



MK330A

Features

- Numerical auto-reclosing earth leakage relay
- Incorporated positive safety feature into trip contact
- One programmable contact for flexibility
- Detection of no connection to ZCT
- Relay trip / alarm indicator
- Real-time leakage current display
- Leakage fault current recording
- Remote reset function
- Standard DIN 96 x 96mm panel mounting
- Protected against nuisance tripping
- ANSI Code : 50N, 51N, 79

Technical Data

AUXILIARY SUPPLY

Model MK330A-230A : 184~276VAC
 Model MK330A-110A : 94~127VAC
 Rated frequency : 50Hz
 VA rating : 3VA typical

PERFORMANCE

Setting accuracy : -15% to +0%
 Timing accuracy : ±5%

SETTING

Sensitivity adjustment : 30mA, 50mA,
 0.10~1.00A
 (Step=50mA)
 1.00~10.0A
 (Step=1.00A)

Time delay adjustment: Instantaneous,
 0.1~3.0sec (Step=0.1s)

Number of shots : 0~30 (Step=1, 0=Disable
 auto re-close function)

Dead time : 1~500sec (Step=1sec)

Persistent fault time : 0~500sec (Step=1sec,
 0=Disable function)

Reclaim time : 0~500min (Step=1min,
 0=Disable function)

Lockout auto reset time: 0~200hour (Step=1Hr,
 0=Disable function)

Programmable contact: Option 0 = Disable
 Option 1 = All (Option 2 to 6)
 Option 2 = ZCT error
 Option 3 = Leakage trip, test trip, re-close lockout
 Option 4 = Re-close lockout
 Option 5 = Pre-fault alarm, leakage trip, test trip, re-close lockout
 Option 6 = Re-close lockout, ZCT error

RECORD

Fault record : 3 latest tripped fault currents or "tSt" for manual test trip
 Storage : Non-volatile memory

INPUT

Remote reset : N.O. dry contact

OUTPUTS

Trip safe contact : Activated when the relay is in normal power-up condition with the measured leakage current less than 0.85 I_{Δn}.
 Programmable contact: Activated according to user setting

OUTPUT CONTACTS

Rated voltage : 250 V AC
 Contact rating : 5 A (NO)
 3 A (NC)
 Expected electrical life : 100,000 operations at rated current
 Expected mechanical life : 5 x 10⁶ operations

INDICATORS

Pre-fault alarm : Red indicator (Normal blink)
 Time delay : Red indicator (Fast blink)
 Leakage trip : 7-segment display and red indicator
 Re-close lockout : 7-segment display and red indicator
 ZCT connection error: 7-segment display and red indicator
 Real-time leakage current : 7-segment display

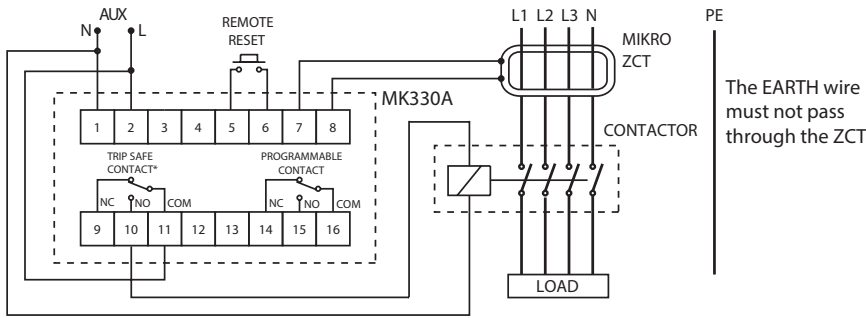
ZERO-PHASE CURRENT TRANSFORMER

To operate with Mikro's ZCT series of current transformer

MECHANICAL

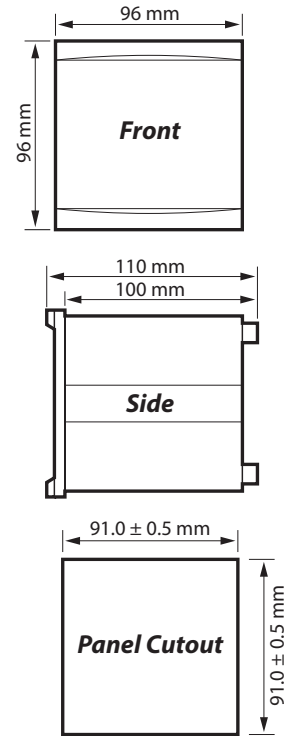
Mounting : Panel mounting
 Dimension (mm) : 96(w) x 96(h) x 110(d)
 Enclosure protection : IP54 at the panel
 Approximate weight : 0.6 kg (excluding ZCT)

Typical Application Diagram



* The trip safe contact is activated (terminal 10-11 closed) when the relay is in normal power-up condition with the measured leakage current less than $0.85 I_{\Delta n}$.

Case Dimensions



Ordering Information

| MODEL | DESCRIPTION |
|--------------|---|
| MK330A-230A | For 50Hz system, auxiliary voltage 184~276VAC |
| MK330A-110A | For 50Hz system, auxiliary voltage 94~127VAC |
| MK330A-230A6 | For 60Hz system, auxiliary voltage 184~276VAC |
| MK330A-110A6 | For 60Hz system, auxiliary voltage 94~127VAC |