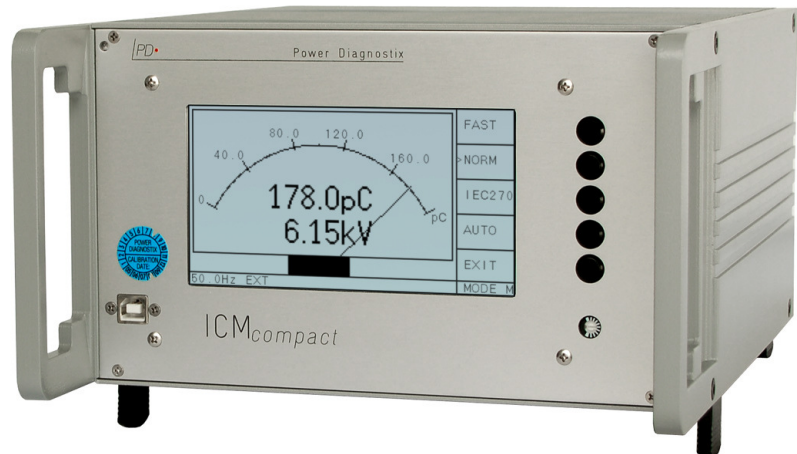


# ICMcompact



The ICMcompact is part of the Power Diagnostix ICMseries of digital partial discharge detectors. The ICMcompact is a compact, stand-alone instrument for evaluating the condition of medium and high voltage insulation. It is often used in quality assurance and quality control tests in manufacturing.

### Stand-Alone Instrument

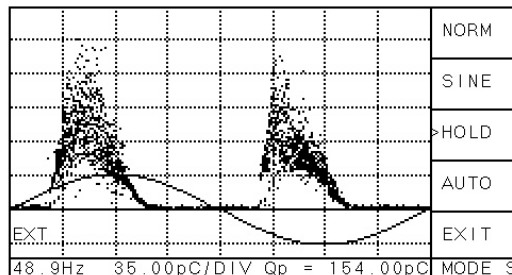
Partial discharge (PD) measurements are a proven method for effective, non-destructive evaluation of electrical insulation. The Power Diagnostix ICMcompact provides a simple push-button interface and on-screen menus in an embedded LCD panel. The LCD display modes include a simple PD charge meter with adjustable “needle” sensitivity, monochrome phase-resolved PD patterns for characterization of defects, and a scope-like display showing phase-summed charge pulses superimposed with the applied voltage wave.

Although the ICMcompact is an autonomous unit, it can be connected to a computer installed with Power Diagnostix software to capture screenshots or to implement remote control of the unit.

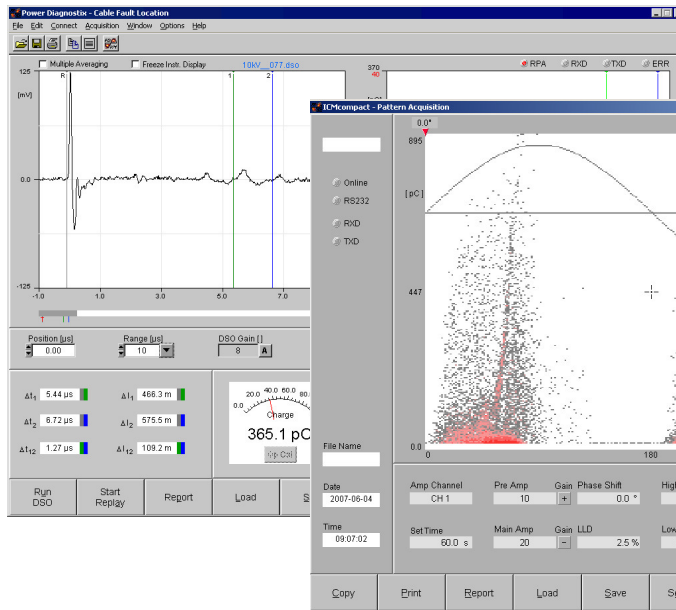
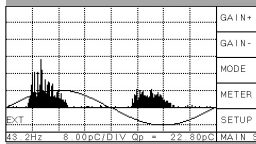
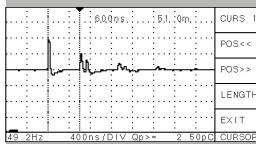
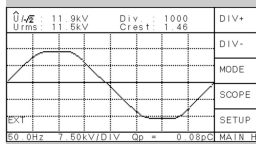
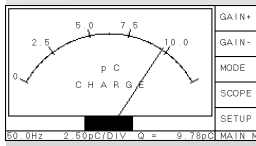
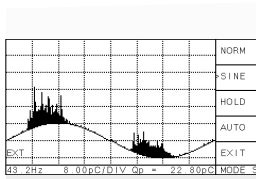
### Applications

Instantly displaying information in an intuitive interface, the ICMcompact is a good choice for applications such as quality control tests in manufacture of electrical products, and for quality assurance of industrial and utility equipment from capacitors and bushings to gas-insulated switchgear and others. A wide range of accessories adapts the ICMcompact to specific testing applications and noise conditions.

The ICMcompact equipped with an optional DSO board can be used to locate partial discharge defects in power cable. Using time domain reflectometry, in which the PD and its “echoes” travel the length of the cable under test, the ICMcompact provides the proportional distance of the PD fault along the cable.



Phase-Resolved PD Pattern



The ICMcompact offers convenient on-site testing of equipment such as cable accessories or sensors installed with gas insulated switchgear, for instance. Generally, this unit can be used with the full range of the ICMseries preamplifiers, covering the IEC60270 standard and ultrasonic frequencies up to the UHF range (20kHz-2GHz).

To adapt the basic ICMcompact unit to suit special measurement requirements, it can be equipped with various options:

- Voltage measurement. Adds the HVM oscilloscopic display showing the waveform of the high voltage and calculates  $\hat{U}$ ,  $\hat{U}/\sqrt{2}$ ,  $U_{rms}$ , etc.
- Cable PD location. An additional DSO board samples the PD signal at 100Msample.

- Analog gating to cancel external disturbance. This option offers sensitive measurements even in noisy environments.
- TTL-Gating. Unconditioned gating on an external TTL signal to combine the ICMcompact with IGBT driven resonant high voltage test sets.
- UHF measurements on GIS. Comes with a logarithmic display for the UHF preamplifier RPA6C
- MUX4. Four-channel multiplexer for testing three-phase equipment, such as power transformers. For each channel the unit maintains an individual setup and calibration.
- MUX12. With this option a remote 12-channel switching box offers cost-efficient acceptance testing on large power transformers.
- AUX8. For long-term testing up to eight additional parameters can be captured as 0(4)-20mA or 0-10V signals.

The easy portability, simple operation, and flexibility of the Power Diagnostix ICMcompact make it a good choice for routine PD testing in a variety of utility and industrial applications.