Power, energy, Environment / Service, Maintenance

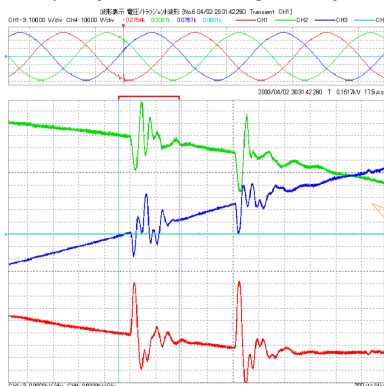# Measure Transient Voltage Waveforms

The PQ3198 Power Quality Analyzer properly detects transient voltage waveforms

■ Highlights

- A transient voltage is generated by a lightning strike, a contact fault, a melting circuit breaker, or a relay that causes a voltage change. High voltages occur especially near the source where the power supply is damaged and reset operations are triggered.
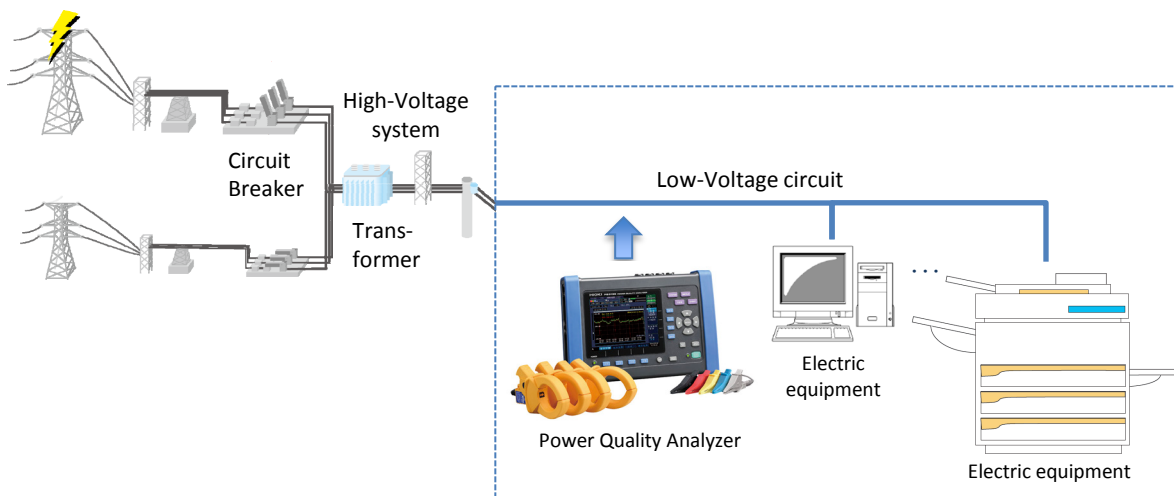
Example of transient voltage waveforms

Example of transient voltage

	U1	U2	U3
Max	−116. 0V	323. 4V	98. 4V
Min	−329. 3V	153. 5V	−55. 1V
Transient p-p value	213. 3V	169. 9V	153. 5V

Analysis example of the voltage waveforms

1. Occurred in all 3 phases (R-S, S-T and T-R) simultaneously
2. Occurred twice in 1 cycle of the commercial waveform, and the interval between two events is 820 µs
3. The level is between 120 V to 260 V peak-to-peak
4. The frequency is between 10 to 30 kHz

■ The difference between PQ3198 and PQ3100

- The transient voltage event function of PQ3100 is different from that of PQ3198 in frequency band and input level. Select the PQA that suits your purpose better.

  PQ3198: 2MS/s (0.5µs), 6000V

  PQ3100: 200kS/s (5µs), 2200V

Products Used

- Power Quality Analyzer PQ3198
- Power Quality Analyzer PQ3198-92 (kit including 600A sensor*4 and application software)
- Power Quality Analyzer PQ3198-94 (kit including 6000A sensor*4 and application software)
- Power Quality Analyzer PQ3100
- Power Quality Analyzer PQ3100-91 (kit including 600A sensor*2 and application software)
- Power Quality Analyzer PQ3100-92 (kit including 600A sensor*4 and application software)
- Power Quality Analyzer PQ3100-94 (kit including 6000A sensor*4 and application software)

Information valid as of March 2019. Specifications are subject to change and revision without notice.