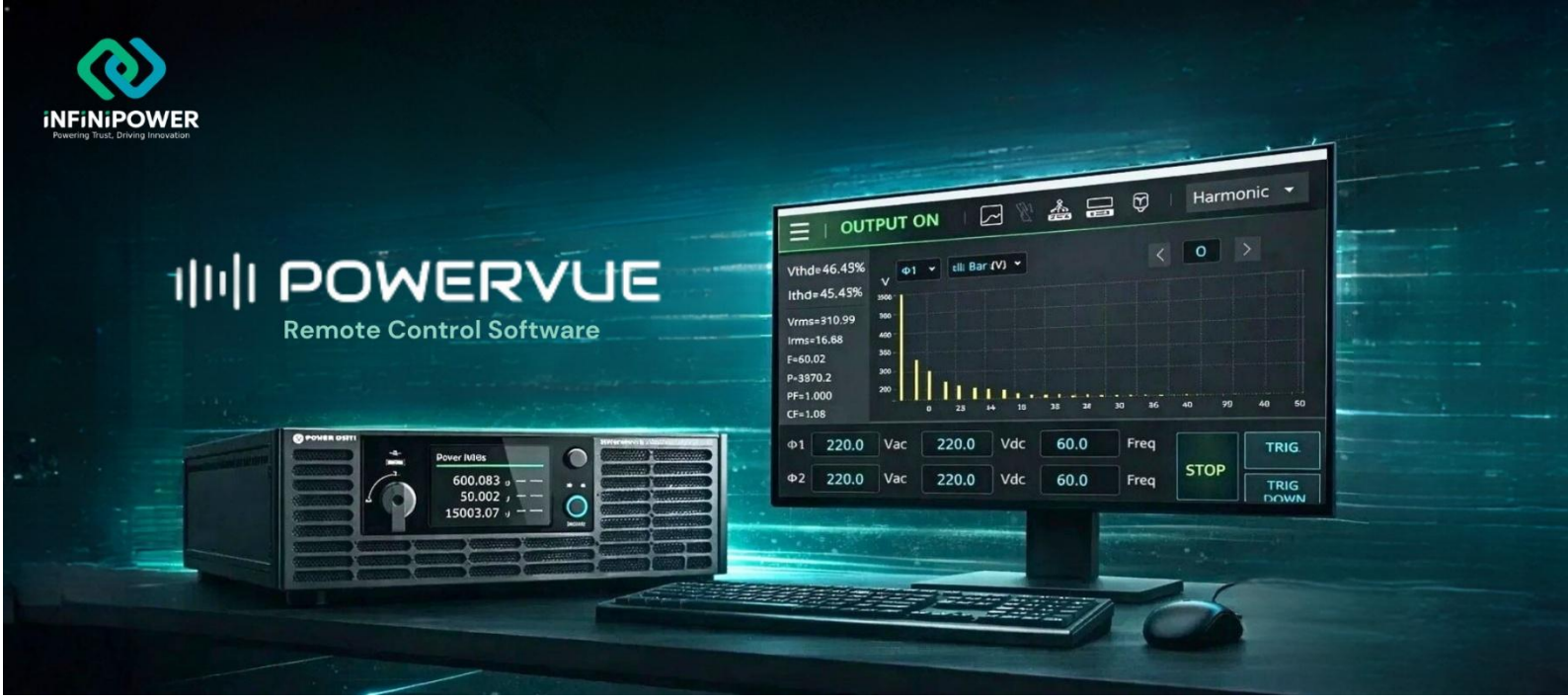


Introduction

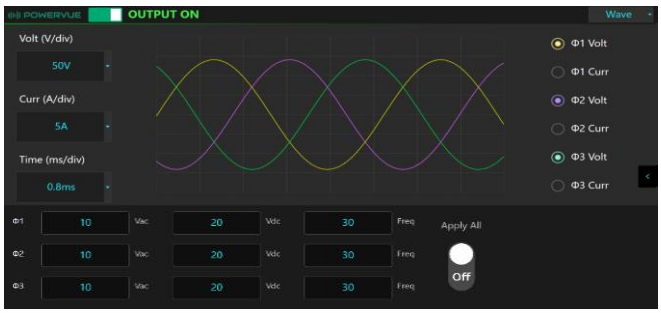
PowerVUE is a PC-based power control and monitoring software designed for advanced power testing systems. It supports waveform editing, harmonic analysis, and IEC regulatory testing, enabling efficient remote control and seamless system integration through an intuitive interface.

Intuitive Interface for Real-Time Control

Once connected, live system status, meter readings, and waveform scope views are instantly synchronized on the PC. With intuitive parameter settings and responsive output controls, users can remotely operate, observe, and fine-tune tests—accelerating workflows while maintaining full visibility and control throughout the entire testing process.

