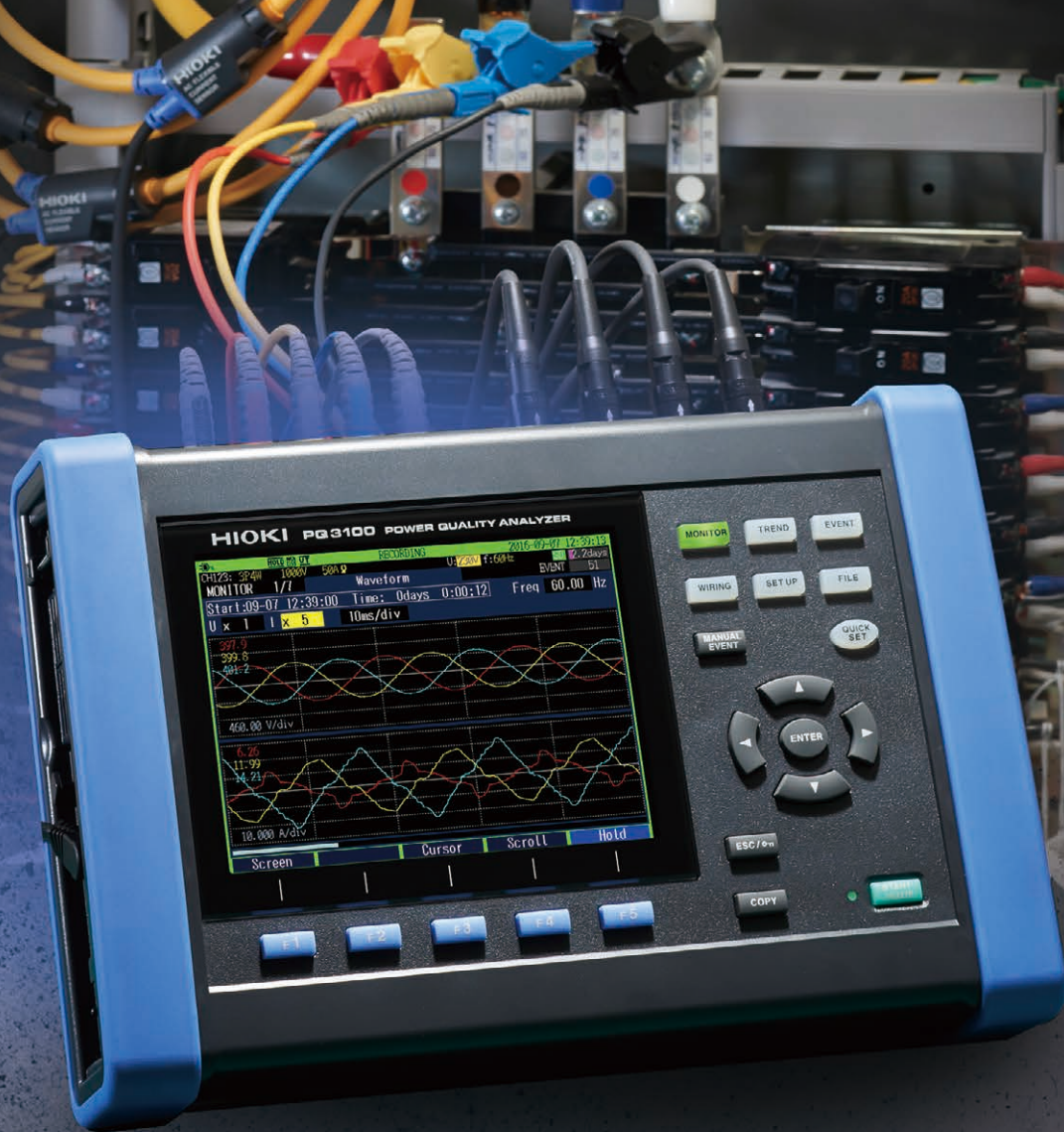




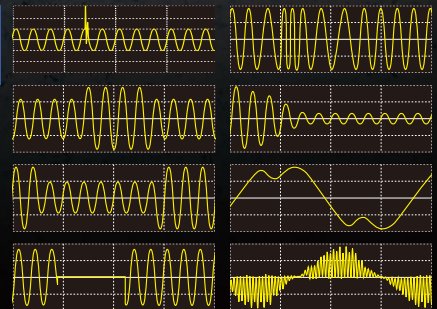
POWER QUALITY ANALYZER PQ3198, PQ3100 Monitor Power Quality and Analyze the Cause of Equipment Issues



Power anomalies are a major cause of equipment malfunction and damage. The PQ3198 and PQ3100 detect power supply abnormalities without fail to help diagnose the cause of problems.

