Specifications

Eaton 210074



Catalog Number: 210074

Eaton Moeller® series Z5 Overload relay, Ir= 160 - 220 A, 1 N/O, 1 N/C, For use with: DILM250, DILM300A

General specifications

Product Name
Eaton Moeller® series Z5 Thermal overload relay

Catalog Number
210074

EAN
4015082100742

Product Length/Depth
146 mm

Product Height
167 mm

Product Width
128 mm

Product Weight
1.75 kg

Certifications
UL File No.: E29184
CSA File No.: 012528
CSA-C22.2 No. 60947-4-1-14
UL Category Control No.: NKCR
CE
UL 60947-4-1
VDE 0660
UL
CSA
IEC/EN 60947
IEC/EN 60947-4-1
CSA Class No.: 3211-03

Powering Business Worldwide

Product specifications

Features

Trip-free release

Test/off button

Reset pushbutton manual/auto

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

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.

10.2.2 Corrosion resistance

Meets the product standard's requirements.

10.2.3.1 Verification of thermal stability of enclosures

Meets the product standard's requirements.

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.

10.2.4 Resistance to ultra-violet (UV) radiation

Meets the product standard's requirements.

10.2.5 Lifting

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

10.2.6 Mechanical impact

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

10.2.7 Inscriptions

Meets the product standard's requirements.

Resources

Catalogs

Product Range Catalog Switching and protecting motors

eaton-product-overview-for-machinery-catalogue-ca08103003zen-en-us.pdf

Characteristic curve

eaton-tripping-z5-overload-relay-characteristic-curve-002.eps

eaton-tripping-z5-overload-relay-characteristic-curve.eps

Declarations of conformity

DA-DC-00004856.pdf

DA-DC-00004846.pdf

Drawings

eaton-tripping-devices-overload-relay-z5-overload-relay-dimensions-002.eps

eaton-tripping-devices-overload-relay-z5-overload-relay-3d-drawing.eps

eCAD model

ETN.210074.edz

Installation instructions

eaton-overload-relays-z5-zb150-il03407006z.pdf

IL03407102Z2010_10

IL03407081Z

Manuals and user guides

DA-MN-h1476dgb

mCAD model

DA-CS-z5_ff250

DA-CD-z5_ff250

Wiring diagrams

eaton-general-release-zeb-overload-relay-wiring-diagram.eps

eaton-tripping-devices-overload-relay-zeb-overload-relay-wiring-diagram.eps

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.

10.9.2 Power-frequency electric strength

Is the panel builder's responsibility.

10.9.3 Impulse withstand voltage

Is the panel builder's responsibility.

10.9.4 Testing of enclosures made of insulating material

Is the panel builder's responsibility.

Pollution degree

3

Class

CLASS 10 A

Climatic proofing

Damp heat, constant, to IEC 60068-2-78
Damp heat, cyclic, to IEC 60068-2-30

Rated impulse withstand voltage (Uimp)

8000 V AC
4000 V (auxiliary and control circuits)

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

1.5 A

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

0.9 A

Rated operational current (Ie) at DC-13, 110 V

0.4 A

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

0.2 A

Rated operational current (Ie) at DC-13, 24 V

0.9 A

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

0.75 A

Rated operational current for specified heat dissipation (In)

220 A

Static heat dissipation, non-current-dependent Pvs

0 W

Stripping length (control circuit cable)

8 mm

Voltage rating - max

600 VAC

Product category

Overload relay Z5

Protection

With terminal cover, Protection against direct contact when actuated from front (EN 50274)

Adjustable current range - max

220 A

Adjustable current range - min

160 A

Ambient operating temperature - max

60 °C

Ambient operating temperature - min

-25 °C

Ambient operating temperature (enclosed) - max

40 °C

Ambient operating temperature (enclosed) - min

25 °C

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

6 A

Equipment heat dissipation, current-dependent Pvid

37.8 W

Heat dissipation capacity Pdiss

0 W

Heat dissipation per pole, current-dependent Pvid

12.6 W

Number of auxiliary contacts (change-over contacts)

0

Number of auxiliary contacts (normally closed contacts)

1

Number of auxiliary contacts (normally open contacts)

1

Number of contacts (normally closed contacts)

1

Number of contacts (normally open contacts)

1

Overload release current setting - max

220 A

Overload release current setting - min

160 A

Rated operational voltage (Ue) - max

1000 V

Rated operational current (Ie) at AC-15, 120 V

1.5 A

Electrical connection type of main circuit

Screw connection

Reset function

Push-button

Automatic

Screwdriver size

1 x 6 mm, Terminal screw, Control circuit cables, Standard screwdriver

2, Terminal screw, Control circuit cables, Pozidriv screwdriver

Mounting method

Direct mounting

Separate mounting

Direct attachment/single positioning

Degree of protection

IP00

Overvoltage category

III

Safe isolation

240 V AC, Between auxiliary contacts, According to EN 61140
440 V, Between auxiliary contacts and main contacts, According to EN 61140
500 V AC, Between main circuits, According to EN 61140

Screw size

M3.5, Terminal screw, Control circuit cables
M10 x 35, Terminal screw, Main connections

Shock resistance

10 g, Mechanical, Sinusoidal, Shock duration 10 ms

Short-circuit current rating (basic rating)

800 A, max. CB, SCCR (UL/CSA)
10 kA, SCCR (UL/CSA)
800 A Class L, max. Fuse, SCCR (UL/CSA)

Switching capacity (auxiliary contacts, pilot duty)

B600 at opposite polarity, AC operated (UL/CSA)
R300, DC operated (UL/CSA)
B300 at opposite polarity, AC operated (UL/CSA)

Short-circuit protection rating

Max. 6 A gG/gL, fuse, Without welding, Auxiliary and control circuits
400 A gG/gL, Fuse, Type “1” coordination
500 A gG/gL, Fuse, Type “1” coordination
400 A gG/gL, Fuse, Type “2” coordination
315 A gG/gL, Fuse, Type “2” coordination

Suitable for

Branch circuits, (UL/CSA)

Temperature compensation

≤ 0.25 %/K, residual error for T > 40°
Continuous

Terminal capacity (busbar)

25 mm width, Main connection

Terminal capacity (flexible with cable lug)

185 mm²

Terminal capacity (flexible with ferrule)

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

Terminal capacity (solid)

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

Terminal capacity (solid/stranded AWG)

2/0 - 500 MCM, Main cables

2 x (18 - 14), Control circuit cables

Terminal capacity (stranded with cable lug)

185 mm²

Tightening torque

18 Nm, Main cable connection screw/bolt

1.2 Nm, Screw terminals, Control circuit cables

Width across flats

16 mm (Hexagon head spanner SW)

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