

EUROPE'S LARGEST SELECTION OF TEST & MEASUREMENT EQUIPMENT FOR HIRE

INLEC.COM

DATA-SHEET



Nationwide Low Call
0333 6000 600

WHY BUY
WHEN YOU CAN HIRE

Optimize Your Energy Efficiency with the PEL100

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



**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 DataView[®] software**

www.pel100.com

**Power
and Energy
Loggers**

**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 fulfil 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.

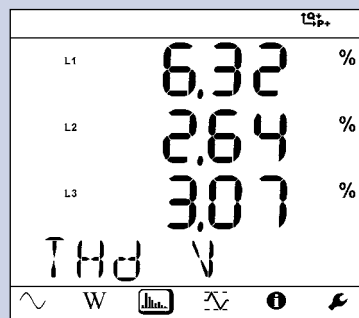
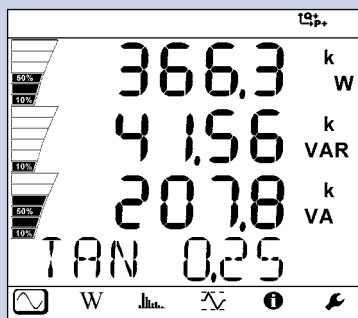
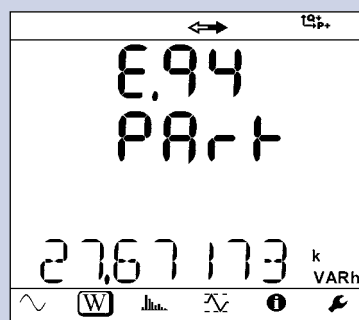
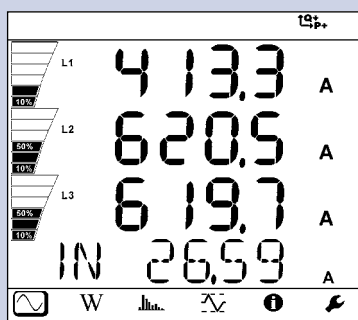
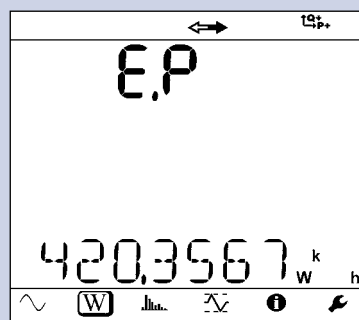
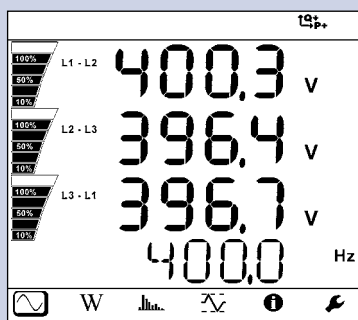
It offers users all the necessary measurements for successful energy efficiency projects and monitoring of your electricity distribution system.

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
- $\cos \phi$, $\tan \phi$ 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



Applications

Monitoring and mapping consumption on a site

Our PEL100 loggers can track even the slightest consumption in a factory, workshop, building, agency, etc. They simultaneously allow real-time consumption monitoring alongside historical and comparative analysis of consumption.

Predictive maintenance

When installed for a long period in a cabinet, PEL100 loggers constantly monitor the active, apparent and reactive power values on the electrical network involved. This means it will instantly detect whenever the subscribed power threshold is exceeded.

With the software for automatically generating



and printing reports, balance sheets, graphs or DataView summaries, users can act quickly on the cause of this overconsumption which will lead to higher bills. Indeed, every time your subscribed power threshold is exceeded, your bill will increase.

