

HF-RT-216

Smart Substation Digital Relay Protection Tester



Digital Relay Protection Tester can simulate diverse power system operating conditions and fault signals. It is widely used for commissioning and routine testing of all types of protective relays in substations, power plants and industrial power distribution systems.

Technical specifications

Parameter	Value
External Interfaces	Ethernet Interface 1 × 10/100Mbit
Optical Ports	12 pairs of 100Mbit, for IEC61850-9-2 SMV sampled value & GOOSE transceiving interfaces
Optical Serial Ports	9 units, for FT3 format sampled value interfaces
Built-in GPS Synchronization Interface	1 unit, SMA connector
Optical IRIG-B Interface	1 unit, ST connector
IEEE1588 Interface	1 pair, LC connector
Analog Low-Signal Voltage Source	Voltage Signal Channels 12 channels, 12×(-10 ~ +10) V
Accuracy	Error ≤0.05%
Resolution	215uV
Noise Amplitude	<1mV
Output Frequency Range	0 ~ 1000Hz
Frequency Accuracy	Error <0.001Hz
Frequency Resolution	0.001Hz
Phase Range	±360°
Phase Accuracy	Error <0.1°
Phase Resolution	0.01°
Digital Output Channels	Quantity 24 channels (12 voltage channels + 12 current channels)
Optical Fiber Transmission Network	Transmission Network 100Base-FX (100M full-duplex optical fiber network)
Transmission Ports	12 pairs of standard LC ports, freely configurable as IEC61850-9-2 SMV transmitter or GOOSE transceiver
Transmission Medium	50/125um or 62.5/125um orange multimode optical fiber, wavelength 1300nm
Effective Transmission Distance	>1km
Transmission Indicator	Dynamic LED for transmission status
FT3 Transmission Network	Transmission Network Real-time high-speed unidirectional optical fiber network, configurable speed
Transmission Ports	9 standard ST interfaces; 8 FT3 SMV message transmitting ports, 1 FT3 SMV message receiving port
Transmission Medium	62.5/125um orange multimode optical fiber, wavelength 850nm
Effective Transmission Distance	>1km
Transmission Indicator	Dynamic LED for transmission status
Binary Inputs	Quantity 8 pairs

Parameter	Value
Features	Compatible with vacant contacts and live contacts (0 ~ 250V)
Binary Outputs	Quantity 8 pairs in total
General Outputs	6 pairs of general binary outputs (vacant contacts)
High-Speed Outputs	2 pairs of high-speed binary outputs (response time <10us)
Time Measurement	Max Measuring Range 0.00001 ~ 999,999.999S
Time Accuracy	<=0.1ms
Time Synchronization Function	Supported Protocols GPS, IRIG-B, IEEE1588

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.