PD10 OS (Onsite)

Online Partial Discharge Monitoring Module

PD10 OS (Onsite) is an online PD and visible light integrated imaging system that detects weak Partial Discharge signals. It can conduct real-time monitoring, quantitative indication, and intelligent analysis of Power System facilities. Through the front-end, onsite inspection units with a control centre, an innovative online power facilities analysis system to effectively improve the operation safety, automation, real-time and intelligence level of the substation/power location. It is a creative technical means for the Partial Discharge monitoring of power equipment to reduce operational breakdown and catastrophic damages.

PD10 OS onsite acoustic camera can be fixed and mounted near the essential power facilities that need to be monitored. It can provide 24-hour online monitoring, report the monitoring point information in real-time, and quickly locate and report the abnormality to the control centre. The device utilises microphone array beam-forming technology to obtain sound source distribution data. The high-definition camera will collect real-time video images through the sound source distribution data and form the sound and image fusion. Through the network transmission, the video and audio data are transferred to the background system and displayed, recorded and analysed through the background management system. Applied in the power system, it can help to detect potential partial discharge fault points under a no-time lag manner.



Features

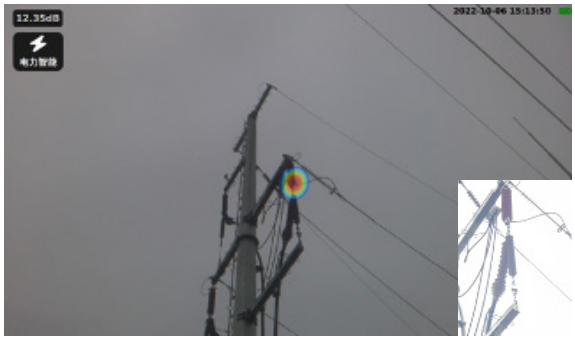
- Lightweight design: The whole set of modules weighs only 1100g
- It can be fixed or mobile installed.
- Free gimbal + split module to realize 360° free detection.
- 2KHz ~ 65KHz, automatic adjustment of the detection band according to the scenario.
- It provides a Real-time presentation of time-domain features and PRPD spectrum.
- It enables rapid multi-target inspection and improves detection efficiency.

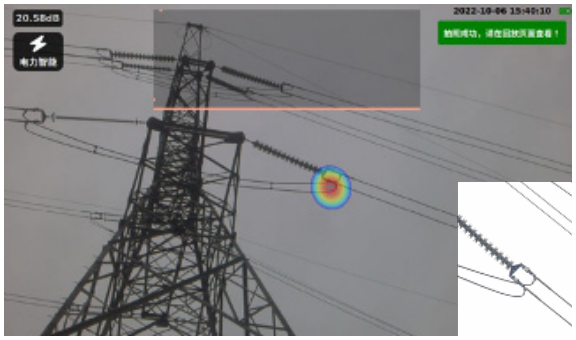
PRECAUTIONS AND CASES

PD10 OS Advantages of the integrated monitoring module

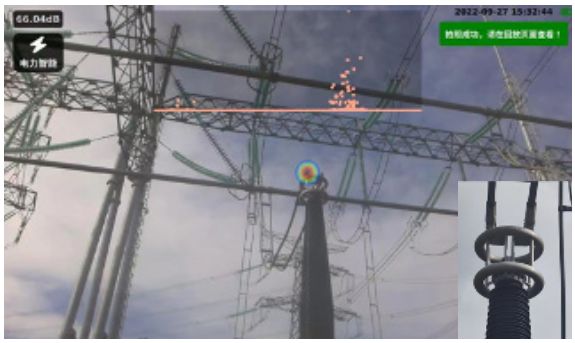
- **Efficient:** 50.5° F.O.V., 25FPS, flexible installation methods, continuous tracking and monitoring.
- **Straight:** High-precision algorithm accurately locates PD, generates real-time image feedback data to the background display, and intuitively displays the PD point.
- **Intelligent:** Offline identification of PD, real-time display of PRPD spectrum, and intelligent diagnosis of PD fault types during inspection.
- **Noise Resistance:** Dual protection quickly deals with noise interference and enables the detection of tiny localised discharges.
- **High Adaptability:** It has a universal communication protocol with flexible docking of most data backgrounds to achieve seamless data connection.
- **Quality Service:** We provide a 2-year warranty, after-sales service, quality spare parts and a professional team to provide online training and consultation support.