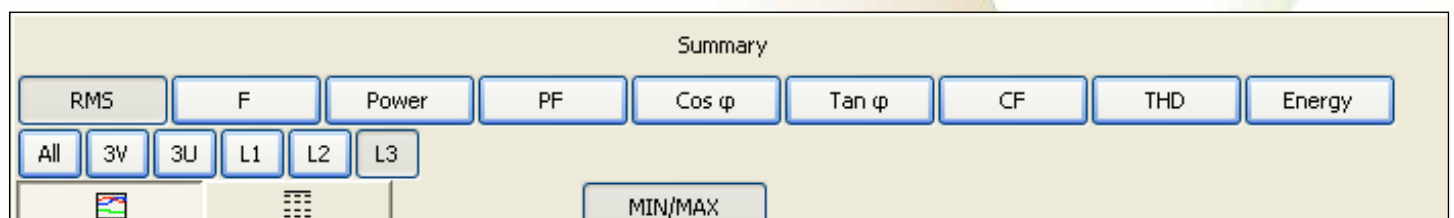
PEL Transfer software

This application software allows:

- Configuration of PEL100 loggers
- Verification of the connections before starting to record
- Downloading of the measurements recorded in the PEL100 loggers
- Display of the various measurement and analysis results

With the comprehensive DataView processing software, you can also create customized reports.

Generate energy consumption reports more easily



Networking and centralized consumption management

By setting up several PEL100 loggers on a general electrical distribution system, local authorities for example can simplify their consumption management by controlling the allocation of the different types of consumption:

- street-lighting network
- common-area lighting network
- common service network
- general single-phase distribution network
- three-phase distribution network

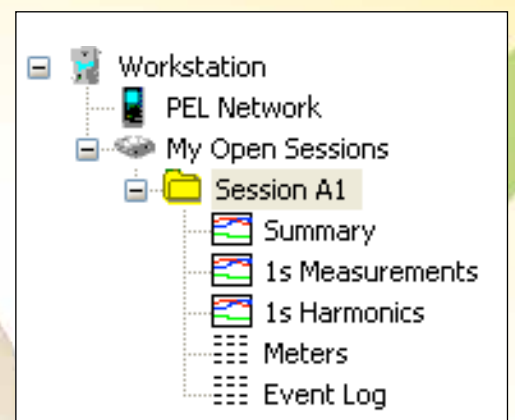
Measuring the savings

The recordings made with PEL100 electrical measuring instruments are time/date-stamped. This makes it very simple to measure the gains achieved by comparing the recordings before and after modifying the installation.

The reference is provided by the recordings from the PEL100 loggers before the modifications were made. You can then carry out the necessary work for maintenance or improvement of the electrical network or equipment. A correctly-positioned PEL100 will quickly enable you to target the places where work is needed without delay. Finally, a monitoring phase will help you to determine whether the solutions



implemented are sufficient and, above all, to accurately measure any savings achieved. The monitoring by the PEL100 provides the recordings which will be compared with the reference.



SPECIFICATIONS:

Models	PEL102	PEL103
Technical specifications		
Display	Without	Triple digital display
Installation types	Single-phase, split-phase, three-phase with or without neutral and many other specific configurations configurations	
Accuracy class	0.2%	
Electrical Specifications		
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 _{AC} MN93A 0.005 A _{AC} to 5 A _{AC} / 0.1 A to 120 A _{AC} C193 3 A to 1,200 A _{AC} A193 & MA193 100 mA to 10,000 A _{AC} PAC93 10 A to 1,000 A _{AC} / 10 A to 1,400 A _{DC} E3N 50 mA to 10 A _{AC/DC} / 100 mA to 100 A _{AC/DC}	
Voltage ratio / Current ratio	Up to 650,000 V / up to 25,000 A	
Calculated measurements		
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	
Complementary functions		
Phase order	Yes	
Min / Max	Yes	
Mounting	Magnet, hook	
Recording		
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 & 400Hz	
Safety	IEC 61010 600 V CAT IV – 1,000 V CAT III	
Mechanical Specifications		
Dimensions	256 x 125 x 37 mm without sensor	
Weight	900 g	950 g
Casing	IP54 , UL (pending)	



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)
- 3 MA193 mini-AmpFLEX sensors (cable length 3 m)
- 1 SD card (2 GB)
- 1 SD-USB adapter
- 1 set of inserts (ends of leads and current sensors)
- 1 mains power cable (1.8 m long – 250 V)
- 1 USB cable (Type A / Type B - 1 m long)
- 1 Multifix mounting systems
- 1 operating manual (on CD)
- 1 bag
- 1 safety datasheet

