# Hioki PQ3198 vs PW3198 Power Analyzers

**Improvements from the Legacy Model**

| Parameter | Legacy model **PW3198** | New model **PQ3198** |
|---|---|---|
| Current measurement terminal | BNC | HIOKI PL14 |
| Power supply for current sensor | – | Available |
| Auto recognition of current sensor | – | Available |
| Calculation of power/efficiency for CH4 | – | Available |
| Max. number of recorded events | 1000 | 9999 |
| Number of repeat measurements (days) | 55 | 366 |
| Download data while recording | – | Available* |
| Delete data while recording | – | Available* |
| FTP server | – | Available |
| Display RMS values on waveform screen | – | Available |
| Effective measuring range for current | Up to 110% | Up to 120% |
| Display range for power | From 0.1% | From 0% |
| Measurement accuracy range for power | Up to 5 kHz | Up to 20 kHz |
| External START/STOP | – | Available |
| Display language | Japanese, English, Chinese | Japanese, English, Chinese (simplified and traditional), Korean, German, Spanish, Italian, Turkish, Polish, French |
| Load data | Same Serial No. only | Any PQ3198 model |

*Past data only

**■ Principal New Functionality**

***1. Ability to supply power to sensors, eliminating the need for a dedicated power supply***

The PQ3198 can supply power to AC flexible sensors*1 and AC/DC sensors*2, eliminating the need to provide a separate, dedicated power supply for those devices as they have required in the past. In addition to making it possible to use the instrument in outdoor locations where power is not readily available, this capability makes it easier to work in confined locations by reducing the number of wires needed to make measurements.

***2. Ability to measure power and efficiency on two circuits***

The PQ3198 can simultaneously measure power and efficiency on two circuits, for example in the primary (input) side and secondary (output) side of an EV rapid charger's AC/DC converter or a solar power system.

The instrument can also measure DC to AC inverters with a fundamental frequency of 40 to 70 Hz and a carrier frequency*3of 20 kHz or less.

***3. Remote measurement using FTP server functionality***

The PQ3198 provides an FTP server function, making it easy to acquire data from the instrument remotely.

***4. Extended recording without the need to worry about the number of events (power anomalies)***

Whereas the previous model (the PW3198) was able to record a maximum of 1000 events, the PQ3198 boosts that number to 9999. Further, it can record continuously for up to 366 days based on repeat recording settings.

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***5. Standard support for analysis with PQ ONE analytical software***
The PQ3198 ships with PQ ONE, a popular analytical software package that also comes with the Power Quality Analyzer PQ3100. Functionality includes display of event statistics (to display events by date or time of day), EN50160 judgment (for evaluation, analysis, and judgment capability that complies with the EN50160 standard), and report generation.

**■ Principal Markets**
Management of power quality and analysis of power supply issues by power companies, electricians, electrical maintenance engineers, building maintenance companies, electrical safety associations, and equipment end-users

*1 AC flexible sensor: A loop-shaped AC sensor that can be bent freely. Used to measure wires with a large diameter and large currents. In the context of the PQ3198, “AC flexible sensors” refers to the AC Flexible Current Sensor CT7044/CT7045/CT7046.
*2: AC/DC sensor: A sensor that can measure either alternating or direct current. In the context of the PQ3198, “AC/DC sensors” refers to the AC/DC Auto Zero Current Sensor CT7731/CT7736/CT7742.
*3: Carrier frequency: The frequency that determines the timing at which the power semiconductors in an inverter circuit switch on and off.