

MEDCAL NT Voltage Quality Analyser



DESCRIPTION

MEDCAL/NT is an advanced voltage quality monitor 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. As an additional advantage, the RMS voltage profile can be stored whenever there is a RMS-related event: i.e. dip, voltage peak or fast voltage variation.

MEDCAL/NT also includes an advanced transient detection capability on the voltage channels. A high-resolution voltage waveform will be recorded whenever there is a voltage distortion on the instantaneous voltage.

MEDCAL/NT 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. It is possible to connect a standard modem in order to operate a remote MEDCAL/NT.

The instrument is designed for laboratory, site survey and permanent installation, and is provided with both front (4-mm banana) and rear (screw-type) connectors. Wall-fixing accessories are also supplied.

As an option, it is possible to include an internal GSM/GPRS modem for remote operation of the instrument.

With every MEDCAL/NT a copy of MEDCALScope PC software is included at no additional cost. MEDCALScope provides for 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.

TECHNICAL SPECIFICATIONS

RMS Voltage Resolution: 0.125 Volts
RMS Voltage Range: 0 to 1000 Volts
RMS Voltage Precision: 0.5% of end-of-scale
Instantaneous voltage resolution for transient recording: 12 bits
Measuring method: True RMS calculation
Harmonic amplitude precision: 0.1% relative to fundamental
Maximum harmonics recording order: up to 63rd harmonic
Frequency precision: 0.02 Hz
Frequency measurement range: 48.0 to 51.6 Hz
Sampling frequency: 32 kHz per channel (640 samples/cycle at 50 Hz)
Internal Memory capacity: More than 3 months under normal conditions
Communication: USB 1.1 and 2.0 compatible
Internal clock precision: 1 second / month
Power consumption: 2W
Weight: 400 gm
Dimensions: 220 x 145 x 50 mm.
Operating temperature: -10°C to + 65°C
Relative humidity: 0% to 90%

COMPUTER REQUIREMENTS

PC compatible Pentium processor or higher
256 MB RAM Memory
3 MB free space on the Hard Drive
One USB port
Operating system: Windows 2000™, Windows XP™ or Windows VISTA™

REGULATORY COMPLIANCE

EN-55081 (part 1)	General, Domestic and Light Industry emissions standard
EN-60555	Harmonics and fluctuation emissions standard
IEC-1000-4-1	Immunity against Voltage Dips and Interruptions
En-500082 (part 2)	Generic, Commercial and Light Industrial immunity Standard
EN-61010	Measurement, Laboratory and Control Equipment Low Voltage Directive. Safety requirements: Cat III 600V

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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