

ZJJ SERIES DC INSULATION MONITOR

DC INSULATION MONITORING

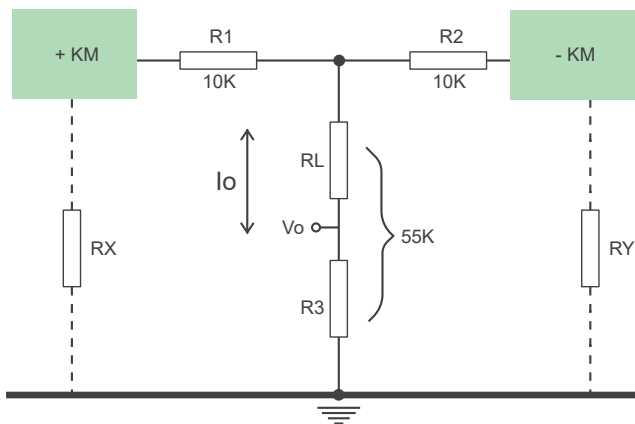


Introduction

ZJJ Series DC Insulation Monitoring Relay is an advanced solution for continuous monitoring of DC busbar insulation. Utilizing a precision voltage-divider circuit, it directly displays insulation resistance to ground, eliminating the limitations of conventional relays that only indicate leakage current or lack visualization. Its high-sensitivity monitoring capability enables accurate and quantitative evaluation of system insulation, ensuring reliable and safe operation.

The device performs real-time monitoring of bus insulation and grounding resistance of both positive and negative poles, with configurable alarm thresholds for early fault detection. When insulation falls below the preset value, an alarm signal is triggered. ZJJ-4SA is designed for panel mounting, while ZJJ-4SC supports DIN rail installation.

Working Principle



Main Features

- Bridge balance method for resistance measurement;
- Smaller short-circuit grounding current for safe operation;
- Alarm resistance threshold online display and direct setting;
- Terminals are pluggable for easy maintenance and replacement;
- Monitoring the DC circuit bus bar's RF to earth insulation resistance;
- Direct LCD busbar grounding resistance values, positive and negative;
- Reinforced shell, modular structure, high reliability;
- Wide monitoring voltage, 48-1000V, working voltage 24-220V can be customized, adjustable response value ranges of 0-100kΩ;

Main Features

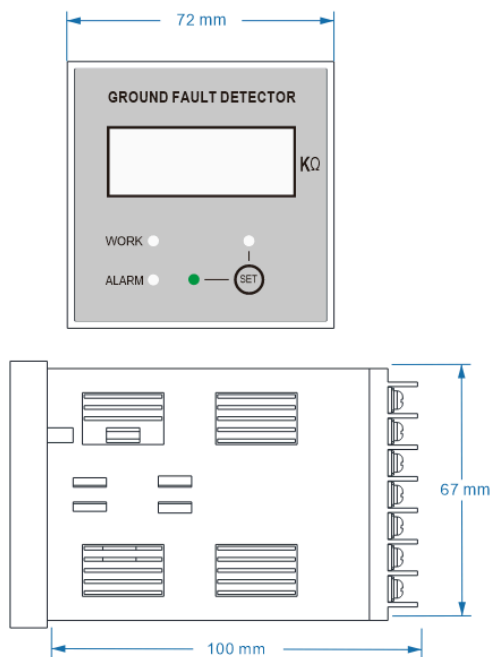
- DC main circuits measurement;
- UPS systems, battery systems;
- IT systems with high leakage capacities;
- DC charging stations for electric vehicles;
- Monitoring the insulation of electrical equipment;
- Supporting use of power transformers, generators, and motors;
- Remote monitoring system, real-time monitoring of insulation conditions;
- Substations, power plants, transmission lines, distribution lines;

Technical Characteristics

Basic parameters	ZJJ-4SA	ZJJ-4SC
Input voltage	0-300VDC	0-1000VDC
Power supply voltage	Self-powered	85-265 VAC/DC
Power supply current	7-20mA	
Measuring resistance	0~199.9K Ω	0~1999K Ω
Relay capacity	10A@250VAC / 30VDC	2A@250VAC
Measurement accuracy	V=220V (5%)	V=1000V (5%)
Alarm setting range	0~100K Ω	0~990K Ω
Short circuit ground current	V=220V (2mA)	
Action return factor	Rs=50K Ω (95%-98%)	
Output contact capacity	Sensitive load=5mS(DC220V0.2A) Resistive load(DC220V 2A)	
Installation type	Panel mount	Din-rail mount
Operating temperature	-40°C ~ 70°C, RH 85%	

Dimension

ZJJ-4SA Panel Mounting



ZJJ-4SC Din-rail Mounting