Capture all of these power anomalies simultaneously

- Transient voltages
- Voltage swells
- Voltage dips
- Interruptions
- Frequency fluctuations
- Inrush current
- Harmonics
- High-order harmonics (Supraharmonics)



Power Quality Analyzers

POWER QUALITY ANALYZER PQ3198, PQ3100

Product warranty for 3 years
Accuracy guaranteed for 1 year



PQ3198 (High-end model)

CAT IV 600 V



Voltage input terminals
(4 channels: channels 1/2/3 and
channel 4 are isolated from each other)

Current input terminals
(4 channels)



PQ3100 (Standard model)

CAT IV 600 V, CAT III 1000 V

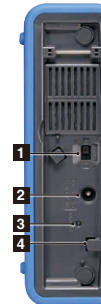


Voltage input
terminals (4 channels)

Current input
terminals (4 channels)

Shared features: Side

Left side



- 1 Power switch
- 2 AC adapter terminal
- 3 Charging indicator
- 4 Cable hook

Right side



- 5 Strap attachment point
- 6 SD card terminal
- 7 USB terminal
- 8 LAN terminal
- 9 RS-232C terminal
- 10 External I/O terminal

Model	PQ3198 (High-end model)	PQ3100 (Standard model)
Measurement lines	1-phase/2-wire, 1-phase/3-wire, 3-phase/3-wire, 3-phase/4-wire + CH 4	
Fundamental frequency	DC, 50 Hz, 60 Hz, 400 Hz	DC, 50 Hz, 60 Hz
Voltage ranges	Voltage measurement: 600.00 V rms Transient measurement: 6.0000 kV peak ±0.1% of nominal voltage	Voltage measurement: 1000.0 V rms or DC Transient measurement: 2.200 kV peak ±0.2% of nominal voltage
Current ranges	500.00 mA to 5.0000 kA AC (Depends on current sensor in use) ±0.1% rdg. ±0.1% f.s. + current sensor accuracy	(AC) 50.000 mA to 5.0000 kA (Depends on current sensor in use) (DC) 10.000 A to 2.0000 kA (Depends on current sensor in use) ±0.1% rdg. ±0.1% f.s. + current sensor accuracy
Power ranges	300.00 W to 3.0000 MW (AC) ±0.2% rdg. ±0.1% f.s. + current sensor accuracy (DC) ±0.5% rdg. ±0.5% f.s. + current sensor accuracy (CH4 Only)	50.000 W to 6.0000 MW (AC) ±0.2% rdg. ±0.1% f.s. + current sensor accuracy (DC) ±0.5% rdg. ±0.5% f.s. + current sensor accuracy
Measurement items	1. Transient voltage: 2MHz sampling 2. Frequency cycle: calculated as one cycle 3. Voltage (1/2) RMS: one cycle calculation refreshed every half cycle Current (1/2) RMS: half-cycle calculation 4. Voltage swell, voltage dips, voltage interruption 5. Inrush current 6. Voltage waveform comparison 7. Instantaneous flicker value: As per IEC61000-4-15 8. 200 ms frequency: calculated as 10 or 12 cycles, 40 to 70 Hz 9. 10 sec frequency: calculated as the whole-cycle time during the specified 10 s period, 40 to 70 Hz 10. Voltage waveform peak, Current waveform peak 11. Voltage, current, active power, apparent power, reactive power, active energy, reactive energy, power factor, displacement power factor, voltage unbalance factor, current unbalance factor, and efficiency 12. High-order harmonic (Supraharmonic) component (voltage/current): 2 kHz to 80 kHz 13. Harmonic value and Harmonic phase angle (voltage/current), harmonic power: 0th to 50th orders 14. Harmonic voltage-current phase angle: 1st to 50th orders 15. Total harmonic distortion factor (voltage/current) 16. Inter harmonic (voltage/current): 0.5th to 49.5th order 17. K Factor (multiplication factor) 18. IEC Flicker, Δ V10 Flicker	1. Transient voltage: 200 kHz sampling 2. Frequency cycle: calculated as one cycle 3. Voltage (1/2) RMS and Current (1/2) RMS: one cycle calculation refreshed every half cycle 4. Voltage swell, voltage dips, voltage interruption, RVC: Voltage (1/2) RMS calculation 5. Inrush current 6. Frequency 200 ms: calculated as 10 or 12 cycles 7. 10-sec frequency: calculated as the whole-cycle time during the specified 10 s period 8. Voltage waveform peak, current waveform peak 9. Voltage, current, active power, apparent power, reactive power, active energy, apparent energy, reactive energy, energy cost, power factor, displacement power factor, voltage unbalance factor, current unbalance factor 10. Voltage crest factor, current crest factor 11. Harmonic/Harmonic phase angle (voltage/current), harmonic power: 0th to 50th orders 12. Harmonic voltage-current phase angle: 1st to 50th orders 13. Total harmonic distortion factor (voltage/current) 14. Inter harmonic (voltage/current): 0.5th to 49.5th orders 15. K Factor (multiplication factor) 16. IEC Flicker, Δ V10 Flicker
Record	Repeated ON: 1 year, maximum recording event: 9999 × 366 days (up to 9999 events per day) Repeated off: 35 days, maximum recording event: 9999 events	Maximum recording interval: 1 year, maximum number of recordable events: 9999 × 365 days
Setup assistance	Simplified setup function	QUICK SET (navigation-style assistance from connecting the instrument to the start of recording)
Interfaces	SD/SDHC memory card (Use only SD cards sold by HIOKI. Compatibility and performance are not guaranteed for SD cards made by other manufacturers.), RS-232C, USB2.0, LAN	
Operating temperature	0°C to 30°C (95% RH or less), 30°C to 50°C (80% RH or less) (non-condensating)	-20°C to 50°C (80% RH or less) (non-condensating)
Storage temperature	10°C greater than operating temperature and humidity range	
Standards	EN61010 (Safety), EN61326 Class A (EMC)	
IEC 61000-4-30	Class A	Class S
Power supply	AC ADAPTER Z1002, BATTERY PACK Z1003	
Battery operating time	3 hours	8 hours
Dimensions (W × H × D)	300 × 211 × 68 mm (11.81 × 8.31 × 2.68 in.)	
Weight	2.6 kg (91.7 oz.) (including BATTERY PACK)	2.5 kg (88.2 oz.) (including BATTERY PACK)