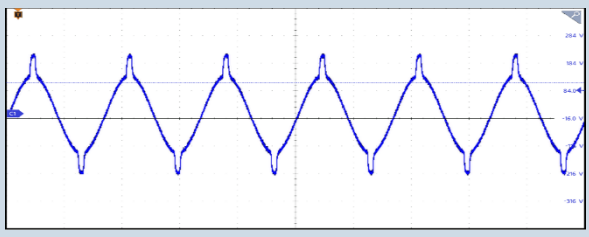
Intelligent Metering Dashboard

PowerVUE provides four integrated views for real-time analysis Simple Mode shows key parameters such as Vrms, Irms, power, and system summaries. Detail Mode offers advanced metrics for in-depth verification, including frequency, peak values, surge current, and crest factor. Harmonic Mode enables power quality analysis with THD and per-order harmonic data, while Wave Mode acts as a real-time oscilloscope for intuitive three-phase waveform observation.



Advanced Waveform Simulation

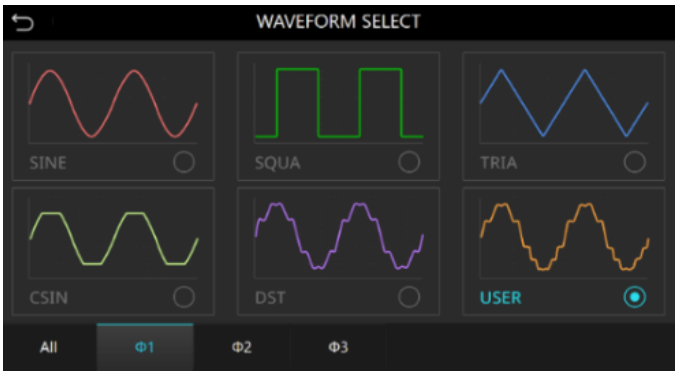
Six advanced waveform modes designed for rigorous device verification. **LIST** and **STEP** modes support dynamic grid condition testing, while **PULSE** mode captures rapid load transients. **SYNTHESIS** mode enables precise custom harmonic generation up to the 50th order, **INTERHARM** mode injects variable-frequency interference, and **TRANSIENT** mode recreates surge and sag events to validate system protection and resilience.



TRANSIENT Mode

Custom Output Waveform Import

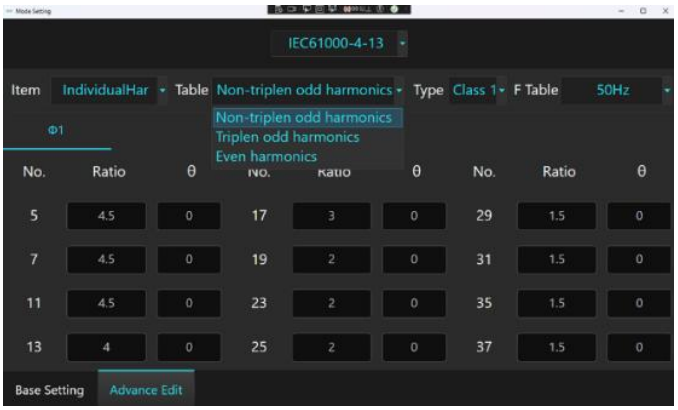
This feature allows users to import and apply custom waveforms for precise simulation and verification. Combined with 30 built-in DST harmonic distortion waveforms, it enables rigorous immunity



testing under atypical or extreme power quality conditions. With independent multi-phase configuration, different custom waveforms can be assigned to Φ1, Φ2, and Φ3.

Supports IEC Regulatory Testing

Designed for compliance verification, the software supports key IEC standards including IEC 61000-4-11, -4-13, -4-14, and -4-28. Precise waveform control and streamlined configuration enable fast, repeatable power disturbance testing and reliable DUT performance validation.



PowerVUE System Function Summary

Category	Items / Parameters	Description
Measurement & Metering	Simple, Detail, Harmonic, Wave	Real-time monitoring of RMS (V/I), Power (P/S/Q), PF, CF, up to 50th-order harmonics, and live waveform visualization
Quick Setting Area	Fundamental Output Parameters	Fast configuration of AC (0–350 V), DC (±495 V), and Frequency (30–150 Hz) across all phases
Output Configuration	Phase, Slew Rate, Coupling, Impedance	Flexible setup of 3Φ / 1Φ / Split-phase operation, slew rates up to 2000 V/ms, and AC / DC / AC+DC coupling
Advanced Waveform Modes	LIST Mode	Programmable sequences with Count (1–9999), Base (Cycle / Dwell), and Trigger control
	STEP Mode	Automatic step transitions for Vac, Vdc, and frequency to evaluate dynamic response
	PULSE Mode	High-speed voltage switching with adjustable Duty (0–100%) and Period (0.1–99,999,999.9 ms)
	SYNTHESIS / INTERHARM	Harmonic synthesis up to the 50th order and interharmonic injection from 0.01 to 3000 Hz
	TRANSIENT Mode	Precise Surge and Sag simulation with configurable start angle, width, and transient cycles
Regulatory Compliance	IEC 61000-4-11	Voltage dip, short interruption, and transient reduction testing with programmable amplitude and duration
	IEC 61000-4-13	Harmonic, interharmonic, and flat-curve disturbance testing for power quality validation
	IEC 61000-4-14	Voltage fluctuation and frequency variation tests for flicker immunity evaluation
	IEC 61000-4-28	AC/DC short dip, interruption, and frequency change testing