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Worldwide English



ZEB150-100/KK - Overload relay, Separate mounting, Earth-fault protection: none, Ir= 20 - 100 A, 1 NO, 1 NC

136508 ZEB150-100/KK

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136508 ZEB150-100/KK

Overload relay, Separate mounting, Earth-fault protection: none, Ir= 20 - 100 A, 1 NO, 1 NC

Alternate Catalog Nb.

XTOE100GCSS

EL-Nummer (Norway)

4137377

Overload relay, Product range: Electronic overload relays ZEB, Phase-failure sensitivity: IEC/EN 60947, VDE 0660 Part 102, Description: Test/off button, Reset pushbutton, Manual/auto reset selectable, Protection with heavy starting duty (Class 10A-30), Mounting type: Separate mounting, Auxiliary contacts N/O = Normally open: 1 NO, Auxiliary contacts N/C = Normally closed: 1 NC, For use with: DILM80, DILM95, DILM115, DILM150, DIULM80, DIULM95, DIULM115, DIULM150, SDAINLM140, SDAINLM165, SDAINLM200, SDAINLM260, Standards: IEC/EN 60947, VDE 0660, UL, CSA, Degree of Protection: IP20

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Delivery program

Product range

Electronic overload relays ZEB

Phase-failure sensitivity

IEC/EN 60947, VDE 0660 Part 102

Description

Test/off button

Reset pushbutton

Manual/auto reset selectable

Protection with heavy starting duty (Class 10A-30)

Mounting type

Separate mounting

Earth-fault protection

Earth-fault protection

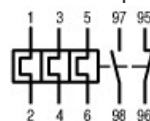
none

Setting range

Overload releases  [I_r]

20 - 100 A

Contact sequence



Auxiliary contacts

NO = Normally open

1 NO

NC = Normally closed

1 NC

For use with

DILM80

DILM95

DILM115

DILM150
DIULM80
DIULM95
DIULM115
DIULM150
SDAINLM140
SDAINLM165
SDAINLM200
SDAINLM260
Conformity, Approval
Explosion protection (according to ATEX 94/9/EC)
II(2)GD [Ex d] [Ex e] [Ex tb]
EC-prototype test certification
SIRA 13 ATEX 9348X

Technical data

General

Standards

IEC/EN 60947, VDE 0660, UL, CSA

Climatic proofing

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

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

Ambient temperatureOpen

-25 - +65 °C

Ambient temperatureAmbient temperature open max.

65 °C

Ambient temperatureEnclosedAmbient temperature enclosed max.

45 °C

Mechanical shock resistance

15

Shock duration 10 ms

according to IEC 60068-2-27 g

Degree of Protection

IP20

Protection against direct contact when actuated from front (EN 50274)

Finger and back-of-hand proof

Altitude

Max. 2000 m

Main conducting paths

Rated impulse withstand voltage [U_{imp}]

6000 V AC

Overvoltage category/pollution degree

III/3

Rated insulation voltage [U_i]

690 V AC

Rated operational voltage [U_o]

690 V AC

Rated frequency [f]

50/60 Hz

Safe isolation to EN 61140Between auxiliary contacts and main contacts

600 V AC

Safe isolation to EN 61140Between main circuits

600 V AC

Terminal capacitiesSolid

1 x 16 - 50 mm²

Terminal capacitiesSolid or stranded

1 x 6 - 1 AWG

Stripping length

14 mm

Auxiliary and control circuits

Rated impulse withstand voltage [U_{imp}]

