

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

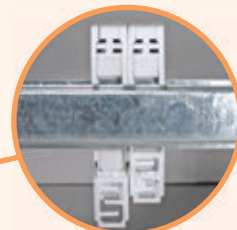
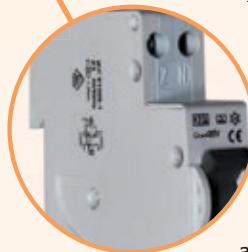
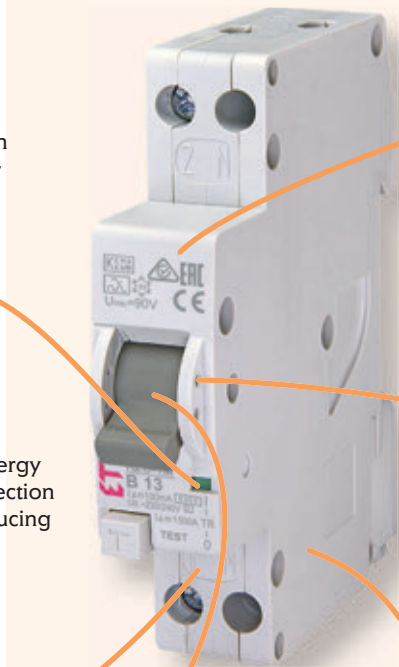
→ Clearly marked terminals to ensure appropriate connection

→ 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



Residual current circuit breakers with integral overcurrent protection

Residual current circuit breaker with integral overcurrent protection KZS-2M 2p

Rated short-circuit capacity **10 kA** Rated current **6 - 25 A** Tripping characteristic **B, C** Rated residual current **0,03 A**

KZS-2M 2p I_{Δn} = 30 mA

I _n [A]	Type A		Weight [g]	Packaging [pcs]
	Code No. B	Code No. C		
6	002172501	002172521	210	1/54
10	002172502	002172522	210	1/54
13	002172503	002172523	210	1/54
15	002172504	002172524	210	1/54
16	002172505	002172525	210	1/54
20	002172506	002172526	210	1/54
25	002172507	002172527	210	1/54

KZS-2M 2p I_{Δn} = 100 mA

I _n [A]	Type A		Weight [g]	Packaging [pcs]
	Code No. B	Code No. C		
6	002172471	002172481	210	1/54
10	002172472	002172482	210	1/54
13	002172473	002172483	210	1/54
15	002172474	002172484	210	1/54
16	002172475	002172485	210	1/54
20	002172476	002172486	210	1/54
25	002172477	002172487	210	1/54



Residual current circuit breaker with integral overcurrent protection with LED status signalisation KZS 2M2p EDI

Rated short-circuit capacity **10 kA** Rated current **6 - 25 A** Tripping characteristic **B, C** Rated residual current **0,03 A**

KZS-2M 2p EDI I_{Δn} = 30 mA

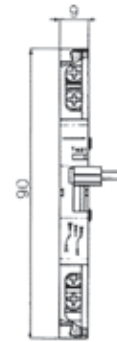
I _n [A]	Type A		Weight [g]	Packaging [pcs]
	Code No. B	Code No. C		
6	002172401	002172411	205	1/54
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13	002172403	002172413	205	1/54
15	002172404	002172414	205	1/54
16	002172406	002172416	205	1/54
20	002172407	002172417	205	1/54
25	002172408	002172418	205	1/54



Technical data

Auxiliary signal switch PS/SS KZS-R

Technical data	
Rated voltage	230V AC/DC, 110V DC
Rated current	6A (230V AC); 1A (110V DC); 0,5A (220V DC)
Rated frequency	50/60Hz, DC
Index of protection	IP 20 (IP 40)
Terminals	max. 1.5mm ² , max 0.8Nm
Ambient temperature	max. 35°C
Storage temperature	max. -40°C to +70°C
Contacts	1x NC, 1x NC/NO
Mounting position	any
Standards	EN 62019



