FI200 Series

FI200 Series Smart Fault Passage Indicator

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Introduction

FI200 Series Smart Fault Passage Indicator usually used in 5~38KV (can be customized by 44KV, 69KV and 110KV) overhead line power distribution network to monitor and detect short-circuit and earth fault by di/dt algorithm. The fault signal is indicated by three ultra-bright blinking LEDs with 360° sight. And the LED can be observed 150m during the day and 300m at night. The fault information and current value can also be uploaded to the SCADA by 2.5G/3G/4G networks.

The indicator can be mounted under live conditions with the help of an adapter and a hot stick. The parameters such as trip current, reset time, blinking interval, etc., can be read and adjusted by a bidirectional wireless tool. Permanent fault, transient fault and battery low voltage alarm can be distinguished and indicated separately by 3 different ultra-bright blinking LEDs. And the earth-fault can be indicated by two alternating different ultra-bright blinking LEDs.

The smart Fault Passage Indicator consists of:

- 1 pcs DCU: Transmission fault and load current value to SCADA
- 3 pc indicators: short-circuit and earth fault detection and indication

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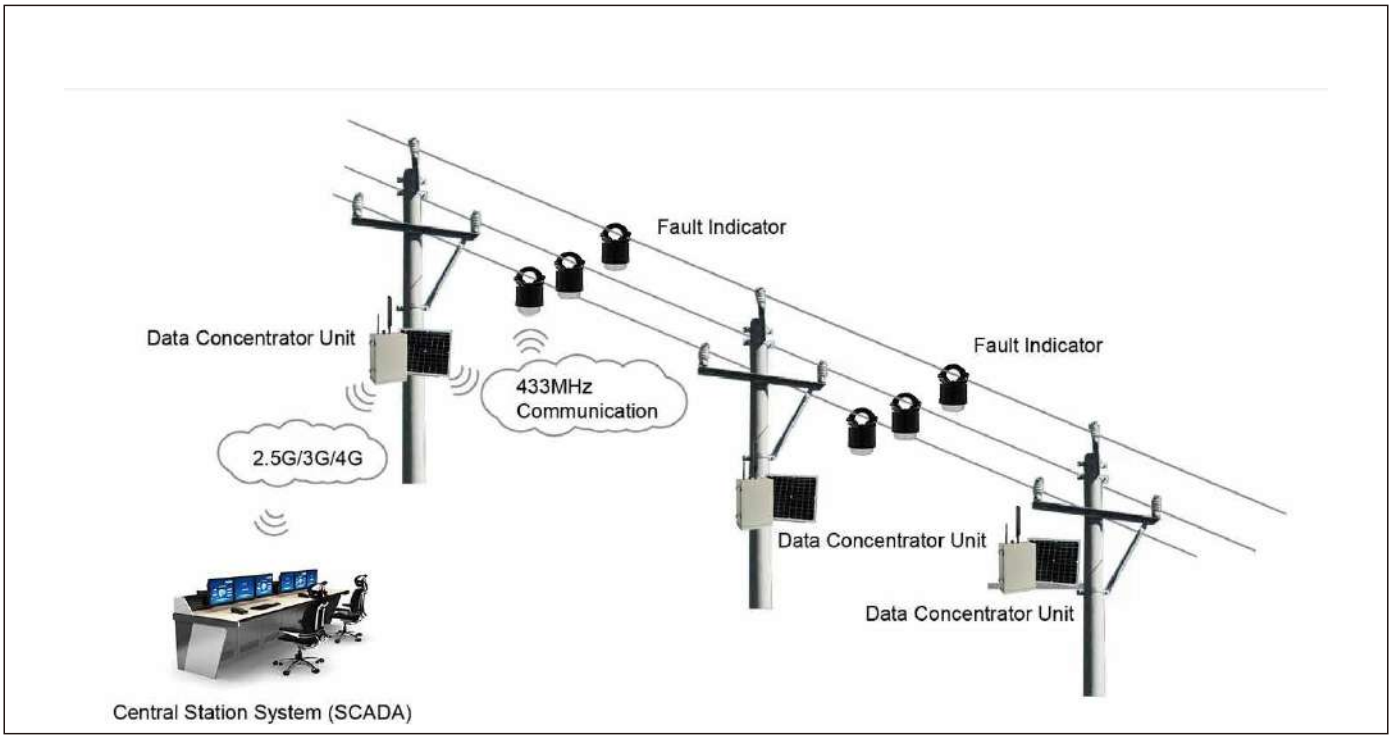
Topology



