ZEB225-175-GF - Overload relay, Direct mounting, Earth-fault protection: with, Ir= 35 - 175 A, 1 N/O, 1 N/C

164308 ZEB225-175-GF

Overview Specifications Resources

164308 ZEB225-175-GF

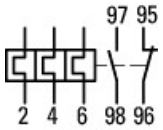
Overload relay, Direct mounting, Earth-fault protection: with, Ir= 35 - 175 A, 1 N/O, 1 N/C

Alternate Catalog No.	XTOE175HGS
EL-Nummer (Norway)	4137386

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 in the case of starting under load (class 10 to class 20), 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: DILM185A, DILM225A, Standards: IEC/EN 60947, VDE 0660, UL, CSA, Degree of Protection: IP00

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 in the case of starting under load (class 10 to class 20)
Mounting type
Direct mounting
Earth-fault protection
Earth-fault protection
with
Trip at approx.
> 0.5 x I_r in 2 s
> 1.5 x I_r in 1 s
Setting range
Overload releases [I_r]
35 - 175 A
Contact sequence



Auxiliary contacts
N/O = Normally open
1 N/O
N/C = Normally closed
1 N/C
For use with
DILM185A
DILM225A

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
IP00
Protection against direct contact when actuated from front (EN 50274)
With terminal cover
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_e]
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 10 - 95 mm^2
Terminal capacitiesSolid or stranded
1 x 8 - 4/0 AWG
Terminal capacitiesFlat conductor [Lamellenzahl x Breite x Dicke]
6 x 18 x 0.8 mm
Stripping length
22 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) mm^2
Terminal capacitiesFlexible with ferrule
2 x (0.75 - 2.5) mm^2

Terminal capacitiesSolid 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
ToolsPozidriv screwdriver
2 Size
ToolsStandard screwdriver
1 x 6 mm
Rated insulation voltage [U_i]
500 V AC
Rated operational voltage [U_e]
500 V AC
Safe isolation to EN 61140between the auxiliary contacts
240 V AC
Conventional thermal current [I_{th}]
5 A
Rated operational current [I_e]AC-15Make contact120 V [I_e]
1.5 A
Rated operational current [I_e]AC-15Make contact220 V 230 V 240 V [I_e]
1.5 A
Rated operational current [I_e]AC-15Make contact380 V 400 V 415 V [I_e]
0.5 A
Rated operational current [I_e]AC-15Make contact500 V [I_e]
0.5 A
Rated operational current [I_e]AC-15Break contact120 V [I_e]
1.5 A
Rated operational current [I_e]AC-15Break contact220 V 230 V 240 V [I_e]
1.5 A
Rated operational current [I_e]AC-15Break contact380 V 400 V 415 V [I_e]
0.9 A
Rated operational current [I_e]AC-15Break contact500 V [I_e]
0.8 A
Rated operational current [I_e]DC L/R □ 15 ms
Switch-on and switch-off conditions based on DC-13, time constant as specified.
Rated operational current [I_e]DC L/R □ 15 ms24 V [I_e]
0.9 A
Rated operational current [I_e]DC L/R □ 15 ms60 V [I_e]
0.75 A
Rated operational current [I_e]DC L/R □ 15 ms110 V [I_e]
0.4 A
Rated operational current [I_e]DC L/R □ 15 ms220 V [I_e]
0.2 A
Short-circuit rating without weldingmax. fuse
6 A gG/gL
Rating data for approved types
Auxiliary contactsPilot DutyAC operated
B600
Auxiliary contactsPilot DutyDC operated
R300
Short Circuit Current Rating600 V High FaultSCCR (fuse)
100 kA
Short Circuit Current Rating600 V High Faultmax. Fuse
400 Class J A

Design verification as per IEC/EN 61439

Technical data for design verification
Rated operational current for specified heat dissipation [I_n]
175 A
Heat dissipation per pole, current-dependent [P_{vid}]
11.86 W
Equipment heat dissipation, current-dependent [P_{vid}]
35.6 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 parts10.2.2 Corrosion resistance
Meets the product standard's requirements.
10.2 Strength of materials and parts10.2.3.1 Verification of thermal stability of enclosures
Meets the product standard's requirements.
10.2 Strength of materials and parts10.2.3.2 Verification of resistance of insulating materials to normal heat
Meets the product standard's requirements.
10.2 Strength of materials and parts10.2.3.3 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 parts10.2.4 Resistance to ultra-violet (UV) radiation
Meets the product standard's requirements.
10.2 Strength of materials and parts10.2.5 Lifting
Does not apply, since the entire switchgear needs to be evaluated.
10.2 Strength of materials and parts10.2.6 Mechanical impact
Does not apply, since the entire switchgear needs to be evaluated.
10.2 Strength of materials and parts10.2.7 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 properties10.9.2 Power-frequency electric strength
Is the panel builder's responsibility.
10.9 Insulation properties10.9.3 Impulse withstand voltage
Is the panel builder's responsibility.
10.9 Insulation properties10.9.4 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
0 - 175 A
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

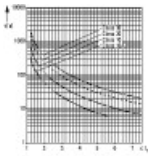
Number of auxiliary contacts as change-over contact
0
Rated control supply voltage Us at AC 50HZ
0 - 0 V
Rated control supply voltage Us at AC 60HZ
0 - 0 V
Rated control supply voltage Us at DC
0 - 0 V
Release class
Adjustable
Voltage type for actuating
Self powered
Reset function automatic
Yes
Reset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

Approvals

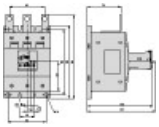
Product Standards
UL 508; CSA-C22.2 No. 14; IEC/EN 60947-4-1; CE marking
UL File No.
E1230
UL Category Control No.
NKCR
CSA File No.
2290956
CSA Class No.
3211-03
North America Certification
UL listed, CSA certified
Specially designed for North America
No
Suitable for
Branch circuits
Max. Voltage Rating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

Characteristics

Characteristic curve



Dimensions



□ RESET
□ TRIP/TEST

CAD data

- Product-specific CAD data
  (Web)
- 3D Preview
  (Web)

DWG files

- DA-CD-zeb225_175_gf
  File
  (Web, Language independent)

edz files

- DA-CE-ETN.ZEB225A-175-GF
  File
  (Web)

Step files

- DA-CS-zeb225_175_gf
  File
  (Web, Language independent)

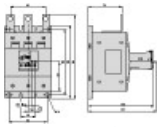
3D drawing

- 2327DRW-40
  Line drawing

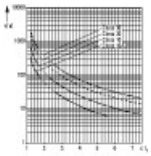
Product photo

- 
  2327PIC-129
  Photo
  Overload relays

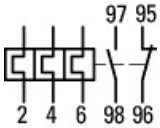
Dimensions single product

- 
  2327DIM-21
  Line drawing
  Overload relays
  - RESET
  - TRIP/TEST

Characteristic curve

- 
  2327DIA-5
  Coordinate visualization

Wiring diagram

- 

  230S002
  Line drawing
  Overload relay circuit symbol

Instruction Leaflet

- Solid-state motor protection relay (IL04210002E)
  Asset
  (PDF, multilingual)

Download-Center

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