

## TIK type disconnecter switches

The separating switch is a device meant for buildings, and operates as a main switch of constantly installed, high power equipment (like electrical ovens, hot water storage units etc.). The device is at the same time a disconnecter, because it ensures an air gap, twice the opening distance between its opened contacts.

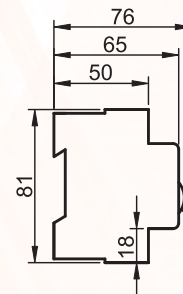
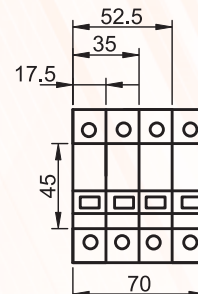
This way, if a circuit breaker is used in every pole of the protected circuit, the switched-off state of the device can be considered voltage free.

### Technical data

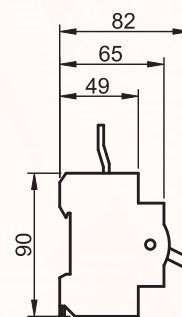
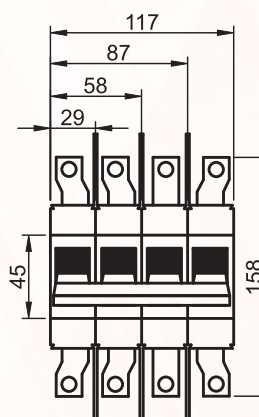
|                                            |                                                                   |
|--------------------------------------------|-------------------------------------------------------------------|
| Rated operating voltage:                   | 240/415 V AC, or 415 V AC                                         |
| Rated insulation voltage:                  | 690 V                                                             |
| Rated impulse withstand voltage:           | 6 kV (1,2/50µs)                                                   |
| Short circuit withstand (with shunt fuse): | 25 kA (max. 250 A gG/gL) 160-250 A<br>(max. 125 A gG/gL) 20-125 A |
| Rated switching capacity:                  | max. 500A (cos φ = 0.65)                                          |
| Electrical life:                           | min. 10000 switching cycle                                        |
| Mechanical life:                           | min. 20000 switching cycle                                        |
| Protection against outer effects:          | Shock and UV-proof plastic housing,<br>IP 40 protection degree    |
| Mounting:                                  | Clip-on 35×7,5 mm size mounting rail                              |
| Way of termination:                        | With female clips                                                 |
| Terminal capacity:                         | 16 ... 50 mm² (20-125 A), 70 ... 120 mm² (160-250 A)              |
| Locking:                                   | The switching arm is lockable on "OFF" position                   |
| Ambient temperature:                       | -25 °C ... +55 °C                                                 |

### Accessories

|                      |                                                     |
|----------------------|-----------------------------------------------------|
| <b>ED...</b>         | Distribution boxes (see page E/43)                  |
| <b>TFSS-1CS</b>      | Terminal with screw (see page J/8)                  |
| <b>35/7.5SIN ...</b> | Mounting rails according to EN 50022 (see page J/9) |



20-125 A

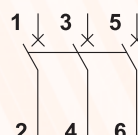


160-250 A



### 1-poles

| Tracon code | I <sub>n</sub> (A) |
|-------------|--------------------|
| TIK1-20     | 20                 |
| TIK1-25     | 25                 |
| TIK1-32     | 32                 |
| TIK1-40     | 40                 |
| TIK1-63     | 63                 |
| TIK1-80     | 80                 |
| TIK1-100    | 100                |
| TIK1-125    | 125                |
| TIK1-160    | 160                |
| TIK1-250    | 250                |



### 3-poles

| Tracon code | I <sub>n</sub> (A) |
|-------------|--------------------|
| TIK3-20     | 20                 |
| TIK3-25     | 25                 |
| TIK3-32     | 32                 |
| TIK3-40     | 40                 |
| TIK3-63     | 63                 |
| TIK3-80     | 80                 |
| TIK3-100    | 100                |
| TIK3-125    | 125                |
| TIK3-160    | 160                |
| TIK3-250    | 250                |



