

POWER QUALITY ANALYZERS, METERS & LOGGERS

Three-Phase Power Quality Analyzer

PowerPad® Model 3945-B

Provides excellent fidelity in reproducing waveforms and capturing transients at a high speed rate of 62.5µs/sample



(upon registering)

Captures & records transients, events & waveforms simultaneously!

Three voltage and three current inputs

► SPECIFICATIONS

MODEL	3945-B
ELECTRICAL	
Sampling Frequency	256 samples/cycle
Data Storage	4MB partitioned for snapshot, transients, alarms & trend recording
Voltage (TRMS)	Phase-to-Phase: 960V, Phase-to-Neutral: 480V
Current (TRMS)	MN Clamp: 5mA to 6A/1 to 120A MR Clamp: 10 to 1000Aac, 10 to 1400Adc SR Clamp: 3 to 1200A MiniFlex®: 10 to 1000A AmpFlex®: 10 to 6500A ⁽¹⁾
Frequency (Hz)	40 to 69Hz
Other Measurements	kW, kVAR, PF, DPF, kWh, kVARh, kVAh, K-Factor, Flicker
Harmonics	1 st to 50 th , Direction, Sequence
Power Source	9.6V NiMH rechargeable battery pack (included) AC Supply: 110/230VAC ±20% (50/60Hz)
Battery Life	≥8 hours with display on; ≤35 hours with display off (record mode)
MECHANICAL	
Communication Port	Optically coupled RS-232
Display	¼ VGA (320 x 240) color LCD display with adjustable brightness & contrast
Dimensions	9.5 x 7 x 2" (240 x 180 x 55mm)
Weight	4.6 lbs (2.1kg)
Safety Rating	EN 61010, 600V CAT IV ⁽²⁾ , 1000V CAT III, Pollution Degree 2

⁽¹⁾Crest factor at 6500 = 1

⁽²⁾When used with SR193 or AmpFlex® probes.
600V CAT III with MN193 or MR193 probes.

► PRODUCT INCLUDES

3945-B Kit

Three color-coded current probes with 10 ft leads (AmpFlex® example shown), four color-coded 10 ft voltage leads, four color-coded alligator clips, RS-232 DB9F optically coupled serial cable, NiMH battery, US 120V power cord, DataView® software, carrying bag, soft carrying pouch and user manual.



► OPTIONAL ACCESSORIES

SR193 current probe (1200A)

Set of three color-coded, rated 600V CAT IV



CE

AmpFlex® 193 flexible current probe (6500A)

Set of three color-coded, 24" or 36" lengths, rated 600V CAT IV



CE

MR193 current probe (1000Aac/1400Adc)

Set of three color-coded, rated 600V CAT III



CE

MN93 current probe (240A) MN193 current probe (5A/100A)

Set of three color-coded, rated 600V CAT III



CE



Take a look at Model 3945-B's key features and functionality



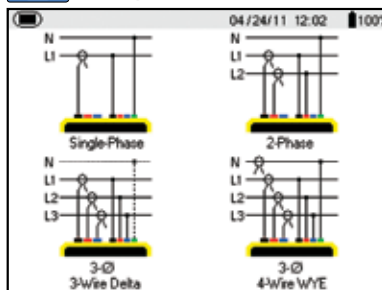
PowerPad® Model 3945-B

Large Color Functional Displays

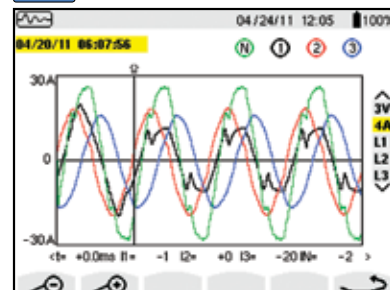
FEATURES

- True RMS single-, two- and three-phase measurements at 256 samples/cycle, plus DC
- Real-time color waveforms
- Easy-to-use on-screen setup
- Automatic current probe recognition and scaling
- True RMS voltage and current measurement
- Measures DC volts, amps and power
- Displays and captures voltage, current and power harmonics to 50th order, including direction, in real-time
- Captures transients down to 1/256th of a cycle
- Stores comprehensive data base of logged data
- Phasor diagram display
- VA, VAR and W per phase and total
- kVAh, VARh and kWh per phase and total
- Neutral current calculated and displayed for three-phase
- Transformer K-factor display
- Power Factor, displacement PF display
- Captures up to 50 transients
- Short-term flicker display long term calculated
- Phase unbalance (current and voltage)
- Harmonic Distortion (total and individual) from 1st to 50th
- Alarms, surges and sags
- Screen snapshot function captures waveforms or other information on the display
- Includes FREE DataView® software for data storage, real-time display, analysis and report generation

