

# Optimize Your Energy Efficiency with the PEL100

**Control your consumption,  
manage your energy spending  
and monitor your network**



**Power  
and Energy  
Loggers**

**With their ergonomic design suitable for all types of cabinets,  
the PEL loggers provide all your power and energy measurements  
simultaneously.**

- Single-phase, split-phase and three-phase installations
- Installation without cutting off the mains power supply
- Harmonic analysis up to the 50th order
- Bluetooth, Ethernet and USB Communication
- Automatic recognition of the sensors connected
- Recording on SD card
- Real-time communication with a PC and analysis with the PEL Transfer software

[www.pel100.com](http://www.pel100.com)

**IP  
54**

**1000 V CAT III**



# For economical, sustainable buildings, improve your energy efficiency

In the context of a worldwide initiative to protect the environment, Europe has set itself the target of reducing energy consumption by 20%. Today, industry and the building sector account for more than 50 % of energy consumption. It is therefore crucial to optimize energy consumption if we are to fulfill the regulatory requirements.

The PEL 102 and PEL 103 loggers are power and energy measurement loggers for all electrical installations. The measurements are performed with 3 current sensors and voltage inputs.

They can be used to view all the electrical parameters and to take advantage of

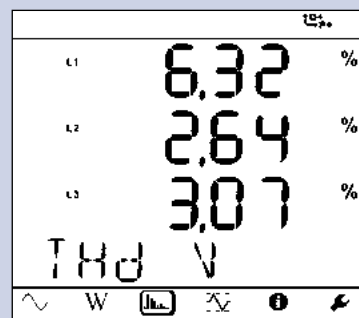
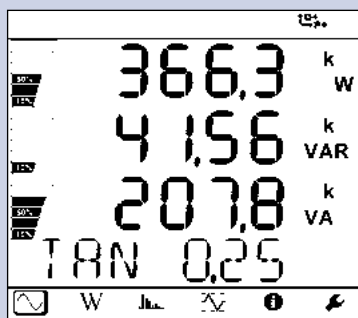
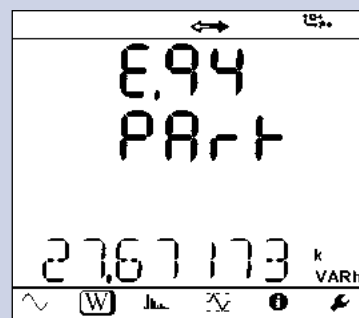
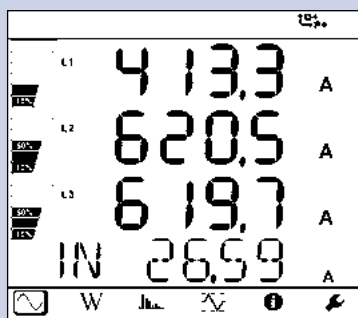
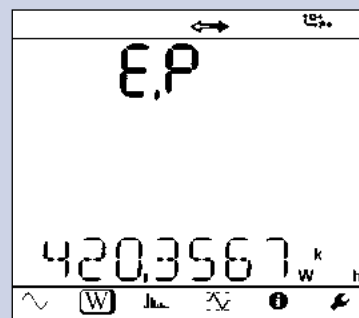
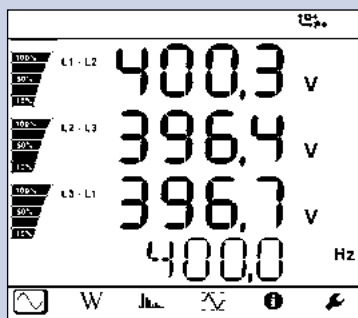
the measurement, energy metering and communication functions.

They offer users all the necessary measurements for successful energy efficiency projects and monitoring of your electricity distribution system.

The PEL100 family of energy meters makes it simple to add metering and measurement points in electrical cabinets where most of the space is already occupied. Because they are magnetic, they can be set up very easily in any cabinet and do not cause any obstruction once the cabinet door is closed.