### 2-poles

| Tracon code | I <sub>n</sub> (A) |
|-------------|--------------------|
| TIK2-20     | 20                 |
| TIK2-25     | 25                 |
| TIK2-32     | 32                 |
| TIK2-40     | 40                 |
| TIK2-63     | 63                 |
| TIK2-80     | 80                 |
| TIK2-100    | 100                |
| TIK2-125    | 125                |
| TIK2-160    | 160                |
| TIK2-250    | 250                |



### 4-poles

| Tracon code | I <sub>n</sub> (A) |
|-------------|--------------------|
| TIK4-20     | 20                 |
| TIK4-25     | 25                 |
| TIK4-32     | 32                 |
| TIK4-40     | 40                 |
| TIK4-63     | 63                 |
| TIK4-80     | 80                 |
| TIK4-100    | 100                |
| TIK4-125    | 125                |
| TIK4-160    | 160                |
| TIK4-250    | 250                |



# Modular devices



## Serial selector switches

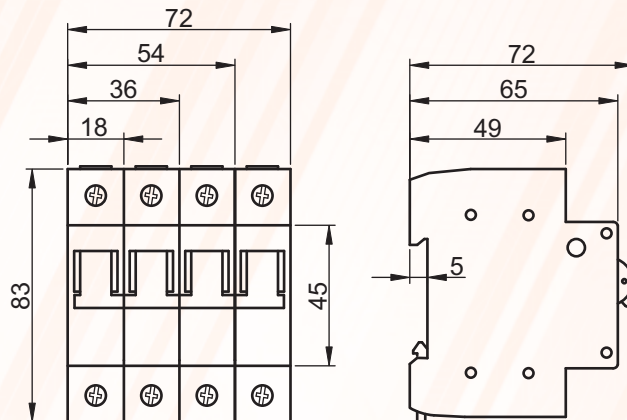
These switches allow for switching on/off or switchover between ohmic circuits (slight overloads included) even with more poles.

The devices are three-position switches with 1, 2, 3, or 4 selector contacts. Switchover between circuits is performed manually. Connectors are arranged stepwise for easier connection of wires.

The switches are adapted for switchover in control systems (e.g. manual, disconnected or automatic mode), measurement systems (voltage or frequency), etc.

### Technical data

|                                       |                                                               |
|---------------------------------------|---------------------------------------------------------------|
| Nominal operation voltage $U_e$ :     | 240/400 V AC                                                  |
| Operation current (AC-21):            | $I_e = I_{th}$                                                |
| Nominal isolation voltage:            | 690 V~                                                        |
| Nominal shock voltage:                | 6 kV                                                          |
| Electrical lifespan (kj):             | 10000                                                         |
| Mechanical lifespan (kj):             | 20000                                                         |
| Short circuit resistance (with fuse): | 10 kA (max 63 A gG/gL)                                        |
| Degree of protection:                 | IP 40; shock- and UV-resistant cover.                         |
| Installation:                         | on 35×7,5 mm rail                                             |
| Sequestering:                         | on all three positions                                        |
| Conductors to be connected:           | 1-16 mm <sup>2</sup> (flexible), 1-16 mm <sup>2</sup> (rigid) |
| Ambient temperature:                  | -25 ... +55 °C                                                |



#### RELEVANT STANDARD

**EN 60947-3**

#### RELEVANT STANDARD

**EN 60669-1**

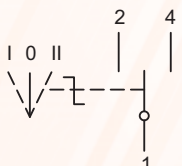
#### TÜV MEEI TEST DOCUMENTATION

**28211822 001**



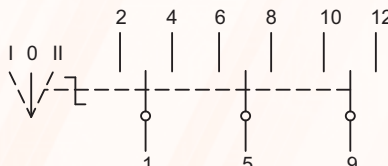
### 1-pole

| Tracon code    | Nominal current $I_{th}$ (A) |
|----------------|------------------------------|
| <b>SVK1-16</b> | 16                           |
| <b>SVK1-32</b> | 32                           |
| <b>SVK1-63</b> | 63                           |