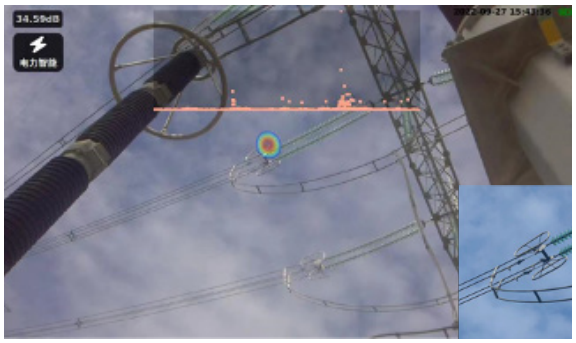
Cases on transmission lines



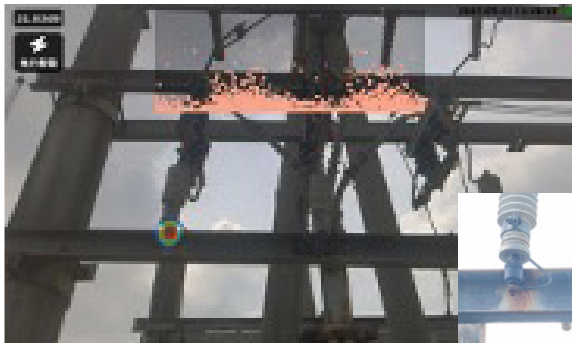


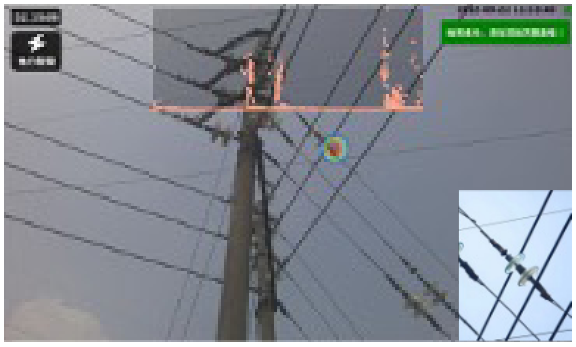
Cases in substations





Cases on distribution lines





TECHNICAL SPECIFICATIONS

ACOUSTIC PARAMETERS

Acoustic Measurement	128 Low-noise MEMS Microphones
F.O.V.	50.5°
Dynamic Range	>120dB
Bandwidth	2KHz ~ 65KHz
Range Adjustment	Automatic
Frame Rate	25 FPS
Measuring Distance	0.3m ~ 100m
Test Objects	Distribution Line Transmission Line Substation

PHYSICAL & BATTERY DATA

Dimension	100 x 100 x 40 mm
Weight	1,100g
Port	USB 3.0 Type-C

VOLTAGE CONSUMPTION

Supply Voltage	DC 12V
Power Consumption	10W

USER INTERFACE

Video Resolution	1640 x 1234
Video Frame Rate	25 FPS
Image Frame Rate	30 FPS

Data Storage

External Storage	64GB SD Card
Internal Storage	8GB, Emergency Storage Only
Data Storage Format	JPG / MP4

CAMERA

F.O.V	50.5°
Focal Length	4.57mm Fixed
Pixels	8 Million

ENVIRONMENT PARAMETERS

Working Condition	-10°C ~ +50°C, 10% ~ 95% Non-condensing
Storage Temperature	-20°C ~ 40°C

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