PowerPad® IV Model 8345 *The PowerPad® moves up a grade - Class A!*

True *InRush*®

AUTOMATIC REPORT GENERATION

DataView®

POWERPAD IV Class A

DataViewSync™

SCAN TO LEARN MORE

WARRANTY 3 YEARS WARRANTY
*UPON REGISTERING

PRODUCT INCLUDES

CAT. #2136.35 - POWERPAD® IV MODEL 8345 *(NO PROBES)*

CAT. #2136.36 - POWERPAD® IV MODEL 8345 *(WITH (4) MINIFLEX® MA194-24-BK FLEXIBLE CURRENT SENSORS)*

CAT. #2136.37 - POWERPAD® IV MODEL 8345 *(WITH (4) AMPFLEX® 193-24-BK FLEXIBLE CURRENT SENSORS)*

Extra-large tool bag, internal carrying pouch, hand strap, (4) 193-24-BK sensors, USB cable, (5) 10 ft black voltage leads with alligator clips, (12) color-coded input ID markers, power adapter *(PA32ER)* with US power cord, (2) 6 ft stackable leads, (2) 10 ft black voltage leads with alligator clips for power adapter PA32ER, SD Card, (1) power plug adaptor for PA32ER, 5.8 A·h Li-ion battery pack, quick start guide, and USB drive with DataView® software and user manual.

MODEL	8345	
ELECTRICAL		
Measurement Frequency	Measurement Range without Ratio *(with unity ratio)*	
	Min	Max
	42.50 Hz	69.00 Hz
Inputs	5 x voltage / 4 x current, isolated	
Voltage	(5 to 1000) VAC / 1200 VDC	
Harmonics Mode	DC to 127th order	
Interharmonics Mode	0 to 126th order	
Inrush & Transient Capture *(number)*	No maximum *(limited by SD card)*	
Transient Capture	1000 ct Max	
Shockwaves *(Fast transient)*	Up to 12 kV sampled every 500 ns	
Voltage Unbalance *(u0,u2)*	(0.5 to 5) % *(absolute)* ; ± 0.15 % *(absolute)*	
Trend Recording	> 900 parameters 3 d with a sampling period of 200 ms 15 d with a sampling period of 1 s 45 d with a sampling period of 3 s	
Sampling Rate	Voltage 400 kSps / Current 200 kSps / Surge 2 MSps	
Alarm Mode *(types / number)*	40 / 20,000 with Email notifications	
Real-time / Power / Energy / Unbalance Modes	Yes / Yes / Yes / Composite	
Screenshots	No maximum *(limited by SD card)*	
Power Supply	Power from phase from (100 to 1000) VAC/DC with external supply block *(included)*	
Carrier Current Detection	Yes	
Battery Life	Cartridge Li-ion – 5800 A·h battery pack *(included)* ≤ 6 h w / display ON; ≤ 10 h w / display OFF	
MECHANICAL		
Data Storage	16 GB SD-Card *(included)* for snapshot, transients, alarms, InRush and trend recording	
Display	7 in color LCD touch screen: 800 x 480 (WVGA)	
Clock / GPS	Yes, built-in	
Operating Temperature	(32 to 104) °F (0 to 40) °C	
Communication	USB, Ethernet, Wi-Fi, Web server, DataViewSync™ / IRD server, USB stick port *(Type A)*	
Dimensions	(7.87 x 11.22 x 2.17) in (200 x 285 x 55) mm	
Weight *(meter only)*	4 lb (2 kg)	
COMPLIANCE & STANDARDS		
Safety	IEC 61010 1000 V CAT IV	
Environmental	IEC 61557-12 & IEC 62586	
Measurement Standard	IEC 61000-4-30 *(Ed 3)* Class A *(Full)*	
EN 50160 Monitoring Mode	With DataView® software	
Warranty	*3 y *(registration must be done within 30 d of the date of purchase)*	

Consult factory for NIST Calibration prices.

