

BC-30 OS (Onsite)- Multi-spectrum; UV, IR & VIS Online Corona Detection Camera

BC-30 OS is an online UV imaging monitoring system with a high-sensitivity UV imaging module and a high-definition visible light camera. Carry out automatic patrol inspection, real-time monitoring, early warning and a snapshot of corona discharge of crucial equipment in application scenarios, and automatically generate data reports.

Rich hardware interface design and communication protocol support RTSP and ONVIF protocol. The system can work independently on a single machine or use a network distributed architecture to divide into base station layer and terminal layer networking and realise data exchange with the dispatching centre through a dedicated optical fibre communication network. It is a very effective means for online monitoring and status evaluation of equipment in substations, booster stations and converter stations.

BC-30 OS (Onsite) is a Multi-spectrum integrated imaging system of UV, IR and visible light (Laser to measure test object distance, too), which can detect weak corona UV radiation and IR temperature. It can conduct real-time monitoring, quantitative indication, and intelligent analysis of HV electric 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 discharge monitoring of power equipment to reduce operational breakdown and catastrophic damages.

BC-30 OS is a case-mounted inspection solution for HV power lines. Thanks to the unique capabilities of the BST UV Corona and IR technology. The UV/IR-HD camera base and the high-quality UV/IR-HD sensor camera are mounted on a durable, stabilised, full-featured, high-speed 3D (X, Y, Z dimensions) pan & tilt shield robust case.

The BC-30 OS multi-light imaging monitoring system is highly integrated with an automatic focus infrared movement, adding a temperature measurement function on UV & VIS to complete a unique, innovative imaging system.



1. FEATURES

Online UV imager module, UV + visible fusion zoom

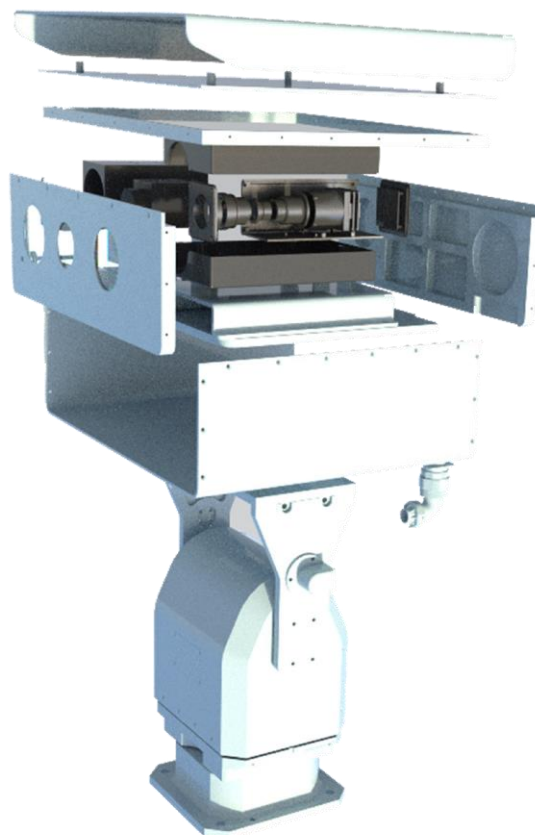
Real-time monitoring of the system, split screen, multi-interface control and display

UV photon number, infrared temperature abnormal automatic alarm, capture

1280×720 pixel ultraviolet fusion imaging high-definition digital video stream

640×480 pixel infrared auto focus, point, line, frame temperature measurement

Integrative modular SDK development kit, rich Demo programs



2. TECHNICAL SPECIFICATIONS

FEATURES OF UV CHANNEL

Wavelength Range	240nm ~ 280nm
UV Sensitivity	2.0×10^{-18} watt/cm ²
Discharge Sensitivity	1Pc@10m
RIV Sensitivity	3.6dBμV (RIV) @1MHz @10m
Field of View	12.6° x 7.2° & 5° x 3.75°
Focus	Auto Focus
Test Distance	1.5m ~ ∞
Pixel	1280 x 720
Photon Counting	Minutes / Seconds selectable

FEATURES OF VISIBLE LIGHT CHANNEL

Focus Auto	1.5m ~ ∞
Sensitivity	0.1 Lux
Optical Zoom	30x
Digital Zoom	20x
Resolution	1920 x 1080
Signal-to-noise Ratio (SNR)	52dB
Motion Detection	Support
Control Interface	RS-485 / 232, Ethernet