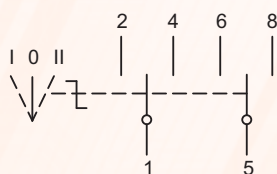
### 3-poles

| Tracon code    | Nominal current $I_{th}$ (A) |
|----------------|------------------------------|
| <b>SVK3-16</b> | 16                           |
| <b>SVK3-32</b> | 32                           |
| <b>SVK3-63</b> | 63                           |



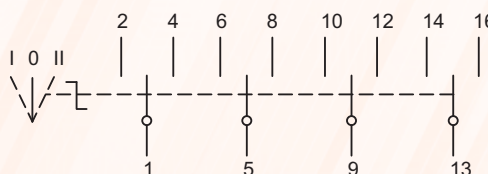
### 2-poles

| Tracon code    | Nominal current $I_{th}$ (A) |
|----------------|------------------------------|
| <b>SVK2-16</b> | 16                           |
| <b>SVK2-32</b> | 32                           |
| <b>SVK2-63</b> | 63                           |



### 4-poles

| Tracon code    | Nominal current $I_{th}$ (A) |
|----------------|------------------------------|
| <b>SVK4-16</b> | 16                           |
| <b>SVK4-32</b> | 32                           |
| <b>SVK4-63</b> | 63                           |



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## Contactors for installations

These contactors are meant for switching of permanently relatively large connected consumers, to be operated by remote control (e.g. hot water tanks, heat storing ovens, advertising lights, etc.). They are useful e.g. in powering staircase lighting in larger buildings, where the time-switch power capacity is too low, and larger switching performance is needed. The contactors placed in plastic boxes are provided with two, three or four contacts and screw connectors. The units can be fixed on  $35 \times 7,5$  mm rails.



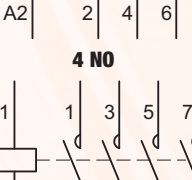
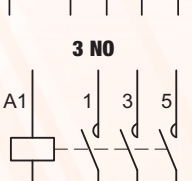
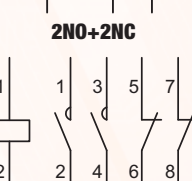
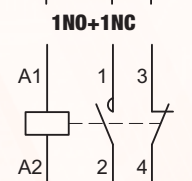
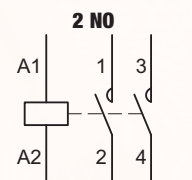
RELEVANT STANDARD

EN 60669-2-3

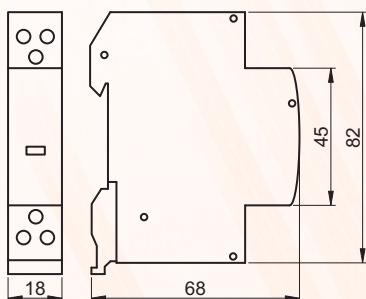
### General technical data

|                                     |                             |
|-------------------------------------|-----------------------------|
| Own power consumption               | max. 7 VA                   |
| Conductors to be connected          | 1-16 / 1-25 mm <sup>2</sup> |
| Ambient temperature                 | -5 ... +40 °C               |
| Nominal isolation voltage $U_i$     | 500 V                       |
| Nominal operation voltage $U_e$     | 230/400 V                   |
| Applicable fuses (gG)               | 20-35-63 A                  |
| Switching frequency (switches/hour) | 600                         |
| Degree of protection (built-in)     | IP 40                       |
| Degree of protection (connectors)   | IP 20                       |
| Electrical lifespan (switches)      | 300000                      |
| Mechanical lifespan (switches)      | 1000000                     |

