

# POWER QUALITY / ENERGY ANALYZERS, METERS & LOGGERS

## POWER & ENERGY LOGGER PEL 52



### MODEL PEL 52

*Time/date stamped electrical measuring instrument to understand and improve electrical consumption*

**Coming Later this Year!**

### SPECIFICATIONS

MODEL	PEL 52		
<b>GENERAL</b>			
Inputs	2V / 2I		
Types of installations	Single phase, split phase or 2 single-phase channels		
Recording / Data Storage Rate	Unlimited duration (4 GB max recording size) / 1 s to 1 h (Min/Avg/Max)		
Network Frequency	(45 to 65) Hz		
Voltage	(10 to 600) V		
<b>ELECTRICAL</b>			
<b>VOLTAGE</b>	<b>RANGE</b>	<b>RESOLUTION</b>	<b>ACCURACY</b>
Vrms	(10 to 660) V P to N	0.1 V	± 0.2 % Reading ± 0.2 V
Urms	(20 to 1200) V P to P	0.1 V	± 0.2 % Reading ± 0.4 V
<b>CURRENT MEASUREMENT @ (50 and 60) HZ</b>	<b>RANGE</b>	<b>RESOLUTION</b>	<b>ACCURACY</b>
Amps (1 V nominal) (excluding clamp accuracy)	Probe dependent (0.2 % < I < 120 % Inom)	Probe dependent	± 0.2 % Reading ± 0.02 Inom
<b>POWER</b>	<b>RANGE</b>	<b>RESOLUTION</b>	<b>ACCURACY</b>
Watts P-Q-S (W-var-VA)	V = (100 to 660) V I = (5 to 120) % Inom	Probe dependent	± 0.3 % R ± 0.003 % Pnom ± 1 % R ± 0.01 % Qnom ± 0.3 % R ± 0.003 % Snom
Power Factor	-1 to 1	0.001	±0.02 %
Cos φ (DPF)	-1 to 1	0.001	±0.05 %
<b>ENERGY</b>	<b>RANGE</b>	<b>RESOLUTION</b>	<b>ACCURACY</b>
Ep-Eq-Es (Wh, varh, VAh)	V = (100 to 660) V I = (5 to 120) % Inom	0.001 and ±0.02%	±0.5 % Reading ±2.5 % Reading ±0.5 % Reading
<b>MECHANICAL</b>			
Communication	Wi-Fi (access point and hot spot)		
Data Storage	8 GB SD-Card (included); expandable to 32 GB		
Dimension	(7.08 x 3.46 x 1.45) in (180 x 88 x 37) mm		
Weight	14.10 oz (400 g)		
Case	Compact and rugged, shock and vibration IEC 61010		
Display Type	LCD with blue backlight		
Real-Time Clock	Time and date stamp for Trend mode		
Power Supply	From phase 1 (90 to 660) V battery backup when power OFF		
Battery Life	3 h without Wi-Fi, 1 h typical with Wi-Fi enabled		
<b>ENVIRONMENTAL</b>			
Operating Temperature / Relative Humidity	(-4 to 122) °F (-20 to 50) °C / (10 to 85) % RH		
Storage Temperature	(-40° to 158) °F (-40 to 70) °C / (0 to 95) % RH w/out battery		
<b>SAFETY</b>			
Electro-Magnetic-Compatibility (EMC)	EN 61326-1 for emission and immunity		
Safety Rating / CE Rating	IEC/EN 61010-2-30 (600 V CAT III) / Yes		
IP Rating	IP54 per IEC 60529		

\* Minimum and maximum values are current probe dependent.  
Consult factory for NIST Calibration prices



**DataView®**

### PRODUCT INCLUDES

#### CATALOG #2137.69 (WITH PROBES)

Soft carrying bag, (2) MiniFlex® MA193-10-BK sensors, (3) black test leads and alligator clips, 110 V US power Cord, (1) adapter for power cord, 8 GB SD card, USB SD card reader, (2) AAA rechargeable batteries, quick start guide, and USB drive with DataView® software and user manual.

#### CATALOG #2137.71 (NO PROBES)

Soft carrying bag, (3) black test leads and alligator clips, 110 V US power Cord, (1) adapter for power cord, 8 GB SD card, USB SD card reader, (2) AAA rechargeable batteries, quick start guide, and USB drive with DataView® software and user manual.

