



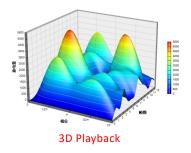


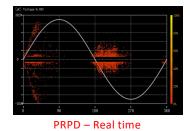
Sine Wave Curve

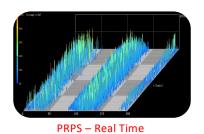
Straight Line Curve

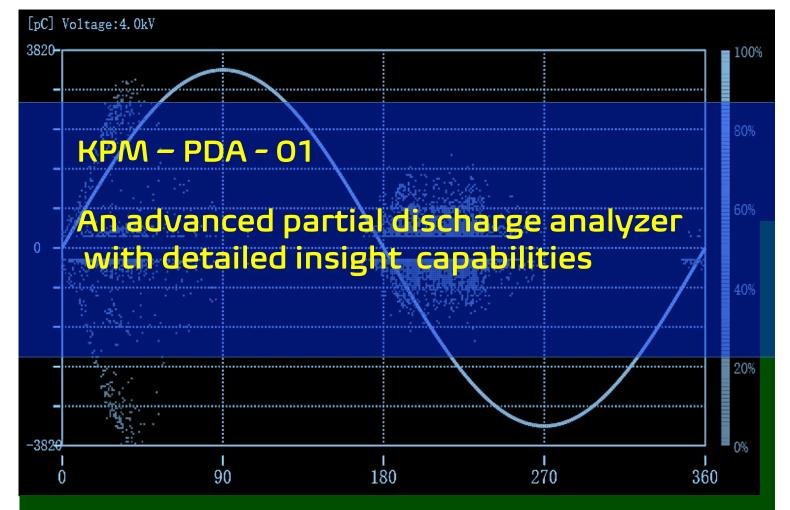
Ellipse Curve

















### KPM PDA-01, Partial Discharge Monitor

#### Features:

- Fully digital partial discharge measurement with simultaneous sampling, processing and display.
- Internal and external synchronisation can be selected at will, with zero mark indication and phase discrimination.
- Display modes: free choice of ellipse, line and sine.
- Analysis of individual discharge pulse waveforms in order to determine the nature of the discharge.
- Saving of test data and waveforms at any time, as well as the possibility of redisplaying and analysing past saved test records.
- Gain range: each channel is individually adjustable and the waveform display can be adjusted smoothly at any time without affecting the measurement results.
- Single capture capture and detailed analysis of ad hoc or random waveforms is possible.
- Anti-static interference function, which removes phase-fixed interfering signals.
- Anti-interference function of correlation filtering technology, which effectively removes random interference that is not synchronized with the power supply.
- Band-pass filter with mixed analogue and digital filtering techniques, with any combination of bandwidths to effectively suppress various disturbances.
- free opening of windows in any phase, single and double windows at will, free opening of windows in any choice within 360 degrees.
- The ability to monitor the test voltage while detecting partial discharges.
- Discharge measurement, discharge time and waveform analysis of partial discharge pulses.
- Two- and three-dimensional partial discharge mapping displays.
- Arbitrary storage and printing of partial discharge graphs and data, automatic generation of test reports.



### Technical Specs

- 1. Measurement channels: 1 channels.
- 2. Capacities of testable products range from 6pF to 250µF.
- 3. Measurement range: 0.1pC-10000nC.
- 4. Detection sensitivity: 0.01pC.
- 5. Sampling accuracy: 12bit; sampling rate: 20M/s.
- 6. Display working mode
- Display method: ellipse sine line
- Trigger synchronization mode: divided into internal and external trigger mode, internal trigger for the instrument power synchronization trigger, 50Hz; external trigger for synchronization test power working frequency, 50~400Hz within any frequency.
- External trigger synchronous signal input voltage: 10~200V, input power <1 volt-amp.</li>
- Signal phase determination: the ellipse display is in polar coordinates, the sine display is in sine wave, the starting point of the display graph is the zero point of the test power supply, the length of the display graph is one cycle of the test power supply, the system truly and accurately displays the cycle and phase of the test power supply under the external trigger synchronization method.
- 7. Time window: the phase size can be selected at will, the time window can be dynamically enlarged and displayed, and the two time windows can be opened separately or simultaneously.
- 8. Filter band: 3dB low frequency end frequency fL is divided into 10, 20, 40kHz, 3dB high frequency end frequency fH is divided into 80, 200, 300kHz, fL and fH can be flexibly and arbitrarily formed into
- a variety of filter passband.
- 9. Signal amplifier.
- Gain adjustment: divided into gain coarse adjustment and gain fine adjustment, gain coarse adjustment is divided into 5 grades, gain difference between grades 20dB (10 times), error ±1dB adjustment; gain fine adjustment range >20dB.
- Amplifier positive and negative polarity response asymmetry:
  <1dB.</li>
- 10. Local discharge signal measurement: the local discharge signal can be measured under continuous, amplified and other display working modes with an error of ±5% (at full scale).
- 11. With data storage, playback function, with printing function, generate standard test report.
- 12. Working environment temperature: -10  $\sim$  45 °C, relative humidity:  $\leq$ 95%.
- 13. Power supply AC220V; frequency 50Hz; power 30W.









