Impulse Test Equipment for Low-voltage Motor Windings

WINDING TESTER Model DAC-PG-3F

The DAC-PG-3F is impulse test equipment for testing of low-voltage rotator windings. The equipment is composed of a surge impulse generator circuit, phase selector unit (selection between U, V and W), and waveform recorder circuit to provide a differential method type of impulse testing instrument.
A TFT (thin film transistor) liquid crystal display (LCD) is integrated for waveform measurement, offering excellent view ability of waveforms. Waveforms are stored in digital format, allowing observation and comparison of waveforms even at lower frequencies of pulse generation, which contributes to the elimination of unwanted stresses on specimens.
The testing phase selector unit in the equipment provides simple testing.

- **Integrated TFT LCD**
- **Automatic selection between three phases (U, V, W)**
- **Equipped with semiconductor switches**

Features

- **High-precision and reproducible observations due to the integrated digital waveform capturing circuitry**
- **Not susceptible to effects of magnetic fields due to the integrated LCD**
- **Compact and lightweight due to the semiconductor switches**
- **Simple design, leading to ease of operation suited for field observation**
- **Compatible with medium capacitance specimens with use of higher impulse energy**

Functions

- **Self comparison mode**
  Waveforms are recorded through automatic selection between the phases of three-phase motors to allow comparison of waveforms between the individual phases.
  Waveforms are superimposed using color-coding for the three phases, ensuring ease of comparison.
- **Difference comparison mode**
  Individual phases are displayed based on their differences from the reference phase. This allows comparison between waveforms with greater accuracies.
- **Waveform superimposition mode**
  Waveforms are displayed superimposed for a certain time. This helps identify variations in waveforms.

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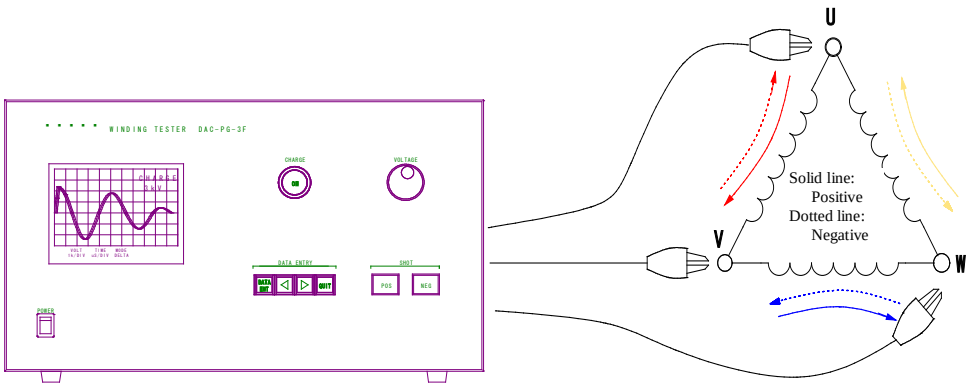
Specifications — WINDING TESTER Model DAC-PG-3F

Output voltage	0 to 5 kV (Load resistance 1 kΩ)
Duration of pulse wave front	Approx. 1 uS (Load resistance 1 kΩ)
Duration of pulse wave tail	Approx. 40 uS (Load resistance 1 kΩ)
	* Output voltage refers to a maximum voltage at a resistance load of 1 kΩ. Duration of pulse wave tail refers to a duration of wave tail at a load resistance of 1 kΩ. Under inductive loads, wave shape changes (causing vibration), leading to changing maximum output voltages.
Output channels	3 channels
Pulse repetition rate	Approx. 3 times/sec.
Output selection	Automatic selection between (U-V, V-W, W-U) and (V-U, W-U, U-W)
Impulse energy	2.5 J
Maximum current	100 A
Display unit	TFT LCD screen
Limiting time-axis resolution	40 nS
Maximum capturing time	400 uS
Waveform resolution	12 bit
Maximum storage capacity	10 kPt.
Power input	100V 50/60 Hz
Dimensions & Weight	W424 × H250 × D450 (mm), Approx. 15 kg

Operating procedure

- Holding down the **CHARGE** button, increase the CHARGE voltage to a specified value.
- Press either SHOT button, POS or NEG, to produce positive or negative pulses.



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