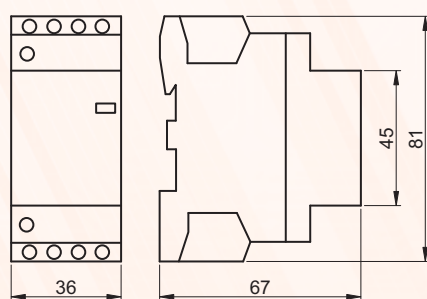
| Tracon code         | Nominal control voltage $U_m$ | Nominal current $I_n$ | Nominal operational current $I_e$ (A) |            |      | Contacts |
|---------------------|-------------------------------|-----------------------|---------------------------------------|------------|------|----------|
|                     |                               |                       | AC1/AC7a                              | AC3 (400V) | AC7b |          |
| THK2-20-24          | 24 V AC                       | 20 A                  | 20                                    | -          | 7    | 2 NO     |
| THK2-20-24/1NO+1NC/ | 24 V AC                       | 20 A                  | 20                                    | -          | 7    | 1NO+1NC  |
| THK2-20             | 230 V AC                      | 20 A                  | 20                                    | -          | 7    | 2 NO     |
| THK2-20/1NO+1NC/    | 230 V AC                      | 20 A                  | 20                                    | -          | 7    | 1NO+1NC  |
| THK2-32-24          | 24 V AC                       | 32 A                  | 32                                    | -          | 12   | 2 NO     |
| THK2-32             | 230 V AC                      | 32 A                  | 32                                    | -          | 12   | 2 NO     |
| THK2-40-24          | 24 V AC                       | 40 A                  | 40                                    | -          | 15   | 2 NO     |
| THK2-40             | 230 V AC                      | 40 A                  | 40                                    | -          | 15   | 2 NO     |
| THK3-20-24          | 24 V AC                       | 20 A                  | 20                                    | 5          | 7    | 3 NO     |
| THK3-20             | 230 V AC                      | 20 A                  | 20                                    | 5          | 7    | 3 NO     |
| THK3-32-24          | 24 V AC                       | 32 A                  | 32                                    | 5.5        | 12   | 3 NO     |
| THK3-32             | 230 V AC                      | 32 A                  | 32                                    | 5.5        | 12   | 3 NO     |
| THK3-40-24          | 24 V AC                       | 40 A                  | 40                                    | 7          | 15   | 3 NO     |
| THK3-40             | 230 V AC                      | 40 A                  | 40                                    | 7          | 15   | 3 NO     |
| THK4-20-24          | 24 V AC                       | 20 A                  | 20                                    | 5          | 7    | 4 NO     |
| THK4-20             | 230 V AC                      | 20 A                  | 20                                    | 5          | 7    | 4 NO     |
| THK4-32-24          | 24 V AC                       | 32 A                  | 32                                    | 5.5        | 12   | 4 NO     |
| THK4-32             | 230 V AC                      | 32 A                  | 32                                    | 5.5        | 12   | 4 NO     |
| THK4-40-24          | 24 V AC                       | 40 A                  | 40                                    | 7          | 15   | 4 NO     |
| THK4-40             | 230 V AC                      | 40 A                  | 40                                    | 7          | 15   | 4 NO     |
| THK4-63             | 230 V AC                      | 63 A                  | 63                                    | 15         | 20   | 4 NO     |
| THK4-63-24          | 24 V AC                       | 63 A                  | 63                                    | 15         | 20   | 4 NO     |
| THK4-63/2NO+2NC/    | 230 V AC                      | 63 A                  | 63                                    | 15         | 20   | 2NO+2NC  |
| THK4-63-24/2NO+2NC/ | 24 V AC                       | 63 A                  | 63                                    | 15         | 20   | 2NO+2NC  |



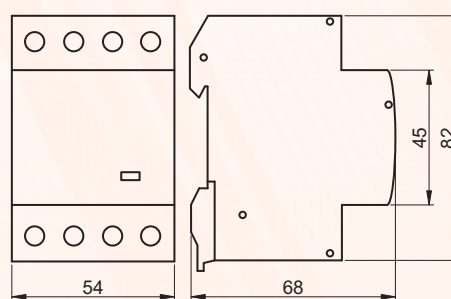
THK2-20



THK2-32, 2-40, 3-20, 4-20



THK3-32, 3-40, 4-32, 4-40, 4-63



## Staircase time switch

These devices are designed for energy-saving usage of various electric units – mainly lamps (e.g. lighting in staircases, gardens, etc.) – Savings result from short time use (from 30 sec. up to 20 minutes) and switch-off after the pre-adjusted time.

Mounting: clip-on 35 × 7,5 mm size mounting rail.

