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- German
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Worldwide English

EMR6-I1-A-1 - Overcurrent and undercurrent monitor, Current measuring range: 3 - 30 mA, 10 - 100 mA, 0.1 - 1 A, Supply voltage: 24 - 240 V AC, 50/60 Hz, 24 - 240 V DC

184790 EMR6-I1-A-1

Overview Specifications Resources

184790 EMR6-I1-A-1

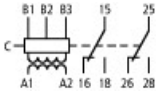
Overcurrent and undercurrent monitor, Current measuring range: 3 - 30 mA, 10 - 100 mA, 0.1 - 1 A, Supply voltage: 24 - 240 V AC, 50/60 Hz, 24 - 240 V DC

Alternate Catalog No.	EMR6-I1-A-1
EL-Nummer (Norway)	4101986

Current monitoring relays, Product range: EMR Measuring and monitoring relays, Monitoring of single-phase DC and AC networks, On delay: None = 0 or adjustable from 0.1 to 30 s, Extension of the measurement range possible with current transformers, Monitoring of: Overcurrent, Undercurrent, Current measuring range: I-/I= 3 - 30 mA, 10 - 100 mA, 0.1 - 1 A A, Supply voltage: 24 - 240 V AC, 50/60 Hz, 24 - 240 V DC, Mounting position: As required, Fixing: Snap fixing, top-hat rail IEC/EN 60715, Width: 22.5 mm, Standards: UL 508, CAN/CSA C22.2 No.14, GL, EAC, CCC, RMRS

Delivery program

Product range
EMR Measuring and monitoring relays
Basic function
Current monitoring relays
Monitoring of single-phase DC and AC networks
On delay: None = 0 or adjustable from 0.1 to 30 s
Extension of the measurement range possible with current transformers
Monitoring of
Overcurrent
Undercurrent
Current measuring range [I□/I=]
3 - 30 mA
10 - 100 mA
0.1 - 1 A A
Contact sequence



Supply voltage
24 - 240 V AC, 50/60 Hz
24 - 240 V DC
Width
22.5 mm

Technical data

General
Standards
UL 508, CAN/CSA C22.2 No.14, GL, EAC, CCC, RMRS
Lifespan, mechanical [Operations]
30 x 10^6
Climatic proofing
Damp heat, cyclical to IEC 60068-2-30: 24 h cycle, 55° C, 93% relative humidity, 96 h
Ambient temperatureOperationOperating ambient temperature min.
-25 °C
Ambient temperatureOperationOperating ambient temperature max.
+60 °C
Ambient temperatureStorage
- 40 - 85 °C
Mounting position
As required
Shock resistance
Class 2
Degree of protectionTerminals
IP20
Degree of protectionEnclosures
IP50
Terminal capacitiesSolid
1 x 0.5-2.5 (1 x 18-14 AWG) mm^2
Terminal capacitiesFlexible with ferrule
2 x 0.5-1.5 (2 x 18-16 AWG) mm^2
Standard screwdriver
4 x 0.8 mm
Tightening torque
0.6 - 0.8 Nm
Fixing
Snap fixing, top-hat rail IEC/EN 60715
MTBF (mean time between failures)
382467 h
Contacts
Rated impulse withstand voltage [U_{imp}]
4000 V AC
Overvoltage category/pollution degree
III/3
Power supply
Supply voltage
24 - 240 V AC, 50/60 Hz
24 - 240 V DC
Voltage tolerance
0.85 - 1.1 x U_c
Power consumption
2.6 VA
Rated frequency [f]
50 - 60 Hz
Duty factor
100 % DF
Timing cycle
Reset delay/Off-delay time
Adjustable from 0.1 – 30 s
Time error within supply voltage
0.5 %
Time error within temperature range
0.06 %/°C
Measuring circuits
InputsB1-C
0.003 - 0.03 A
InputsB2-C
0.01 - 0.1 A
InputsB3-C
0.1 - 1 A
Hysteresis
3…30 %

