

MEDCAL ST Network Analyser



Description

MEDCAL ST is an advanced network analyzer, specifically designed for power quality studies. It is extremely easy to configure and set-up, with no external switches or settings. Covering the requirements of EN50160, it is the first three-phase monitor able to fully implement the recommendations of EN-50160 standard for fast voltage variations.

MEDCAL ST is available in two different configurations: the standard version is suitable for laboratory use or indoor installation. The IP-65 version is recommended whenever the instrument must be used outdoors or in extreme climatic conditions.

MEDCAL ST also includes an advanced transient detection capability on the voltage channels. The high resolution voltage waveform will be recorded whenever there is a voltage distortion on the instantaneous voltage. As an additional advantage, the RMS voltage profile can be stored whenever there is a RMS-related event: dip, voltage peak or fast voltage variation.

MEDCAL ST can store, under normal conditions, more than three months of recordings without external intervention. The absence of any mechanical elements makes the instrument extremely robust and reliable. The included USB interface and cable allows direct communication with a personal computer. As an option, it is possible to include an internal GSM/GPRS modem for remote operation of the instrument.

The instrument is designed for both laboratory and permanent installation, and is provided with both front (4-mm banana) and rear (screw-type) connectors. Wall-fixing accessories are also supplied. In the IP-65 version all the connectors are waterproof and sealed.

With every MEDCAL ST a copy of MEDCALScope PC software is included at no additional cost. MEDCALScope allows a complete and exhaustive analysis of recorded data. It is possible to save the recorded data for later use, and export the data to other computer applications, as well as check compliance with power quality standards.

Measuring parameters

RMS voltage: max. mín. and average values.

Delta (phase-phase) and Wye (phase-neutral) topologies supported.

Nominal voltage range: from 110 V to 480 V.

RMS current: max. mín. and average values.

Measuring range: from 10A to 3000A depending on the employed current clamps.

Voltage dips and swells: In addition to voltage level and duration of the dip/swell, MEDCAL ST can record the RMS voltage profile during the event.

Transient waveforms

Flicker: Pst and Plt.

Voltage and current harmonics: up to 50th.

Total Harmonic Distortion

Unbalance.

Fundamental frequency: Nominal frequency from 50 to 60 Hz. measuring ranges from 48.5 to 51.5 Hz and 58.5 to 61.5 Hz

Power supply

From 100 V to 230 V (ac or dc)

Maximum power consumption: 5 W

Memory

4 Mbytes flash memory, equivalent to 650.000 recordings. This provides for 3 months of continuous measurement under normal conditions. (10 minutes averaging interval).

The memory can be configured as linear or circular storage.

Adjustable averaging period from 1 second to 30 minutes

Communication

Opto isolated high speed USB interface. USB 1.1 and USB 2.0 compatible

Optional internal GSM modem

Environment conditions:

Working temperature: -10°C to 55°C Nominal temperature: 20°C

Relative humidity: desde 10% hasta 90% sin condensation

Safety

600V CAT III / 300V Cat IV, pollution degree 2

Double isolation IEC/EN 61010-1

Dimensions and weight:

Standard Model: 220x145x50 mm, ~450 gm

IP65 Model: 190x120x60 mm, ~400 gm

Internal Real Time Clock

Powered by a rechargeable Lithium-ion battery

Precision: deviation lower than 2sec/day

For details of further systems to monitor energy use, voltage variations and other power quality aspects and automatic load control systems contact NewFound Energy Limited.

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