REFERENCE TO ORDER:

- PEL102 Logger without current sensors** P01157152
PEL103 Logger without current sensors P01157153

ACCESSORIES:

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

FRANCE
Chauvin Arnoux
 190, rue Championnet
 75876 PARIS Cedex 18
 Tel: +33 1 44 85 44 38
 Fax: +33 1 46 27 95 59
 export@chauvin-arnoux.fr
 www.chauvin-arnoux.fr

UNITED KINGDOM
Chauvin Arnoux Ltd
 Unit 1 Nelson Ct, Flagship Sq, Shaw Cross Business Pk
 Dewsbury, West Yorkshire - WF12 7TH
 Tel: +44 1924 460 494
 Fax: +44 1924 455 328
 info@chauvin-arnoux.co.uk
 www.chauvin-arnoux.com

MIDDLE EAST
Chauvin Arnoux Middle East
 P.O. BOX 60-154
 1241 2020 JAL EL DIB - LEBANON
 Tel: +961 1 890 425
 Fax: +961 1 890 424
 camie@chauvin-arnoux.com
 www.chauvin-arnoux.com

INLEC, supporting you to deliver a world class service, every day, in every sector ...



OUR COMMITMENT TO YOU

A wealth of knowledge and experience.

You can take advantage of expert advice to ensure you get the best, most appropriate and cost effective equipment for the job. We supply a wide variety of industries, so if there is another way to do the job or save you time and money we'll pass on the benefit of our experience for free.

Honest advice, just a phone call away.

If we don't have a particular item, rather than hiring you something that won't do the job, we would rather direct you to an alternative supplier. You will always be provided with full instructions and if you still need help, call our technical team on Nationwide Low Call 0333 6000 600. Our aim is to save you time, frustration and money.

Top quality equipment from major manufacturers.

With Inlec you'll get the most accurate, reliable and well-maintained equipment available. Prices are regularly reviewed to ensure you always enjoy the best value for money. We have made a significant investment in test equipment so we ensure that it's well packed to minimise damage and delay.

We really do listen to you.

You won't waste your time contacting Inlec. Every request for equipment is logged and carefully considered. Listening to our customers helps keep our product range up to date and relevant. If you are unhappy about any aspect of our service please let us know so we can put it right.

YOUR 5 WAY GUARANTEE

1 GUARANTEE SAME DAY DESPATCH

We understand why prompt delivery is important to you. So, if we confirm your order before 3pm, you are guaranteed same day despatch.

2 OUR PRICE GUARANTEE

Inlec guarantee you real value for money. Our price match policy is simple - if you can hire the same product for less elsewhere, we guarantee to match that price and reduce it by a further 10% of the difference - and still deliver our industry leading technical and customer support.

For full details check our price-match guarantee online

3 TOP QUALITY GUARANTEED

All equipment is thoroughly checked prior to dispatch to ensure you receive it in full, safe working order. Your shipment will be securely packed and include manufacturer's instructions, accessories or consumables and a valid calibration certificate where appropriate. In addition, Inlec offer a 24 hour replacement service if you decide the equipment is not suitable for your application*.

4 FRIENDLY, KNOWLEDGEABLE ADVICE GUARANTEED

Inlec are happy to provide you with free advice, from an unbeatable team of experienced, knowledgeable and friendly engineers and hire experts.

5 YOUR GUARANTEE OF THE BEST CUSTOMER SERVICE

Throughout your hire we will work hard to ensure you enjoy the very best in support and service from Inlec. We guarantee you won't find better service anywhere in the industry.

*subject to availability and conditions

Europe's leading Test Equipment Hire Specialist



LAB NO. 0535



Nationwide Low Call 0333 6000 600

Online: www.inlec.com

Inlec UK Ellerbeck Way, Stokesley Business Park, Stokesley N Yorkshire TS9 5JZ United Kingdom



CERT. NO. GB93/1773



Accredited Contractor