

DIRECTIONAL GROUND RELAY[67]

DDG-M22D

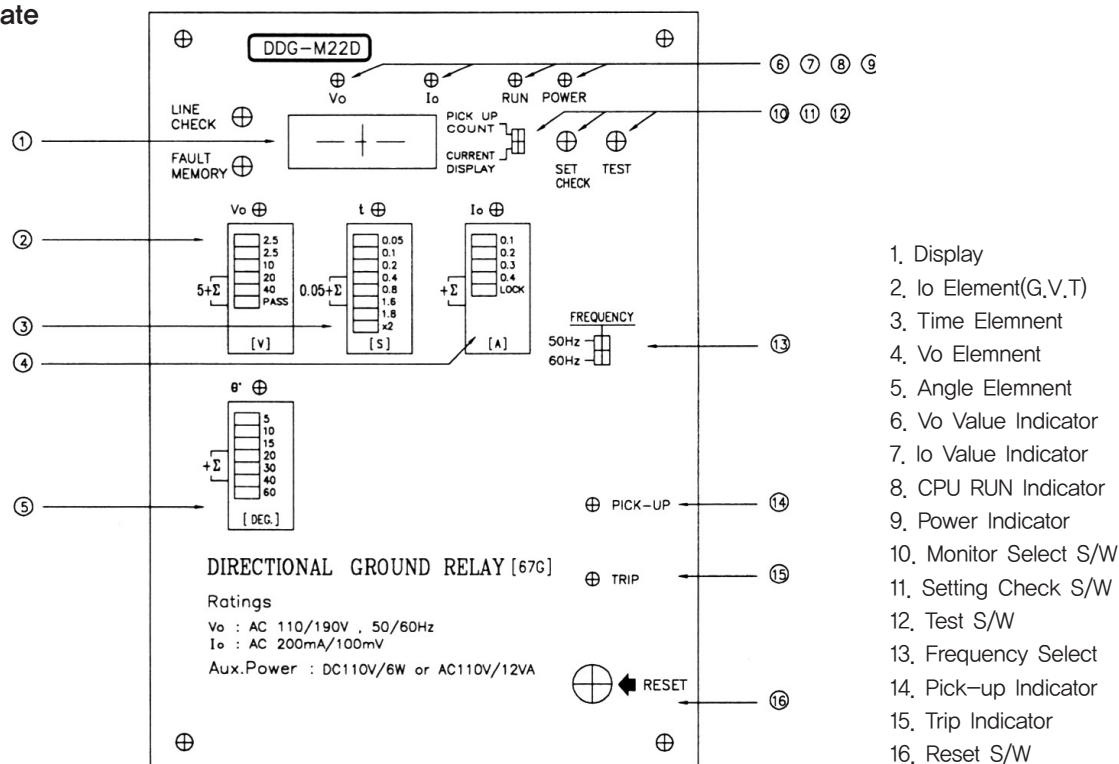


Characteristics

Directional ground relay being non-grounded type ground protection is activated by zero phase sequence voltage(tertiary voltage of GPT installed on bus line) and zero phase sequence current (secondary current of ZCT installed on each phase)

- A precision filter circuit is employed at input end for accurate determination of the detection even when signal wave form is distorted.
- Since the burden of zero phase sequence voltage (V_0) input end is minimized, any single unit of small capacity ground potential transformer (GPT) can support several or more relays at one time.
- Taps provided for time limit setting offer convenient means of reserve protection.

Front plate



DIRECTIONAL GROUND RELAY[67]

DDG-M22D(Draw out)

IEC 255 JEM 1394

Specifications

■Model

DDG-M22D(Draw out)

■Rating

| | |
|---------------------|------------------------------|
| GPT input | AC 110/190 |
| ZCT | 200mA/100mV |
| Frequency | 50/60Hz±5% |
| Auxiliary Voltage | AC/DC 110V(86~260V) |
| Ambient temperature | -10°C to 60°C(with no icing) |

■Current setting

| | |
|-------------------------|-------------------------|
| Operating | |
| Current Setting tap(Io) | 0.1~1.0A(0.1A step)±10% |
| Voltage Setting tap(Vo) | 5~82.5V(steps of 2.5V) |
| Characteristic angle | 0~180° (steps of 5°) |
| Zone of operating | ±90(Error±10°)(lead) |

■Time setting Curve

| | |
|-----------------|------------------------------|
| Operating | |
| Time tap | 0.05~10s (steps of 0.05 sec) |
| Resetting Value | >90% |
| Reset time | <100ms |

■Burden

| | |
|--------------------------|---------------|
| G, P, T terminal(G1, G2) | Less than 1VA |
| Aux. Voltage | 8VA(AC) |

