

Select your language

- German
- English
- French
- Dutch
- Italian
- Polish
- Czech
- Russian
- Norwegian Bokmål

Worldwide English



Powering Business Worldwide

ZBT12-6 - Overload relay, ZBT12, Ir= 4 - 6 A, 1 N/O, 1 N/C, Direct mounting, IP20



190937 ZBT12-6

[Overview](#) [Specifications](#) [Resources](#)




190937 ZBT12-6

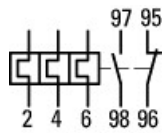
Overload relay, ZBT12, Ir= 4 - 6 A, 1 N/O, 1 N/C, Direct mounting, IP20

Overload relay, Product range: Overload relay ZBT up to 97 A, Accessories, Accessories: Overload relays, Frame size: ZBT12, Phase-failure sensitivity: IEC/EN 60947, VDE 0660 Part 102, Description: Test/off button, Reset pushbutton manual/auto, Trip-free release, Mounting type: Direct mounting, Auxiliary contacts N/O = Normally open: 1 N/O, Auxiliary contacts N/C = Normally closed: 1 N/C, For use with: DILMT7, DILMT9, DILMT12, DILMT17, DILMT25, DILMT32, Standards: IEC/EN 60947, GB14048, Degree of Protection: IP20

- [Delivery program](#)
- [Technical data](#)
- [Design verification as per IEC/EN 61439](#)
- [Technical data ETIM 7.0](#)
- [Approvals](#)
- [Dimensions](#)

Delivery program

Product range
Overload relay ZBT up to 97 A
Product range
Accessories
Accessories
Overload relays
Frame size
ZBT12
Phase-failure sensitivity
IEC/EN 60947, VDE 0660 Part 102
Description
Test/off button
Reset pushbutton manual/auto
Trip-free release
Overload trigger: tripping class 10 A
Mounting type
Direct mounting
 [4]
4 - 6 A
Contact sequence



Auxiliary contacts

NO = Normally open

1 NO

NC = Normally closed

1 NC

For use with

DILMT7

DILMT9

DILMT12

DILMT17

DILMT25

DILMT32

Technical data

General

Standards

IEC/EN 60947, GB14048

Climatic proofing

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

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

Ambient temperature

Operating range to IEC/EN 60947: -5 - +40 °C

Ambient temperatureOpen

-25 - +55 °C

Ambient temperatureEnclosed

- 25 - 40 °C

Temperature compensation

Continuous

Weight

0.104 kg

Mechanical shock resistance

10

Sinusoidal

Shock duration 10 ms g

Degree of Protection

IP20

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

Finger and back-of-hand proof

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

Rated operational voltage [U_e]

690 V AC

Safe isolation to EN 61140Between auxiliary contacts and main contacts

440 V AC

Safe isolation to EN 61140Between main circuits

440 V AC

Terminal capacitiesSolid

1 x (1 - 6) mm²

Terminal capacitiesFlexible with ferrule

1 x (1 - 6) mm²

Terminal capacitiesStranded

1 x (1 - 6) mm²

Terminal screw

M3.5

Tightening torque

1.2 Nm

Stripping length

8 mm

ToolsPozidriv screw driver

2 Size
 Auxiliary and control circuits
 Rated impulse withstand voltage [U_{imp}]
 4000 V
 Overvoltage category/pollution degree
 III/3
 Terminal capacities Solid
 1 x (0.75 - 2.5) mm²
 Terminal capacities Flexible with ferrule
 1 x (0.75 - 2.5) mm²
 Terminal screw
 M3
 Tightening torque
 0.8 Nm
 Stripping length
 6 mm
 Tools Pozidriv screw driver
 2 Size
 Tools Standard screw driver
 1 x 6 mm
 Rated insulation voltage [U_i]
 690 V AC
 Rated operational voltage [U_e]
 690 V AC
 Conventional thermal current [I_{th}]
 10 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]
 1.4 A
 Rated operational current [I_e] AC-15 Make contact 380 V 400 V 415 V [I_e]
 1.9 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]
 1.9 A
 Rated operational current [I_e] AC-15 Break contact 500 V [I_e]
 1.4 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]
 0.55 A
 Rated operational current [I_e] DC L/R \square 15 ms 220 V [I_e]
 0.27 A
 Short-circuit rating without welding max. fuse
 6 A gG/gL

Notes

Notes

Ambient air temperature: Operating range to IEC/EN 60947, PTB: -5°C to +55°C

Main circuits terminal capacity solid and flexible conductors with ferrules: When using 2 conductors use equal cross-sections.

Design verification as per IEC/EN 61439

Operating ambient temperature min.

-25 °C

Operating ambient temperature max.

+55 °C

Technical data ETIM 7.0

Low-voltage industrial components (EG000017) / Thermal overload relay (EC000106)

Electric engineering, automation, process control engineering / Low-voltage switch technology / Overload protection device / Thermal overload relay (ecl@ss10.0.1-27-37-15-01 [AKF075014])

Adjustable current range

4 - 6 A

Max. rated operation voltage U_e

690 V

Mounting method

Direct attachment

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

Release class

Other

Reset function input

No

Reset function automatic

Yes

Reset function push-button

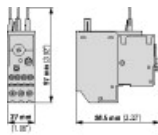
Yes

Approvals

Specially designed for North America

No

Dimensions



Product photo

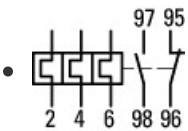


Photo

Product photo

Photo

Wiring diagram



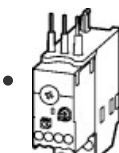
Contact sequence

Wiring diagram

Line drawing

Overload relay circuit symbol

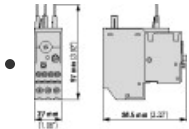
3D drawing



2300DRW-61

3D drawing
Line drawing

Dimensions single product



2300DIM-16

Dimensions single product

Line drawing

Declaration of Conformity

- [DA-DC-00002909](#)
Declaration of Conformity
(PDF)

Standards

- [000Z153](#)
Standards
Logo
xStart logo

CAD data

- [DA-CE-ETN.ZBT12-6](#)
CAD data
edz files
(Web)

Download-Center

- [Download-Center \(this item\)](#)
Eaton EMEA Download-Center - download data for this item
- [Download-Center](#)
Eaton EMEA Download-Center

 [Generate data sheet in PDF format](#)

 [Generate data sheet in Excel format](#)

 [Write a comment](#)

[Imprint](#) [Privacy Policy](#) [Legal Disclaimer](#) [Terms and Conditions](#)

© 2020 by Eaton Industries GmbH