CAT. #	DESCRIPTION
2136.35	PowerPad® IV Model 8345 (no probes)
2136.36	PowerPad® IV Model 8345 w/(4) MA194-24-BK MiniFlex®Sensors
2136.37	PowerPad® IV Model 8345 w/(4) 193-24-BK Sensors (regular AmpFlex®)

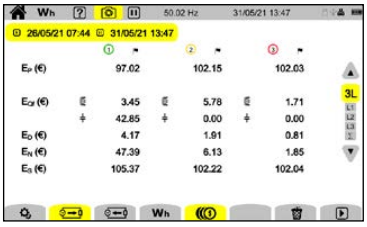
Technical Assistance (800) 343-1391

FEATURES

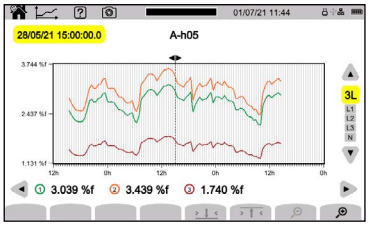
- Full compliance with IEC 61000-4-30 ed. 3.0 Class A functions
- Voltage quality diagnostics
- Real-time display of color waveforms *(5 voltage/4 current)* from 1 cycle to 10/12 cycles
- Calculation of unbalance *(current and voltage)*
- Automatic recognition of different current sensors
- Capture shockwaves up to 12 kV with a resolution of 500 ns
- Trend recording period from 200 ms to 2 h
- RMS and Peak InRush for up to 30 min
- Display of phasor diagrams
- Waveforms at 512 samples per cycle, with Min/Max 2.5 µs
- True InRush® capabilities to study loads during setup
- Parameterization with software for True RMS single-, two- and three-phase measurements at 512 samples/cycle, plus DC
- Records and stores hundreds of parameters in memory every 10/12 cycles
- Measurements and recordings accessible on 7 inch color touch screen display
- True RMS voltage and current measurement
- Measurements on all installation types: three-phase, Aron connection, etc.
- Electrical network monitoring with setting of alarms
- Fast transient events are captured and stored in memory
- Communication options: Webserver, Wi-Fi, Ethernet and USB
- Power W, VA and var (P, N, Q1, S and D) measurements
- Measurement of energy values *(total and per phase)* with energy valuation
- PF, DPF, CF and THD calculations and measurements
- Calculation of Pst & Plt flicker and sliding Pst
- Harmonics *(amplitude/phase shift)* from DC to the 127th order
- Inter-harmonic subgroups from 0 to the 126th order
- Calculations of K factor and FHL
- 2 carrier current frequencies monitored

Large Functional Displays

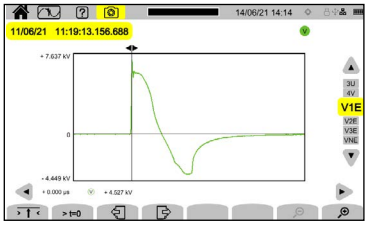
ENERGY EVALUATION



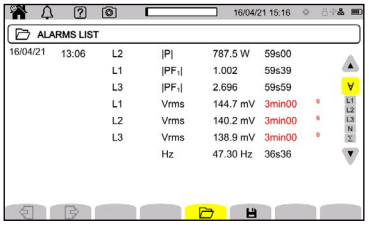
TREND



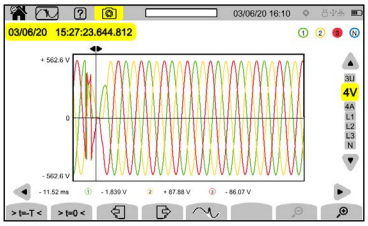
SHOCKWAVES



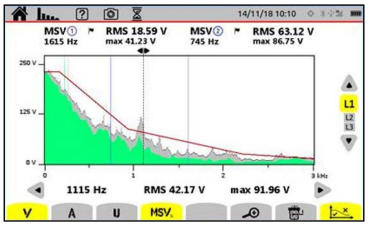
ALARMS



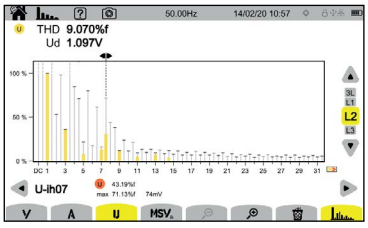
TRANSIENTS



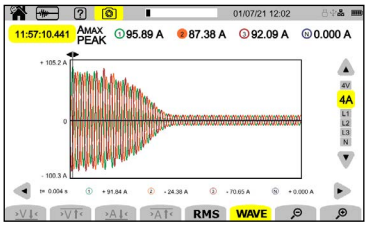
CARRIER CURRENT



INTERHARMONICS *(HARMONIC MODE)*



TRUE INRUSH®



ACCESSORIES/REPLACEMENTS

CAT. #2133.76 Carrying Bag
CAT. #2960.47 Battery - Replacement 5.8 A·h 61.9 W·h Li-ion Battery Pack
CAT. #5000.14 Power cord 115 V for Micro-ohmmeters, Megohmmeters, Power Instruments, Oscilloscopes & Ground Testers
CAT. #5000.99 Clip – Safety alligator *(black)* (1000 V CAT IV, 15 A, UL V2)
CAT. #5100.14 Adapter - Replacement Power Plug Adapter for PA32ER
CAT. #5100.15 Adapter - Replacement 1000 V PA32ER Power Supply
CAT. #5100.16 Magnetic Hook