### Technical data

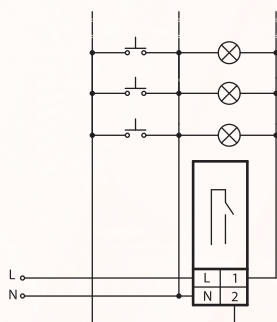
|                        |                 |                                   |                             |
|------------------------|-----------------|-----------------------------------|-----------------------------|
| Operating voltage:     | 230 V AC        | Length of the pushbutton circuit: | max. 250 m                  |
| Electrical life:       | 40 000 cycles   | Terminal capacity (solid)         | 1.5 ... 2,5 mm <sup>2</sup> |
| Ambient temperature:   | -10°C ... +55°C | (flexible)                        | 1.0 ... 2.5 mm <sup>2</sup> |
| Storage temperature:   | -25°C ... +75°C | Protection degree (terminals):    | IP 20                       |
| Number of pushbuttons: | max. 50 pcs     | (after mounting):                 | IP 40                       |



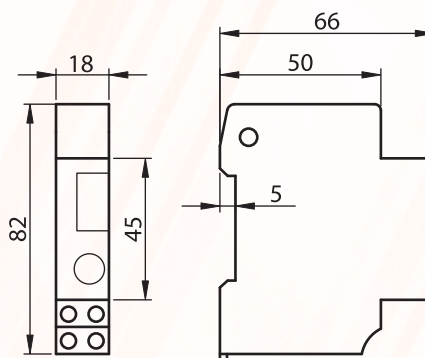
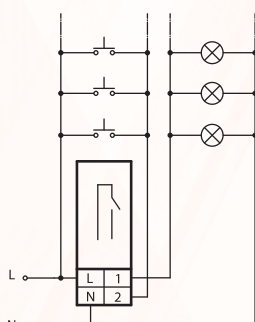
| Tracon code | Adjustable time (continuous) | Power consumption | Maximal load                 | Switching capacity   |                     |
|-------------|------------------------------|-------------------|------------------------------|----------------------|---------------------|
|             |                              |                   |                              | at incandescent load | at fluorescent load |
| TLA-3       | 30 s – 20 min                | 1 VA              | 16 A / 230 V AC; (cos φ = 1) | max. 2300 W          | max. 800 W          |

Selection between continuous operation and automatic programs can be made by the selector switch on the front plate of the device.

Three wire system



Four wire system



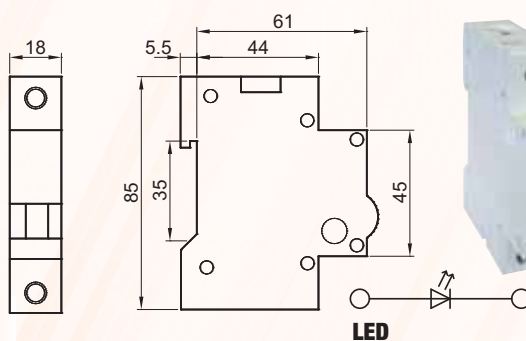
## Serial signal lights

Module-sized serial light indicating the active status of the network supply voltage. The active status of the LED light source is easily detectable even under incident light. The **SLJL-AC230-SZP** type can display the supply the voltage in all three phases in one module width with three different colored LED. Installation method: on standard rail 37 × 7.5 mm.



### Technical data

|                       |                                        |
|-----------------------|----------------------------------------|
| Rated voltage:        | 230 V AC                               |
| Rated frequency:      | 50/60 Hz                               |
| Power consumption:    | max. 0.8 W                             |
| Lifetime:             | 20,000 hours                           |
| Protection class:     | II.                                    |
| Degree of protection: | IP 20                                  |
| Terminal capacity:    | 1 mm <sup>2</sup> – 25 mm <sup>2</sup> |
| Ambient temperature:  | -25 °C ... +55 °C                      |



