

GENERAL SPECIFICATIONS

General specifications

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PRODUCT NAME

Eaton Moeller® series ZEB Electronic overload Rel

Product specifications

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CATALOG NUMBER

136484

MODEL CODE

ZEB12-5-GF

EAN

4015081332649

PRODUCT LENGTH/DEPTH

108 mm

PRODUCT HEIGHT

110 mm

PRODUCT WIDTH

45 mm

PRODUCT WEIGHT

0.245 kg

CERTIFICATIONS CSA Class No.: 3211-03

UL

VDE 0660

CSA File No.: 2290956

CE

CSA-C22.2 No. 14

CSA

UL Category Control No.: NKCR

UL 508

UL File No.: E1230

IEC/EN 60947

IEC/EN 60947-4-1

CATALOG NOTES

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

PRODUCT SPECIFICATIONS

RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN) 5 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 specification 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 specification must be observed.

MOUNTING METHOD

Direct mounting
Direct attachment

10.2.5 LIFTING

Does not apply since the entire switchgear needs to

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	Automatic Push-button
RATED CONTROL SUPPLY VOLTAGE (US) ATDC - MIN	0 V
SHORT-CIRCUIT CURRENT RATING (HIGH FAULT AT 600 V)	100 kA, Fuse, SCCR (UL/CSA) 20 A, Class J, max. Fuse, 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	1 A
PROTECTION	Finger and back-of-hand proof, Protection against direct actuated from front (EN 50274)
OPERATING VOLTAGE AT DC - MIN	0 V
AMBIENT OPERATING TEMPERATURE - MAX	65 °C
CLIMATIC PROOFING	Damp heat, cyclic, to IEC 60068-2-30 Damp heat, constant, to IEC 60068-2-78
FEATURES	Phase-failure sensitivity (according to IEC/EN 60940-102)
STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT PVS	0 W
ELECTRICAL CONNECTION TYPE OF MAIN CIRCUIT	Screw connection
RATED CONTROL SUPPLY VOLTAGE (US) ATDC - 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
10.5 PROTECTION AGAINST ELECTRIC SHOCK	Does not apply, since the entire switchgear needs to
EARTH FAULT PROTECTION	Yes Trip at approx. > 0.5 x Ir in 2 s Trip at approx. > 1.5 x Ir in 1 s

SAFE ISOLATION

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

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 instruction leaflet (IL) is observed.

10.2.6 MECHANICAL IMPACT

Does not apply, since the entire switchgear needs to

**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

**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

1 A

**EQUIPMENT HEAT DISSIPATION, CURRENT-
DEPENDENT PVID**

0.51 W

HEAT DISSIPATION CAPACITY PDISS

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 RATING OF AUXILIARY CONTACTS (1-POLE, OPEN)	5 A
OPERATING VOLTAGE AT AC, 60 HZ - MAX	690 V
OVERLOAD RELEASE CURRENT SETTING - MAX	5 A
TERMINAL CAPACITY (SOLID/STRANDED AWG)	1 x (14 - 4), Main cables 2 x (18 - 12), Control circuit 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 Eaton will provide heat dissipation data for the devi
FUNCTIONS	Filament bulb (24 V)
OPERATING VOLTAGE AT AC, 60 HZ - MIN	230 V
TIGHTENING TORQUE	7 lb-in, Screw terminals 0.8 - 1.2 Nm, Screw terminals, Control circuit cable
ADJUSTABLE CURRENT RANGE - MAX	5 A
SCREWDRIVER SIZE	2, Terminal screw, Pozidriv screwdriver 1 x 6 mm, Terminal screw, Standard 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	1

CONTACTS)**SHORT-CIRCUIT PROTECTION RATING**

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

NUMBER OF AUXILIARY CONTACTS (NORMALLY OPEN CONTACTS)

1

RATED OPERATIONAL CURRENT (IE) AT DC-13, 110 V

0.4 A

SHOCK RESISTANCEMechanical, According to IEC/EN 60068-2-27
15 g, Mechanical, According to IEC/EN 60068-2-27
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)**Brochures****Characteristic curve****Declarations of conformity****Drawings****eCAD model****Installation instructions****mCAD model****Wiring diagrams**

136484

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guided by our commitment to do business right, to operate sustainably and to help our customers manage power—today and well into the future. By capitalizing on the global growth trends of electrification and digitalization, we're accelerating the planet's transition to renewable energy and helping to solve the world's most urgent power management challenges.