

**NISSIN
ELECTRIC**

High-Voltage Test System

MODEL : PI-Series



Nissin Pulse Electronics Co., Ltd.

Overview

Our High-Voltage Test System [PI-Series] has been developed for use in school education to suit experiments and practical training.

AC, DC, and impulse voltage tests can be performed with this test system.

The test system is used for destructive testing of samples (insulators, cables, etc.) and withstand voltage testing.

This test system incorporates many features that could not be achieved with conventional test systems, emphasizing speed-up of experiments and accuracy of data.

This test system is also equipped with safety devices to ensure safety.

The test system can be operated from the operation panel or remotely from a PC.

Features

■ Operation from touch panel and remote operation from PC.

Various tests can be controlled from the operation panel or PC.

Both control screens have

The communication control method between the PC and operation panel uses optical Ethernet.

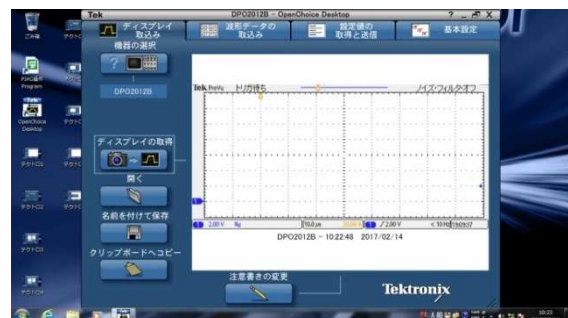
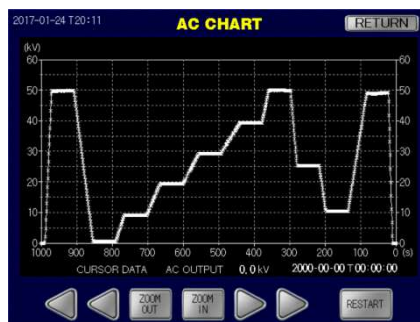
This maintains high insulation and allows safe remote control.

In addition, this PC can be used with general-purpose products, so it is very flexible.



■ User interface

- High operability is achieved using digital technology.
- The impulse generator uses a self-destructive starting method to achieve stable discharge.
- AC chart mode allows you to display the output voltage in real time (For AC MODE)
- Measured data can be saved as a log file on the touch panel's SD card.
- Oscilloscope waveforms can be displayed and saved on the PC display.



■ Various test modes

➤ Impulse voltage generation test

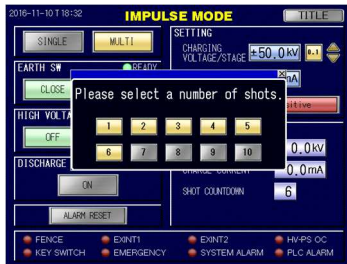
- SINGLE Mode: Charge and discharge for one shot.
- MULTI Mode: Charge and discharge for multiple time(1 to 10 times)

➤ AC voltage generation test

- MANUAL Mode: Manual AC voltage generation test
- PROGRAM Mode: Automatic AC voltage generation test(1 to 10 times multiple steps)

➤ DC voltage generation test

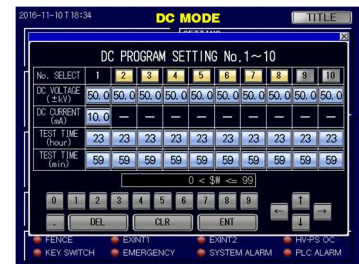
- MANUAL Mode: Manual AC voltage generation test
- PROGRAM Mode: Automatic AC voltage generation test(1 to 10 times multiple steps)



MULTI Mode for Impulse test



PROGRAM Mode for AC test



PROGRAM Mode for DC test

■ Configuration contents <PI-Series for standard>



Impulse Voltage Generator



Sphere Gap

AC test system	0~50kV·3kVA
DC test system	0~±50kV·5mA
Impulse test	200kV
	300kV
	400kV

High voltage probe	DC.100kV,IMP120kV.p, TYPE: EP-100K
Sphere gap	Φ 100mm, Max. 170kV.p TYPE: G-100HS

■ Highly safe

- Equipped with various interlock circuits
- A revolving light warns the surrounding area of high voltage conditions.



Emergency stop



Key switch



Light sensor



Discharge device



Revolving light

Classification	Unit Name	Specification	Type of PI-Series			
			200	300	400	
Control system						
Control Unit	PLC Control Unit		PLC Control, touch panel	○	○	○
	DC Generator Unit		DC. ±50kV, ±5mA	○	○	○
Measuring Equipment	Oscilloscope		1GS/s	○	○	○
			1.25GS/s	▲	▲	▲
	Peak	PHM-1023	±0.1kV~1999.9kV	○	○	○
	Ethernet Module			○	○	○
Control Rack	Storage Rack and Power Supply	CB-200F-3W		○	○	○
		CB-200F-5W		▲	▲	▲
Remote system						
Computer System	PC			○	○	○
	Monitor		18.5inch Monitor	○	○	○
	Printer		A4 size Ink jet printer	○	○	○
	Control Software			○	○	○
	Simulation Soft			○	○	○
	Desk			○	○	○
Test System						
Impulse Voltage Generator	Impulse Voltage Generator	IVG-200K025W	200kV 1.25kJ	○	—	—
		IVG-300K025W	300kV 1.87kJ	—	○	—
		IVG-400K025W	400kV 2.5kJ	—	—	○
	Discharge device		Built into the main body	○	○	○
AC Voltage Generator	Test Transformer	TT-50K60S	50kV, 3kVA	○	○	○
		TT-50K100S	50kV, 5kVA	▲	▲	▲
		TT-100K50S	100kV, 5kVA	▲	▲	▲
High Voltage Probes	High Voltage Probe (cable lengts:10m)	EP-50K	DC. 50kV IMP. 70kV.p	▲	▲	▲
		EP-100K	DC. 100kV IMP. 120kV.p	○	○	○
		EP-150KP	DC. 100kV IMP. 145kV.p	▲	▲	▲
	Polarity Change Unit	PX-50W	DC. ±50kV	▲	▲	▲
	Video Camera		Video Camera	▲	▲	▲
Others	Sphere Gap	G-100HS	φ 100mm 170kV	○	○	○
		G-150HS	φ 150mm 249kV	▲	▲	▲
	Standard Electrode	Plate	φ 100mm 2pc	○	○	○
		Needle	φ 20×120mm 2pc	○	○	○
		Stick	φ 12.5×120mm 2pc	○	○	○
		Oil Cup	Oil Cup 64×68×Depth63mm	○	○	○
	Insulator Tester	ZSK-50W	Air / Oil combined unit	○	○	○
	Suspension Insulator	5pc	5pc	○	○	○
	Dummy Doll		Hight about 180cm	○	○	○
Insulator Material		Glass/FRP/Bake/Kraft, other	▲	▲	▲	

○ : Standard ▲ : Option

Caution

- The contents of this catalog is as of November, 2023.
- The company name, product name and logo are registered trademark of the company.
- The detailed contract scope will be determined individually.



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