Includes FREE DataView® software for configuring, data retrieval, real-time display, analysis and report generation

See pages 132 to 133 for more Accessories/Replacements

MODEL	MAX CONDUCTOR SIZE	ACCURACY *(TYPICAL)*	TYPICAL ERROR ON Φ AT (50 / 60) HZ	CURRENT RANGE	USED WITH MODEL	CAT. #
MiniFlex® Model MA193-10-BK* & MiniFlex® Model MA193-14-BK* & MiniFlex® Model MA194-24-BK*  **10, 14 & 24 in Sensor**	2.75 in (70 mm) (10 in sensor)	± 1 %	0.5 °	100 mA to 12,000 AAC (1)	**PEL 52 PEL 112 PEL 113 PEL 115 8333 8336 8436 8345**	2140.48 (10 in sensor)
	3.94 in (100 mm) (14 in sensor)					2140.50 (14 in sensor)
	7.64 in (194 mm) (24 in sensor)					2140.80 (24 in sensor)
AC/DC Current Probe Model MR193-BK 	1.6 in (41 mm)	± 2.5 %	-0.80 °	(1 to 1000) AAC (1 to 1300) ADC	PEL 112 PEL 113 PEL 115 8333 8336 8436 8345	2140.28
AC Current Probe Model MN93-BK 	0.78 in (20 mm)	± 1 %	0.8 °	(0.5 to 240) AAC	**PEL 52 PEL 112 PEL 113 PEL 115 8333 8336 8436 8345**	2140.32
AC Current Probe Model SR193-BK 	2.05 in (52 mm)	± 0.3 %	0.2 °	(1 to 1200) AAC	**PEL 52 PEL 112 PEL 113 PEL 115 8333 8336 8436 8345**	2140.33
AmpFlex® Sensor 24 in Model 193-24-BK* 	7.64 in (194 mm) (24 in sensor)	± 1 %	0.5 °	100 mA to 12,000 AAC (1)	**PEL 52 PEL 112 PEL 113 PEL 115 8333 8336 8436 8345**	2140.34
AmpFlex® Sensor 36 in Model 193-36-BK* 	11.64 in (291 mm) (36 in sensor)	± 1 %	0.5 °	100 mA to 12,000 AAC (1)	**PEL 52 PEL 112 PEL 113 PEL 115 8333 8336 8436 8345**	2140.35

MODEL	MAX CONDUCTOR SIZE	ACCURACY *(TYPICAL)*	TYPICAL ERROR ON Φ AT (50 / 60) HZ	CURRENT RANGE		USED WITH MODEL	CAT. #
AC Current Probe Model MN193-BK 	0.78 in (20 mm)	± 1 %	0.75 °	100 A	200 mA to 120 AAC	PEL 52 PEL 112 PEL 113 PEL 115 8333 8336 8436 8345	2140.36
			1.7 °	5 A	5 mA to 6 AAC		
AmpFlex® Sensor 24 in Model 196A-24-BK* *(Waterproof IP67)* 	7.64 in (194 mm) (24 in sensor)	± 1 %	0 °	100 mA to 12,000 AAC (1)		PEL 115 8436	2140.75
MiniFlex® Sensor 14 in Model MA196-14-BK* *(Waterproof IP67)* 	3.9 in (99 mm) (14 in sensor)	± 1 %	0 °	100 mA to 12,000 AAC (1)		PEL 115 8436	2140.79
AC Current Probe Model MN94 	0.25 in (7 mm)	± 0.2 %	0.1 °	50 mA to 200 AAC		PEL 52 PEL 112 PEL 113 PEL 115 8345	2140.81
AC / DC Current Probe Model E94 	.464 in (11.8 mm)	± 3 %	1.5 °	**10 A**	100 mA to 10 AAC	PEL 112 PEL 113 PEL 115 8345	2140.82
		± 4 %	1 °	**100 A**	500 mA to 100 AAC		

* Maximum current reduced by a factor of 2 for 400 Hz fundamental frequency.
All current sensors can be used with Models PEL 115 and 8436. However, only the MA196-14-BK and 196A-24-BK flexible sensors are waterproof.
(1) Current range may be limited by sensor size or meter type.
Consult factory for NIST Calibration prices.

