B.01082
cULus Listed		