

Energom-DU-W2K INSULATION MONITORING RELAY

DC INSULATION MONITORING

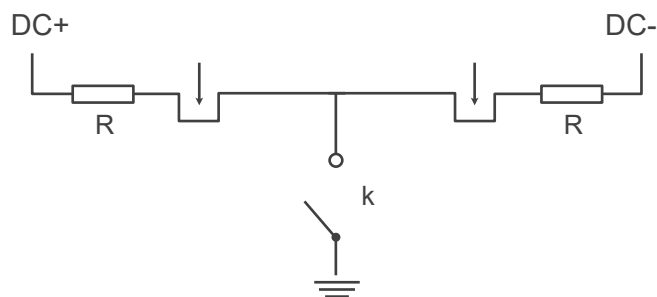


Introduction

Energom-DU-W2K series is a DC to ground insulation monitoring module based on the principle of unbalanced bridge, which has monitoring and protection functions in one. It can monitor the insulation resistance value of the positive and negative poles of the DC floating system to the ground, ranging from 1K Ω to 10M Ω ; at the same time, it can also detect the DC voltage value, ranging from 100V to 2000V.

After the insulation monitoring function is turned on, the product can continue to monitor the insulation resistance in real time, and user can read the insulation resistance value as soon as 1 second after the insulation monitoring function is turned on. For the DC to ground capacitance, module can realize self-adaptive monitoring the ground capacitance below 3 μ F (the positive and negative poles to the ground capacitance are respectively below 3 μ F, and the total capacitance is below 6 μ F).

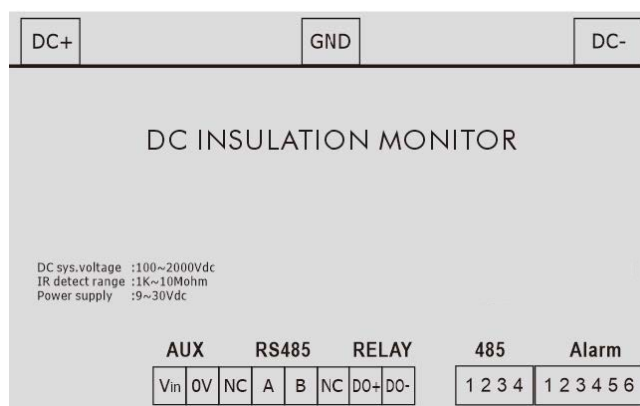
Working Principle



Main Features

- High voltage grounding switch.
- Widely power supply range.
- Widely insulation monitoring range (100V~2000VDC).
- Insulation monitoring equipment self-test.
- Adaptive capacitance to ground.
- Convenient parameter setting.
- Remote monitoring and management.
- Monitor positive and negative poles.
- Ground insulation resistance.
- Voltage reverse polarity alarm.

Terminal Definition



Technical Characteristics

| Basic parameters | | |
|---|---|----------|
| Power supply | 10-30VDC, Power 3W | |
| DC voltage range | 100V~2000V | |
| DC voltage measurement accuracy | ≤2V+0.3% | |
| Insulation resistance measurement range | 1KΩ~10MΩ (DC System voltage:100V~1000V) | |
| Insulation monitoring accuracy | DC voltage:100V-300V | ≤3KΩ+10% |
| | DC voltage:300V-2000V | ≤3KΩ+5% |
| | CY>0.3μF, insulation resistance>1MΩ or CY>1μF | >10% |
| Off-line pressure test | <2mA | |
| Maximum relay switching voltage | 250VAC/30VDC | |
| Maximum relay switching current | 3A | |
| Relay contact resistance | <100mΩ | |
| Relay insulation resistance | 100MΩ | |
| Communication | RS485,Modbus RTU | |
| Standard | IEC 61851-23 (2014-03):2014-11 | |
| Dimension | 145*115*40,Din-rail:35mm | |
| Humidity | 85% | |
| Storage environment | - 40°C ~125°C | |
| Operating environment | - 40°C ~75°C | |

| Other parameters | | | |
|-----------------------------|------------------------|--|-------|
| Pressure point | Maximum voltage rating | | Time |
| DC+/DC- to GND | 4200VDC/3000VAC | | ≤1min |
| Power supply +/- to GND | 3500VDC/2500VAC | | ≤1min |
| RS485 A/B to GND | 3500VDC/2500VAC | | ≤1min |
| DC+/DC- to power supply +/- | 3500VDC/2500VAC | | ≤1min |
| DC+/DC- to A/B | 3500VDC/2500VAC | | ≤1min |