### **KPM** PD Accessories



**KPM Cal-01 Series** 

**KPM Cal-01** Digital Calibration Pulse Generator is a small battery powered partial discharge calibrator. It features an LCD display, small size, light weight, portability and easy synchronization, making it suitable as a calibration pulse generator for a large number of field tests and factory product tests. It is suitable for any of the test circuits recommended by IEC-270 of the International Electrotechnical Commission.

Main specifications and technical parameters

- Output charge levels: 5pC, 10pC, 20pC, 50pC, 100pC, 200pC, 500pC.
- 2. Polarity: alternating positive and negative.
- 3. Repetition frequencies: 50, 100, 200, 500, 1200 Hz.
- 4. Frequency accuracy: <1%.
- 5. Pulse rising edge time: <60nS.
- 6. Pulse falling edge time: >100uS.
- 7. Injection capacitance: 10pF.100pF
- 8. Correction of charge error: Eq  $\leq \pm 5\%$ .
- 9. Size: 150mm (L) x 65mm (W) x 35mm (H).
- 10. Weight: 0.5kg.
- 11. Charging adapter: 220VAC input, 12VDC output.
- 12. Built-in rechargeable lithium battery.
- 13. Automatic power off for 3min without any operation.



**KPM PSDF1** 

#### **KPM PDSF-1**

KPM PDSF-1 is connected between the input unit and the partial discharge instrument to filter out high-frequency interference components doped in the partial discharge signal, which can effectively improve the testing effect of on-site testing and the signal-to-noise ratio level of partial discharge.





**KPM IU Series** 

**KPM IU (input unit)** is an important unit for detecting the PD signal in the discharge test circuit, also known as the detection impedance. This input unit is available from No. 1 to No. 12, and 7R (as per table1), and can comply with several partial discharge detection methods recommended by IEC 270 (parallel method, series method, balance method, etc.). This input unit uses a double-tuned input circuit of a high-frequency transformer, the initial stages of which are all LCR circuits whose primary inductance is tuned to the equivalent capacitance of the test circuit in the amplifier band of the local discharge instrument.



**KPM PSF01** 

#### **KPM PSF01**

Partial Discharge Isolation Transformer is specially designed for PDM Series solutions. It filters power supply harmonics & protects the PDM systems from accidental damage caused by ground potential rise during HV test. It makes the TV (test voltage) waveform clear & more uniform







### **KPM** PD Accessories

Table 1: Detection sensitivity and allowable current

NO.	Tuning Capacitance Range	Sensitivity (pC) (Unbalanced Circuit)	Effective Value Of Allowable Current	
			Unbalanced Circuit	Balance Circuit
1	0~25~100pF	0.02	30mA	0.25A
2	25~100~400pF	0.04	50mA	0.5A
3	100∼400∼1500pF	0.06	120mA	1A
4	400~1500~6000pF	0.1	0.25A	2A
5	1500~6000~25000pF	0.2	0.5A	4A
6	0.006~0.025~0.1μF	0.3	1A	8A
7	0.025~0.1~0.4μF	0.5	2A	15A
8	0.1~0.4~1.5μF	1	4A	30A
9	0.4~1.5~6.0μF	1.5	8A	60A
10	1.5~6.0~25μF	2.5	15A	120A
11	6.0~25~60μF	5	25A	200A
12	25~60~250μF	10	50A	300A
7R	Resistance	0.5	2A	15A



**KPM IU Series** 









## KPM PDA-01, Partial Discharge Monitor

### Configurations -



Option 1 - Monitoring Unit (PDA-01) + PDV Software and Accessories





Option 2 - Monitoring Unit (PDA-01) + PD Source + PDV Software + Accessories







### KPM PDA-01, Partial Discharge Monitor

### Configurations -







PD Accessories

# Option 3 - Monitoring Unit ( PDA01 with Displays ) + PD Source + PDV Software and Accessories

### **About Us**

KPM is a high quality manufacturer & provider of rugged electrical testing equipment for EHV/HV/LV substations. KPM solutions are known for:

- Best in class specifications
- Unique test approach
- Interference rejection capability

Each equipment is supported by advance service center in Gurgaon backed by a team of expert application & service engineers. KPM aims in bringing highest specification products at the doorstep of Indian customers in best rates.



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