

PITE 3531/3561 Power Quality Analyzer

Smart measurement and analysis

For 3-phase/4-wire system

PITE 3531 and PITE 3561 are 3-phase testing and analyzing devices for the quality of power grid. they provide multiple analyzing for electric harmonic, swell/dip, flicker, 3-phase unbalance, power and energy, surge and so on.

Why PITE?

An Easy-to-use power quality tools is a "must-have" for any person who maintains or troubleshoots three phase power. PITE three-phase power quality meters help you locate, predict, prevent and troubleshoot problems in power distribution systems. We offer a full range of trouble-shooters for the prevention and analyzing of the power quality problem. It is not only your problem solver, but also money saver.



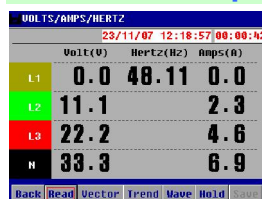
Technical Parameter

- ◆ LCD resolution: 320 x 240 TFT
- ◆ Input Impedance: 1M Ω , 20pF
- ◆ Measurement Range: Vrms 10 ~ 700V
- ◆ Arms: 5A, 10A, 100A, 1000A, 1500A and 3000A
(with relative current clamps)
- ◆ Frequency: 40Hz ~ 70Hz
- ◆ Harmonic Measurement: 0 ~ 50th harmonics
- ◆ Inrush Current: 2000A
- ◆ Peak Voltage: 1000V
- ◆ Internal Memory: 128MB
- ◆ Communication Port: USB
- ◆ N.W.(main unit): 1.6 kg (3.53lb)

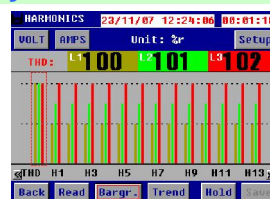
Typical Applications

- ◆ Trouble-elimination: fast measurement and display on screen for trouble-shooting
- ◆ Predictive maintenance: test to avoid power quality problem before malfunction happens
- ◆ Service function: measurement for power quality before users lead-in

Functional Displays



Volts/Amps/Hertz



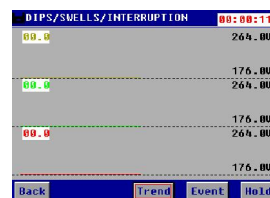
Harmonics



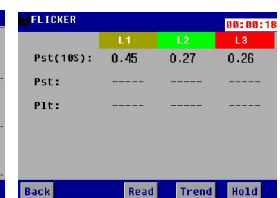
Power/Energy



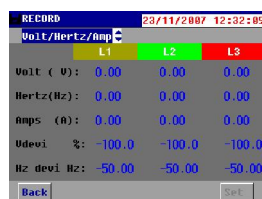
Unbalance



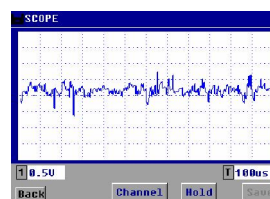
Dips/Swells



Fluctuation/Flicker



Test record



Oscilloscope



Data management

- ◆ Long time analysis: recording function help find out unobvious and occasional malfunction
- ◆ Load analysis: check quality of electric system before adding loads
- ◆ Energy evaluation: evaluate energy consumption before installation of energy-saving facilities

Specification

Specifications	Range	Accuracy
Volt/Amp/Hertz	Volt: 10~700V (true rms) Amps: 0.5~3000A (true rms, with relevant current clamp) N current: 0.5~25A (true rms)* Hertz: 40~70Hz	Volts: $\pm 0.5\%$ Amps: $\pm 0.5\%$ Hertz: $\pm 0.01\text{Hz}$ <u>NOTE:</u> Take frequency of Phase A as total testing frequency.
Harmonic	Volts: total harmonic +1~50 th Amps: total harmonic +1~50 th	Volts: $\pm 0.1(\%r)$ Amps: $\pm 0.05 (A)$
Power testing	Active Power: 0.05~700KW Apparent Power: 0.05~700KVA Reactive Power: 0.05~700KVAR Power Factor: 0.00~1.00 Active Energy: 0.01~10000kWh Apparent Energy: 0.01~10000kVAh Reactive Energy: 0.01~10000kVARh Average Power Factor: 0.00~1.00	Active Power: indication $\pm 50W$ Apparent Power: indication $\pm 50VA$ Reactive Power: indication $\pm 50VAR$ Power Factor: indication ± 0.05 Active Energy: indication $\pm 0.05kWh$ Apparent Energy: indication $\pm 0.1 kVAh$ Reactive Energy: indication $\pm 0.1 kVARh$ Average Power Factor: indication ± 0.005
Unbalance	Fundamental Volts: 10~700V (true rms) True Amps: 0.5~1000A (True rms) Fundamental Hertz: 40~70Hz Phase Angle: 0~360° Unbalance: 0.0%~100%	Volts: $\pm 0.5\%$ Amps: $\pm 0.5\%$ Hertz: indication $\pm 0.01\text{Hz}$ Phase Angle: indication $\pm 0.3^\circ$ Volt unbalance: indication $\pm 0.2\%$ <u>NOTE:</u> Take frequency of Phase A as total testing frequency.
Data Recording	Recording for: 3 phase voltage, current, null current, voltage harmonic (THD and 1~50 harmonics), current harmonics (THD and 1~50 harmonics), unbalance, KW, PF, flicker and fluctuation	Time interval: 3s~30m adjustable Time duration: 15hour~388days
Sags(Dips)/Swells*	Volts sag, Volts Swells and instant interruption	Maximally could record 40 times
Fluctuation*	Voltage Fluctuation:0.1%~10.0%	$\pm 5\%$
Flicker*	Short-time and long-time flicker	Short-time: $\pm 5\%$
Scope	3-phase Volts, 4-wire Current, null volt and null current waveform	Max Hertz: 200KHz Min Hertz: 100Hz

NOTE: Items marked with * indicates that they are standard in PITE 3561 and optional to PITE 3531.

