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PFR-5 - Earth-leakage circuit-breaker 0, 03-5 A



285557 PFR-5

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## 285557 PFR-5

Earth-leakage circuit-breaker 0, 03-5 A

EL-Nummer (Norway)

4365085

Optional accessories for circuit-breaker series NZM offers a comprehensive portfolio of application possibilities for worldwide use. Modular functional groups make mounting flexible and simple. Note: Pulsed current sensitive. Rated control voltage:  $V_s = 230 \text{ V AC (50/60 Hz)}$ . Integrated auxiliary contact (1 C/O). Ring-type transformer must also be ordered. Not UL/CSA approved. Adjustable fault current and delay time. Fault current early warning by flashing, red LED. Fault current settable: 0.03, 0.1, 0.3, 0.5, 5 A. delay time adjustable: 0.02, 0.1, 0.3, 0.5, 5 s. Can be used for: NZM1, NZM1-4, N1, N1-4, NZM2, NZM2-4, N2, N2-4, NZM3, NZM3-4, N3, N3-4, NZM4, NZM4-4, N4-4

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### Delivery program

Rated fault currents [ $I_{\Delta n}$ ]  
0.03, 0.1, 0.3, 0.5, 1, 3, 5 A

Description

Adjustable fault current and delay time

Fault current early warning by flashing, red LED

Pulse-current sensitive

Integrated auxiliary contact (1 C/O)

Ring-type transformer must also be ordered

not UL/CSA approved

Rated control voltage [ $U_s$ ]

230 V AC 50/60 Hz V

**Notes**

Adjustable fault current: 0.03, 0.1, 0.3, 0.5, 1, 3, 5 A

Adjustable delay time: 0.02, 0.1, 0.3, 0.5, 1, 3, 5 A

### Technical data

Electrical

Standards

IEC/EN 60947-2, IEC 755, IEC 1008, IEC 1009

Sensitivity

Pulse current sensitive, type A

Rated control voltage [ $U_s$ ]

230  $\pm$ 20 % (50/60 Hz) V AC

Motor rating [ $P_a$ ]  
 3 W  
 Rated fault currents [ $I_{\Delta n}$ ]  
 0.03, 0.1, 0.3, 0.5, 1, 3, 5 A  
 Delay time [ $t_d$ ]  
 0.02, 0.1, 0.3, 0.5, 1, 3, 5 s  
 Relay contacts  
 1 integrated changeover contact  
 Rated voltage of the relay contact  
 250/100 V AC/DC  
 Rated current of the relay contact  
 6 A  
 Mechanical  
 Standard front dimension  
 45 mm  
 Enclosure height  
 85 mm  
 Device width  
 45 mm  
 Mounting  
 Snap fixing, top-hat rail DIN 46277, IEC/EN 60715  
 Terminals top and bottom  
 Box terminals  
 Terminal protection  
 Finger/back-of-hand proof to BGV A2, VDE 106 part 100  
 Terminal capacities  
 2 x 0.75 - 2.5 solid, 2 x 0.75 - 1.5 flexible/with ferrules mm<sup>2</sup>  
 Sealability  
 Setting buttons  
 Ambient temperature  
 Operation  
 -10 - +50 °C

## Design verification as per IEC/EN 61439

Technical data for design verification

Operating ambient temperature min.

-10 °C

Operating ambient temperature max.

+50 °C

IEC/EN 61439 design verification

10.2 Strength of materials and parts 10.2.2 Corrosion resistance

Meets the product standard's requirements.

10.2 Strength of materials and parts 10.2.3.1 Verification of thermal stability of enclosures

Meets the product standard's requirements.

10.2 Strength of materials and parts 10.2.3.2 Verification of resistance of insulating materials to normal heat

Meets the product standard's requirements.

10.2 Strength of materials and parts 10.2.3.3 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects

Meets the product standard's requirements.

10.2 Strength of materials and parts 10.2.4 Resistance to ultra-violet (UV) radiation

Meets the product standard's requirements.

10.2 Strength of materials and parts 10.2.5 Lifting

Does not apply, since the entire switchgear needs to be evaluated.

10.2 Strength of materials and parts 10.2.6 Mechanical impact

Does not apply, since the entire switchgear needs to be evaluated.

10.2 Strength of materials and parts 10.2.7 Inscriptions

Meets the product standard's requirements.

10.3 Degree of protection of ASSEMBLIES

Does not apply, since the entire switchgear needs to be evaluated.

10.4 Clearances and creepage distances

Meets the product standard's requirements.

10.5 Protection against electric shock

Does not apply, since the entire switchgear needs to be evaluated.

10.6 Incorporation of switching devices and components

Does not apply, since the entire switchgear needs to be evaluated.

10.7 Internal electrical circuits and connections

Is the panel builder's responsibility.

10.8 Connections for external conductors

Is the panel builder's responsibility.

10.9 Insulation properties 10.9.2 Power-frequency electric strength

Is the panel builder's responsibility.

10.9 Insulation properties 10.9.3 Impulse withstand voltage

Is the panel builder's responsibility.

10.9 Insulation properties 10.9.4 Testing of enclosures made of insulating material

Is the panel builder's responsibility.

10.10 Temperature rise

The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.

10.11 Short-circuit rating

Is the panel builder's responsibility. The specifications for the switchgear must be observed.

10.12 Electromagnetic compatibility

Is the panel builder's responsibility. The specifications for the switchgear must be observed.

10.13 Mechanical function

The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.

## Technical data ETIM 7.0

Low-voltage industrial components (EG000017) / Residual current release for power circuit breaker (EC001021)

Electric engineering, automation, process control engineering / Low-voltage switch technology / Circuit breaker (LV < 1 kV) / Fault current switch for circuit breakers (ecl@ss10.0.1-27-37-04-11 [AKF009013])

Rated control supply voltage  $U_s$  at AC 50HZ

184 - 276 V

Rated control supply voltage  $U_s$  at AC 60HZ

184 - 276 V

Rated control supply voltage  $U_s$  at DC

0 - 0 V

Rated fault current

0.03 - 5 A

Max. power on-delay time

5000 ms

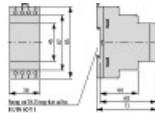
Delay adjustable

Yes

Max. rated operation voltage  $U_e$

276 V

## Dimensions



## CAD data

- [Product-specific CAD data](#)  
(Web)
- [3D Preview](#)  
(Web)

## DWG files

- [DA-CD-pfr\\_5](#)  
File  
(Web)

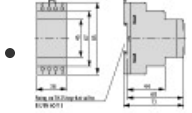
## edz files

- [DA-CE-ETN.PFR-5](#)  
File  
(Web)

## Step files

- [DA-CS-pfr\\_5](#)  
File  
(Web)

# Dimensions single product



123X563

Line drawing  
Fixing on the top-hat rail

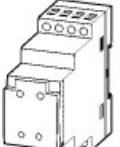
# Product photo



1230PIC-792

Photo

# 3D drawing



1230DRV-67

Line drawing  
Fault current relay, sensitive to pulsating current

# Instruction Leaflet

- [IL01219036Z](#)  
Asset  
(PDF, Language independent)

# Declaration of Conformity

## EU

- [DA-DC-03\\_PFR\\_181019](#)  
Asset  
(PDF)

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