

Overload relay, 70-100A, sep mtg

Cat Number: ZB150-100/KK



Eaton Moeller® series ZB Overload relay, ZB150, Ir= 70 - 100 A, 1 N/O, 1 N/C, Separate mounting, IP00

Technical Specifications:

Product Length/Depth | 134 mm

Product Height | 121 mm

Product Width | 118 mm

Product Weight | 1.463 kg

Certifications | UL 60947-4-1

CSA Class No.: 3211-03

UL

UL Category Control No.: NKCR

CSA File No.: 012528

IEC/EN 60947

CE

IEC/EN 60947-4-1

CSA

UL File No.: E29184

CSA-C22.2 No. 60947-4-1-14

VDE 0660

Features | Test/off button

Reset pushbutton manual/auto

Trip-free release

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

Ambient operating temperature - min | -25 °C

Ambient operating temperature - max | 55 °C

Ambient operating temperature (enclosed) - min | 25 °C

Ambient operating temperature (enclosed) - max | 40 °C

Class | CLASS 10 A

Climatic proofing | Damp heat, constant, to IEC 60068-2-78

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

Degree of protection | IP00

Frame size | ZB150

Mounting method | Direct attachment

Separate mounting

Overload release current setting - min | 70 A

Overload release current setting - max | 100 A

Overvoltage category | III

Pollution degree | 3

Product category | Accessories

Overload relay ZB up to 150 A

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

Rated impulse withstand voltage (Uimp) | 8000 V AC

4000 V (auxiliary and control circuits)

Shock resistance | 10 g, Mechanical, Sinusoidal, Shock duration 10 ms

Suitable for | Branch circuits, (UL/CSA)

Temperature compensation |  $\leq 0.25\ \%/K$ , residual error for  $T > 40^\circ$

Continuous

Terminal capacity (flexible with ferrule) | 1 x (4 - 70) mm<sup>2</sup>, Main cables

2 x (0.75 - 2.5) mm<sup>2</sup>, Control circuit cables

1 x (0.75 - 2.5) mm<sup>2</sup>, Control circuit cables

2 x (4 - 70) mm<sup>2</sup>, Main cables

Terminal capacity (solid) | 2 x (0.75 - 4) mm<sup>2</sup>, Control circuit cables  
1 x (0.75 - 4) mm<sup>2</sup>, Control circuit cables  
1 x (4 - 16) mm<sup>2</sup>, Main cables  
2 x (4 - 16) mm<sup>2</sup>, Main cables  
Terminal capacity (solid/stranded AWG) | 3/0, Main cables  
2 x (18 - 14), Control circuit cables  
Terminal capacity (stranded) | 2 x (16 - 70) mm<sup>2</sup>, Main cables  
1 x (16 - 70) mm<sup>2</sup>, Main cables  
Stripping length (main cable) | 24 mm  
Stripping length (control circuit cable) | 8 mm  
Screw size | 5 mm AF, Hexagon socket-head spanner, Terminal screw, Main cables  
M10, Terminal screw, Main cables  
M3.5, Terminal screw, Control circuit cables  
Screwdriver size | 2, Terminal screw, Control circuit cables, Pozidriv screwdriver  
1 x 6 mm, Terminal screw, Control circuit cables, Standard screwdriver  
Tightening torque | 10 Nm, Screw terminals, Main cables  
1.2 Nm, Screw terminals, Control circuit cables  
Conventional thermal current ith of auxiliary contacts (1-pole, open) | 6 A  
Rated operational current (Ie) at AC-15, 120 V | 1.5 A  
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 voltage (Ue) - max | 1000 V  
Safe isolation | 440 V AC, Between main circuits, According to EN 61140  
440 V, Between auxiliary contacts and main contacts, According to EN 61140  
240 V AC, Between auxiliary contacts, According to EN 61140  
Switching capacity (auxiliary contacts, pilot duty) | R300, DC operated (UL/CSA)  
B300 at opposite polarity, AC operated (UL/CSA)  
B600 at opposite polarity, AC operated (UL/CSA)  
Voltage rating - max | 600 VAC  
Short-circuit current rating (basic rating) | 200 A Class J, max. Fuse, SCCR (UL/CSA)  
10 kA, SCCR (UL/CSA)

Short-circuit protection rating | 315 A gG/gL, Fuse, Type “1” coordination

Max. 6 A gG/gL, fuse, Without welding, Auxiliary and control circuits

200 A gG/gL, Fuse, Type “2” coordination

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

Equipment heat dissipation, current-dependent  $P_{vid}$  | 25.2 W

Heat dissipation capacity  $P_{diss}$  | 0 W

Heat dissipation per pole, current-dependent  $P_{vid}$  | 8.4 W

Rated operational current for specified heat dissipation ( $I_n$ ) | 100 A

Static heat dissipation, non-current-dependent  $P_{vs}$  | 0 W

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.

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.

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.