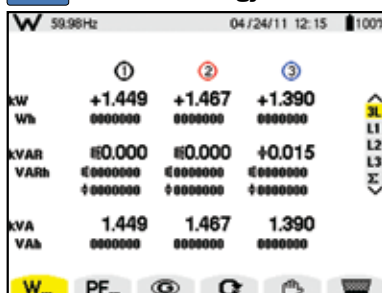
Configuration



Transient Mode



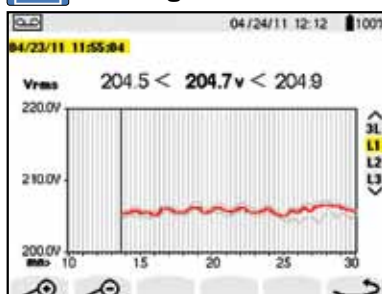
Power and Energy Mode



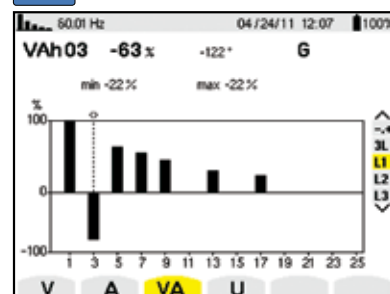
Phasor Diagram



Recording Mode



Harmonics Mode



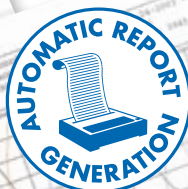
CATALOG NO.	DESCRIPTION
2130.74	PowerPad® Model 3945-B (no probes)
2130.75	PowerPad® Model 3945-B w/3 MN93 (240A)
2130.76	PowerPad® Model 3945-B w/3 SR193 (1200A)
2130.77	PowerPad® Model 3945-B w/3 24" AmpFlex® 193-24 (6500A)
2130.78	PowerPad® Model 3945-B w/3 36" AmpFlex® 193-36 (6500A)
2130.79	PowerPad® Model 3945-B w/3 MR193 (1000Aac/1400Adc)
2130.80	PowerPad® Model 3945-B w/3 MN193 (5A/100Aac)
Accessories (Optional)	
2140.09	Set of 3, Color-coded MN93 Probes (240A) with 10 ft leads
2140.10	Set of 3, Color-coded SR193 Probes (1200A) with 10 ft leads
2140.11	Set of 3, Color-coded 24" AmpFlex® 193-24 Sensors (6500A) with 10 ft leads
2140.12	Set of 3, Color-coded 36" AmpFlex® 193-36 Sensors (6500A) with 10 ft leads
2140.13	Set of 3, Color-coded MR193 Probes (1000Aac/1400Adc) with 10 ft leads
2140.14	Set of 3, Color-coded MN193 Probes (5A/100Aac) with 10 ft leads
2140.17	5A Adapter Box (<i>special order only</i>)
2140.61	Set of 4, Color-coded 30 ft Voltage Leads (600V CAT IV, 10A)
2140.28	One AC/DC Current Probe Model MR193-BK (black connector) (1000Aac/1400Adc)
2140.48	One MiniFlex® Sensor 10" Model MA193-10-BK (1000A)

DataView®

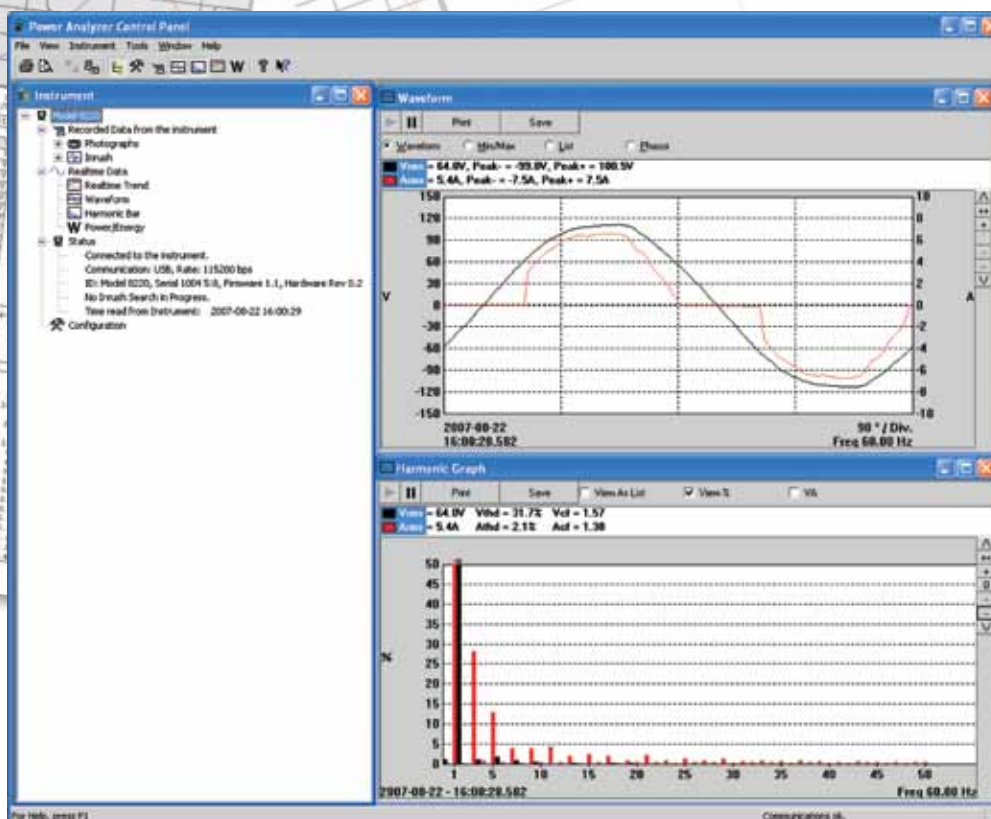
Data Analysis and Reporting Software for Power Quality Meters



Configure all functions of the PowerPad®



- Display and analyze real-time data on your PC
- Configure all PowerPad® functions and parameters from your PC
- Customize views, templates and reports to your exact needs
- Create and store a complete library of configurations that can be uploaded to the PowerPad® as needed
- Zoom in and out and pan through sections of the graph to analyze the data
- Download, display and analyze recorded data
- Display waveforms, trend graphs, harmonic spectrums, text summaries, transients, event logs and stored alarms
- Print reports using standard or custom templates you design
- Free updates are available on our website www.aemc.com



DataView® software provides a convenient way to configure and display power quality measurements from your computer. Through the use of clear and easy-to-use tabbed dialog boxes, all PowerPad® functions can be configured and tests can be initiated. Results can be displayed in real-time and stored in your PC. Reports may be printed along with the operator's comments and analysis.