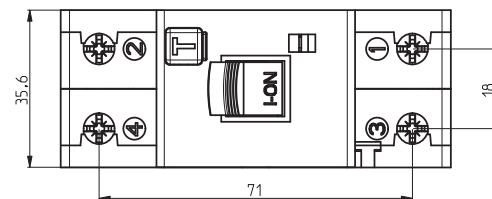
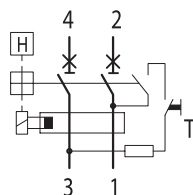
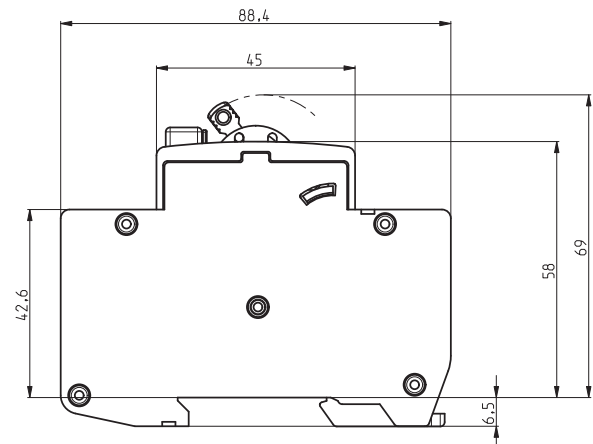
NO - Normally open contact --> during the activation it makes a contact
 NC - Normally closed contact --> during the activation it brakes the contact
 1 - contact
 0 - without a contact

AUX switch connections	status of the breaker	
	ON	OFF
11-14 NO	1	0
11-12 NC	0	1
21-22 NC	0	1

Signal switch connections	status of the breaker		
	ON	manual trip	overcurrent trip
11-14 NO	1	1	0
11-12 NC	0	0	1
21-22 NC	0	0	1

Residual current circuit breaker with integral overcurrent protection KZS-2M 2p

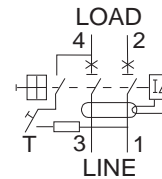
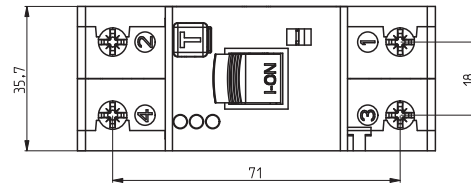
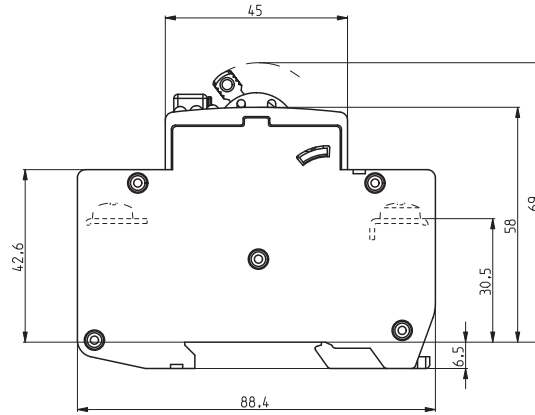
Technical data	
Rated voltage U_n	230 V AC
Rated current I_n	6-25 A
Rated frequency f_n	50 Hz
Rated short-circuit capacity	10.000 A
Back-up fuse	100 A gG
Tripping characteristic	B, C
Type	A
Rated residual current $I_{\Delta n}$	30, 100 mA
Rated residual making and breaking capacity $I_{\Delta m}$	1500A
Terminals	1-25 mm ² , max. 3Nm
Terminal screw	M5 (Pozidrive PZ2)
Width	36 mm
Mounting position	any
Resistance to vibrations acc. to IEC 60068-2-7	5g (10,60 & 500Hz)
Standard	IEC 61009, EN 61009