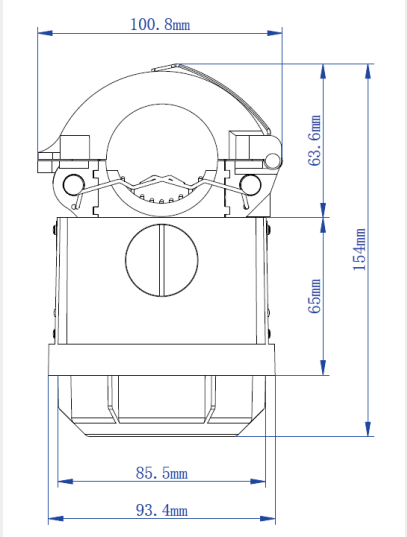
Features

Permanent Fault:	Red ultra-bright blinking LED.
Transient Fault:	Green ultra-bright blinking LED.
Earth-fault:	Red and green ultra-bright LEDs blinking alternately.
Low Battery Warning:	Yellow ultra-bright blinking LED.
Parameter Adjust:	The parameters can be read and adjusted by bidirectional wireless tool.
Remote Transmission:	DCU can transmit data to SCADA system.
Power Supply:	The indicator can take power from overhead lines, with lithium battery as backup.
	The DCU can take power from solar energy with lithium battery backup.
	And DCU support power saving mode to protect the battery.

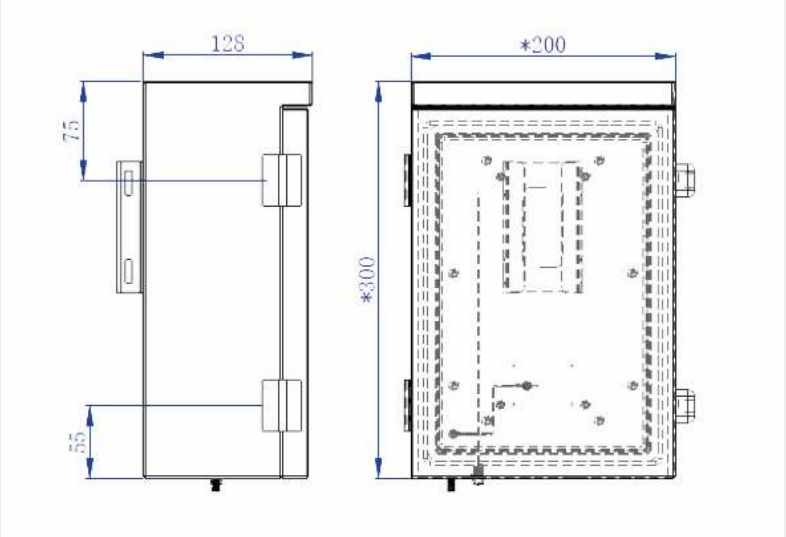
General Data

Parameters	Value
Voltage range	5~38KV, can be customized to 44KV, 69KV and 110KV
Rated frequency	50/60Hz
Short-circuit Trip Current (Phase to Phase)	50~1200A adjustable, 1A step, 150A default
Earth-fault Voltage Drop (Phase to Ground)	Adjustable: 1% step, 30% default
Earth-fault Response Delay	Adjustable: 1 second step, 30s default
Indication Unit Reset	1. manual by magnet. 2. remote reset through SCADA system 3. time reset: adjustable, 1 second step, 24h default, max. 48h 4. Auto delay reset after repower, 1 second step, 30s default max 5min, only for permanent fault
Accuracy	0A~300A ±3A 300A~800A ±1%
Max. load/fault Current	1200A
Current withstand	31.5KA/4s
LED brightness	Min 40Lm
Blinking Frequency	10 per minute, adjustable
Protection Class	IP68
Certificate	According to IEEE495-2007
Operation Temperature	-40~+70°C
Operation humidity	5~95%
Maximum wind speed	30m/s
Lightning strike frequency	120days/year
Power Supply	Lithium battery type AA 3.6V / 9Ah, replaceable
Battery Life	10 years
Solar panel of DCU	18V/20W
Indicator weight	approx. 590g
DCU weight	approx. 3.6Kg
Material of DCU	Surface treatment for corrosion resistance, suitable for outdoor use
Dimensions	Indicators: Ø93*154mm DCU: 300*200*128mm
Cable Diameter Ranges	6~40mm
Communication	433MHz from indicators to DCU within 100m 2.5G/3G/4G from DCU to SCADA
Communication Protocol	Indicator to DCU: private DCU to SCADA: IEC101, IEC104, DNP3.0, Modbus

Dimension



Dimension of Indicator



Dimension of DCU

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