

HF-CH-214

Cable Fault Simulation System



The Cable Fault Simulation System can reproduce diverse power cable faults including short circuit, open circuit, insulation aging and water tree defects. It is specially designed to calibrate, test and verify the accuracy and stability of all types of cable fault detection and positioning instruments in labs and factories.

Key features

- Healthy state: DC withstand voltage $\geq 30\text{kV}$, breakdown voltage $\geq 20\text{kV}$
- High-resistance fault: breakdown voltage $\leq 10\text{kV}$, grounding resistance $> 500\text{kohm}$
- Flashover fault: breakdown voltage $\leq 12\text{kV}$, grounding resistance $> 200\text{Mohm}$
- Low-resistance fault: grounding resistance $< 200\text{ohm}$

Technical specifications

Parameter	Value
Applicable Cable Voltage Level	10 kV
Insulation Strength Index	No flashover or breakdown after applying 2500 V power frequency voltage for 1 minute; DC withstand voltage between high-voltage conductor core and ground wire exceeds 30 kV
System Composition	Integrated central control system, consisting of control cabinet and fault setting cabinet
Control Mode	Controlled by industrial personal computer or laptop
Fault Setting Method	Configured via background computer; response time $\leq 200\text{ ms}$
Fault Types	Main insulation faults
Quantity of Main Insulation Fault Points	3 fault points
Service Life	Trouble-free operation for 30,000 cycles
Main Insulation Fault Configuration	Freely switchable among high-resistance fault, low-resistance fault, flashover fault and healthy cable status
Healthy Condition	DC withstand voltage $\geq 30\text{ kV}$; breakdown voltage $\geq 20\text{ kV}$
High-resistance Fault	Breakdown voltage $\leq 10\text{ kV}$; grounding resistance $> 500\text{ kohm}$
Flashover Fault	Breakdown voltage $\leq 12\text{ kV}$; grounding resistance $> 200\text{ Mohm}$
Low-resistance Fault	Grounding resistance $< 200\text{ ohm}$
Overall Control Cabinet Dimensions	800×600×2100 mm
Installation Method	Installed at different positions on the same phase cable

Compliance and documents

Applicable standards	[TO BE CONFIRMED] standard applied to this model
Calibration certificate	[TO BE CONFIRMED]
Optional accessories	[TO BE CONFIRMED]

Warranty and support

12-month warranty on every exported instrument. English operation manual and remote video guidance at commissioning. T/T, L/C at sight and deposit terms for bulk orders; sea, air or rail shipping.