■Contact

| | |
|-------------------------|--|
| Out put Relay | Trip 1c, Alarm 1a |
| Trip & contact capacity | |
| Make | AC 240V 10A(L/R=0ms) DC 1000W 0.5Sec(L/R=0ms) |
| Break | AC 240V 3A(L/R=0ms) DC 30W 0.5Sec(L/R=0ms) |

■Indicator

| | |
|-----------------|-----|
| Operating(trip) | LED |
|-----------------|-----|

■Vibration resistance

| | |
|-------------|--|
| Malfunction | 10Hz 5mm double amplitude 30s each in X and Y directions 16.7Hz 2.5mm double amplitude 600s each in X,Y, and Z directions |
|-------------|--|

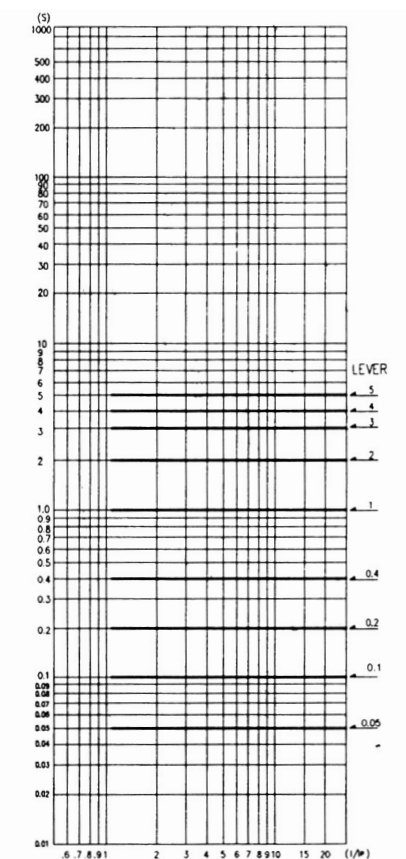
■Shock resistance

| | |
|--------------|--|
| Destruction; | 300m/s(approx. 30G) 3 time each in 3 directions |
|--------------|--|

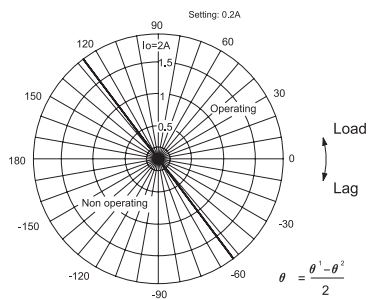
■Insulation to IEC 255

| | |
|---------------------------|--|
| Dielectric withstand | 2kV for 1 minute between all terminals and case earth |
| Insulation resistance at | 500V > 100MΩ |
| Impluse Voltage Withstand | 5kV-1.2/50 μs |
| Surge transient simulator | 2.5kV 1MHz/200Ω |
| Weight | 2.2kg |

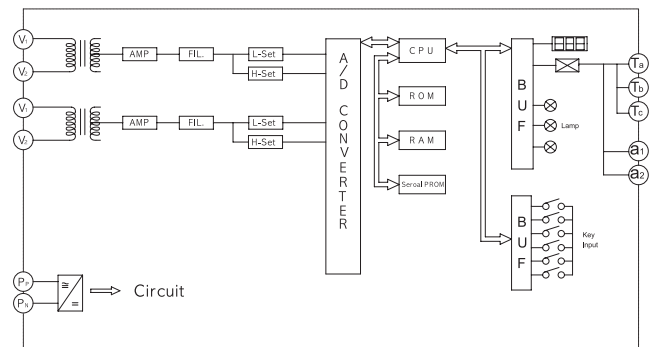
Operating time curves



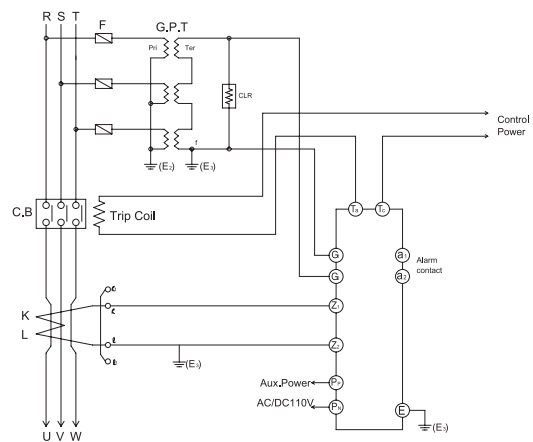
Phase-angle characteristics



Block diagram

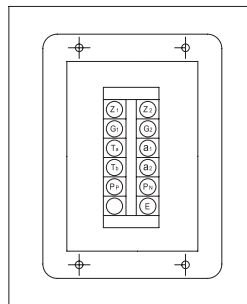


Wiring



※ 1. a,f Z1,Z2
2. ZCT 200mA/100mV(Nickel Core)

Terminal arrangement



Dimension

Digital type draw out

Case : ABS 난연성(Non flammable)
Color : Black(N1,5)

Cutting Size: 165 X 122mm