FEATURES OF INFRARED CHANNEL

Field of view	25° x 19°
Type	Uncooled focal plane microcalorimetry
Pixel	640 x 480
Horizontal Resolution	0.28 mard
Wavelength Range	7 ~ 14.5 μm
Temperature Range	-20°C ~ +650°C
Temperature Measurement Accuracy	±2°C / ±2% takes the maximum value
Thermal Sensitivity	50mk@30°C
Focus	Autofocus, Electric focus

SOFTWARE CONTROL SYSTEM

Display and Control	Multi-screen display, multi-channel control
Protocol	RTSP, ONVIF, serial port
Custom Made	Provide SDK development kit
Cruise	Support automatic cruise
Operating System	Windows / Linux
Automatic Alarm	Support photon number and temperature alarm setting

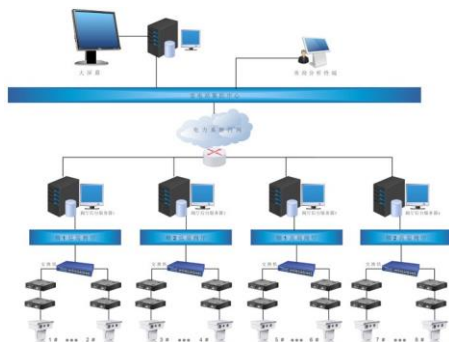
VARIABLE SPEED GIMBAL

Horizontal Range	0° ~ 360° continuous rotation
Horizontal Speed	0.01° ~ 60°/S
Vertical Range	-75° ~ +40°
Vertical Speed	0.01° ~ 30°/S
Preset Position	256
Camera Control	Support with configuring preset lens interface
Supply Voltage	DC24V (Aviation connector)
RS-485/ Ethernet port	RS-485/ Ethernet port

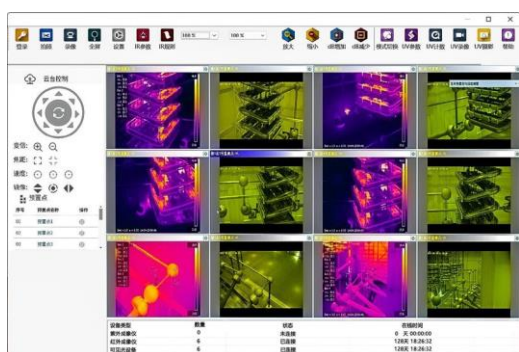
PHYSICAL PROPERTIES

Operating Temperature	-20°C ~ +50°C
Storage temperature	-40°C ~ +70°C
Humidity	≤90% (Non-condensing)
Degree of Protection	IP66
Weight	50kg
Standard Configuration	Host, PTZ, Network cable, Software system

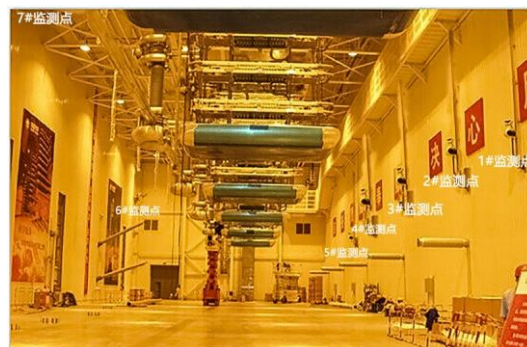
Through the network monitoring of functional modules, the ultraviolet/infrared and the database subsystem. The network can optimise typical defects, intelligent diagnosis and the query report of the subsystem.



The background monitoring centre monitors the video stream and data stream information collected by the front-end host in real-time, split-screen, multi-interface control and display; real-time intelligent diagnosis and early warning.



Monitor the visual inspection of all equipment, corona discharge and temperature global monitoring of the body/connector/knife/switch/sleeve/insulation/flange / fitting / wire.



Support standard RTSP and ONVIF protocols. Control the pan/tilt via RS485; provide rich SDK development kits and Demo programs.

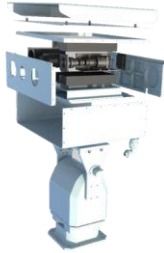


3. ACCESSORIES

- Basic Unit
- PTZ with Shell (Pan, Tilt & Zoom)
- SDK
- Carrying Case



Basic Unit



PTZ with Shell



SDK



Carrying Case

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