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136490

Eaton Moeller® series ZEB Overload relay, Direct mounting, Earth-fault protection: with, Ir= 0.33 - 1.65 A, 1 N/O, 1 N/C ZEB32-1,65-GF

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General specifications

Product Name

Eaton Moeller® series ZEB Electronic overload Relay

Catalog Number

136490

Model Code

ZEB32-1,65-GF

EAN

4015081332700

Product Length/Depth

108 mm

Product Height

110 mm

Product Width

45 mm

Product Weight

0.24 kg

Certifications

UL 508

CSA Class No.: 3211-03

UL Category Control No.: NKCR

UL File No.: E1230

CSA File No.: 2290956

IEC/EN 60947-4-1

UL

IEC/EN 60947

CSA-C22.2 No. 14

VDE 0660

CE

CSA

Catalog Notes

Rated operational current: Switch-on and switch-off conditions based on DC-13, time constant as specified.

Product specifications

Rated operational current for specified heat dissipation (In)

1.65 A

Terminal capacity (flexible with ferrule)

2 x (0.75 - 2.5) mm², Control circuit cables

10.11 Short-circuit rating

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

Stripping length (control circuit cable)

8 mm

Operating voltage at AC, 50 Hz - max

690 V

Rated control supply voltage (Us) at AC, 50 Hz - min

0 V

10.4 Clearances and creepage distances

Meets the product standard's requirements.

10.12 Electromagnetic compatibility

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

Mounting method

Direct attachment

Direct mounting

10.2.5 Lifting

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

Stripping length (main cable)

13 mm

Ambient operating temperature (enclosed) - max

65 °C

Operating voltage at DC - max

0 V

10.2.3.1 Verification of thermal stability of enclosures

Meets the product standard's requirements.

Reset function

Push-button

Automatic

Rated control supply voltage (Us) at DC - min

0 V

Short-circuit current rating (basic rating)

6 A RK5, max. Fuse, SCCR (UL/CSA)

1 kA, SCCR (UL/CSA)

Rated control supply voltage (Us) at AC, 50 Hz - max

0 V

10.8 Connections for external conductors

Is the panel builder's responsibility.

Screw size

M3.5, Terminal screw, Control circuit cables

Adjustable current range - min

0.33 A

Protection

Finger and back-of-hand proof, Protection against direct contact when actuated from front (EN 50274)

Operating voltage at DC - min

0 V

Ambient operating temperature - max

65 °C

Climatic proofing

Damp heat, constant, to IEC 60068-2-78

Damp heat, cyclic, to IEC 60068-2-30

Features

Phase-failure sensitivity (according to IEC/EN 60947, VDE 0660 Part 102)

Static heat dissipation, non-current-dependent Pvs

0 W

Electrical connection type of main circuit

Screw connection

Rated control supply voltage (Us) at DC - max

0 V

10.9.3 Impulse withstand voltage

Is the panel builder's responsibility.

Voltage rating - max

600 V

Ambient operating temperature - min

-25 °C

10.6 Incorporation of switching devices and components

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

10.5 Protection against electric shock

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

Earth fault protection

Trip at approx. > 0.5 x Ir in 2 s

Yes

Trip at approx. > 1.5 x Ir in 1 s

Safe isolation

440 V, Between auxiliary contacts and main contacts, According to EN 61140

240 V AC, Between auxiliary contacts, According to EN 61140

600 V AC, Between main circuits, According to EN 61140

Operating voltage at AC, 50 Hz - min

230 V

Rated operational current (Ie) at AC-15, 220 V, 230 V, 240 V

1.5 A

Class

Adjustable

10.13 Mechanical function

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

10.2.6 Mechanical impact

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

10.9.4 Testing of enclosures made of insulating material

Is the panel builder's responsibility.

Number of contacts (normally closed contacts)

1

10.3 Degree of protection of assemblies

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

Heat dissipation per pole, current-dependent Pvid

0.17 W

Rated operational current (Ie) at AC-15, 380 V, 400 V, 415 V

0.9 A

Voltage type

Self powered

Product Category

Electronic overload relays ZEB

Overload release current setting - min

0.33 A

Equipment heat dissipation, current-dependent Pvid

0.5 W

Heat dissipation capacity Pdis

0 W

Rated operational current (Ie) at DC-13, 60 V

0.75 A

Suitable for

Branch circuits, (UL/CSA)

Terminal capacity (solid)

1 x (1.5 - 16) mm², Main cables

2 x (0.75 - 4) mm², Control circuit cables

Number of auxiliary contacts (normally closed contacts)

1

Rated frequency - min

50 Hz

10.2.3.2 Verification of resistance of insulating materials to normal heat

Meets the product standard's requirements.

