PARTIAL DISCHARGE TESTER
DAC-PD-7P

Features
- Partial Discharge Tester with Built-in Power supply, test voltage Max 5kV.
- Operation in very short tact time (Min 4 sec.) is possible.
- By equipping Input Output Contact terminal for external control and output for OK/NG judgment, DAC-PD-7P is suitable for Production Line Test.

Applications
Suitable for Production Line Test such as, IGBT gate drive photo coupler, Pulse Transformer, EV Motor, Relay, etc.

Manual Test
When partial discharges which occurred during the retention period “t1” at test voltage “U1” exceed both any set-up electric charge and generating frequency value, it is judged as NG, and when the charges within the values, it is judged as OK.

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\begin{align*}
U1 & : \text{Test Voltage} & 0 - 5000VAC \\
t0 & : \text{Test Power OFF time} & 0.5 \text{ sec or more} \\
t1 & : \text{Holding Time} & 1 \text{ sec or more} \\
& \quad \text{(Partial Discharge Testing Period)} \\
tr, tf & : \text{Voltage Rising time-falling time} & 0.1 \text{ sec}
\end{align*}
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Automated Test
Any of one to five measuring points can be set up.

Setting item (per each measuring point)  Setting range
1. Voltage V[V] 0 - 5000V
2. Holding Time t[s] 0 – 60sec

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\begin{align*}
U1 & : \text{Voltage at Measuring point 1} \\
t1 & : \text{Holding time at Measuring point 1} \\
tr, tf & : \text{Rising time, falling time (0.1s or less)}
\end{align*}
\]
Model DAC-PD-7P
Partial Discharge TESTER

Specifications

Power Unit

- Input Voltage: 100VAC±10% 50/60Hz
- Output Voltage: 0 - 5000VAC, 30VA
- The shortest testing cycle: 4s
- Voltage Holding Time (Measuring Time): >1s
- Voltage Rising Time: <0.1s
- Partial Discharge in Device: <1pC (at AC5000V)
- Frequency: 50Hz, 60Hz
- Wave Shape: Sine wave
- Maximum Capacitance Load: 1000pF
- Voltage Setting Range: 0 - 5000VAC
- Voltage Setting Accuracy: 1%F.S.

Partial Discharge Measurement Part

- Gain: 0 - 80dB
- Judgment Electric charge: 1 - 1000pC (with restriction by detection sensitivity)
- Judgment Generation Frequency: 10~9000PPS
- Calibrator Charge: 100pC, 1000pC
- Calibration Pulse Injection Capacitor: 50pF
- Calibration Pulse Voltage: 2V, 20V
- Calibration Pulse Generation Frequency: 50PPS
- Built-in Coupling Capacitor: 1000pF

Others

- Judgment: Negative judgment is given when a pulse count for 1 second exceeds a threshold value
- Display
  - Measuring Data: Pulse counter (at Threshold value of Electric Charge)
  - Test Voltage: Existing Applied Voltage
  - Setting Voltage: Voltage to be applied when measure ON
  - Judgment Electric Charge: Electric Charge to be judged
  - Generation Frequency Threshold: Synchronize with test frequency
  - OK/NG Judgment: Negative judgment is given when generating frequency at judgment electric charge exceeds a threshold value.
  - Calibration Value: 100pC / 1000pC
  - Test Frequency: 50Hz / 60Hz

- Output Contact

  - Output Voltage: SHORT Suspension: OPEN
  - OK / NG Contact: NG: OPEN OK: SHORT
  - Input Contact: Measurement START/END
  - START/END contact: OPEN: turn off measurements SHORT: turn on Measurement
  - Interlock: OPEN: disable to measure SHORT: able to measure
  - Interface: RS-232C

  - Size: 427mm×380mm×197mm (W×D×H, without projection)
  - Weight: 15kg

Specifications are subject to be changed without prior notice.