OFIL

DayCor® Luminar HD

In the world of critical electrical systems, the growing demand for power, aging infrastructure, and overloading of grids are leading to an increasing number of failures. The need for reliable solutions to ensure uninterrupted power supply and to efficiently manage the health of the electrical grid has never been more critical.

Spotting the Invisible: The Role of Corona Partial Discharge (PD) and Arcing Detection

Identifying corona PD and arcing is crucial in preventing power system failures. Early detection enables timely interventions to avoid costly and disruptive outages, maintaining system stability and performance.

DayCor® Technology Inside

Experience unmatched clarity and performance with OFIL's proprietary DayCor® technology. This camera sees the unseen by detecting corona PD and arcing, utilizing solar blind UV technology that operates in full daylight, unaffected by solar radiation. It captures a spectral range of UVC 240-280nm, ensuring superior detection capabilities.

DAYCOR INSIDE

DayCor® Luminar HD

DayCor® Luminar HD Solar Blind UV Camera is a handheld solution specifically designed to detect and pinpoint corona PD and arcing - a major but often unseen hazard to electrical equipment.

It offers unparalleled sensitivity, precise fault pinpointing, HD imaging, and powerful zoom. With its functions and advanced algorithms, it excels in a wide range of applications and delivers top-notch performance.

Sensitivity to PD 1pC @ 15m Tested by Eurotest Germany

Product Key Features

Highest Sensitivity:
Best-in-class sensitivity to PD detection at 1pC @ 15m, certified by Eurotest lab.

Precise Pinpointing:
Ensures accurate fault localization.

HD Resolution:
720p video for detailed imaging.

Powerful Zoom:
Powerful zoom capabilities for detailed fault analysis.

Non-Destructive Testing:
Allows for safe inspections from a distance of up to 150-200 meters*

Built in GPS:
For accurate data geotagging.

Smart Video Processing:
Advanced signal amplification and noise reduction.

Multiple Interfaces:
Includes Ethernet and HDMI.

DayCor Inside:
Embedded with proprietary DayCor technology for superior performance.

*The inspection distance can vary according to environmental conditions and corona PD intensity

OFIL

Precise. Powerful. Reliable.

- **Proactive Maintenance:** Shift from reactive to proactive with timely detection of potential equipment failures.
- **Operational Continuity:** Prevent costly disruptions and ensure smooth operations by avoiding outages.
- **Inspect with Confidence:** Use advanced detection technology to maintain high standards of safety and service quality.
- **Smart Investment:** Enhance power system reliability, minimize repair costs, and improve operational excellence.

Applications

Handheld Inspection of Transmission, Distribution, Substations and Generation

Commissioning | Periodic Inspections & Maintenance | Fault Investigation & Repair | Washing of Powerlines & Substations | Locating Sources of RFI/AN

Handheld Inspection of Rotating Machines, Transformers, Cables, and other HV Components

Design | Manufacturing | QA | Field Service

Handheld Inspection of Traction Substations for Railways

Handheld Inspection of Substations and Power Lines in Mines, Data Centers, and Heavy Industries

HV Research Labs

OFIL

Gridnostic

Grid Reliability through Image Intelligence

Enhance your Grid performance by complementary Diagnostic and Inspection tools

Gridnostic is a software platform that leverages multi-sensor technologies including UV, RGB, and thermal, converts complex imagery data into clear numeric severity scores, and delivers actionable insights for efficient asset health management.

EPRI **This product was developed based on research and guidelines from the Electric Power Research Institute (EPRI)** and integrates all inspection data within a geospatial context, offering a strategic, map-based overview of grid performance.

Luminar's Unique & Smart Features

Seamless Gridnostic Integration

Effortlessly manage and analyze inspection data with our advanced **smart data management** system.

Data Geotagging

Tagged with **precise GIS data**, making asset tracking and reporting easier than ever.

Accurate Inspections, Better Decisions!

Product Accessories

- **Close-Up Lenses:** For close distance inspections.
- **Temperature and Humidity Sensor:** Records environmental data.
- **Connect Software:** Remote camera control.
- **Report Generation Software:** Streamlines report creation.
- **Additional Batteries and Charger:** Extended operation time.

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TECHNICAL SPECIFICATIONS

UV - OPTICAL PROPERTIES	
Minimum Discharge Detection	1pC @ 15 m Tested & certified by Innogy SE-Eurotest Germany: IEC 60270:2000
Minimum RIV Detection	3.6dBµV (RIV) @1MHz@10m Tested & certified by Innogy SE-Eurotest : NEMA107-1987
Minimum UV Sensitivity	2.0x10-18 watt/cm2
Fields of View	H: 10° - 1.6° V: 5.6° - 0.9° Synchronized with visible channel, optic & digital, continuous
Focus	Full manual and auto focus for both channels
UV Zoom	2x Optical 6.25x Digital, Slaved to the visible channel
Spectral Range	240-280nm
UV Frames Integration	ON/OFF
VISIBLE - OPTICAL PROPERTIES	
UV/Visible Overlay Accuracy	Deviation < 1 miliradian
Minimum Visible Light Sensitivity	0.06 Lux
Video Standard	HD, 720p ,1280 x 720
Fields of View	H: 10° - 1.6° V: 5.6° - 0.9° Synchronized with UV channel, optic & digital, continuous
Focus Range	0.6m | 1.96ft , 3m | 9.84ft without Close-up Lens, Automatic & manual
Visible Zoom	12x Optical, 12x Digital, continuous
UV & Visible Channels Display Modes	Combine UV & Visible, UV only, Visible only
DISPLAY	
Type	5", Color, sun readable, TFT LCD, 1000 cd/m2
Resolution	WVGA, 800 x 480, RGB
I/O & CONTROLS	
Input	Audio, temperature & humidity sensor, Mini USB, Ethernet
Output	HDMI, Aux, 1GB Ethernet, Mini USB
GPS	Built-in
Data Export	Ethernet, Video-out, micro SD card
Flashlight	Built-in, LED, 2 steps
MEDIA CAPTURE & DATA STORAGE	
Video & Stills Capture & Playback	Internal, gallery display & playback video, audio & still pictures
Video Format	MOV res. 720p
Stills Format	JPG
Audio	M4A\1099
Digital Storage	Memory flash card Micro SD
ENVIRONMENTAL	
Storage and Operation Temp	-20°C up to +55°C, non condensation
IP Rating	IP 54
PHYSICAL CHARACTERISTICS & POWER SOURCE	
Weight	2.2 Kg | 4.85 lb
Dimensions	L29 x W13 x H11.7cm | 11.4" x 5.1" x 4.6"
Nominal Power Consumption	15W
Power Source	Rechargeable (int & ext) battery run time >3 hours, Universal AC/DC 9V adapter
Mounting Point	Standard 1/4" X20 thread tripod mount
LED Indicators	On\Off, sleep mode, recording mode, power source
ACCESSORIES	
Close-up Lens; Reporting Software; Temp & Humidity Meter plug, Connect - Remote Control Desktop Software	