

Protection Relays

Relays

A line



General Characteristics

The series of electronic analogic protective relays here below presented has been designed according to the most advanced technologies in order to obtain the highest reliability, accuracy and immunity to interference and is made with first choice components safely dimensioned and protected.

The application of severe testing and quality control procedures guarantees the reliability of the product.

Relays Type

PB../..	Dual level current relay: 50/51
UB0-A	Earth fault current relay desensitised to the third harmonic: 51N
BI20/..	Two phase + earth fault overcurrent relay: 49, 51, 51N
BI2C	Dual level D.C. current relay: 49, 76
BF3	Three phase breaker failure relay: 50BF
UB./.	Under/Over-voltage relay: 27, 59, 45, 80
UB./.	Dual level voltage relay: 27, 59, 45, 80
UB0	Zero sequence voltage relay desensitised to the third harmonic: 64
UB./60	Voltage balance relay: 60
UB0/100	Relay for 100% generator stator earth fault protection: 64s
UB1/2/C	Battery positive/negative leakage to earth fault protection
UB3/59-S	Overvoltage relay for supervision of CTs ' circuits
RBW	Directional overcurrent relay: 32, 67, 67N
RRS	Automatic load sharing control relay for generators: 95
UB0/CR	Rotor earth fault relay: 64R
RB4	Lock-out relay: 86
RHS	Rotating diode failure detection relay: 58
RCA	Trip circuit supervision relay: 74
UB0/ATR	High impedance differential relay: 87N(87G)

Main features:

- Measuring inputs supplied through internal adaptor transformers
- Multivoltage a.c. and d.c. autoranging power supply unit
- Draw-out modular execution on standard european size P.C. boards
- Fibreglass reinforced epoxy resin P.C. boards with tinplated copper tracks, solder mask special silicon humidity protection and screen printed component designators
- P.C. board connectors with golden plated pins rated 10A continuous and 200A 1sec

Execution

"E" for flush mounting with back connection terminals, draw-out relay boards with automatic short circuit of the current inputs. Transparent front cover. Protection degree IP54; accessories for surface mounting (E/I) are also available.

"E/R" standard 19"3U (8 modules) or 6U (16 modules) rack with back connection terminals, draw-out relay boards with short circuit of the current.



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Output Relays

Two versions are provided:

- Standard version: the output relays are de-energized on normal operating conditions and are energized on relay's tripping
- Positive protected version (on request): the output relays are energized on normal operating conditions, (i.e. with auxiliary supply on and input values at normal levels) and are de-energized on relay's tripping, failure of power supply, internal relay fault

Signalization

- Green led: auxiliary power supply presence
- Red led: trip indication
- Yellow led: trip memorization

Control

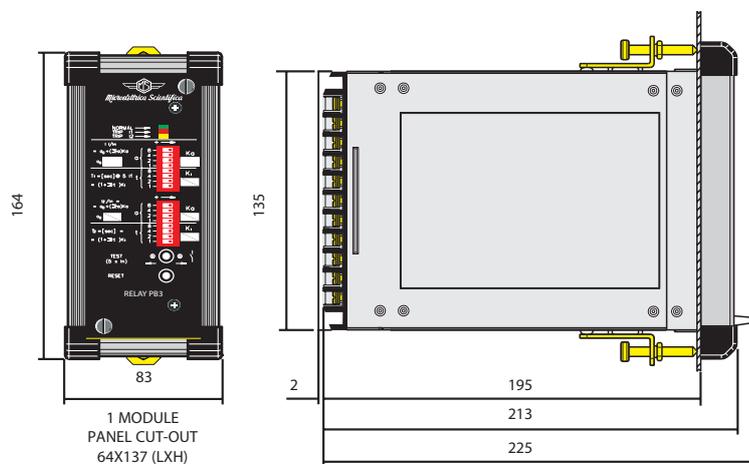
- Relay test with or without tripping of output contacts
- Automatic and/or local/remote reset of the output relays
- Local manual reset only for signal led

Blocking and Intertripping Circuits

On request are available:

- Blocking input (BI)
- Blocking output (BO)
- Time start output (TO)

Overall Dimensions: mm



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