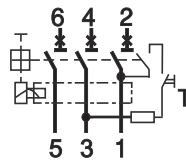
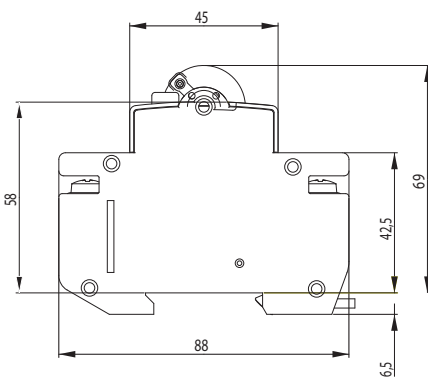
Residual current circuit breaker with integral overcurrent protection with LED status signalisation KZS 2M2p EDI

Technical data

Rated voltage U_n	~230 V AC
Rated current I_n	6-25 A
Rated frequency f_n	50 Hz
Minimal supply voltage U_{min}	90 V
Min. LED operating voltage U_{min}	150 V
Rated short-circuit capacity	10.000 A
Back-up fuse	100 A gG
Tripping characteristic	B, C
Energy limiting class	3
Type of residual release	A
Rated residual current $I_{\Delta n}$	30 mA
Rated residual making and breaking capacity $I_{\Delta m}$	1500A
Index of protection	IP20
Overvoltage category	III
Ambient temperature	-25 °C... +40 °C
Storage temperature	-40 °C... +70 °C
Mounting position	any
Terminals	1-25 mm ² , max. 3 Nm
Terminal screw	M5 (PoziDrive PZ2)
Width	36 mm
Resistance to vibrations acc. to IEC 60068-2-7	5g (10,60 & 500Hz)
Standard	IEC 61009-2, IEC 61009-1

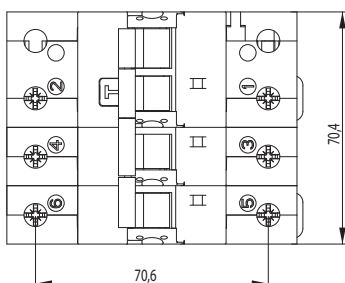


Residual current circuit breaker with integral overcurrent protection KZS-4M 3p



Technical data

Rated voltage U_n	~400 V AC
Rated current I_n	6-32 A
Rated frequency f_n	50/60 Hz
Rated short-circuit capacity	10.000 A
Back-up fuse	100 A gG
Tripping characteristic	B, C
Type	AC, A
Rated residual current $I_{\Delta n}$	30, 100, 300, 500 mA
Rated residual making and breaking capacity $I_{\Delta m}$	4500A
Terminals	1-25 mm ² , max. 3 Nm
Terminal screw	M5 (PoziDrive PZ2)
Width	72 mm
Mounting position	any
Standard	EN 61009-1



Conductor cross-section [mm ²]	Number of single conductors, rigid, single-wire CU conductor				
	1	2	3	4	5
1,5	✓	✓	✓	✓	✗
2,5	✓	✓	✓	✗	✗
4	✓	✓	✓	✗	✗
6	✓	✓	✗	✗	✗
10	✓	✓	✗	✗	✗
16	✓	✗	✗	✗	✗
25	✓	✗	✗	✗	✗

Conductor cross-section [mm ²]	Number of single conductors, flexible Cu conductors without cable ferrule					
	1	2	3	4	5	6
1,5	✓	✓	✓	✓	✓	✓
2,5	✓	✓	✓	✓	✓	✓
4	✓	✓	✓	✓	✓	✓
6	✓	✓	✓	✗	✗	✗
10	✓	✓	✗	✗	✗	✗
16	✓	✗	✗	✗	✗	✗
25	✓	✗	✗	✗	✗	✗

Remark: When you use more than 2 cables you have to be careful how those cables are inserted, due to insure proper pressure on each cable

Combination of rigid single-wire and flexible multi-wire Cu conductors is not allowed