POWER QUALITY / ENERGY ANALYZERS, METERS & LOGGERS
SELECTION CHART

MODEL	CAT. #	INPUT TERMINALS	CHANNELS	RMS VOLTAGE MAX PHASE-TO-NEUTRAL	RMS VOLTAGE MAX PHASE-TO-PHASE	PEAK VOLTAGE MAX PHASE-TO-NEUTRAL	PEAK VOLTAGE MAX PHASE-TO-PHASE	DC VOLTAGE MAX	AC CURRENT MAX *(PROBE DEPENDENT)*	DC CURRENT MAX *(PROBE DEPENDENT)*	RATIOS VOLT	RATIOS AMPERE
8333	2136.10	4 V / 3 I	3 V / 4 I	1000 VRMS	2000 VRMS	1414 Vpk	2828 Vpk	1200 VDC	10,000 AAC	1300 ADC	Yes	
8336	2136.30	5 V / 4 I	4 V / 4 I	1000 VRMS	2000 VRMS	1414 Vpk	2828 Vpk	1200 VDC	10,000 AAC	5000 ADC	Yes	
8345	2136.35	5 V / 4 I	4 V / 4 I	1000 VRMS	2000 VRMS	1414 Vpk	2828 Vpk	1200 VDC	10,000 AAC	5000 ADC	Yes	
8436	2136.43	5 V / 4 I	4 V / 4 I	1000 VRMS	2000 VRMS	1414 Vpk	2828 Vpk	1200 VDC	10,000 AAC	5000 ADC	Yes	
PEL 52	2137.71	2 V / 2 I		600 VRMS	1200 VRMS	–			3600 AAC	–	No	Yes
PEL 112	2137.63	4 V / 3 I	3 V / 3 I	1000 VRMS	1700 VRMS	1414 Vpk	2400 Vpk	1000 VDC	12,000 AAC	5000 ADC	Yes	
PEL 113	2137.64	4 V / 3 I	3 V / 3 I	1000 VRMS	1700 VRMS	1414 Vpk	2400 Vpk	1000 VDC	12,000 AAC	5000 ADC	Yes	
PEL 115	2137.56	5 V / 4 I	4 V / 4 I	1000 VRMS		1414 Vpk	2400 Vpk	1000 VDC	12,000 AAC	5000 ADC	Yes	

