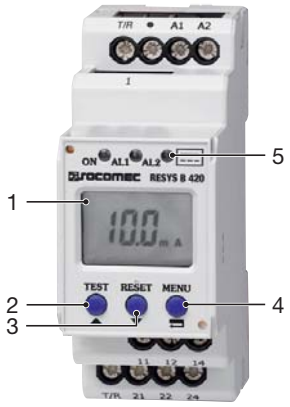
RESYS B 420



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RESYS B 420 (Type B)

1. LCD display.
2. “TEST” pushbutton: select to activate autotest function or to scroll up in menu mode.
3. “RESET” pushbutton: reset fault alarm charge parameter, scroll.
4. “MENU” pushbutton: select for menu activation or to confirm setting in menu mode.
5. Alarm Leds: activated in case of alarm and blinking in case of faults.

Functions

Earth leakage protection relay **RESYS Type B 420** is associated with a remote trip breaking device (automatic power cut-off), and provides the following functions:

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

The relay also monitors electrical installations when used directly as signalling relay.

It is particularly suited to installations where continuous signal components disturb conventional differential devices for AC or A type relays.

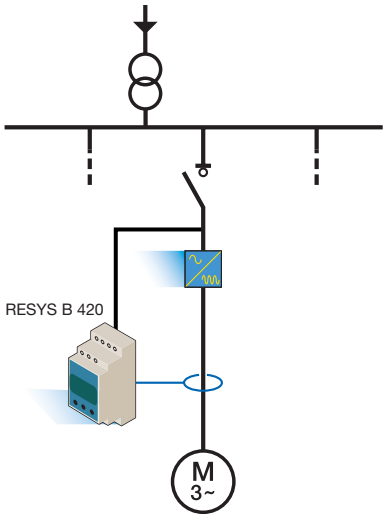
Conformity to standards

- IEC 60755
- IEC 60947-2
- IEC 62020
- IEC 60364

General characteristics

- RESYS B 420 relay with 2 alarm relays:
  - either 2 alarm relays,
  - either 1 alarm relays or 1 pre-alarm (50 % to 100 IΔn) relay.
- Adjustment sensitivity 10 to 500 mA.
- Time delay 0 to 10 s.
- Measurement accuracy by TRMS.
- Positive or negative security configurable by the user.
- Automatic permanent relay-toroid connection test.
- Sealed cover.

Applications



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Rapid recognition of an insulation fault increases the availability of the distribution network by preventing accidental power cuts and the resulting loss of production. TRMS measurement avoids repeated random tripping and the bargraph allows the display of permanent leakage current.

Examples of conventional applications

AC LV networks: TT, TNS, IT.

Universal monitoring pure AC differential currents (type AC) and pulsed (type A), strongly pulsed (Type B ⎓ , limits of Type A ⏦) and DC to provide the following functions:

- protection:
  - against indirect contact,
  - against fire risk,
  - against explosion risk,
  - 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 420

References

Auxiliary power supply U_s(1)	References
16 ... 72 VAC / 9.6 ... 94 VDC	4931 **4602**(1)
70 ... 300 VUC	4931 **4723**(1)

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

Electrical characteristics

Auxiliary power supply U_s

Frequency	42 … 460 Hz
AC operating zone	see reference table
DC operating zone	see reference table
Max. consumption	3 VA

Insulation (according to IEC 60664-1standard)

Rated insulation voltage	250 VAC
Rated impulse voltage	2.5 kV
Degree of pollution	Class 3

Threshold values

Setting IΔn	10 - 500 mA
Accuracy of tripping	- 35 … 100 % IΔn
Domain of network frequency	0 … 2000 Hz
Specified time setting	0 - 10 s
PRE-ALARM relay tripping	50 - 100 % IΔn
Hysteresis of the PRE-ALARM relay	15 % IΔn

Alarm

Alarm configuration mode	memory / automatic reset
Alarm factory setting	memory
RESET	manual by pushbutton or using the terminals

Output contacts

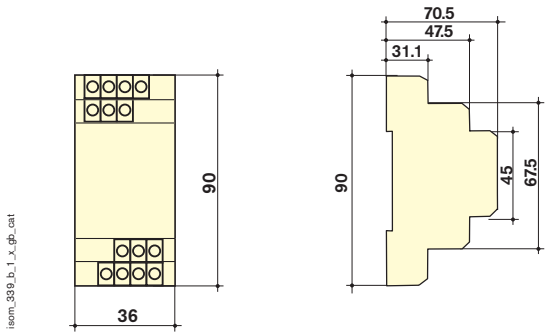
Number of contacts	2
Type of ALARM 1 contact	230 VAC - 5 A - 1150 VA
Type of ALARM 2 or PRE-ALARM contact	230 VAC - 5 A - 1150 VA
ALARM 1 operating mode	positive / negative security
ALARM 2 or PRE-ALARM operating mode	positive / negative security(1)
Factory setting of ALARM 1 operating mode	positive security
Factory setting of ALARM 2 operating mode	positive security

(1) According to configuration described in the technical manual.

Operating conditions

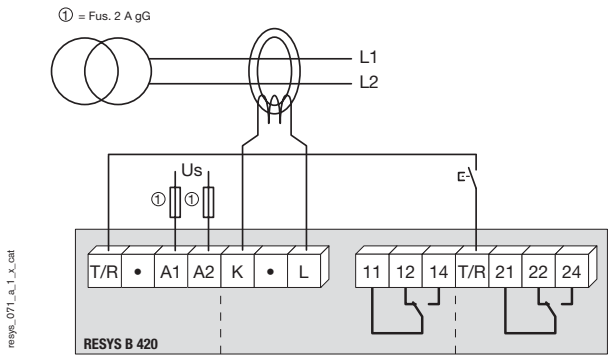
Operating temperature	- 25 … + 55 °C
Storage temperature	- 30 … + 70 °C

Overall dimensions



Type	modular
Number of modules	2
Dimensions W x H x D	36 x 90 x 70.5 mm
Case protection rating	IP30
Terminal block protection rating	IP20
Rigid cable connection section	0.2 … 1.5 mm²
Flexible cable connection section	0.2 … 1.5 mm²
Weight	150 g

Terminals



T/R : external test and rest pushbuttons
A1 - A2: auxiliary power supplies U_s
K-L: differential toroid connection
11 - 12 - 14 : alarm relay outputs 1
21 - 22 - 24 : alarm relay outputs 2