| Tracon code    | Rated voltage | Number of LED, Color              |
|----------------|---------------|-----------------------------------|
| SLJL-AC230-P   | 230 V AC      | 1 pc, red                         |
| SLJL-AC230-Z   | 230 V AC      | 1 pc, green                       |
| SLJL-AC230-S   | 230 V AC      | 1 pc, yellow                      |
| SLJL-AC230-F   | 230 V AC      | 1 pc, white                       |
| SLJL-AC230-K   | 230 V AC      | 1 pc, blue                        |
| SLJL-AC24-P    | 24 V AC       | 1 pc, red                         |
| SLJL-AC24-Z    | 24 V AC       | 1 pc, green                       |
| SLJL-AC24-S    | 24 V AC       | 1 pc, yellow                      |
| SLJL-AC24-F    | 24 V AC       | 1 pc, white                       |
| SLJL-AC24-K    | 24 V AC       | 1 pc, blue                        |
| SLJL-AC230-SZP | 3×230 V AC    | 1 pc yellow, 1 pc green, 1 pc red |

| Tracon code  | Rated voltage | Number of LED, Color |
|--------------|---------------|----------------------|
| SLJL-DC220-P | 220 V DC      | 1 pc, red            |
| SLJL-DC220-Z | 220 V DC      | 1 pc, green          |
| SLJL-DC220-S | 220 V DC      | 1 pc, yellow         |
| SLJL-DC220-F | 220 V DC      | 1 pc, white          |
| SLJL-DC220-K | 220 V DC      | 1 pc, blue           |
| SLJL-DC24-P  | 24 V DC       | 1 pc, red            |
| SLJL-DC24-Z  | 24 V DC       | 1 pc, green          |
| SLJL-DC24-S  | 24 V DC       | 1 pc, yellow         |
| SLJL-DC24-F  | 24 V DC       | 1 pc, white          |
| SLJL-DC24-K  | 24 V DC       | 1 pc, blue           |



# Modular auxiliary devices



## Signal lamps

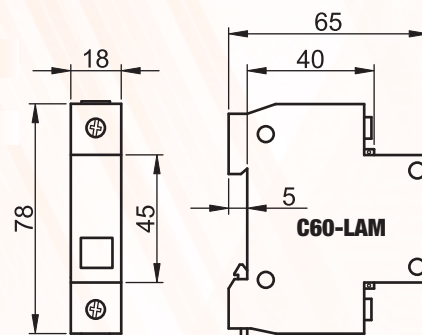
These signal lamps with modular size were designed for indicating the live state of an electric network. They optically indicate the voltage on the circuit or the working state of a device. Mounting: clip-on 35×7,5 mm size rail.



| Tracon code      | Light source | Color  |
|------------------|--------------|--------|
| <b>C60-LAM-P</b> | Glimm        | Red    |
| <b>C60-LAM-Z</b> | Glimm        | Green  |
| <b>C60-LAM-S</b> | Glimm        | Yellow |

### Technical data

|                      |                                       |
|----------------------|---------------------------------------|
| Rated voltage:       | 230 V AC                              |
| Rated frequency:     | 50/60 Hz                              |
| Power consumption:   | 0,6 W                                 |
| Life:                | 20000 hours                           |
| Protection class:    | II                                    |
| Protection degree:   | IP 20                                 |
| Terminal capacity:   | 1 mm <sup>2</sup> – 10mm <sup>2</sup> |
| Ambient temperature: | -25 °C ... +55 °C                     |



### RELEVANT STANDARD

**EN 60669**

## Signal bells

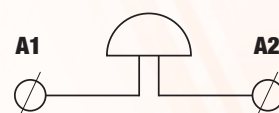
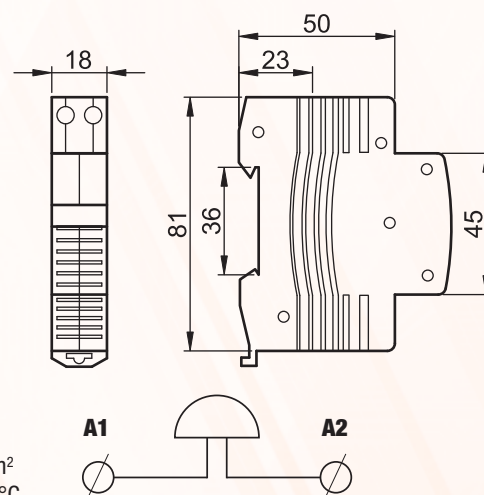
Module size bells for signalling or warning. Suited for domestic or industrial purposes, both for short impulse-like and continuous load. Mounting: clip-on 35×7,5 mm size rail.



