



## Дифференциальное реле Socomes Resys Type B (B475) - брошюра на продукцию. Юниджет

Постоянная ссылка на страницу: <https://www.uni-jet.com/catalog/commutation/oborudovanie-dlya-elektronnoj-zashhityi/socomes-resys-b-470-b-471-b-475.html>

# RESYS Type B

RESYS B 420

RESYS Type B

RESYS M40

RESYS P40

RESYS M20

Core balance transformers



## RESYS B 475 (Type A / AC / B)

1. "TEST/RESET" pushbutton.
2. "ON" LED.
3. "ALARM" / pre-alarm LED.
4. Parameter configuration microswitches ( $I_{\Delta n}$ ...).
5. Bargraph indicating the instantaneous value (in % of  $I_{\Delta n}$ ).
6. Time delay setting.
7. Setting value threshold  $I_{\Delta n}$ .
8. Casing with 18 mm diameter built-in detection toroid.

## Functions

**RESYS type B** earth leakage relays are associated with a remote trip breaking device (automatic power cut-off), thus providing the following functions:

- protection against indirect contacts,
- limitation of leakage currents.

They also preventively monitor electrical installations via their pre-alarm system or when used as signal relays.

They are particularly suited to installations where continuous components disturb conventional differential devices limited to type AC or A.

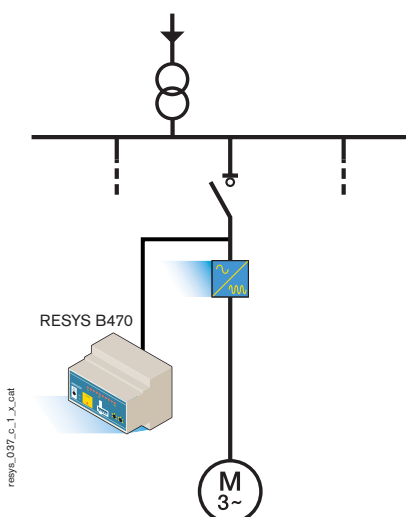
## Conformity to standards

- IEC 60947-2
- IEC 60364
- IEC 60755
- IEC 62020
- HD 384

## General characteristics

- Monitoring all types of differential current: DC (type B = ), sinusoidal (type AC ~) and pulsed (type A ⚡) in the TT, TNS and IT networks.
- Devices particularly suitable for circuits with converters (rectifiers, controllers...).
- Sensitivity of 0.03 to 3 A (depending on model).
- Time delay: 0 to 10 s.
- Automatic permanent toroid-relay connection test.
- Built-in 18 mm toroid (type B 475).

## Applications



Every time a conventional earth leakage device type AC or A is likely to be masked by continuous leakage currents from converters (speed controllers, rectifiers...), RESYS type B relays must be used to ensure efficient operation.

### Examples of conventional applications

AC LV networks, AC with DC parts, in TT, TNS, IT.

Universal monitoring of differential currents of AC type, strongly pulsed (type B = > limits of type A ⚡) and DC to provide the following functions:

- protection:
  - against indirect contacts,
  - complementary against direct contacts,
  - against fire risk,
  - motor, equipment and hardware protection,
  - protection of earth and protection conductors;
- preventive signalling;
- monitoring installations where periodic insulation measurement with power off is impossible;
- used with SOCOMEC "Core balance transformers" (see page B.82).


**RESYS B 470**
**RESYS B 471**
**RESYS B 475**

## References

Auxiliary power supply  $U_s^{(1)}$ 

Auxiliary power supply $U_s^{(1)}$	References	References	References
230 VAC	4931 2723 <sup>(2)</sup>	4931 2724 <sup>(2)</sup>	4931 2725 <sup>(2)</sup>
90 ... 132 VAC	4931 2711 <sup>(2)</sup>	4931 2712 <sup>(2)</sup>	4931 2713 <sup>(2)</sup>
9.6 ... 84 VDC	4931 2604 <sup>(2)</sup>	4931 2603 <sup>(2)</sup>	4931 2601 <sup>(2)</sup>

(1) Other supply voltages: please consult us.

(2) References and characteristics of the "Core balance transformers", see page B.82.

