

HF-C-202

Cable Sheath Grounding Current Monitoring



Cable Sheath Grounding Current Monitoring continuously measures the circulating current on cable metal sheath all day long. Powered by solar panels for outdoor unattended sites, it identifies multi-point grounding, broken grounding wires and sheath insulation defects in advance, slowing insulation aging and securing safe grid operation.

Key features

- Realize anti-theft monitoring for grounding wires, cross-bonding cables and grounding boxes; send location-marked alarms once theft happens to reduce loss of cable accessories.
- Replace periodic manual patrol inspection; auto-generate full-cycle current reports to support cable residual life assessment and condition-based maintenance arrangement.
- Connect to integrated cable tunnel monitoring system, interlock with temperature and partial discharge monitoring equipment to build a complete full-link cable safety monitoring system.
- Terminal Fixation : Install the acquisition terminal on waterproof brackets near grounding boxes, complete fastening and waterproof sealing treatment.
- Trial Operation : Run the system continuously for 24 hours. Complete acceptance and delivery after verifying stable data transmission and accurate alarm logic.

Technical specifications

Parameter	Value
Applicable Voltage Level	35kV, 110kV, 220kV and above high-voltage cable lines
Measuring Range	0~300A (50Hz), covering all working conditions of conventional HV cable sheath current
Measuring Sensitivity	$\leq \pm 0.1A$, precisely captures tiny abnormal variations of grounding current
Measurement Accuracy	Reading $\times 1\% + 0.5A$, compliant with high-precision requirements of power industry
Sampling Period	1ms, fully reproduces transient waveform fluctuations of current
Sensor Type	Split-core clamp-on current transformer, live-line installation without power cut-off
Insulation Withstand Level	$\geq$ DC 10kV / 1min, adaptable to strong electromagnetic interference on HV sites
Communication Modes	4G wireless transmission as standard; Ethernet, RS485 optional
Supported Protocols	MODBUS, IEC 61850 (universal power industry communication standards)
Power Supply Modes	3 options: Solar + lithium battery power supply, CT inductive energy harvesting, AC/DC 220V input
Operating Ambient Temperature	-40°C ~ +70°C, stable operation under extreme cold & high-temperature outdoor environments
Ingress Protection Grade	IP68; both sensors and terminals work long-term under humid, dusty and immersed outdoor conditions
Enclosure Material	Anti-corrosion non-eddy current special material, eliminates eddy current effect to guarantee measurement accuracy

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.