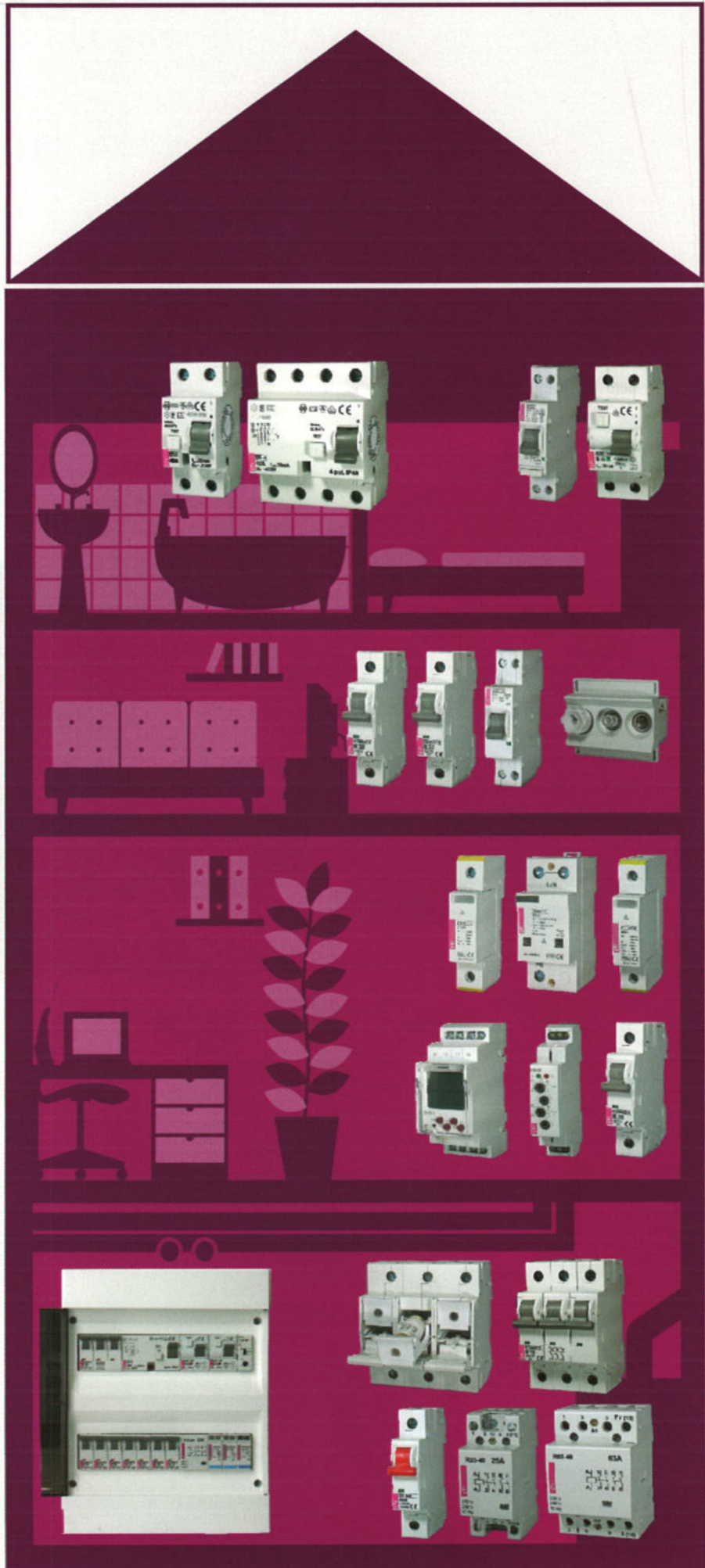


RESIDENTIAL AND COMMERCIAL INSTALLATIONS

ETI provides high-quality and integral solutions for protection of electrical installations in buildings. We supply all kinds of type D, D0 and C fuse-links, as well as MCB's and various types of residual current protection switches from ASTI group. In our sales program you will also find various types of switches and supervision & control devices of EVE group. Very important is also overvoltage protection ETITEC. All together shall be built, of course, into a distribution cabinet DIDO of your choice. The products are internationally certified and carry several quality marks.