MODEL	CAT. #	DISTRIBUTION SYSTEMS	PHASE ROTATION	WAVEFORM MODE	TRANSIENT MODE	TRUE INRUSH® MODE / TYPE / DURATION	ALARM MODE	SNAPSHOT MODE	HARMONIC MODE / INTERHARMONIC MODE	TYPE LCD	POWER SOURCE
8333	2136.10	1 P-2 W, 2 P-3 W, 3 P-3 W, 3 P-4 W	Yes			No	10 types / up to 2 active / 4662 recorded	Yes (12)	Yes / No	TFT - 5.7 in diagonal 320 x 240 resolution	External adapter with internal NiMH battery pack
8336	2136.30	1 P-2 W, 1 P-3 W,2 P-2 W, 2 P-3 W, 2 P-4 W, 3 P-3 W,3 P-4 W, 3 P-5 W	Yes			Yes (RMS+PEAK & RMS) up to 1 & 10 min	40 types / up to 7 active / 16,362 recorded	Yes (50)	Yes / No	TFT - 5.7 in diagonal 320 x 240 resolution	External adapter with internal NiMH battery pack
8345	2136.35	1 P-2 W, 1 P-3 W,2 P-2 W, 2 P-3 W, 2 P-4 W, 3 P-3 W,3 P-4 W, 3 P-5 W	Yes			Yes (RMS+PEAK & RMS) up to 10 & 30 min	40 types / 20,000 w / email notifications	Yes (no limit with SD card)	DC to 127th order; < 3 % Udin / 0 to 62nd order; < 0.5 % Udin	7 in color LCD touch screen: 800 x 480 (WVGA)	External adapter with Li-ion battery pack
8436	2136.43	1 P-2 W, 1 P-3 W,2 P-2 W, 2 P-3 W, 2 P-4 W, 3 P-3 W,3 P-4 W, 3 P-5 W	Yes			Yes (RMS+PEAK & RMS) up to 1 & 10 min	40 types / up to 7 active / 16,362 recorded	Yes (50)	Yes / No	TFT - 5.7 in diagonal 320 x 240 resolution	Line Power with internal NiMH battery pack
PEL 52	2137.71	1 P-2 W,2 P-3 W, 1 P-3 W	Yes	No						Monochrome LCD	Power phase input with internal NiMH battery pack
PEL 112	2137.63	1 P-2 W, 1 P-3 W, 3 P-3 W D2, 3 P-3 W O2, 3 P-3 W Y2, 3 P-3 W D3, 3 P-3 W O3, 3 P-3 W Y, 3P-3 W DB, 3 P-4 W Y, 3 P-4 W YB, 3 P-4 W Y2 1/2, 3 P-4 W D, 3 P-4 WOD, DC-2 W DC-3 W, DC-4 W	Yes	No					Yes / No	None	Line Power with internal NiMH battery pack
PEL 113	2137.64	1 P-2 W, 1 P-3 W, 3 P-3 W D2, 3 P-3 W O2, 3 P-3 W Y2, 3 P-3 W D3, 3 P-3 W O3, 3 P-3 W Y, 3P-3 W DB, 3 P-4 W Y, 3 P-4 W YB, 3 P-4 W Y2 1/2, 3 P-4 W D, 3 P-4 WOD, DC-2 W DC-3 W, DC-4 W	Yes	No					Yes / No	Monochrome LCD	Line Power with internal NiMH battery pack
PEL 115	2137.56	1 P-2 W, 1 P-3 W, 3 P-3 W D2, 3 P-3 W O2, 3 P-3 W Y2, 3 P-3 W D3, 3 P-3 W O3, 3 P-3 W Y, 3P-3 W DB, 3 P-4 W Y, 3 P-4 W YB, 3 P-4 W Y2 1/2, 3 P-4 W D, 3 P-4 WOD, DC-2 W DC-3 W, DC-4 W	Yes	No					Yes / No	Monochrome LCD	Power phase input or external adapter with internal NiMH battery pack

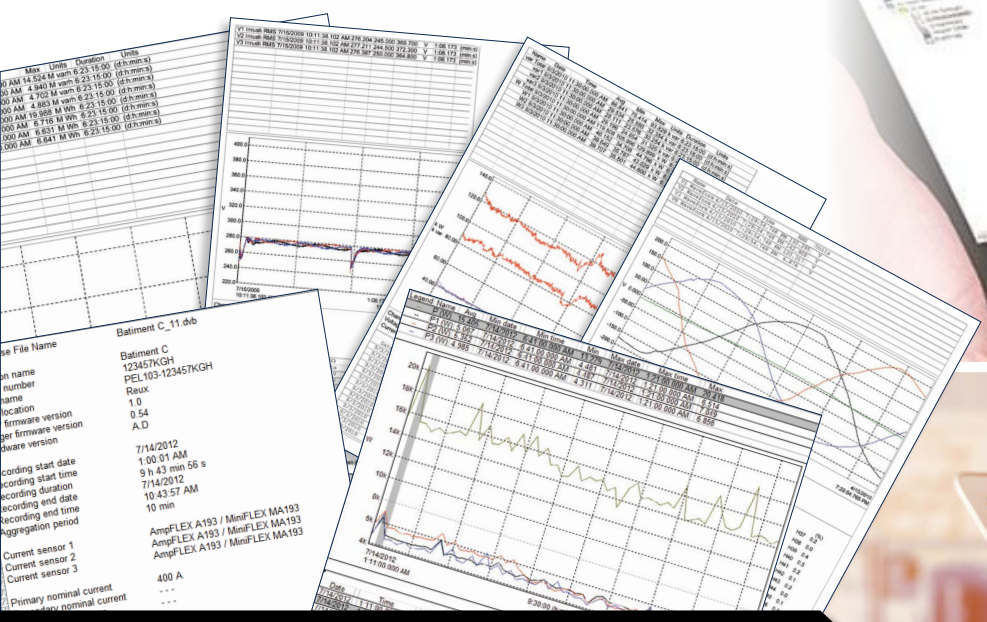
Technical Assistance (800) 343-1391

DataView®

Data Analysis and Reporting Software

Configure all functions:

- 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 available on our website **www.aemc.com**



Reports can be displayed on a PC and printed. Each report includes all test results in a tabular and graphic format, as well as operator and test site information. Comments typed by the operator will also be included.