10.2.3.3 Resist. of insul. mat. to abnormal heat/fire by internal elect. effects

Meets the product standard's requirements.

Rated operational current (Ie) at DC-13, 220 V, 230 V

0.2 A

Conventional thermal current ith of auxiliary contacts (1-pole, open)

5 A

Operating voltage at AC, 60 Hz - max

690 V


Overload release current setting - max

1.65 A

Terminal capacity (solid/stranded AWG)

2 x (18 - 12), Control circuit cables

1 x (14 - 4), Main cables
 10.9.2 Power-frequency electric strength
 Is the panel builder's responsibility.
 Degree of protection
 IP20
 Overvoltage category
 III
 Rated frequency - max
 60 Hz
 Number of auxiliary contacts (change-over contacts)
 0
 Voltage type of operating voltage
 AC
 Rated operational voltage (Ue) at AC - max
 690 V
 Pollution degree
 3
 Rated control supply voltage (Us) at AC, 60 Hz - min
 0 V
 10.7 Internal electrical circuits and connections
 Is the panel builder's responsibility.
 Rated impulse withstand voltage (Uimp)
 6000 V (auxiliary circuits)
 6000 V AC
 10.10 Temperature rise
 The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.
 Functions
 Filament bulb (24 V)
 Operating voltage at AC, 60 Hz - min
 230 V
 Tightening torque
 0.8 - 1.2 Nm, Screw terminals, Control circuit cables
 7 lb-in, Screw terminals
 Adjustable current range - max
 1.65 A
 Screwdriver size
 1 x 6 mm, Terminal screw, Standard screwdriver
 2, Terminal screw, Pozidriv screwdriver
 Rated operational current (Ie) at AC-15, 120 V
 1.5 A
 10.2.2 Corrosion resistance
 Meets the product standard's requirements.
 10.2.4 Resistance to ultra-violet (UV) radiation
 Meets the product standard's requirements.
 10.2.7 Inscriptions
 Meets the product standard's requirements.
 Rated control supply voltage (Us) at AC, 60 Hz - max
 0 V
 Number of contacts (normally open contacts)
 1
 Short-circuit protection rating
 Max. 6 A gG/gL, fuse, Without welding, Auxiliary and control circuits
 Number of auxiliary contacts (normally open contacts)
 1
 Rated operational current (Ie) at DC-13, 110 V
 0.4 A
 Shock resistance
 Mechanical, According to IEC/EN 60068-2-27
 15 g, Mechanical, According to IEC/EN 60068-2-27, Shock duration 10 ms
 Rated operational current (Ie) at DC-13, 24 V
 0.9 A
 Switching capacity (auxiliary contacts, pilot duty)
 R300, DC operated (UL/CSA)
 B600, AC operated (UL/CSA)
 Serial Number Verified :

Authenticated: 
The product is verified as being authentic; however, this does not guarantee the condition or fit for purpose of the product.

Brochures

- [Motor Starters in System xStart - brochure](#)
- [Electronic overload relay ZEB](#)

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Characteristic curve

- [eaton-tripping-devices-zeb-overload-relay-characteristic-curve.eps](#)

Declarations of conformity

- [DA-DC-00004872.pdf](#)

Drawings

- [eaton-tripping-devices-zeb-overload-relay-dimensions-002.eps](#)
- [eaton-tripping-devices-zeb-overload-relay-3d-drawing-007.eps](#)

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eCAD model

- [DA-CE-ETN.ZEB32-1.65-GF](#)

Installation instructions

- [IL04210002E](#)

mCAD model

- [zeb32_kk.dwg](#)
- [zeb32.dwg](#)
- [zeb32.stp](#)

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Wiring diagrams


- [eaton-tripping-devices-overload-relay-zb-overload-relay-wiring-diagram.eps](#)
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