

# HPD5000B

Partial Discharge Detector



Focusing on designing and manufacturing portable HV test equipment.  
PD detector, HV Switchgear analyzer, CT/PT analyzer, Micro-ohmmeter, Capacitance& Dissipation factor tester.

**HANDY**

**Electrical Instruments Professional Manufacturer**

# Partial Discharge Detector

## HPD5000B



**HPD5000B** integrates multiple partial discharge detection functions and can use ultra-high frequency (UHF), high-frequency current (HFCT), transient earth voltage (TEV), and acoustic emission (AE) sensors for partial discharge detection of high-voltage equipment. It is suitable for live inspection of GIS, switchgear, cables, transformers, and other equipment.

### Features

- Use an Ultra High Frequency (UHF) sensor to detect partial discharge.
- Use a High Frequency Current Transformer (HFCT) to detect partial discharge.
- Use an Acoustic Emission (AE) sensor to detect partial discharge.
- Use an External surface sticker ultrasonic to detect partial discharge.
- Use a Transient Earth Voltage (TEV) sensor to detect partial discharge.
- Refresh PRPS and PRPD patterns in real time.
- High frequency current anti-interference selective frequency filter with multiple combinations.
- Equipped with ultra-high frequency selective frequency filter. With a combination of high-pass, low-pass, bandstop and all-pass.
- Can be operated on a 8-inch Windows tablet computer.
- Built-in large capacity battery, which can continuous test more than 6 hours.
- The wireless module adopts an aluminum alloy skeleton design to prevent collision.
- Adopting fully wireless sensor, no need to wire.

### Specifications

#### UHF Measurements

|                            |  |
|----------------------------|--|
| Bandwidth                  | 300 to 1500MHz                                   |
| Selective Frequency Filter | High-pass, low-pass, band stop(900MHz), all-pass |
| Sensitivity                | 1.57V/m  |
| Dynamic Range              | 70dB   |



**HFCT Measurements**

|                          |                                |
|--------------------------|--------------------------------|
| Bandwidth                | 3 to 30MHz                     |
| Anti-interference Filter | 10MHz, 17MHz, 24MHz            |
| Dynamic Range            | 80dB                           |
| Impedance                | $\geq 10\Omega$ @ (3 to 30MHz) |
| Linearity Error          | $\leq \pm 5\%$                 |

**TEV Measurements**

|                      |                |
|----------------------|----------------|
| Coupling Bandwidth   | 3 to 100MHz    |
| Dynamic Range        | 80dB           |
| Coupling Capacitance | 50pF           |
| Linearity Error      | $\leq \pm 1\%$ |

**AE Measurements**

|                  |               |
|------------------|---------------|
| Center Frequency | 40kHz         |
| Sensitivity      | -67dB @ 40kHz |

**Ultrasonic Measurements**

|                                    |              |
|------------------------------------|--------------|
| External Surface Sticker Bandwidth | 20 to 200kHz |
| Dynamic Range                      | 95dB         |

**Display**

|              |            |
|--------------|------------|
| Screen       | 8-inch     |
| Brightness   | 700Nit     |
| Touch Screen | Capacitive |
| Resolution   | 1200*800   |

**Tablet Computer**

|                        |                   |
|------------------------|-------------------|
| Dimensions             | 227×142×22mm      |
| Battery Capacity       | Lithium Ion, 42Wh |
| Operating Time Approx. | 6 hours           |
| Weight                 | 830g              |
| IP Rating              | IP 67             |

**Wireless Module**

|                        |                      |
|------------------------|----------------------|
| Dimensions             | 104×70×35mm          |
| Battery Capacity       | Lithium Ion, 4000mAh |
| Operating Time Approx. | 6 hours              |
| Weight                 | 250g                 |

**Operating Environment**

|             |                             |
|-------------|-----------------------------|
| Temperature | -20°C to 60°C               |
| Humidity    | 5% to 90% RH non-condensing |



| NO. | Description                     | Quantity |
|-----|---------------------------------|----------|
| 1   | Windows Tablet Computer         | 1        |
| 2   | UHF Wireless Module             | 1        |
| 3   | UHF Sensor                      | 1        |
| 4   | HFCT Wireless Module            | 1        |
| 5   | HFCT-60                         | 1        |
| 6   | AE and TEV Wireless Module      | 1        |
| 7   | External Surface Sticker Sensor | 1        |
| 8   | Speaker                         | 1        |
| 9   | Synchronization Transmitter     | 1        |
| 10  | BNC Connection Cable            | 3        |



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