## Functions:

- RMS frequency, voltage and current
- VA, W and var power values
- VAh, Wh (source, load) and varh (4 quadrants) energy values, total energy
- $\cos \varphi$ ,  $\tan \Phi$  and power factor (PF)
- Crest factor
- THD calculated for currents and voltages
- Harmonics up to the 50th order for currents and voltages
- DC, 50 Hz, 60 Hz and 400 Hz measurements
- RMS AC or AC+DC
- Display on LCD screen
- Recording of measurements and calculation results on SD card
- Automatic recognition of the sensor type connected
- Large number of network types: split-phase, three-phase with or without neutral, etc.
- USB and Bluetooth communication
- Software for data transfer, real-time communication with a PC and report generation





## SPECIFICATIONS:

Models	PEL102	PEL103
<b>Technical specifications</b>		
Display	Without	Triple digital display
Installation types	Single-phase, split-phase, three-phase with or without neutral and many other specific configurations	
Accuracy class	0.2 %	
<b>Electrical Specifications</b>		
Number of channels	3 voltage inputs / 3 current inputs (calculation of neutral current)	
Network frequency	50 Hz, 60 Hz & 400 Hz	
Voltage range	0 to 1,000 V AC and DC	
Current sensors supported	MN93 2 to 240 A <sub>AC</sub> MN93A 0.005 A <sub>AC</sub> to 5 A <sub>AC</sub> / 0.1 A to 120 A <sub>AC</sub> C193 3 A to 1,200 A <sub>AC</sub> AmpFLEX™ A193 & MiniFLEX MA193 100 mA to 10,000 A <sub>AC</sub> PAC93 10 A to 1,000 A <sub>AC</sub> / 10 A to 1,400 A <sub>DC</sub> E3N 50 mA to 10 A <sub>AC/DC</sub> / 100 mA to 100 A <sub>AC/DC</sub>	
Voltage ratio / Current ratio	Up to 650,000 V / up to 25,000 A	
<b>Calculated measurements</b>		
Power	10 W to 10 GW / 10 var to 10 Gvar / 10 VA to 10 GVA	
Energy	up to 4 EWh / 4 Evarh / 4 EVAh (*)	
Phase	Cos φ, tan Φ, PF	
Harmonics	up to the 50th order	
<b>Complementary functions</b>		
Phase order	Yes	
Min / Max	Yes	
Mounting	Magnet, hook	
<b>Recording</b>		
Sampling / Acquisition rate / Aggregation	128 S/period - 1 measurement per second - from 1 min to 60 min	
Memory	SD card (SD-HC up to 32 GB)	
Communication	Bluetooth (Class 2), Ethernet, USB	
Power supply	110 V - 250 V (+10 %, -15 %) at 50-60 Hz & 400 Hz	
Safety	IEC 61010 600 V CAT IV – 1,000 V CAT III	
<b>Mechanical Specifications</b>		
Dimensions	256 x 125 x 37 mm without sensor	
Weight	900 g	950 g
Casing	IP54 , UL (pending)	

(\*) E = exa = 10<sup>18</sup>

### STATE AT DELIVERY:

One PEL 102 or PEL 103 power and energy logger:

- 4 measurement leads (straight banana / straight banana – 3 m long – black)
- 4 crocodile clips (black)
- 1 SD card (2 GB)
- 1 set of rings and inserts (for ends of leads and current sensors)
- 1 mains cable
- 1 USB cable (Type A / Type B)
- 1 Multifix mounting systems
- 1 operating manual (on CD)
- 1 bag
- 1 safety datasheet
- PEL Transfer PC software
- 1 quick start-up guide
- 1 SD MN adapter (depending on model)

### REFERENCE TO ORDER:

<b>PEL102 Logger without current sensors</b>	P01157152
<b>PEL103 Logger without current sensors</b>	P01157153

### ACCESSORIES:

<b>DataVIEW® software</b>	P01102095
<b>Bag No 23</b>	P01298078
<b>Leads/clamps kit</b>	P01295476
<b>Set of id. rings/inserts</b>	P01102080
<b>5 A box</b>	P01101959
<b>MN93 clamp</b>	P01120425B
<b>MN93A clamp</b>	P01120434B
<b>C193 clamp</b>	P01120323B
<b>PAC93 clamp</b>	P01120079B
<b>AmpFLEX™ A193-450 mm clamp</b>	P01120526B
<b>AmpFLEX™ A193-800 mm clamp</b>	P01120531B
<b>Mini-AmpFLEX™ MA193, 200 mm</b>	P01120580
<b>E3N clamp</b>	P01120043A
<b>E3N adapter</b>	P01120081
<b>Multifix</b>	P01102100Z
<b>Mains power cable</b>	P01295174



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