6000 V

Overvoltage category/pollution degree

III/3

Terminal capacitiesSolid

2 x (0.75 - 4) mm²

Terminal capacitiesFlexible with ferrule

2 x (0.75 - 2.5) mm²

Terminal capacities Solid or stranded
 2 x (18 - 12) AWG
 Terminal screw
 M3.5
 Tightening torque
 0.8 - 1.2 Nm
 Tightening torque
 7 lb-in
 Stripping length
 8 mm
 Tools Pozidriv screw driver
 2 Size
 Tools Standard screw driver
 1 x 6 mm
 Rated insulation voltage [U_i]
 500 V AC
 Rated operational voltage [U_e]
 500 V AC
 Safe isolation to EN 61140 between the auxiliary contacts
 240 V AC
 Conventional thermal current [I_{th}]
 5 A
 Rated operational current [I_e] AC-15 Make contact 120 V [I_e]
 1.5 A
 Rated operational current [I_e] AC-15 Make contact 220 V 230 V 240 V [I_e]
 1.5 A
 Rated operational current [I_e] AC-15 Make contact 380 V 400 V 415 V [I_e]
 0.5 A
 Rated operational current [I_e] AC-15 Make contact 500 V [I_e]
 0.5 A
 Rated operational current [I_e] AC-15 Break contact 120 V [I_e]
 1.5 A
 Rated operational current [I_e] AC-15 Break contact 220 V 230 V 240 V [I_e]
 1.5 A
 Rated operational current [I_e] AC-15 Break contact 380 V 400 V 415 V [I_e]
 0.9 A
 Rated operational current [I_e] AC-15 Break contact 500 V [I_e]
 0.8 A
 Rated operational current [I_e] DC L/R \square 15 ms
 Switch-on and switch-off conditions based on DC-13, time constant as specified.
 Rated operational current [I_e] DC L/R \square 15 ms 24 V [I_e]
 0.9 A
 Rated operational current [I_e] DC L/R \square 15 ms 60 V [I_e]
 0.75 A
 Rated operational current [I_e] DC L/R \square 15 ms 110 V [I_e]
 0.4 A
 Rated operational current [I_e] DC L/R \square 15 ms 220 V [I_e]
 0.2 A
 Short-circuit rating without welding max. fuse
 6 A gG/gL
 Rating data for approved types
 Auxiliary contacts Pilot Duty AC operated
 B600
 Auxiliary contacts Pilot Duty DC operated
 R300
 Short Circuit Current Rating 600 V High Fault SCCR (fuse)
 100 kA
 Short Circuit Current Rating 600 V High Fault max. Fuse
 200 Class J A

Design verification as per IEC/EN 61439

Technical data for design verification
 Rated operational current for specified heat dissipation [I_h]
 100 A
 Heat dissipation per pole, current-dependent [P_{vid}]
 8.47 W
 Equipment heat dissipation, current-dependent [P_{vid}]
 25.4 W

Static heat dissipation, non-current-dependent [P_{vs}]

0 W

Heat dissipation capacity [P_{diss}]

0 W

Operating ambient temperature min.

-25 °C

Operating ambient temperature max.

+65 °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) / Electronic overload relay (EC001080)

Electric engineering, automation, process control engineering / Low-voltage switch technology / Overload protection device / Electronic overload relay (ecl@ss10.0.1-27-37-15-02 [AKF076014])

Adjustable current range

20 - 100 A

Mounting method

Separate positioning

Type of electrical connection of main circuit

Screw connection

Number of auxiliary contacts as normally closed contact

1

Number of auxiliary contacts as normally open contact

1

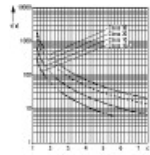
Number of auxiliary contacts as change-over contact
0
Rated control supply voltage U_s at AC 50HZ
0 - 0 V
Rated control supply voltage U_s at AC 60HZ
0 - 0 V
Rated control supply voltage U_s at DC
0 - 0 V
Release class
Adjustable
Voltage type for actuating
Self powered
Reset function automatic
Yes
Reset function input
No
Reset function push-button
Yes

Approvals

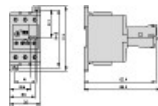
Product Standards
UL 508; CSA-C22.2 No. 14; IEC/EN 60947-4-1; CE marking
UL File No.
E1230
UL Category Control No.
NKCR
CSA File No.
2290956
CSA Class No.
3211-03
North America Certification
UL listed, CSA certified
Specially designed for North America
No
Suitable for
Branch circuits
Max. Voltage Rating
600 V AC
Degree of Protection
IEC: IP20, UL/CSA Type: -

Characteristics

Characteristic curve



Dimensions



CAD data

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

DWG files

- [DA-CD-zeb150_100_kk](#)
File
(Web, Language independent)

- [DA-CD-zeb150_10_9468_4](#)
File
(Web)

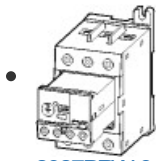
edz files

- [DA-CE-ETN.ZEB150-100_KK](#)
File
(Web)

Step files

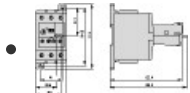
- [DA-CS-zeb150_100_kk](#)
File
(Web, Language independent)
- [DA-CS-zeb150_10_9468_4](#)
File
(Web)

3D drawing



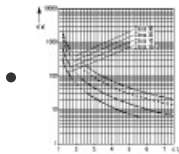
[2327DRW-8](#)
Line drawing

Dimensions single product



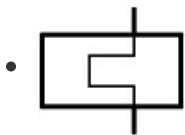
[2327DIM-7](#)
Line drawing

Characteristic curve

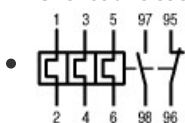


[2327DIA-5](#)
Coordinate visualization

Wiring diagram



[000S015](#)
Line drawing
Overload release symbol



[230S005](#)
Line drawing
Overload relay circuit symbol

Instruction Leaflet

- [Solid-state motor protection relay \(IL04210002E\)](#)

Asset
(PDF, multilingual)

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