



190946  
ZBT65-50



Overview



Specifications



Resources



[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  
ZBT65

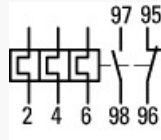
Phase-failure sensitivity  
IEC/EN 60947, VDE 0660 Part 102

Description  
Test/off button  
Reset pushbutton manual/auto  
Trip-free release  
Overload trigger: tripping class 10 A

Mounting type  
Direct mounting

  
37 - 50 A

Contact sequence



## Auxiliary contacts

NO = Normally open  
1 NO

NC = Normally closed  
1 NC

For use with  
DILMT40  
DILMT50  
DILMT65  
DILMT80  
DILMT95

## 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 temperature

Open  
-25 - +55 °C

Ambient temperature  
Enclosed  
- 25 - 40 °C

Temperature compensation  
Continuous

Weight  
0.345 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 [ $U_o$ ]  
690 V AC

Safe isolation to EN 61140  
Between auxiliary contacts and main contacts  
440 V AC

Safe isolation to EN 61140  
Between main circuits  
440 V AC

Terminal capacities  
Solid  
1 x (2.5 - 16)  
2 x (2.5 - 16) mm<sup>2</sup>

Terminal capacities  
Flexible with ferrule  
1 x (2.5 - 16)  
2 x (2.5 - 16) mm<sup>2</sup>

Tightening torque  
2.5 Nm

Stripping length  
14 mm

Tools  
Pozidriv screwdriver  
0 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) mm<sup>2</sup>

Terminal capacities  
Flexible with ferrule  
1 x (0.75 - 2.5) mm<sup>2</sup>

Tightening torque  
0.8 Nm

Stripping length  
0 mm

Tools  
Pozidriv screwdriver

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  
37 - 50 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

