



Powering Business Worldwide



184755

EMR6-I15-B-1



Overview



Specifications



Resources



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## DELIVERY PROGRAM

Product range  
EMR Measuring and monitoring relays

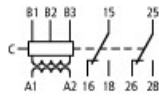
Basic function  
Current monitoring relays

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 [ $I_{\square}/I_F$ ]  
0.3 - 1.5 A  
1 - 5 A  
3 - 15 A A

Contact sequence



Supply voltage  
220 - 240 V AC, 50/60 Hz

Width  
22.5 mm

## TECHNICAL DATA

### General

Standards  
UL 508, CAN/CSA C22.2 No.14, GL, EAC, CCC,  
RVRS

Lifespan, mechanical [Operations]  
 $30 \times 10^6$

Climatic proofing  
Damp heat, cyclical to IEC 60068-2-30: 24 h cycle,  
55° C, 93% relative humidity, 96 h

Ambient temperature  
Operation  
Operating ambient temperature min.  
-25 °C

Ambient temperature  
Operation  
Operating ambient temperature max.  
+60 °C

Ambient temperature  
Storage  
- 40 - 85 °C

Mounting position  
As required

Shock resistance  
Class 2

Degree of protection  
Terminals  
IP20

Degree of protection  
Enclosures  
IP50

Terminal capacities  
Solid  
1 x 0.5-2.5 (1 x 18-14 AWG) mm<sup>2</sup>

Terminal capacities  
Flexible with ferrule  
2 x 0.5-1.5 (2 x 18-16 AWG) mm<sup>2</sup>

Standard screw driver  
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  
220 - 240 V AC, 50/60 Hz

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

Inputs  
B1-C  
0.3 - 1.5 A

Inputs  
B2-C  
1 - 5 A

Inputs  
B3-C  
3 - 15 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]  
 $0.1 \times 10^6$

Short-circuit rating  
max. 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  $U_s$  at AC 50-HZ  
220 - 240 V

Rated control supply voltage  $U_s$  at AC 60-HZ  
220 - 240 V

Rated control supply voltage  $U_s$  at DC  
220 - 240 V

Voltage type for actuating  
AC/DC

Current measurement range  
0.3 - 15 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