Measuring cycle
80 ms
Temperature error
0.06 %/°C
Error within supply voltage
0.5 %
Status indication
Supply voltage
LED, green
Output relay energized
LED, yellow
Measured value
LED, red
Status indicator (LED)
Green, solid: Supply voltage
Green, flashing: Release delay active
Yellow, solid: Output relay excited
Red, flashing: Undercurrent
Relay output contacts
Rated operational voltage [U_e]
250 V AC
Rated operational current [I_e]AC-12 at 230 V [I_e]
4 A
Rated operational current [I_e]AC-15 with 230 V [I_e]
3 A
Rated operational current [I_e]DC-12 at 24 V [I_e]
4 A
Rated operational current [I_e]DC-13 at 24 V [I_e]
2 A
Minimum Switching capacity
10 mA / 24 V
Lifespan, electrical (AC-12/230 V/4 A) [Operations]Lifespan, electrical [Operations]
0.1 x 10^6
Short-circuit ratingmax. fuse [Fast/gL]
10 A
Electromagnetic compatibility (EMC)
Electromagnetic compatibility
IEC/EN 60947-6-2
ESD [Air/contact discharge]
IEC/EN 61000-4-2 level 3 kV
HF-immunity to radiation
IEC/EN 61000-4-3 level 3
Burst
IEC/EN 61000-4-4 level 3
Surge
IEC/EN 61000-4-5 Level 4
HF-immunity to line-conducted interference
IEC/EN 61000-4-6 level 3

Design verification as per IEC/EN 61439

Operating ambient temperature min.
-25 °C
Operating ambient temperature max.
+60 °C

Technical data ETIM 7.0

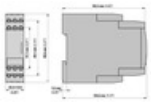
Relays (EG000019) / Current monitoring relay (EC001440)
Electric engineering, automation, process control engineering / Low-voltage switch technology / Monitoring equipment (low-voltage switch technology) / Current monitoring equipment (ecl@ss10.0.1-27-37-18-02 [AKF096014])
Type of electric connection
Screw connection
With detachable clamps
No
Single-phase under current possible
Yes
Three-phase under current possible
No
Single-phase over current possible

Yes
Three-phase over current possible
No
Single-phase hysteresis possible
No
Three-phase hysteresis possible
No
Contains function DC-voltage under current
Yes
Contains function DC-voltage over current
Yes
Function DC-current hysteresis
No
Rated control supply voltage Us at AC 50HZ
24 - 240 V
Rated control supply voltage Us at AC 60HZ
24 - 240 V
Rated control supply voltage Us at DC
24 - 240 V
Voltage type for actuating
AC/DC
Current measurement range
0.01 - 1 A
Min. adjustable delay-on energization time
0.1 s
Max. permitted delay-on energization time
30 s
Min. adjustable off-delay time
0 s
Max. permitted off-delay time
0 s
Number of contacts as normally closed contact
0
Number of contacts as normally open contact
0
Number of contacts as change-over contact
2
External current transformer
Width
22.5 mm
Height
85.6 mm
Depth
104.6 mm

Approvals

Product Standards
IEC 255-6; UL 508; CSA-22.2 No. 14-05; CE marking
UL File No.
E29184
UL Category Control No.
NKCR, NKCR7
CSA File No.
UL report valid
CSA Class No.
3211-03
North America Certification
UL listed, certified by UL for use in Canada

Dimensions



CAD data

- Product-specific CAD data

(Web)
- 3D Preview
(Web)

DWG files

- DA-CD-emr6_r_t_v_i
File
(Web)

edz files

- DA-CE-ETN.EMR6-I1-A-1
File
(Web)

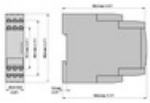
Step files

- DA-CS-emr6_r_t_v_i
File
(Web)

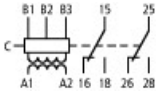
Additional product information

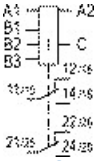
- Current monitoring relays
(Web)

Product photo

- 
2430DIM-2
Photo
- 
2430PIC-9
Photo

Wiring diagram

- 

240S024
Line drawing
Current monitor
- 

2430SWI-1
Line drawing

3D drawing

- 
2401012
Line drawing
Phase imbalance monitoring relay

Instruction Leaflet

- Single-phase current monitoring relays (IL121004ZU)
  Asset
  (PDF, multilingual)

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