RCBOs - Residual current circuit breakers with integral overcurrent protection KZS

Advantages of residual current circuit breakers with integral overcurrent protection KZS - 1M

→ Combining the features of miniature circuit breaker and a residual current circuit breaker, functionally dependent on line voltage (minimum supply voltage 90V)

→ Version with operating temperature down to -35°C also available

→ Real contact position indication for easier identification, whether RCBO is in ON or OFF position

→ Added protection against any pulsating DC component that can be generated from electrical appliances

→ Energy limiting class 3: highest energy limiting performance for optimal protection of cable insulation and maximally reducing risk of fire and other damage

→ Sealing possibility

→ 1-module housing (18 mm), with switched neutral line

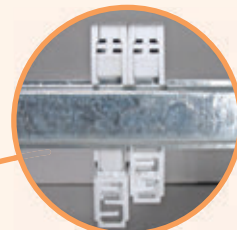
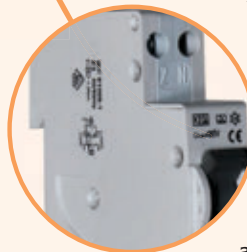
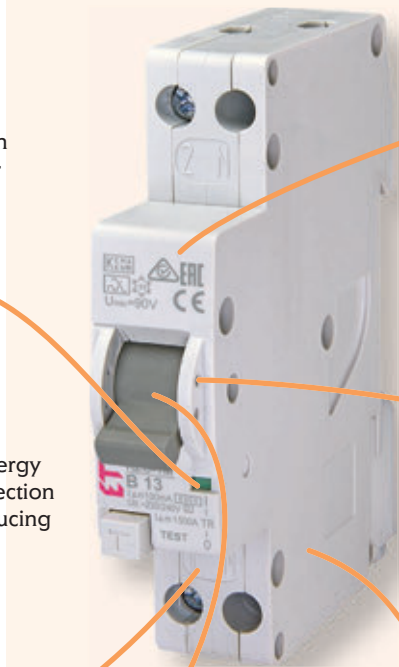
→ Clearly marked terminals to ensure appropriate connection

→ In case of overcurrent or differential current, the button moves to the "trip" (middle) position. In case of manual turn off, the button moves to the "off" (lowest) position.

→ All necessary technical and installation information can be found on the front and side of the device

→ The terminals accept not only wires but also time saving busbars

→ Advanced method of mounting enables an easy removal of single RCBO without disconnecting other units from the busbar



Description:

KZS -1M DN is a residual current circuit breaker with integral overcurrent protection and added overvoltage protection according to EN 50550. The device is functionally dependent on line voltage and operates at voltages above 90V. KZS 1M-DN also has a sealing possibility.



KZS - 1M DN

| I _n [A] | I _{Δn} [A] | Type A | | Weight [g] | Packaging [pcs] |
|-----------------------|------------------------|------------|------------|---------------|--------------------|
| | | Code No. B | Code No. C | | |
| 6 | 0,03 | 002175141 | 002175151 | 115 | 12/72 |
| 10 | 0,03 | 002175142 | 002175152 | 115 | 12/72 |
| 13 | 0,03 | 002175143 | 002175153 | 115 | 12/72 |
| 16 | 0,03 | 002175144 | 002175154 | 115 | 12/72 |
| 20 | 0,03 | 002175145 | 002175155 | 115 | 12/72 |
| 25 | 0,03 | 002175146 | 002175156 | 115 | 12/72 |

Description:

KZS -1M FN is a residual current circuit breaker with integral overcurrent protection, functionally dependent on line voltage. It comes in a single pole version that switches the phase pole while the neutral pole stays fixed. KZS 1M-FN is dependent on voltage and operates at voltages above 85V. KZS 1M-FN also has a sealing possibility.



KZS - 1M FN I_{Δn} = 30 mA

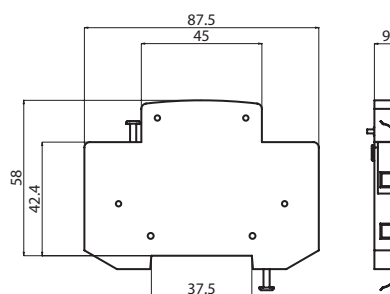
| I _n [A] | I _{Δn} [A] | Type A | | Type AC | | Weight [g] | Packaging [pcs] |
|-----------------------|------------------------|------------|------------|------------|------------|---------------|--------------------|
| | | Code No. B | Code No. C | Code No. B | Code No. C | | |
| 6 | 230 | 002175581 | 002175591 | 002175501 | 002175521 | 168 | 1/42 |
| 10 | 230 | 002175582 | 002175592 | 002175502 | 002175522 | 168 | 1/42 |
| 13 | 230 | 002175583 | 002175593 | 002175503 | 002175523 | 168 | 1/42 |
| 16 | 230 | 002175584 | 002175594 | 002175504 | 002175524 | 168 | 1/42 |
| 20 | 230 | 002175585 | 002175595 | 002175505 | 002175525 | 170 | 1/42 |
| 25 | 230 | 002175586 | 002175596 | 002175506 | 002175526 | 170 | 1/42 |
| 32 | 230 | 002175587 | 002175597 | 002175507 | 002175527 | 180 | 1/42 |
| 40 | 230 | 002175588 | 002175598 | 002175508 | 002175528 | 205 | 1/42 |
| 45 | 230 | 002175589 | 002175599 | 002175509 | 002175529 | 205 | 1/42 |

