



# MK203A

## Features

- Microprocessor based numerical relay
- Current measurement based on fundamental frequency
- Low-set inverse definite minimum time (IDMT) relay
- High-set instantaneous relay
- Separate low-set and high-set trip indicators
- Option to disable high-set relay
- Front panel access to test function
- Complies with IEC 60255-26 standard
- ANSI Code : 50P, 51P

## Technical Data

### RATINGS

|                         |                        |
|-------------------------|------------------------|
| Rated current ( $I_n$ ) | : 5 A                  |
| Rated frequency         | : 50 Hz                |
| Burden                  | : < 0.3 VA at $I_n$    |
| Thermal withstand       | : 4 x $I_n$ continuous |

### AUXILIARY SUPPLY

|                   |                  |
|-------------------|------------------|
| Model MK203A-240A | : 198 ~ 265 V AC |
| Model MK203A-110A | : 94 ~ 127V AC   |
| Supply frequency  | : 50 Hz          |
| VA rating         | : 3 VA typical   |

### SETTING RANGES

|                                |                                  |
|--------------------------------|----------------------------------|
| Low-set ( $I >$ )              | : 2.0 A to 6.0 A                 |
|                                | : 40% to 120%                    |
| Time multiplier (TM)           | : 0.05 to 1.0                    |
| High-set ( $I >>$ )            | : $I >$ to 10 x $I >$ or disable |
| High-set delay time ( $t >>$ ) | : Instantaneous                  |

### TIME CURRENT CHARACTERISTIC CURVE

- Normal Inverse

### OUTPUT CONTACTS

|                           |                                     |
|---------------------------|-------------------------------------|
| Trip contact (R1)         | : Manual reset type                 |
| Rated voltage             | : 250 V AC                          |
| Contact rating            | : 5 A                               |
| Expected electrical life: | 100,000 operations at rated current |
| Expected mechanical life: | 5 x 10 <sup>6</sup> operations      |

### INDICATORS

|                  |                   |
|------------------|-------------------|
| Auxiliary supply | : Green indicator |
| Pick-up          | : Red indicator   |
| Trip             | : Red indicator   |

### ACCURACY

|                       |                                |
|-----------------------|--------------------------------|
| Protection thresholds | : ± 5%                         |
| Time delay            | : ± 5% with a minimum of 50 ms |

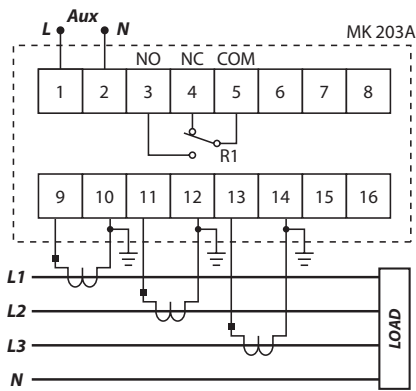
### ENVIRONMENTAL CONDITIONS

|             |   |
|-------------|---|
| Temperature | : -5°C to +55°C                             |
| Humidity    | : 56 days at 93% RH and 40°C non-condensing |

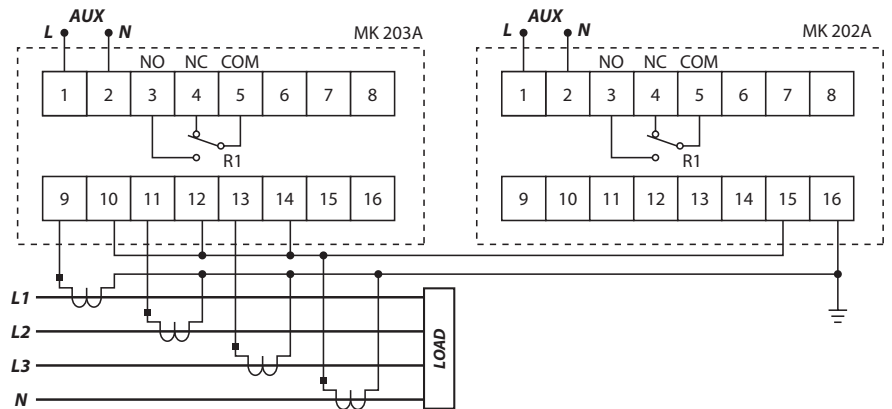
### MECHANICAL

|                    |                          |
|--------------------|--------------------------|
| Mounting           | : Panel mounting         |
| Dimension (mm)     | : 96(w) x 96(h) x 110(d) |
| Approximate weight | : 0.8 kg                 |

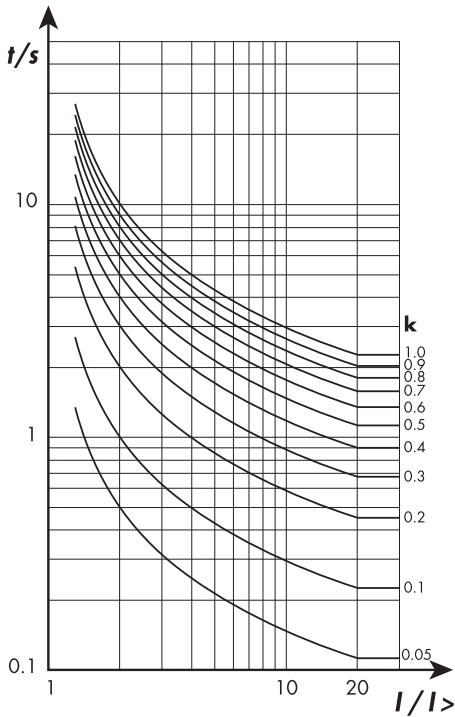
### Typical Application Diagram



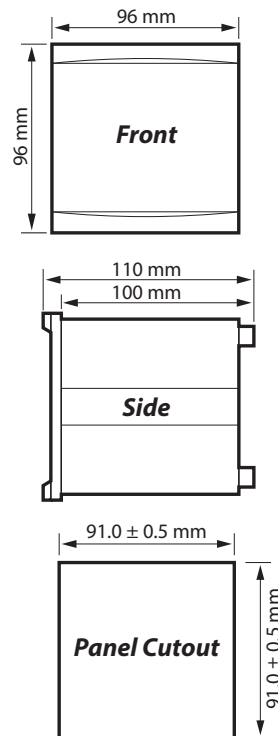
### Combined IDMT Overcurrent & Earth Fault Relays



### Normal Inverse



### Case Dimensions



### Ordering Information

| MODEL         | DESCRIPTION  |
|---------------|--|
| MK203A - 240A | For 50 Hz system, auxiliary voltage 198 ~ 265 V AC |
| MK203A - 110A | For 50 Hz system, auxiliary voltage 94 ~ 127 V AC  |