

PowerPad® III Model 8435

SD card memory capacity for trend data storage:
Up to 50 captured snapshots, 210 captured transients, 1 inrush and 10,000 alarm events



cover closed

Four current and four voltage input terminals

SPECIFICATIONS

MODEL	8435
ELECTRICAL	
Sampling Frequency	256 samples/cycle
Data Storage	SD card for trend recording; Additional separate 12.5MB partitioned memory for snapshots, transient/inrush & alarms
Voltage (TRMS)	Phase-to-Phase: 2000V Phase-to-Neutral: 1000V Voltage Ratio: up to 500kV
Current (TRMS)	MN Clamp: 0 to 6A/120A or 0 to 240A SR Clamp: 0 to 1200A MR Clamp: 0 to 1000Aac, 0 to 1400Aac MiniFlex®: 10 to 3000A AmpFlex®: 10 to 10kA ⁽¹⁾ SL261 Clamp: 50mA to 100Aac/dc J93: 50 to 3500Aac/dc Current Ratio: 10mA to 50kA
Frequency (Hz)	40 to 69Hz
Other Measurements	kW, kvar, kVA, 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) External AC supply: 110/230Vac ±10% (50/60Hz)
Battery Life	≥8 hours with display on; ≤35 hours with display off (record mode)
MECHANICAL	
Communication Port	Optically isolated USB
Display	¼ VGA (320 x 240) color LCD display with adjustable brightness & contrast
Dimensions	10.6 x 9.8 x 7.1" (270 x 250 x 180mm)
Weight	8.2 lbs (3.7kg) with batteries
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.

KIT OPTION INCLUDES

8435 Kit

Extra large tool bag, accessory pouch, 5 ft USB cable, five 10 ft black voltage leads with alligator clips, 110V US power cord, four water-tight AmpFlex® 196A-24-BK (included with Cat. #2136.42 only), NiMH battery, SD card, twelve color-coded input ID markers, quick start guide, and a USB stick containing DataView® software and user manual.



FEATURES

- Measurement of TRMS voltages up to 1000Vrms AC/DC for two-, three-, four- or five-wire systems
- Measurement of TRMS currents up to 6500Arms (sensor dependent)
- Direct measurement of neutral current & voltage
- Frequency measurement (40 to 69Hz systems)
- Record and display trend data as fast as once per second for one month for up to 25 variables
- Transient detection on all V and I inputs (up to 210)
- Selectable PT and CT ratios
- Inrush current measurement
- Calculation of Crest Factors for V and A
- Calculation of the K-Factor for transformers
- Calculation of short-term flicker and three-phase voltage unbalance
- Measures harmonics (referenced to the fundamental or RMS value) for voltage, current or power, up to 50th harmonic
- Displays of harmonic sequencing and direction and calculation of overall harmonics
- Real-time display of phasor diagrams including values and phase angles
- Measurement of active, reactive and apparent power per phase and their respective sum total
- Calculation of power factor, displacement power factor and tangent factor
- Recording, time stamping and characterization of disturbance (swells, sags and interruptions, exceedence of power and harmonic thresholds)
- 2GB internal Trend Recording memory; Alarm, Snapshot and Transient/Inrush memories are separate
- Measurement of energy VAh, varh & Wh
- The Max and Min RMS measurements are calculated every half-period
- Includes DataView® software for configuring, real-time display, analysis and report generation
- 65µs/sample transient recording