Features

- ◆ Portable design and colorful touch screen
- ◆ High-performance Li-battery for long time power supply
- ◆ Could test 3-phase volt, null line volt, 3-phase current, null line current, etc.
- ◆ Up to 50 times harmonic testing with frequency spectrum graph
- ◆ Power testing: 3-phase apparent power, active power, reactive power, power factor, and 3-phase electric power.
- ◆ 3-phase unbalance testing with vivid chart
- ◆ Record at least 40 times of surge current
- ◆ Testing for wave motion, short-time flicker and long-time flicker
- ◆ Record up to 40 times of sag and swell
- ◆ Could have long-time record for basic (stable) power quality parameter. Recording time interval adjustable between 3 second and 30 minutes.
- ◆ Digital oscilloscope, checking waveform for voltage and current signal
- ◆ With PITE DataView software for convenient analyzing of testing result

NOTE: This is standard feature in PITE 3561. Parts of the functions are optional and upgradeable in PITE 3531. For details, please refer to Specification below.

Accessories



PITE 3561 includes standard accessories of 1 carrying case, 4 color-coded current clamps (example of CC-5A shown above), 1 user manual, 5 alligators, 1 USB drive, 2 voltage probes, 1 PITE dataview CD, 5 voltage testing leads and 1 power adaptor.

PITE 3531 includes standard accessories of 1 carrying case, 3 color-coded current clamps, 1 user manual, 4 alligators, 1 USB drive, 2 voltage probes, 1 PITE dataview CD, 4 voltage testing leads and 1 power adaptor.

Construction

Top



Bottom



Color of voltage input will be customer specific and will be in accordance with voltage testing leads.

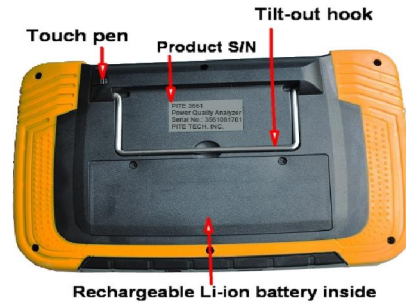
Current input is for connection with a one-into-four current testing lead.

USB port is convenient for data transfer to USB drive

Side



Back



Shoulder strap buckle is fastened with a strap, convenient for carrying during testing.

Tilt-out hook facilitates bench top or hanging operation, making it easy to view testing result.

Optional Current Clamps

PITE offers complete range of current clamps (all with a one-into-four testing lead in PITE 3561 and a one-into-three lead in PITE 3531) for measurement applications up to 3000 Amps.



NOTE: PITE 3561 will come with 4 current clamps while PITE 3531 will come with 3.

Order Information

PITE has wide range of configurations to meet different customers' need of both 3 phase/3 wire and 3 phase/4 wire.

For other ranges of current clamps that are not listed here, please kindly contact our sales representatives for availability.

Configuration	Part No.
PITE 3531 Kits	
PITE 3531 with set of 3 color-coded CC-5A current clamp and testing leads	Con. #3531.5A
PITE 3531 with set of 3 color-coded CC-10A current clamp and testing leads	Con. #3531.10A
PITE 3531 with set of 3 color-coded CC-20A current clamp and testing leads	Con. #3531.20A
PITE 3531 with set of 3 color-coded CC-100A current clamp and testing leads	Con. #3531.100A
PITE 3531 with set of 3 color-coded CC-500A current clamp and testing leads	Con. #3531.500A
PITE 3531 with set of 3 color-coded CC-800A current clamp and testing leads	Con. #3531.800A
PITE 3531 with set of 3 color-coded CC-1000A current clamp and testing leads	Con. #3531.1000A
PITE 3531 with set of 3 color-coded AmFlex-1500A current clamp and testing leads	Con. #3531.1500A
PITE 3531 with set of 3 color-coded AmFlex-3000A current clamp and testing leads	Con. #3531.3000A
PITE 3561 Kits	
PITE 3561 with set of 4 color-coded C-5A current clamp and testing leads	Con. #3561.5A
PITE 3561 with set of 4 color-coded CC-10A current clamp and testing leads	Con. #3561.10A
PITE 3561 with set of 4 color-coded CC-20A current clamp and testing leads	Con. #3561.20A
PITE 3561 with set of 4 color-coded CC-100A current clamp and testing leads	Con. #3561.100A
PITE 3561 with set of 4 color-coded CC-500A current clamp and testing leads	Con. #3561.500A
PITE 3561 with set of 4 color-coded CC-800A current clamp and testing leads	Con. #3561.800A
PITE 3561 with set of 4 color-coded CC-1000A current clamp and testing leads	Con. #3561.1000A
PITE 3561 with set of 4 color-coded AmFlex-1500A current clamp and testing leads	Con. #3561.1500A
PITE 3561 with set of 4 color-coded AmFlex-3000A current clamp and testing leads	Con. #3561.3000A

Contact PITE

If you have any question, please do not hesitate to reach us with following contact information:

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