



The **NL Camera** is an easy-to-use, stand-alone device for detecting partial discharges in high voltage electrical systems during routine inspections. The NL Camera utilizes 124 microphones to find sounds emitted by partial discharges—even when they are completely inaudible to the human ear. Sound appears before components start to heat up, and the NL Camera enables detecting problems at an early stage.

The NL Camera instantly superimposes the located partial discharges on the camera view, allowing users to pinpoint and report possible problems effortlessly. The NL Camera quickly scans large areas from a distance, detecting problems in power grids from up to 100 meters away. The NL Camera detects 50/60 Hz partial discharges automatically, but by adjusting the AC frequency manually, users can find discharges in a frequency range as broad as 20–1000 Hz.

Is it a bad connection? Perhaps a faulty insulator? The included NL Cloud software instantly categorizes the discharge according to our algorithms for AC partial discharges.

Technical Specifications

Acoustic Specifications

Acoustic measurement	124 low-noise MEMS microphones, real-time sound visualization
Sensitivity	<-15 dB
Dynamic range	>120 dB
Bandwidth	2 kHz to 35 kHz, adjustable range
Distance	From 0.3 m (1.0 ft) up to 100 m (328 ft) Recommended distance 10–15 m
Discharge classification & analysis	• Discharge into air (positive and negative corona) • Discharge on the surface or inside component • Floating discharge • PD pattern
Discharge detection	Automatic detection 50/60 Hz Manual detection 20Hz–1kHz

User Interface

Display Size	5 in, 800 × 480
Color	24 bit RGB
Brightness	1000 cd/m ² (adjustable)
Input device	Resistive touchscreen
Video image resolution	1640 × 1234
Video frame rate	25 fps
Acoustic image frame	30 fps
Zoom	2x digital zoom

Communication and Data Storage

Wireless data transfer	Wi-Fi 2.4 GHz and 5 GHz IEEE 802.11.b/g/n/ac wireless LAN
Storage, internal	32 GB SD card, non-removable
Storage, external	8 GB USB mass storage, provided with device
Power supply	Nominal input voltage 12 V Max input: 15 V 2 A
External battery	LiFePO 12 V 7 Ah 84 Wh, Usage: 6 h Charge time: 4 to 6 h Battery charger Input: 100–240 V ~ 50/60Hz 1.5 A Max output: 13.8 V, 4.0 A

Environmental

Operating and storage temperature range	-10°C – +50°C
Humidity	Recommended 0 to 90%
Ingress Protection	IP51

Physical data

Camera size	273 × 170 × 125 mm (10.7 × 6.7 × 4.9 in)
Camera weight	980 g (2.2 lb)
Battery size	90 × 145 × 65 mm (3.5 × 5.7 × 2.6 in)
Battery weight	985 g (2.2 lb)
Total weight, incl. all accessories	2.9 kg (6.4 lb)