* Registration must take place within 30 days of purchase

PowerPad® III Model 8435

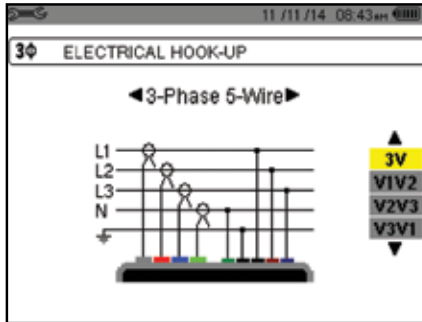
Large Color Functional Displays

Installation of the Leads and Current Sensors

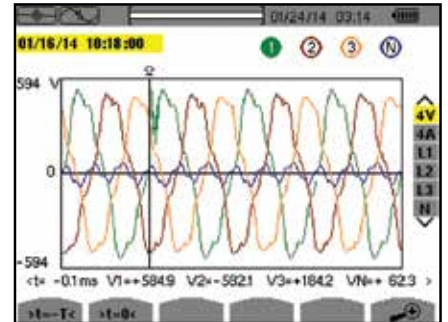
Color-coded ID markers are supplied with the PowerPad® III to identify the leads and input terminals.



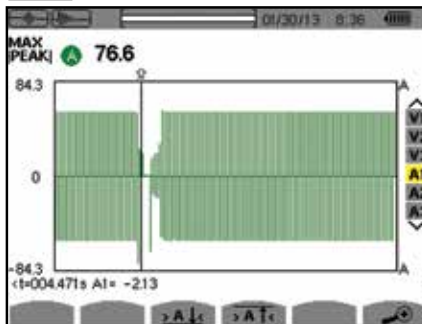
Configuration



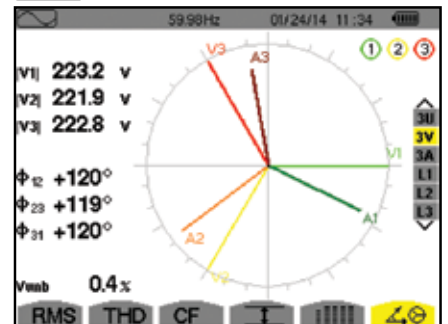
Transient Mode



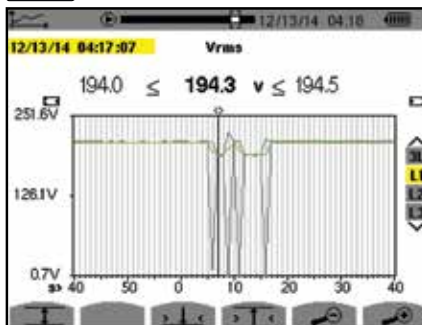
Inrush Peak



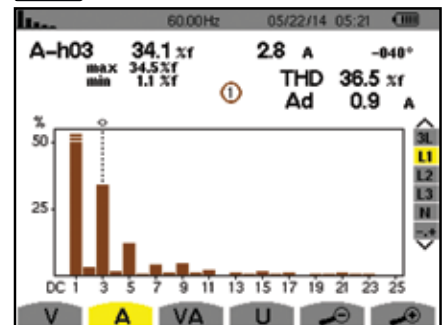
Phasor Diagram



Trend Analyze



Harmonics Mode

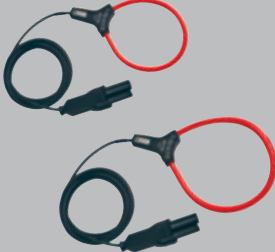


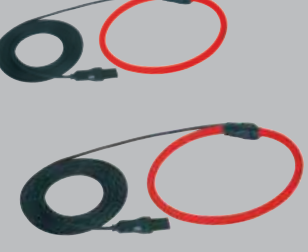



CATALOG NO.	DESCRIPTION
2136.41	PowerPad® III Model 8435 (No Sensors - Waterproof IP67)
2136.42	PowerPad® III Model 8435 w/4 A196-24-BK (AmpFlex® - Waterproof IP67)
Accessories (Optional)	
2133.73	Extra Large Classic Tool Bag
2140.72	Replacement accessory pouch (accessories not included)
2140.19	Replacement – Battery 9.6V NiMH
2140.28	AC Current Probe Model MR193-BK
2140.32	AC Current Probe Model MN93-BK
2140.33	AC Current Probe Model SR193-BK
2140.35	AmpFlex® Sensor 36" Model 193-36-BK
2140.36	AC Current Probe Model MN193-BK
2140.45	Replacement – Set of 12, Color-coded Input ID Markers
2140.46	Replacement – 5 ft USB Cable
2140.48	MiniFlex® Sensor 10" Model MA193-10-BK
2140.49	AC/DC Current Probe Model J93-BK
2140.73	Lead – One 10 ft (3M) Black Lead (Waterproof cap) [Rated 1000V CAT IV] & one Black Alligator Clip [Rated 1000V CAT IV, 15A,UL]
2140.75	AmpFlex® Sensor 24" (waterproof - IP67) Model A196-24-BK







POWER QUALITY ANALYZERS, METERS & LOGGERS

Optional Accessories

