

# PARTIAL DISCHARGE MEASURING SET

MODEL : DAC-PD-3



DAC-PD-3 provides Wide Band(10kHz ~ 4MHz) and Narrow Band(10kHz ~ 200kHz). Since bandwidth can be easily chosen in accordance with the kind of specimen, measuring sensitivity, etc., DAC-PD-3 is available for partial discharge test such as electric equipments, electronic parts and insulating materials.

**Application** Electric equipments(generator, motor, transformer, cable)  
Electronic parts(capacitor etc.)  
Insulating materials  
Power devices  
High frequency equipments(compact high frequency transformers)

**Features** Select bandwidth of frequency  
Narrow band: 10k Hz ~ 200k Hz  
Wide band: 10k Hz ~ 4MHz  
Detects only partial discharge pulse by suppressing noises from testing source with a differential measuring circuit.  
Automatically measures Q-MAX at a specified repetition rate of partial discharge pulses per second (PPS).  
Possible to analyze "partial discharge - phase" since phase gate is set optionally.  
Noise suppressor circuit is controlled from outside through GP-IB.

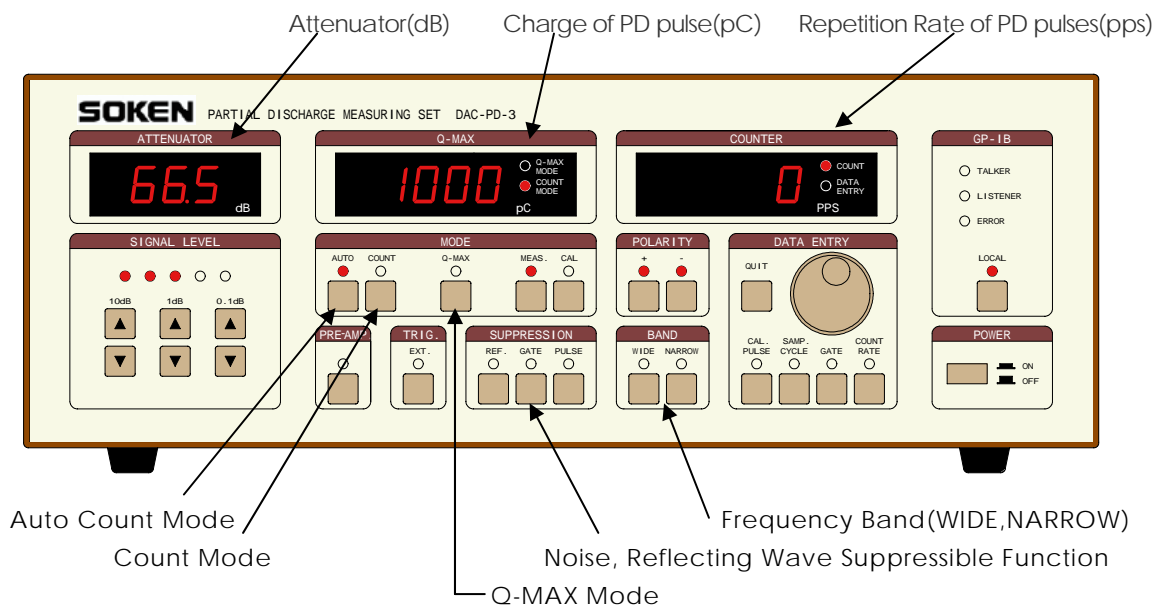
# Partial Discharge Measuring Set

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## SPECIFICATIONS

Attenuator	: Attenuation	0.1dB ~ 66.5dB (Input Resistance 50 Ω)
Amplifier	: Frequency Band	Wide Band 10kHz ~ 4MHz
		Narrow Band 10kHz ~ 200kHz
Pulse Counter	: Max.	99999 counts (Pulse Resolution 10 μs)
Q-MAX Display	: 1pC ~ 100000pC	
Interface	: GP-IB	
Analog Output	: Linear, DC output by Log, Waveform monitor output	
Other Specs	: Phase Gate	0 ~ 359 ° (set every 1 ° steps optionally)
Power Source	: AC100V ± 10%	50/60Hz
Size & Weight	: W430 * H150 * D385 (mm)	11kg
Accessories	:	1) coaxial cable (BNC:20m*1, 2m*2)
		2) AC Cord 1 pc
		3) Grounding Cable 2 pcs
		4) Storage Bag 1 pc

