### MPD SCAN

# Handheld scanner for PD surveying in MV and HV plants



- For fast verification of partial discharge activity in MV and HV plants
- Universal application range, thanks to wide variety of sensors
- Integrated camera and QR code scanner
- Easy to use via keypad and touchscreen
- Reporting via MeggerBook RE software

#### **DESCRIPTION**

Defects in medium and high voltage systems not only require costly repairs, but can lead to failures of network sections with corresponding consequences. Therefore, it is in the interest of all network operators to recognize signs of impending defects as early as possible and to be able to take appropriate countermeasures in time.

With the MPD Scan, Megger offers a lightweight, robust and portable PD scanner that can quickly inspect various types of equipment for partial discharge signals. The MPD Scan is used for the early detection of partial discharges emanating from defects in medium voltage switchgears and other electric equipment. For this purpose, the device has two internal sensors (TEV, airborne acoustic) and can also be operated with various types of external sensors.

The operation of the device is simple; it can be controlled via the three soft keys as well as via the intuitive touch display. Thanks to the auto-recognition of the connected external sensor, malfunction operation, as well as bothersome browsing through individual screens, can be eliminated.

Thanks to the large variety of sensors, the MPD Scan can be used for multiple application ranges. PD within the cable insulation can be detected using the HFCT sensor. Partial discharges in switchgears can be measured by using the TEV sensor and corona and surface discharges in MV and HV systems can be identified with the parabolic acoustic

The variety of sensors have made this handheld scanner a unique measuring device. To support the end user, measurement data will be automatically evaluated and interpreted, and pictures of the identified defects can be made and directly integrated into the report by using the integrated camera. Furthermore, the QR code scanner can directly take over the switchgear/asset data; there is no need to inconveniently rename the folder for each different test object. Make life easier by reducing the number of loose cables in the workspace through using the comfortable Bluetooth® headset, which can also be used with a helmet.

Establishing detailed and individual test reports can be performed quickly by using the supplied MeggerBook RE reporting software.

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#### **TECHNICAL DATA\***

#### **MPD SCAN**

#### **TEV Measurement (capacitive)**

Measurement range -10 ... 80 dBmV
Bandwidth 2 ... 80 MHz
Resolution 1 dBmV
Accuracy ±1 dBmV

Acoustic sensor

 $\begin{tabular}{lll} Measurement range & -10 \dots 70 \ dB \mu V \\ Resolution & 1 \ dB \mu V \\ Accuracy & \pm 1 \ dB \mu V \\ \end{tabular}$ 

Transducer centre frequency 30, 40 und 80 kHz

**HFCT sensor (inductive)** 

Measurement range -10 ... 80 dB Bandwidth 100 kHz ... 20 MHz

Resolution 1 dB

Accuracy  $\pm 1 \text{ dB/} < \pm 10\%$  Impedance 50 Ohm

HousingInjection moldedDisplay3.5 inch touchscreen,320 x 240 pixel

**Interfaces** Lemo (external sensors)

USB type C (charging, headphone,

PC) Bluetooth®

**Control** via 3 soft keys and touchscreen

IP rating IP 54

Temperature

Operation 14 ... 131 °F Storage -4 ... 158 °F **Relative humidity** 93 % at 86 °F (non-condensing)

Power supply

Charger Input voltage 90 ... 264 V,

50/60 Hz

Output voltage 5 V DC Li-lon 3.6 V / 3.35 Ah

Internal battery Li-lon 3.6 of Operating time > 8 hours Charging time ± 2 hours

Dimensions (W x H x D)

MPD Scan 8.7 in. x 3.1 in. x 1.2 in.

Weight

MPD Scan 0.9 lbs

#### **FEATURES**

- Three PD measurement methods in one device
- Plug and Play; MPD Scan automatically recognizes which external sensor has been connected
- Easy to use via soft keys and touchscreen
- Universal operating range due to large variety of sensor
- Automatic evaluation and interpretation of the results
- Comfortable Bluetooth® headphones
- Integrated camera
- QR code scanner for asset recognition
- Different views and PRPD (phase-resolved partial discharge) display for defect type recognition
- MeggerBook RE reporting software
- Use your own mobile device for wireless data transfer by USB



## Handheld scanner for PD surveying in MV and HV plants

Product MPD Scan Set DIS	Order no.
MPD Scan Set DIS	Cidel IIO.
MPD Scan main device, Parabolic receiver, HFCT SC40 sensor, function tester, charger + USB cable, Bluetooth® headphone,	
transport case, USB Stick with operating manual and reporting software	1012 889
Options:	
MPD Scan demo box for training	
MPD Scan demonstrator, transport case and batteries	1011 423
Optional accessories:	
HFCT 20, permanent HFCT sensor for cable screen, inner-diameter 20mm	1006 296
HFCT SC40, HFCT Sensor for cable screen, inner-diameter 40mm	1009 667
HFCT SC60, HFCT Sensor for cable screen, inner-diameter 60mm	1012 681
VK 132, connection cable HFCT for MPD Scan	9 0026 538
AA PR400-1, detachable parabolic receiver	1012 287
THS 55; temperature humidity sensor for MPD Scan	1010 217
FC 1; function tester MPD Scan	1010 219
Bluetooth® headphone	9 0028 677
MPD Scan-WMSD, wireless mass storage device for MPD Scan	1012 538