| Tracon code        | Operating voltage |
|--------------------|-------------------|
| <b>C60-CSEN</b>    | 230 V AC          |
| <b>C60-CSEN-24</b> | 24 V AC           |
| <b>C60-CSEN-12</b> | 12 V AC           |
| <b>C60-CSEN-8</b>  | 8 V AC            |

### Technical data

|                       |                                       |
|-----------------------|---------------------------------------|
| Power consumption:    | 0,05 W                                |
| Rated frequency:      | 50/60 Hz                              |
| Protection class:     | II                                    |
| Protection degree:    | IP 20                                 |
| Loudness:             | 60 dB                                 |
| Continuous operation: | max. 60 min                           |
| Terminal capacity:    | 1 mm <sup>2</sup> – 10mm <sup>2</sup> |
| Ambient temperature:  | -25 °C ... +55 °C                     |



### RELEVANT STANDARD

**EN 60669**

## Safety (bell) transformer

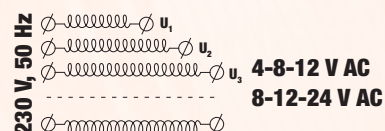
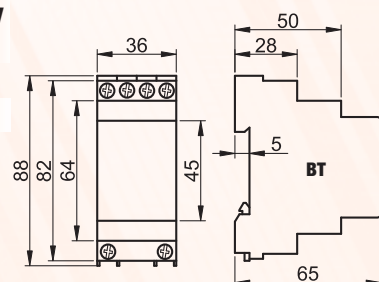
Safe separating transformers supplying extra low voltage. Used as bell power supply it can also be used for other purposes according to the secondary voltage, e.g. supplier for other electric devices.



| Tracon code   | Secondary voltage | Max. secondary current |
|---------------|-------------------|------------------------|
| <b>BT-8/1</b> | 4, 8, 12 V AC     | 0,66 A                 |
| <b>BT-8/2</b> | 8, 12, 24 V AC    | 0,33 A                 |

### Technical data

|                      |                                                         |
|----------------------|---------------------------------------------------------|
| Primary voltage:     | 230 V AC                                                |
| Rated power:         | 8 VA                                                    |
| Protection degree:   | IP 20                                                   |
| Terminal capacity:   | min. 0.75 mm <sup>2</sup><br>max. 2×2.5 mm <sup>2</sup> |
| Mounting:            | Clip-on 35×7,5 mm size mounting rail                    |
| Ambient temperature: | -25 °C ... +55 °C                                       |



### RELEVANT STANDARD

**EN 61558-2-8**

## Impulse-Relay

These bistable modular Impulse-Relays can be used for remote control of electric circuits and can be switched manually as well. Both phase and neutral wire must carry trough relay but only phase will be switched.

1. The LED is lighting at „ON” state.
2. The LED is not lighting at „OFF” state.
3. The operation status of device can be changed manually by pressing the pushbutton on the front side.

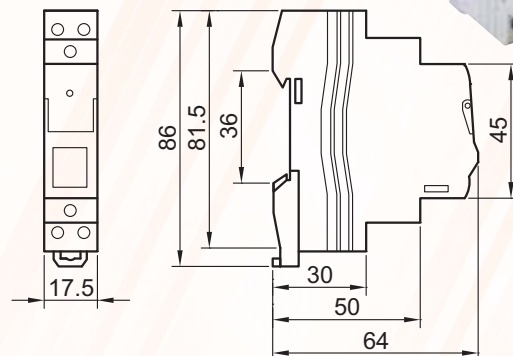
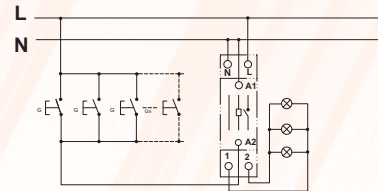
### Technical data