## EXPLANATION OF THE PANEL



### Q-MAX Mode

This mode is suitable for detecting the magnitude at a single maximum partial discharge.

### COUNT Mode

N-q Characteristic can be obtained by measuring repetition rate of PD pulses for Charge of PD pulses.

### AUTO COUNT mode

In AUTO COUNT mode, the maximum partial discharge magnitude for the specified repetition rate of partial discharge pulses can be measured.

(Partial discharge magnitude is output in Log and V-q Characteristic can be obtained.)

### Noise Suppressible Function

Periodicity noises can be masked.

Pulse noises can be masked by detecting the noises from CT and aerial wire.

Charge pulse can be masked for a given length of times to reflex waves after detection.

### Phase Gate Setup

Phase Gate can be set 0 ~ 359 ° at every 1 ° steps optionally.

# PARTIAL DISCHARGE MEASURING SET MODEL :DAC-PD-3

## FUNCTION EXPLANATION

In Narrow Frequency (NARROW BAND), since PD pulses at 10kHz ~ 200kHz can be detected and amplified. Narrow Band mode is suitable for specimen constructed distribution contract circuit and can measure generators, motors, transformers, cables and capacitors.

In wide band (WIDE BAND), since PD pulse at 10kHz ~ 4MHz can be detected and amplified, thus is superior for pulse resolution. Wide band mode is suitable for specimen constructed focused constant circuit and can measure power devices, compact high frequency transformers.

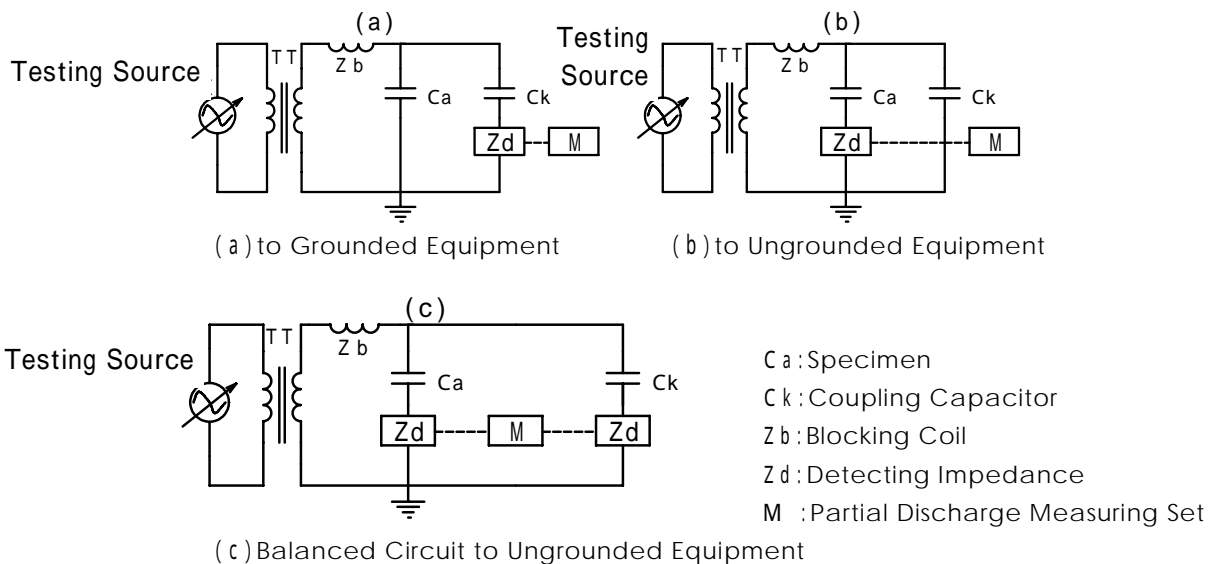
N-q characteristic test can be performed with COUNT mode since Pulse Counter is built-in.

