

## What is corona?

Corona is a luminous discharge due to air ionization surrounding an insulator in which exists a critical voltage gradient. Corona causes insulation deterioration; therefore, failure of components becomes more probable as the component degrades. Since reliability of power systems is related to corona discharge, all power system components should be tested through corona testing to verify that this parameter is minimized.

## How does Ofil's corona camera work?

Corona discharge emits radiation in the ultraviolet (UV) spectral range which is invisible to the human eye. To be able to see corona in the daytime, Ofil's camera systems use two imaging channels: UV and visible. The images are overlaid making fault location easy and accurate.

## Where can corona camera save me time and money?

- Outside electrical distribution for utilities (transformers, bushings, insulators, transmission & distributions overhead lines, capacitor banks, switches supports, circuit breakers, arresters, others).
- Inside electrical distribution and service (switchgear, generators, electrical motors).

## Why daytime corona imaging?

Corona imaging offers the ability to pinpoint the exact corona source location and display the corona and its emitter. You will be able to differentiate between nearby corona sources and qualify their severity. To reveal the corona source in its early stage you need to use a highly sensitive



## Why can't I use an IR camera for corona inspection?

Corona phenomenon is a voltage related effect resulting from partial insulation failures starting from 6kV. Corona doesn't generate heat hence IR cameras do not see corona. IR cameras are current related indicators and are complementary to corona cameras in revealing future insulation failures thus offering a comprehensive overview of the electric grid status. .

corona camera, like the Ofil range of cameras. By nature, the UVc light doesn't penetrate earth.

The corona camera exhibits only the desired corona's radiation emitted from the source of failure.

Because daytime corona cameras are non-destructive and remote sensing instruments, they are safer to use in hazardous conditions. A large LCD display allows keeping eye contact with the surroundings, as needed for safety inspection.

## Features

- Easy Go/No Go Indication
- Minimum Training Required
- Severity classified in easy to understand levels
- Quantitative feedback of photon emission rate
- Reliable (used by EPRI)
- Lowest Cost of Entry to Corona Inspection

## Range of Products

### Hand held

- UVollé-S - compact hand held camera
- UVollé-SV - compact hand held video camera
- DayCor Superb - a system for hard core users
- DayCor Classic – a robust unit for laboratories and academies

### Airborne

- DayCor Rom –airborne gimbaled system
- DayCor UAV-Rom – unmanned aerial vehicle gimbaled system

### Ground vehicle mounted

- DayCor Ranger –stabilized ground vehicle mounted system
- DayCor Rail – the corona and arcing detection solution for trains

## About Ofil

The inventor and worldwide leader of daytime UV technology inspection. Ofil offers the lowest cost of entry to the daytime corona inspection world, and serves a wide range of applications in various market segments. Leading worldwide institutes, including EPRI, are using Ofil's technology to explore future breakthroughs in the power industry. Ofil holds an ISO certificate and its cameras are tested and certified by international testing laboratories. Ofil's corona cameras are distributed worldwide through official distributors.

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