## Electrical characteristics

### Auxiliary power supply $U_s$

Frequency	50 ... 60 Hz
Operating zone	0.85 ... 1.1 $U_s$
Max. consumption	3.5 VA

### Insulation (according to IEC 60664-1 standard)

Rated insulation voltage	250 VAC
Rated impulse voltage	4 kV
Degree of pollution	Class 3

### Threshold values

Setting $I_{\Delta n}$	0.03 ... 3 A <sup>(1)</sup> ; 0.1 ... 3 A <sup>(2)</sup> ; 0.03 ... 0.5 A <sup>(3)</sup>
Accuracy of tripping in class AC	-50 ... +100% $I_{\Delta n}$
Accuracy of tripping in class B	-50 ... +200% $I_{\Delta n}$
Domain of network frequency	0 ... 150 Hz <sup>(1)</sup> ; 0 ... 60 Hz <sup>(2)</sup> ; 0 ... 700 Hz <sup>(3)</sup>
Specified time setting	0 ... 10 s
PRE-ALARM relay tripping	50% $I_{\Delta n}$
Hysteresis of the PRE-ALARM relay	25%

### Alarm

Alarm factory setting	memorisation
RESET	manual by PB

### Output contacts

Number of contacts	2
Type of PRE-ALARM contact	250 VAC - 5 A - 1150 VA
Type of ALARM contact	250 VAC - 5 A - 1150 VA
PRE-ALARM operating mode	N.O. / N.C.
ALARM operating mode	N.O. / N.C.
Factory setting of PRE-ALARM operating mode	N.O.
Factory setting of ALARM operating mode	N.O.

### Operating conditions

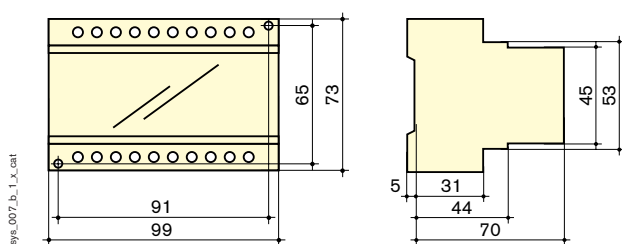
Operating temperature	-10 ... +55 °C
Storage temperature	-40 ... +70 °C

(1) RESYS B 470.

(2) RESYS B 471.

(3) RESYS B 475.

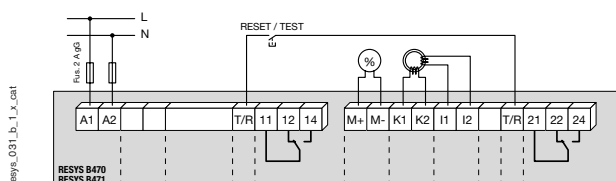
## Overall dimensions



Type	modular
Dimensions W x H x D	99 x 73 x 75 mm
Case protection rating	IP30
Terminal block protection rating	IP20
Rigid cable connection section	0.2 ... 4 mm <sup>2</sup>
Flexible cable connection section	0.2 ... 2.5 mm <sup>2</sup>
Weight	350 g

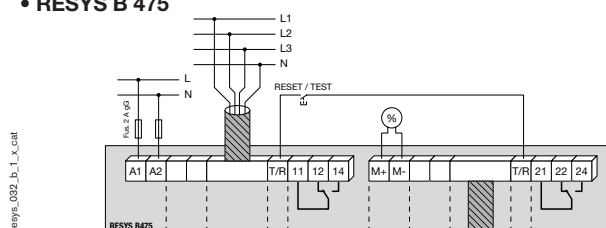
## Terminals

### • RESYS B 470 / B 471


A1 - A2: auxiliary power supplies  $U_s$   
T/R - T/R: external test and reset pushbuttons  
11 - 12 - 14: alarm relay outputs

M+ - M-: offset insulation level indicators  
K1 - K2 - I1 - I2: SOCOMEC type WX-A toroid connection  
21 - 22 - 24: pre-alarm or alarm relay outputs

### • RESYS B 475


A1 - A2: auxiliary power supplies  $U_s$   
Toroid inside casing  
T/R - T/R: external test and reset pushbuttons  
11 - 12 - 14: alarm relay outputs

M+ - M-: offset insulation level indicators  
21 - 22 - 24: pre-alarm or alarm relay outputs  
Remark: the PE conductor must be outside the detection toroid