
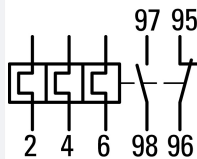




Overload relay, ZBT12, I_r= 9 - 12 A, 1 N/O, 1 N/C, Direct mounting, IP20

Part no. **ZBT12-12**
 Catalog No. **190939**

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 |
|  | I _r | A | 9 - 12 |
| Contact sequence | | |  |
| Auxiliary contacts | | | |
| N/O = Normally open | | | 1 N/O |
| N/C = Normally closed | | | 1 N/C |
| 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 |
| Open | | °C | -25 - +55 |
| Enclosed | | °C | -25 - 40 |
| Temperature compensation | | | Continuous |
| Weight | | kg | 0.104 |
| Mechanical shock resistance | | g | 10 Sinusoidal Shock duration 10 ms |
| 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} | V AC | 6000 |
| Overvoltage category/pollution degree | | | III/3 |
| Rated insulation voltage | U _i | V | 690 |
| Rated operational voltage | U _e | V AC | 690 |

| | | | |
|--|--|-----------------|-------------|
| Safe isolation to EN 61140 | | | |
| Between auxiliary contacts and main contacts | | V AC | 440 |
| Between main circuits | | V AC | 440 |
| Terminal capacities | | | |
| Solid | | mm ² | 1 x (1 - 6) |
| Flexible with ferrule | | mm ² | 1 x (1 - 6) |
| Stranded | | mm ² | 1 x (1 - 6) |
| Terminal screw | | | M3.5 |
| Tightening torque | | Nm | 1.2 |
| Stripping length | | mm | 8 |
| Tools | | | |
| Pozidriv screwdriver | | Size | 2 |

Auxiliary and control circuits

| | | | |
|---|------------------|-----------------|------------------|
| Rated impulse withstand voltage | U _{imp} | V | 4000 |
| Overvoltage category/pollution degree | | | III/3 |
| Terminal capacities | | | |
| Solid | | mm ² | 1 x (0.75 - 2.5) |
| Flexible with ferrule | | mm ² | 1 x (0.75 - 2.5) |
| Terminal screw | | | M3 |
| Tightening torque | | Nm | 0.8 |
| Stripping length | | mm | 6 |
| Tools | | | |
| Pozidriv screwdriver | | Size | 2 |
| Standard screwdriver | | mm | 1 x 6 |
| Rated insulation voltage | U _i | V AC | 690 |
| Rated operational voltage | U _e | V AC | 690 |
| Conventional thermal current | I _{th} | A | 10 |
| Rated operational current | I _e | A | |
| AC-15 | | | |
| Make contact | | | |
| 120 V | I _e | A | 1.5 |
| 220 V 230 V 240 V | I _e | A | 1.4 |
| 380 V 400 V 415 V | I _e | A | 1.9 |
| 500 V | I _e | A | 0.5 |
| Break contact | | | |
| 120 V | I _e | A | 1.5 |
| 220 V 230 V 240 V | I _e | A | 1.5 |
| 380 V 400 V 415 V | I _e | A | 1.9 |
| 500 V | I _e | A | 1.4 |
| DC L/R ≤ 15 ms | | | |
| Switch-on and switch-off conditions based on DC-13, time constant as specified. | | | |
| 24 V | I _e | A | 0.9 |
| 60 V | I _e | A | 0.75 |
| 110 V | I _e | A | 0.55 |
| 220 V | I _e | A | 0.27 |
| Short-circuit rating without welding | | | |
| max. fuse | | A gG/gL | 6 |

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

| | | | |
|--|--|--|--|
| Technical data for design verification | | | |
|--|--|--|--|

| | | |
|------------------------------------|----|-----|
| Operating ambient temperature min. | °C | -25 |
| Operating ambient temperature max. | °C | 55 |

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 | A | 9 - 12 |
| Max. rated operation voltage U _e | V | 690 |
| 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

