

DOBLE IN-SERVICE TESTING & ASSESSMENT

# SPARK P3

Partial Discharge (PD) and Electromagnetic Interference (EMI)  
Analyzer

## INSULATION SYSTEM DIAGNOSTICS FOR HIGH-VOLTAGE ASSETS

Doble Spark P3 is a universal PD and EMI analyzer that uses a software defined radio signal detector to identify characteristics of insulation system deterioration that could lead to the failure of high voltage equipment. It detects signals from suitable sensors in a frequency range between 9 kHz to 2 GHz for PD and EMI, and DC to 500k Hz for acoustic and reference voltage measurements.

An automatic classification system enables users of all experience levels to easily distinguish partial discharge activity from nuisance signals and classify different types of PD/EMI defects in high-voltage apparatus, including:

- Rotating machines (PD couplers, HFCT sensors)
- Power transformers (HFCT sensors, UHF antennas, acoustic microphones)
- Instrument transformers (HFCT sensors)
- Switchgear (GIS and AIS – TEV sensors, UHF antennas, HFCT, acoustic sensors, spacer sensors, window sensors)
- Cables and accessories (HFCT, UHF sensors, acoustic sensors)



## FEATURES

- Automatic signal fault classifier
- Universal detector applicable for most PD testing scenarios
- Guided mode for minimum operator training requirements
- Freely configurable and pre-set test plans for any application and automatic data acquisition
- Battery operated benchtop (lab) or Pelicase (site), 19-inch rack-mount adapter available

## SPARK P3 TECHNICAL SPECIFICATIONS

### BENEFITS

- Signal classification algorithm helps inexperienced operators obtain reliable results
- Guided measurements
- Automatic measurements and test plans (can be edited)
- Suits most PD/EMI applications
- Lightweight battery operated device (suitable for cabin and hold air travel)

### GUIDANCE FOR INEXPERIENCED USERS

A "Wizard Mode" guides users new to the subject through the measurement and data acquisition procedure, limiting functionality and other elements to the minimum required to conduct the task. More experienced personnel can select "Expert Mode" to configure the system to perform measurements in any desired form.

#### SPECIFICATIONS

HF Tuner	9 kHz to 56 MHz
VHF Tuner	56 MHz to 2 GHz
Reference voltage input	DC to 500 kHz
Detector modes	Spectrum analysis (Peak, Average, Quasi-Peak Time resolved (zero span) Phase resolved Acoustic
Tuner Sensitivity	1uV
Number of PD input channels	2
Number of reference voltage/ acoustic emission channels	2
Power supply	100-240V 2A

#### MECHANICAL

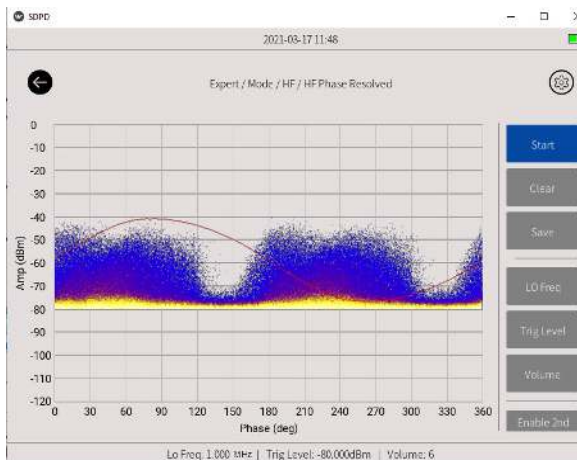
Dimensions (WxHxD)	47 x 35.7 x 17.6 cm 18.50 x 14.06 x 6.93 in
Weight	9 kg/19.8 lbs

#### ENVIRONMENTAL

IP Classification	IP 67 (closed case) IP 40 (open lid our outside of case)
Operating temperature	-20° to + 50°C/ -4° F to 122° F
Storage temperature	-20° to + 70°C/ -4° F to 158° F

#### POWER SUPPLY

	115-230 VAC 50-60 Hz 2A
Battery	7.2V 20Ah
Capacity	6 hours
Charging time	3 hours



### MANAGE TEST PLANS AND DATA

Doble's Spark measurement systems will integrate with Doble's Pulse™ companion PC software which enables the user to manage measurement data, edit test plans and asset information, visualize measurement data, and export individual data sets or entire test plans to report templates.



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Specifications are subject to change without notice.  
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