DISTRIBUTION NETWORK INSPECTION FOUR-IN-ONE COMPREHENSIVE DETECTOR

RJFS300 RJFS600

TECHNICAL ADVANTAGES

True 4-in-1

Integrates infrared, AA, TEV, and acoustic imaging functions without compromising individual performance, enabling simultaneous detection of electrical equipment using infrared, AA, TEV, and acoustic imaging.

Reduce workload and simplify complexity

Smaller size, lighter weight, lower power consumption, higher efficiency, simpler management and maintenance

Advanced technology

Unique patented multi-dimensional dynamic infrared, partial discharge, and acoustic imaging acquisition technology

Excellent performance

Excellent infrared performance, outstanding partial discharge performance, and advanced acoustic detection capabilities

Unified software processing

Unified infrared and partial discharge post-processing software

PRODUCT ILLUSTRATIONS AND APPLICATION CASES

Acoustic Sensors

Used for partial discharge detection of open power equipment such as transformers, transmission cables, insulators, lightning arresters, drop-out fuses, etc.

Infrared lens

Used for infrared temperature measurement of power equipment

External ultrasonic sensor interface

Used for external ultrasonic sensors

TEV Sensor

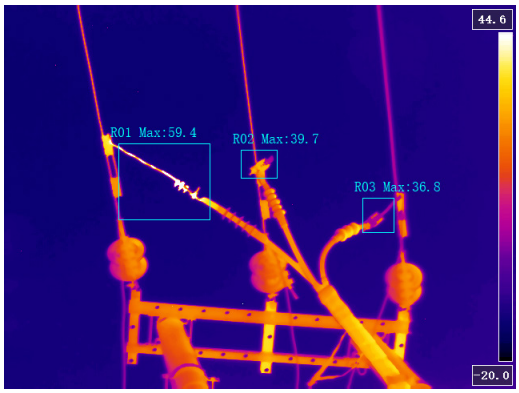
Used for partial discharge detection of switch cabinets, ring network cabinets, cable branch boxes and other equipment (suitable for detecting internal discharge and suspended discharge)

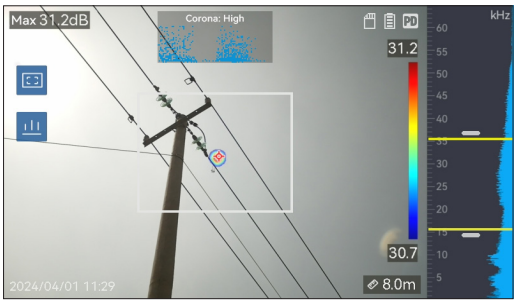
AA Sensor

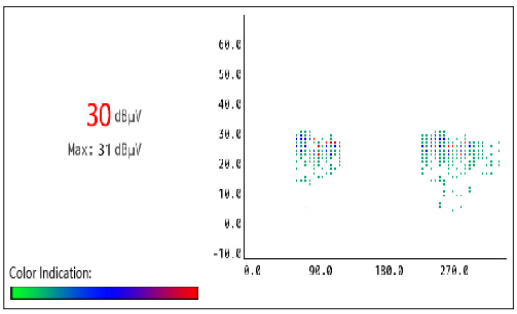
Used for partial discharge detection of switch cabinets, ring network cabinets, cable branch boxes and other equipment (suitable for detecting suspended discharge, surface discharge, and corona discharge)

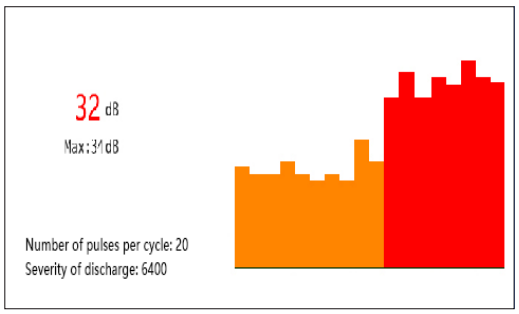
External ultrasonic sensor

Used for partial discharge detection of switch cabinets, ring network cabinets, cable branch boxes and other equipment (suitable for detecting suspended discharge, surface discharge, and corona discharge)