SENSOR TYPE	CURRENT RANGE	ACCURACY (TYPICAL)	TYPICAL ERROR ON Φ AT 50/60HZ	MAX CONDUCTOR SIZE	USED WITH MODEL	LIMITED RANGE IF USED WITH MODEL	CATALOG NUMBER
MiniFlex® MA193-BK *  10" or 14" sensor	100mA to 3000A _{AC}	±1%	0°	2.75" (70mm)	PEL 102 PEL 103 PEL 105 8333 8336	8220 8230 8435	2140.48 (10" sensor)
							2140.50 (14" sensor)
MR193-BK  Battery operated	1 to 1000A _{AC} 1 to 1300A _{DC}	±2.5%	-0.80°	1.6" (41mm)	8220 8230 PEL 102 PEL 103 PEL 105 8333 8336 8435	N/A	2140.28
SR193-BK 	1 to 1200A _{AC}	±0.3%	0.2°	2.05" (52mm)	8220 8230 PEL 102 PEL 103 PEL 105 8333 8336 8435	N/A	2140.33
AmpFlex® 193-BK *  24" or 36" sensor	100mA to 12,000A _{AC}	±1%	0°	7.64" (190mm) or 11.46" (290mm)	PEL 102 PEL 103 PEL 105 8333 8336	8220 8230 8435	2140.34 (24" sensor)
							2140.35 (36" sensor)
AmpFlex® A196  24" sensor IP67	10 to 10,000A _{AC}	±2%	0°	5.73" (145mm)	PEL 105 8435	N/A	2140.75 (24" sensor)

* Maximum current reduced by a factor of 2 for 400Hz fundamental frequency.

SENSOR TYPE	CURRENT RANGE		ACCURACY (TYPICAL)	TYPICAL ERROR ON Φ AT 50/60HZ	MAX CONDUCTOR SIZE	USED WITH MODEL	LIMITED RANGE IF USED WITH MODEL	CATALOG NUMBER
MN93-BK 	0.5 to 240Aac		±1%	0.8°	0.78" (20mm)	PEL 102 PEL 103 PEL 105 8333 8336 8435	8220 8230	2140.32
MN193-BK 	100A	200mA to 120Aac	±1%	0.75°	0.78" (20mm)	8220 8230 PEL 102 PEL 103 PEL 105 8333 8336 8435	N/A	2140.36
	5A	5mA to 6Aac	±1%	1.7°				
SL261 **  Battery operated	100A	5 to 100Aac/dc	±4%	±0.5°	0.46" (11.8mm)	8220 8230 PEL 102 PEL 103 PEL 105 8333 8336 8435	N/A	1201.51
	10A	50mA to 10Aac/dc	±3%	±1°				
J93  Battery operated	50 to 3500Aac 50 to 5000Adc		±1%	±1°	2.83" (72mm) Busbar: 5 x 1.69" (127 x 43mm)	PEL 102 PEL 103 PEL 105 8333 8336 8435	N/A	2140.49

Note: Refer to the Power Meter's product user manual for complete specifications.

