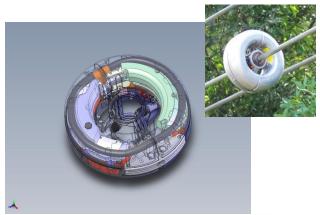
## **ATECNUM**<sup>®</sup>

## **PowerDonut®** — Line Monitor















## **ATECNUM**°

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## PowerDonut® Instrumentation Platform for High Voltage Power Systems

Physical 4<sup>th</sup> Generation "PD4"

 Diameter
 12.6 inches (32.0 cm)

 Width
 5.5 inches (14.0 cm)

 Weight
 19.0 pounds (8.6 kg)

Operating temperature Range: -40°F to +140°F, -40°C to +60°C (ambient).

Environmental Fully weatherproof. Corona-free operation through 765 kV rated voltage.

Installation Energized (hot stick) or de-energized. Suitable for bundled conductor applications.

Power Supply Self Powered from the conductor magnetic field. No external power supply is required.

Nominal startup current is 50 A at 60 Hz.

Battery operation Includes a rechargeable and field replaceable internal lithium-ion battery pack that allows the

unit to operate with less than 1 ampere.

Measurements Conductor current (RMS), Phase-to-ground voltage (RMS), conductor temperature, conductor

inclination angle.

Conductor current +/- 0.5% of reading. One reading per second. Measures from 0 to 3000 A.

Fault Detection (Option) Optional I<sup>2</sup>t fault detection. On fault event, stores 30 current and voltage waveforms, ready to

upload to server when the fault is reported.

Harmonics (Option) Optional voltage and current harmonics reporting (to 31st harmonic).

Conductor voltage Up to 765 kV rated voltage +/- 2.5%.

Conductor temperature +/- 1°C accuracy. 0.25°C resolution. One reading per minute.

Standard temperature range: -40°C to +170°C. Extended range: -40°C to +250°C.

Inclination angle +/- 0.05 degrees accuracy. 0.02 degrees resolution. One reading per minute.

-11 to + 11 tilt measurement range (able to be offset).

**Communications** Built-in IoT cellular telephone and 2.4 GHz radio are installed, standard.

Cellular telephone LTE Cat-M1 and NB-IoT.

2.4 GHz radio 10 to 100 mW (configurable) XBEE radio.

PowerDonut® Software PDS20. Windows-based data management system for handling data and managing

communications.

**Dynamic Line Rating** Software module for computing real-time ampacity. Includes IEEE Standard 738 weather model

and proprietary conductor temperature model, as well as sag and tension calculations.

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