



DG1000A Overcurrent Relay

Features

- Microprocessor based numerical relay
- Current measurement based on fundamental frequency
- Three-phase, low-set overcurrent
- Three-phase, high-set overcurrent
- Low-set earth-fault
- High-set earth-fault
- Definite time for low-set and high-set
- Five selectable IDMT characteristic curves
- Local display of measured and set values
- Programmable relay outputs
- Non-volatile fault values recording
- Complies with IEC 60255-26 standard

Technical Specifications

Ratings:

- Rated current (I_n): 5 A
- Rated frequency: 50 or 60 Hz
- Burden: < 0.3 VA at I_n
- Thermal withstand: 4 x I_n continuous

Auxiliary Supply:

- Model DG1000A-240A(6): 198 ~ 265 V AC
- Model DG1000A-240AD(6): 85 ~ 265 V AC
110 V DC ~ 340 V DC
- Model MK1000A-150D(6): 24 ~ 150 V DC
- Supply frequency: 50 or 60 Hz
- VA rating: 3 VA typical

Accuracy:

- Protection thresholds: $\pm 5\%$
- Timing accuracy: $\pm 5\%$

Output Contacts:

- Trip Contacts (R1 & R2)
- Rated voltage : 250VAC / DC
- Contact rating : 5 A
- Expected electrical life: 100,000 operations at rated current
- Expected mechanical life: 5×10^6 operations

Setting Ranges:

i) Overcurrent elements

- Low-set ($I >$) : 0.5 A to 10.0 A, step 0.05 A

: 10% to 200%, step 1%

- Low-set time multiplier ($k_t >$): 0.05 to 1.0, step 0.01

- Low-set definite time ($t >$) : 0.05 to 99s

- High-set ($I >>$) : 0.5 A to 99.9 A, step 0.10 A or disable

: 10% to 1998%, step 2%

- High-set delay time ($t >>$) : 0.05 sec to 2.5 sec, step 0.01

ii) Earth-fault element

- Low-set ($I_o >$) : 0.10 A to 5.0 A, step 0.05 A

: 2% to 100%

- Low-set time multiplier($k_t o >$): 0.05 to 1.0, step 0.01

- Low-set definite time ($t o >$) : 0.05 to 99s

- High-set ($I_o >>$) : 0.10 A to 50 A, step 0.10 A or disable

: 2% to 1000%, step 2%

- High-set delay time ($t o >>$) : 0.05 sec to 2.5 sec, step 0.01

Indicators:

- Auxiliary supply: Green indicator

- Time delay: Red indicator

- Trip: 7-segment display and red indicators

Mechanical:

- Mounting: Panel mounting

- Dimension (mm) : 96(w) x 96(h) x 110(d)

- Enclosure protection : IP54 at the panel

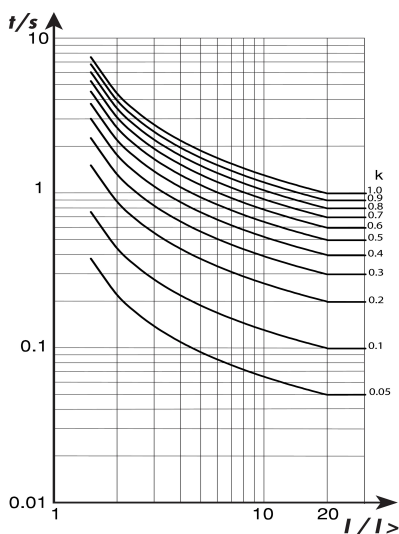
- Approximate weight: 0.8 kg

Environment Conditions:

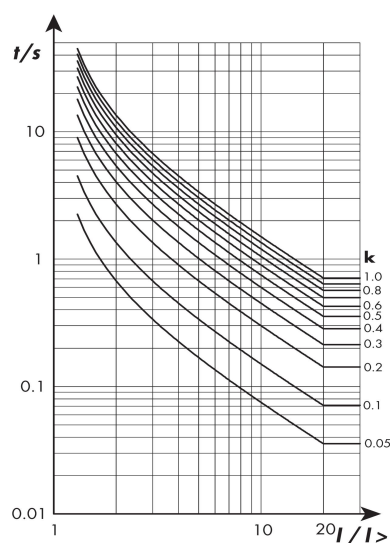
vTemperature: -5°C to +55°C

- Humidity: 56 days at 93% RH and 40°C non-condensing

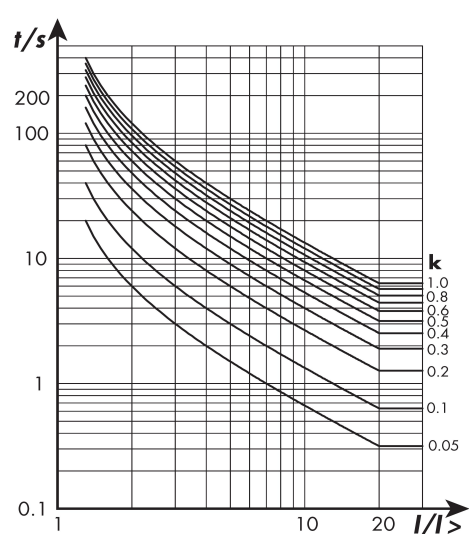
Normal Inverse



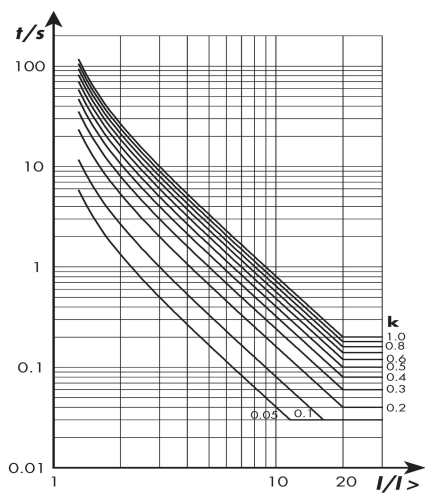
Very Inverse



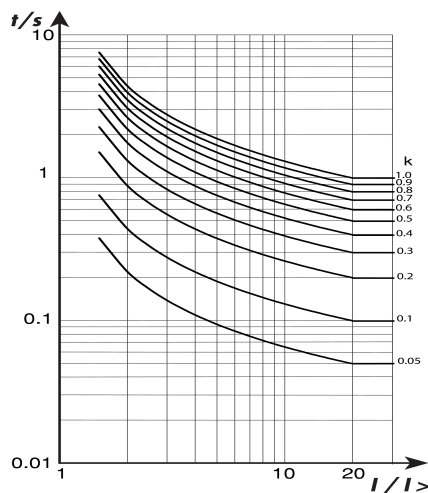
Long Time Inverse



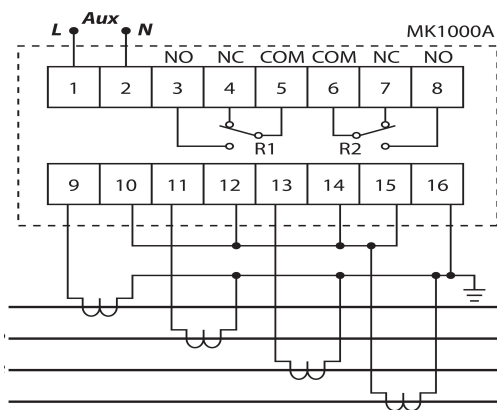
Extremely Inverse



Normal Inverse 1.3/10



Typical Application Diagram



Product Dimensions