CATALOG NO.	DESCRIPTION
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2137.69	Power & Energy Logger Model PEL 52 (w/LCD, w/2 MA193-10-BK sensors)
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2137.71	Power & Energy Logger Model PEL 52 (w/LCD, no sensors)
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# POWER QUALITY/ENERGY ANALYZERS, METERS & LOGGERS

## FEATURES

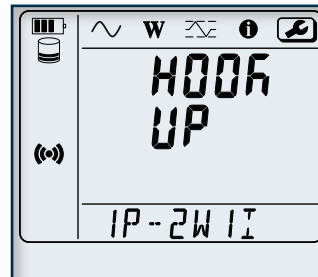
- Low cost, simple-to-use, portable, single- and dual- (split-phase) power & energy data logger
- Wide backlit LCD display
- Install without cutting off the electrical network being monitored
- Vital energy data is easily measured, recorded and analyzed
- TRMS voltage and current measurement up to 600 V
- Powered via the measuring phase
- Measurement of the AC phase currents (I1, I2) *(dependent on sensor)*
- RMS AC measurements (50 Hz and 60 Hz), aggregation every second without missing measurements
- Easy to use, automatic recognition of current sensors
- W, VA and var (P, Q, S, N and D) power measurements
- Calculation of the Cos  $\phi$  and Power Factor (DPF)
- Aggregation measurements over a period from 1 minute to 1 hour
- Storage of the 1 s and aggregated measurements on SD/SDHC card; data can be read directly on a PC
- Remote connectivity via IRD server
- Integrated web server for remote viewing *(Android™, iOS, Windows, etc.)*
- Wi-Fi offers accessibility to diagnose problems in real-time and/or multi-station operation.
- Data saved on SD card for easier transport
- Includes FREE DataView® software for configuring, data retrieval, real-time measurement display, data analysis and report generation
- Compact casing with built-in magnets to facilitate mounting for easier implementation in electrical cabinets 2-year warranty
- ECO-DESIGN - environmental aspects considered during product development to make the lowest possible environmental impact throughout the product life cycle

## APPLICATIONS

- Load surveys - Find out how much energy each item of equipment consumes operating at its min/max power level.
- Energy analysis - Estimate energy consumption before and after the improvements.
- Energy surveys - The measurements for energy surveys must be performed at several locations on the evaluation site. Starting with the main power, compare the power and energy measurements on the electricity meter and bills. Sub metering can then be performed on downstream of the installation.

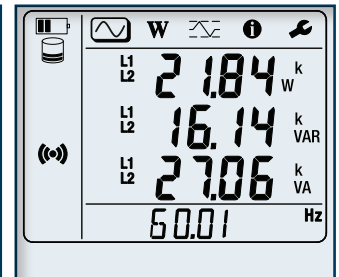
## Large Functional Displays

### INFORMATION MODE



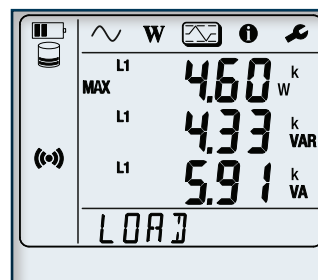
Hook up, Wi-Fi, aggregation period, can be configured from the front panel of the PEL 52. Current ratios and number of turns need to be configured via the PEL Transer software based on the current sensor type.

### MEASUREMENT MODE (2P-3W2I)



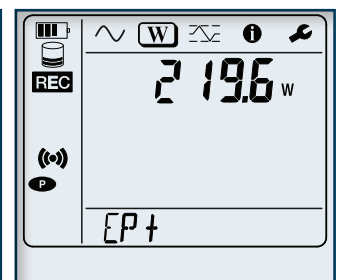
Real-time updates are displayed for voltage (V), current (A) active power (P), reactive power (Q), apparent power (S), frequency (Hz), power factor (PF).

### MAX MODE (1P-2W1I)



Max aggregated values of measurements and energy.

### ENERGY MODE



Active energy (Wh), reactive energy (varh), apparent energy (VAh). The energies displayed are the total energies, of the source or of the load.

*(The "h" symbol is not displayed on the screen. You will see W, VA, var for Wh, VAh and varh. Downloaded recordings will show the "h")*

## ACCESSORIES/REPLACEMENTS

**CATALOG #2140.32** AC Current Probe Model MN93-BK

**CATALOG #2140.33** AC Current Probe Model SR193-BK

**CATALOG #2140.34** AmpFlex® Sensor 24 in Model 193-24-BK

**CATALOG #2140.35** AmpFlex® Sensor 36 in Model 193-36-BK

**CATALOG #2140.36** AC Current Probe Model MN193-BK

**CATALOG #2140.48** MiniFlex® Sensor 10 in Model MA193-10-BK

**CATALOG #2140.50** MiniFlex® Sensor 14 in Model MA193-14-BK

**CATALOG #2140.80** MiniFlex® Sensor 24 in Model MA194-24-BK

**CATALOG #2140.44** (1) 10 ft (3 M) Black Lead w/(1) Black Alligator Clip (Lead rated 1000 V CAT IV 15 A, Clip rated 1000 V CAT IV 15 A, UL)

**CATALOG #2140.45** Set of (12), color-coded Input ID Markers

**CATALOG #5000.43** Magnetized Voltage Probe Set of (2) color-coded (Red/Black) magnetized voltage probes (Rated 600 V CAT IV, 1000 V CAT III)