(N: repetition rate of PD pulse, q: partial discharge magnitude)

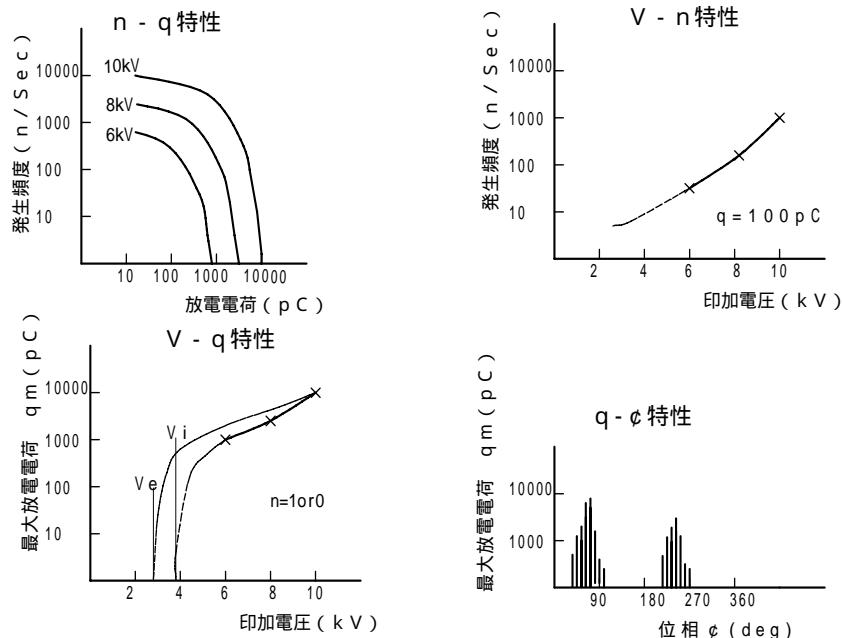
Possible to analyze "partial discharge-phase" since phase gate is set optionally.

Periodicity noise can be masked. (External control is also possible.)

## CONNECTING DIAGRAM



## Characteristic observed



# PARTIAL DISCHARGE MEASURING SET

MODEL : DAC-PD-3

## Detector ( DAC-PDE-2 )



Size & Weight : W170 x H70 x D110(mm) 1kg

## Calibrator ( DAC-CP-2 )



Output Voltage : 5V, 50V

Pulse Fall Time : 20ns or less, 1, 2, 5  $\mu$ S

Calibration Pulse Range : 0 ~ 10000pC

Repetition Frequency : 50Hz

Power Supply : Battery 7.2V

Size & Weight : W170 x H60 x D110(mm) 800g

## PD Detecting Box ( DAC-PDB-2 )

Detector, Blocking Coil and Coupling Capacitor are built-in one box.

Rated Voltage : AC12kV

Rated Current : 3A

Capacitance : 1000pF

Size & Weight : W260 x H340 x D230(mm) 7kg



## Blocking Coil & Coupling Capacitor

High Inductive Blocking Coil and Coupling Capacitor are built-in one unit. Select a suitable models depending on test voltages.

	DAC-LCC-15	DAC-LCC-30	DAC-LCC-50
Rated Voltage :	AC15kV	AC30kV	AC50kV
Rated Current :	3A	3A	3A
Capacitance :	1000pF	1000pF	600pF
Size :	512H	702H	912H
Weight :	8kg	13kg	15kg



Head Office • Factory  
ISO9001cert obtained

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