All current sensors can be used with the Models 8435 and PEL 105. However, only the A196 flexible sensors are waterproof.

** AC/DC Current Probe BNC Adapter for Model SL261 only
Catalog #2140.40



CATALOG NO.	DESCRIPTION
1201.51	AC/DC Current Probe Model SL261 (BNC)
2140.37	Adapter – US 110V Power Adapter (eliminates need for batteries) 8220 & 8230 only
2140.28	AC/DC Current Probe Model MR193-BK
2140.32	AC Current Probe Model MN93-BK
2140.33	AC Current Probe Model SR193-BK
2140.34	AmpFlex® Sensor 24" Model 193-24-BK
2140.35	AmpFlex® Sensor 36" Model 193-36-BK
2140.36	AC Current Probe Model MN193-BK
2140.48	MiniFlex® Sensor 10" Model MA193-10-BK
2140.49	AC/DC Current Probe Model J93-BK
2140.50	MiniFlex® Sensor 14" Model MA193-14-BK
2140.75	AmpFlex® Sensor 24" (waterproof - IP67) Model A196-24-BK

DataView®

Data Analysis and Reporting Software



Configure all functions of the Power & Energy Loggers

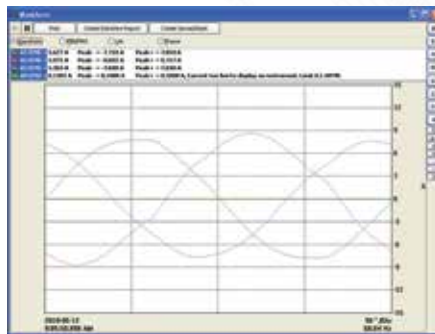


- Display and analyze real-time data on your PC
- Configure functions and parameters from your PC
- Customize views, templates and reports to your exact needs
- Create and store a complete library of configurations that can be uploaded as needed
- Zoom in and out and pan through sections of the graph 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

Typical DataView® Functional, Digital & Graphical Displays



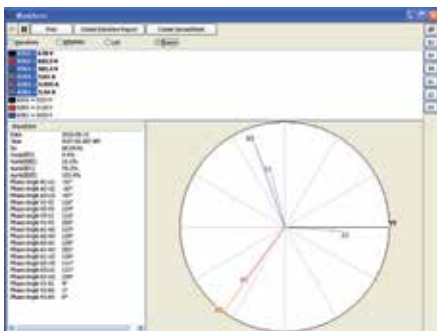
Clear and easy setup of all functions from one tabbed dialog box.



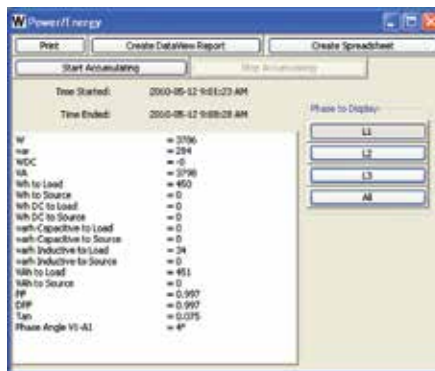
Display real-time waveforms by phase, parameter or total.



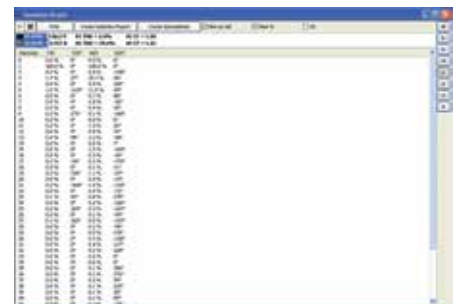
Display all harmonics from 1st to 50th in bargraph form for voltage, current and power.



Display real-time Phasor diagrams. Includes unbalance for both voltage and current.



Display power and energy parameters – both instantaneous and total.



Display harmonics in a text table from harmonic 0 (DC) through the 50th.