KZS - 1M FN I_{Δn} = 100 mA

| I _n [A] | I _{Δn} [A] | Type A | | Type AC | | Weight [g] | Packaging [pcs] |
|-----------------------|------------------------|------------|------------|------------|------------|---------------|--------------------|
| | | Code No. B | Code No. C | Code No. B | Code No. C | | |
| 6 | 230 | 002175781 | 002175791 | 002175511 | 002175531 | 168 | 1/42 |
| 10 | 230 | 002175782 | 002175792 | 002175512 | 002175532 | 168 | 1/42 |
| 13 | 230 | 002175783 | 002175793 | 002175513 | 002175533 | 168 | 1/42 |
| 16 | 230 | 002175784 | 002175794 | 002175514 | 002175534 | 168 | 1/42 |
| 20 | 230 | 002175785 | 002175795 | 002175515 | 002175535 | 170 | 1/42 |
| 25 | 230 | 002175786 | 002175796 | 002175516 | 002175536 | 170 | 1/42 |
| 32 | 230 | 002175787 | 002175797 | 002175517 | 002175537 | 180 | 1/42 |
| 40 | 230 | 002175788 | 002175798 | 002175518 | 002175538 | 205 | 1/42 |
| 45 | 230 | 002175789 | 002175799 | 002175519 | 002175539 | 205 | 1/42 |

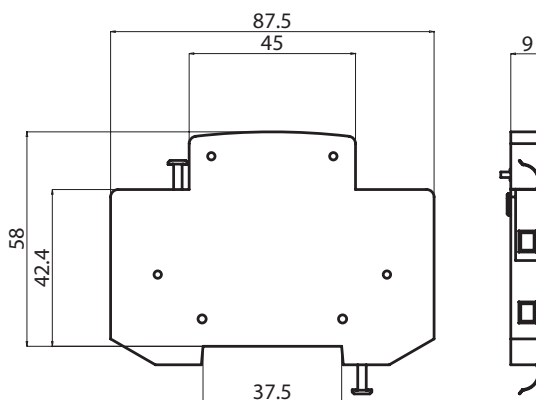
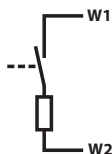
Auxiliary switch PS EFI

| Technical data | |
|-----------------------------------|--|
| Rated current I_n | 6 A (230 V AC), AC 12, 1 A (110 V DC), DC 12 |
| Conditional short-circuit current | 1 kA with fuse-link 20 A |
| Terminals | 1-2,5mm ² , max 0,5Nm |
| Terminal Screw | M3 (PH1) |
| Mounting position | any |
| Standards | EN 62019 |



Shunt trip release DA EFI

| Technical data | |
|--------------------|----------------------------------|
| Rated voltage | 230V AC |
| Rated frequency | 50/60Hz |
| Max inrush current | 0,8A |
| Terminals | 1-2,5mm ² , max 0,5Nm |
| Terminal Screw | M3 (PH1) |
| Build-in width | 9mm |
| Mounting position | any |



Residual current circuit breaker with integral overcurrent protection KZS -1M

| Technical data | | | |
|--|-----------------------------------|-----------------------------------|---|
| Type | KZS 1M | KZS 1M DN | KZS 1M FN |
| Rated voltage U_n | 230 V AC | | |
| Rated current I_n | 6-25 A | 6-25 A | 6-45 A |
| Minimal supply voltage U_{min} | 90 V | | |
| Rated frequency f_n | 50 Hz | | |
| Rated short-circuit capacity | 6.000 A | 6.000 A | 10.000 A |
| Back-up fuse | 100 A gG | | |
| Tripping characteristic | B, C | | |
| Rated residual current $I_{\Delta n}$ | 10, 30, 100 mA | 30 mA | 30, 100 mA |
| Type of residual release | A, AC | | |
| Rated residual making and breaking capacity $I_{\Delta m}$ | 1500A | 1500A | 4500A |
| Terminals | 1-10 mm ² , max. 1,5Nm | 1-10 mm ² , max. 1,5Nm | 1-25 mm ² / 1-16 mm ² |
| Terminal screw | M4 (Pozidrive PZ2) | M4 (Pozidrive PZ2) | M5 (Pozidrive PZ2) |
| Width | 18 mm | | |
| Mounting position | any | | |
| Standard | IEC 61009 | IEC 61009, EN 50550 | IEC 61009-1 / 61009-2 |
| Length of neutral conductor | - | - | 600 mm |
| Operating temperature | -25°C ... +40°C | | |

| Voltage [V] | KZS 1M DN | |
|-------------|-------------------|--|
| | Tripping time [s] | |
| 255 | / | |
| 275 | 3s<t<15s | |
| 300 | 1s<t<5s | |
| 350 | 0,25s<t<0,75s | |
| 400 | 0,07s<t<0,20s | |