L1000

L1000-05

Z1002

Z1003

Z4001

PQ3198 Included accessories

- VOLTAGE CORD L1000
- AC ADAPTER Z1002
- BATTERY PACK Z1003
- SD MEMORY CARD Z4001
- USB cable
- Color clips
- Spiral tubes
- Strap
- Measurement guide
- User manual

PQ3100 Included accessories

- VOLTAGE CORD L1000-05
- AC ADAPTER Z1002
- BATTERY PACK Z1003
- USB cable
- Color clips
- Spiral tubes
- Strap
- Measurement guide
- User manual

Order code **PQ3198**

Order code **PQ3198-92** Value Kits: PQ3198, CT7136 (600A) × 4, L1021-02×3, CARRYING CASE C1009

Order code **PQ3198-94** Value Kits: PQ3198, CT7045 (6000A) × 4, L1021-02×3, CARRYING CASE C1009

Order code **PQ3100**

Order code **PQ3100-91** Value Kits: PQ3100, CT7136 (600A) × 2, SD MEMORY CARD 2GB Z4001, CARRYING CASE C1009

Order code **PQ3100-92** Value Kits: PQ3100, CT7136 (600A) × 4, SD MEMORY CARD 2GB Z4001, CARRYING CASE C1009

Order code **PQ3100-94** Value Kits: PQ3100, CT7045 (6000A) × 4, SD MEMORY CARD 2GB Z4001, CARRYING CASE C1009

*For more detailed information on CT7136, CT7045, and options, please refer to p.48.

Clamp

Insulation

Tester

Detectors

Earth

Power quality

Power loggers

Battery

Logger

LAN

Lux

Temperature

Resistance