SPECIFICATIONS

Model	RJFS300	RJFS600
Detector type	Uncooled FPA, VOX material	
IR Resolution	384x288	640x512
Thermal Sensitivity/NETD	<40mK (@30℃)	
Spectral Range	8~14μm	
Standard lens	24°	
Optional lens	48 °, 12 °, 6 °, etc	
Spatial resolution (IFOV)	1.30mrad (24° lens);2.26mrad (48° lens); 0.68mrad (12° lens);0.34mrad (6° lens)	0.66mrad (24° lens);1.39mrad (48° lens); 0.33mrad (12° lens);0.16mrad (6° lens)
Focus	Manual	
Minimum focal distance	0.15m (24° lens);0.15m (48° lens); 0.5m (12° lens);1m (6° lens)	0.15m (24° lens);0.15m (48° lens); 0.5m (12° lens);2m (6° lens)
Display	4.3"/5" Sunshine Visible Display Screen,480x272/800x480	5" Sunshine Visible Display Screen,800x480
Acoustic Parameters		
Microphone	136 digital silicon MIC array	
Microphone sensitivity	-26dBFS @ 1kHz	
Frequency bandwidth	2kHz ~ 100kHz	
Distance	0.3-130m (dependent on sound source signal strength)	
Sound intensity display	Highest point	
Acoustic detection mode	Gas leak detection mode, partial discharge detection mode	
Image frequency	25Hz	
Maximum sound pressure level	120dB	
Minimum imaging sound pressure level	<20dB SPL, frequency dependent	
PRPD spectrum	Supported	
Acoustic sampling rate	200kHz	
Location error	<0.05m @ 1m, 40kHz	
Gas leakage loss display	Supported	
Gas leakage amount display	Supported	
Gas leakage level display	Supported	
Partial discharge detection	Supported	
Partial discharge type identification	Tip discharge, suspension discharge, surface discharge, particle discharge	
Temperature measurement		
Standard temperature range	-20℃~150℃ (low temperature range), 0℃~410℃ (medium temperature range)	
Optional temperature range	+300℃~+650℃/+300℃~+2,000℃/other ranges (high temperature range)	
Temperature measurement accuracy	±2℃ or 2% of readings, maximum value	
Visible light parameters		
Digital camera	Built-in 5MP digital camera with LED light	
Image display		
Palette	10 color palettes	

SPECIFICATIONS

Touch screen	Capacitive touch screen
Wireless transmission	
4G (optional)	Real-time image transfer to mobile phone via 4G, cloud image viewing
Measurement Analysis	
Temperature measurement settings	10 points, 10 boxes, 5 lines at the same time, including maximum/minimum/average values
Full-Screen Max/Min Temperature	Supports automatic capture of full-screen Max and Min temperatures
Emissivity Correction	Automatic, based on emissivity input values
Atmospheric Transfer Correction	Automatic, based on distance, air temperature, and relative humidity input values
Alarms	
Alarm Methods	Automatic sound and light alarm for the set temperature value/above/below/below
Satellite Positioning (Optional)	
GPS	For outdoor use, the screen displays the device's location and longitude, Photos and videos can be displayed in analysis software
Image Storage	
Storage Methods	32GB high-speed SD card
Infrared Image Format	.jpg (including full temperature data) /.png (including full temperature data)
Visible Light Image Format	.jpg
Infrared Video Format	H.264 or fully radiometric infrared video
Video Output	
Video Output	HDMI
Video Output Interface	Micro HDMI port
Partial Discharge Detection	
Detection method	AA and TEV
AA Parameters	
Detection Frequency Band	40±1kHz
Detection dynamic range	-8 ~ 68dBμV
Sensor sensitivity	-65dB (0dB = 1 volt/μbar RMS SPL)
Linearity error	≤ 10%
TEV parameters	
Detection frequency band	3 ~ 100MHz
Detection dynamic range	0 ~ 60dBmV
Linearity error	≤ 10%
Power supply system	
Battery type	Removable rechargeable lithium battery
Power supply voltage	DC12V
Battery operating time	General use: >3 hours at 25°C
Charging method	Dual charger
Charging type	AC adapter
Power saving mode	Sleep mode

SPECIFICATIONS

Physical parameters	
Weight	1.23kg (including battery)
Dimensions	159.5x135.9x330.7mm
Environmental parameters	
Operating temperature	-20°C ~ 55°C
Storage temperature	-40°C ~ 70°C
Humidity (operating and storage)	≤ 95%, non-condensing
Packaging level	IP54

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