|                          |                                          |
|--------------------------|------------------------------------------|
| Rated operation voltage: | 230 V AC                                 |
| Rated thermal current:   | 16 A, 250 V, 50 Hz                       |
| Rated actuating voltage: | 230 V AC                                 |
| Self consumption:        | 0.02 W                                   |
| Min. impulse time:       | 50 ms                                    |
| Mechanical life:         | 10 <sup>5</sup> switching cycles (sc)    |
| Switching cycle:         | 30 cycles / hour                         |
| Electrical life:         | 10 <sup>5</sup> sc (cos φ = 1)           |
| Electrical life:         | 5×10 <sup>4</sup> sc (cos φ = 0,6)       |
| Protection degree:       | IP 20                                    |
| Terminal capacity:       | 0.75 mm <sup>2</sup> - 4 mm <sup>2</sup> |
| Montage art:             | on 35 × 7.5 mm montage rail              |
| Ambient temperature:     | -25 °C ... +55 °C                        |

### Suggested maximal load:

|                                       |             |
|---------------------------------------|-------------|
| Resistive load (AC-1):                | max. 3500 W |
| Glow wire lamp (AC-5b):               | max. 2300 W |
| Fluorescent lamp w/o compens. (AC-5a) | max. 1300 W |
| Fluorescent lamp with compensation    | max. 500 W  |
| Low voltage halogen lamp              | max. 2600 W |
| Inductive load (cos φ = 0,6)          | max. 1300 W |

| RELEVANT STANDARD |
|-------------------|
| <b>EN 60669</b>   |



**Tracon code**  
**IMP-230**

**Actuating voltage**  
230 V AC

## Modular socket outlet

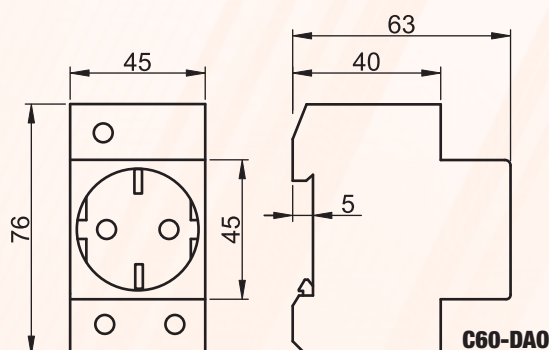
It can be used in distribution boxes, power measure boxes, switching gears, e.g. supplying local lighting or mechanical tools.

### Technical data

|                      |                                      |
|----------------------|--------------------------------------|
| Max. load:           | 250 V/16 A                           |
| Terminal capacity:   | max. 2×2.5 mm <sup>2</sup>           |
| Mounting:            | Clip-on 35×7,5 mm size mounting rail |
| Ambient temperature: | -25 °C ... +55 °C                    |

| RELEVANT STANDARD                                     |
|-------------------------------------------------------|
| <b>MSZ 9872</b><br><b>CEE 7</b><br><b>IEC 60884-1</b> |

| TÜV MEEI TEST DOCUMENTATION |
|-----------------------------|
| <b>M11 2892151 01</b>       |



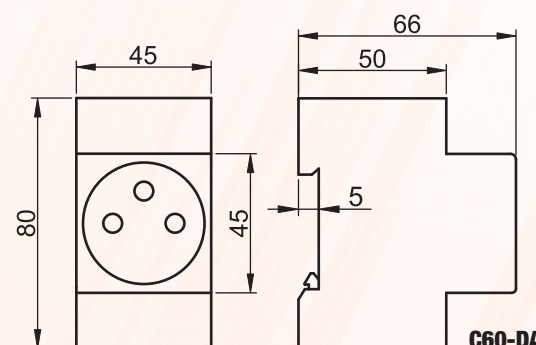
**C60-DA0**



**Tracon code**

**Name**

|                |                                    |
|----------------|------------------------------------|
| <b>C60-DA</b>  | 2P+ ⊥ with side protection contact |
| <b>C60-DA0</b> | 2P+ ⊥ with male protection contact |



**C60-DA**