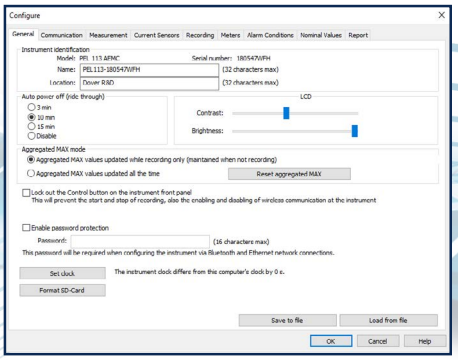
DataView®

Data Analysis and Reporting Software

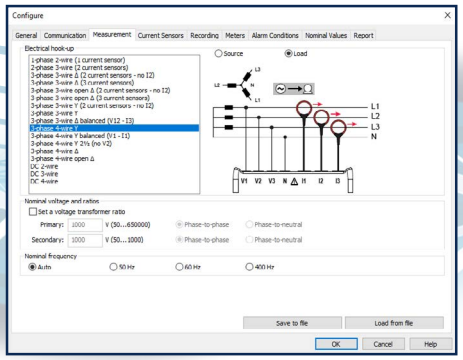
AUTOMATIC REPORT GENERATION

AEMC® INSTRUMENTS
www.aemc.com

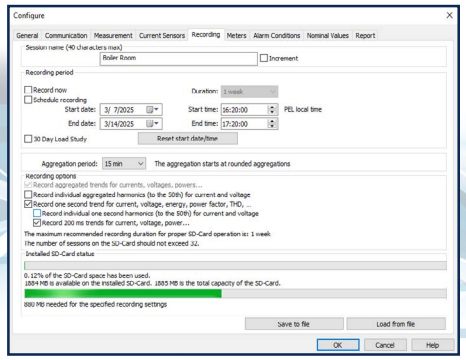
DataView® software, user manual and quick start guide are included in the USB Drive



Configure basic information regarding Auto Power OFF, instrument name and location, display contrast and brightness *(Models PEL 113 & PEL 115)*, setting of the real-time clock and SD-card formatting is easily accomplished from the General tab.



The Measurement tab specifies the electrical distribution system, voltage ratios, and nominal frequency.

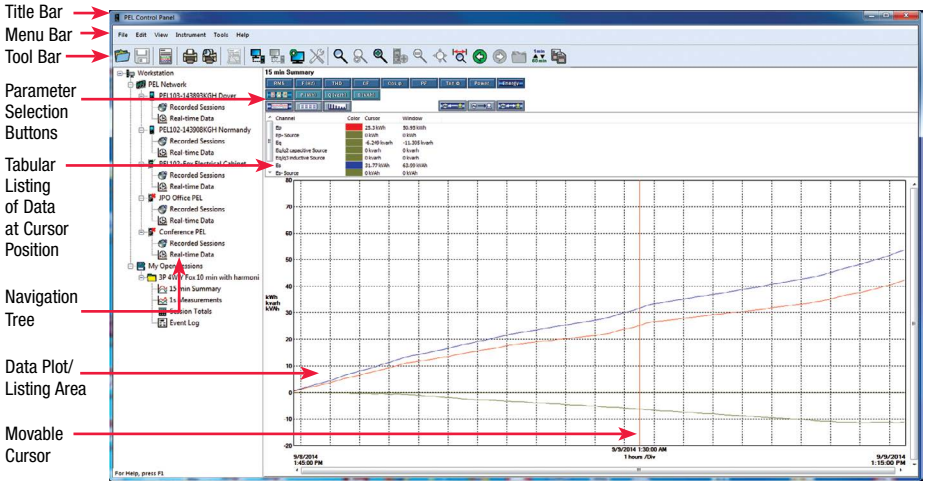


In the Recording tab, configure the instrument to measure *(and record)* over a user selectable recording period. Select demand intervals and view available memory for data storage.

Typical DataView® Functional Digital & Graphical Display

Control Panel Trend View

In the PEL Control Panel you will find all the necessary tools and selection buttons to review recorded data as trend plots or tabular lists.



NEW! Effortlessly Perform Load Study Analysis Meeting the NEC 220.87 Requirements with the PEL DataView® Control Panel Feature

Technical Assistance (800) 343-1391

AEMC® INSTRUMENTS