

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

## Measurement of all powers



Electric  
engine  
maintenance

Electrical  
network  
analysis

- Measurement of very weak and very strong currents
- Phase shift analysis
- Measurement of engine start-up current
- Simultaneous access to all measurement modes
- Excellent value for money

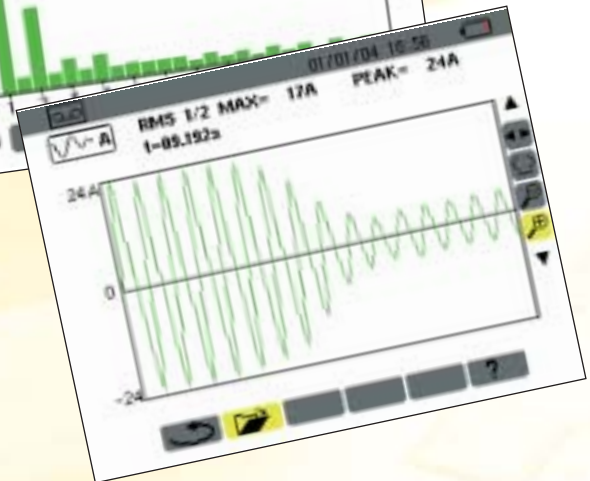
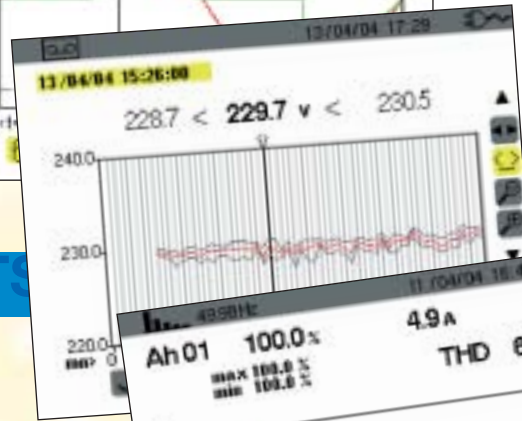
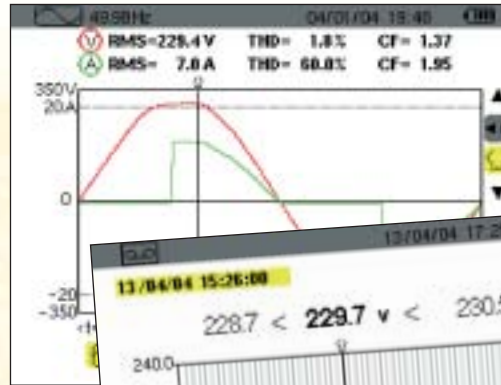




The **C.A 8230** is designed for tradesmen and installers working in the construction industry and maintenance departments. The broad range of measurements it provides also makes it ideal for technical and technological teaching.

**Extremely easy to use**, it is suitable for testing electrical installations, especially if they are equipped with systems based on power electronics. **Suitable for use on the ground**, it can also be used on a tabletop, thanks to its retractable support.

User-friendly, it has a large graphic screen and automatically recognises the type of sensor connected.



### MAIN MEASUREMENTS

#### ■ Voltage & current:

From measurement of the real effective instant display of AC+DC at the  $\frac{1}{2}$  period to peak values and overall harmonics rates, the instrument also provides instant display of the waveform. Measurement of short term Flicker is also available.

#### ■ Complete analysis of power and energy:

In single-phase and balanced three-phase, all necessary and useful measurements enable the user to simply obtain a complete analysis of power and energy.

#### ■ Harmonics up to order 50:

The C.A 8230 enables the various values to be measured up to order 50 RMS value, fundamental %, mini/maxi in single-phase only. Additional advantage: the expert mode enables direction of harmonics to be determined.

#### ■ Recording period up to several days:

All values measured by the instrument can be recorded over a period of up to several days. The Inrush mode allows us to analyse and display at engine start-up signal period.

#### ■ Personalised setting of alarms:

Alarms can be entirely set by the user and enable each event to be captured.

### DATAVIEWER SOFTWARE

FOR THE C.A 8230 & C.A 8220 (ALSO COMPATIBLE WITH THE QUALISTAR AND OTHER CHAUVIN ARNOUX PRODUCTS)

#### ■ Screenshots

**Dataviewer Software**, it greatly increases the instrument's potential in terms of its configuration, and recovery and processing of data on a PC.

- **Recording:** histogram or curve representations, average value of numerous parameters according to time.
- **Management & log of measurement campaigns**
- **Report printing**



# C.A 8220

## THE ENGINE MAINTENANCE AND POWER ANALYZER

Geared firmly towards electrical engineering and testing of rotating machines, the C.A 8220 is designed for maintenance and testing teams.

Equipped with a liquid crystal segment screen, compact and shockproof, its user interface ergonomics make it easy and pleasant to handle via intuitive use.

Just like the **C.A 8230**, the **C.A 8220** makes it possible to obtain an instant image of the main characteristics of a single-phase or a balanced three-phase network.

In addition, it measures all features necessary for testing rotating machines.

Accurate, thanks to a broad range of sensors, it covers measurements from several milliamps to several kilo amps.



■ **Rotation speed:** For predictive maintenance, it is necessary to regularly test rotation speed on rotating machines. **The C.A 8220, an all-in-one instrument, meets this requirement simply and effectively.**

■ **Temperature:** Nowadays rotating engines and machines are equipped with temperature probes that are easily accessible on a terminal board. **By simply connecting the C.A 8220 to this terminal board, it is possible to directly measure the engine's internal temperature.**

### PAT SOFTWARE

FOR THE C.A 8220 ONLY

The C.A 8220 comes with **PAT** (Power Analyzer Transfer) software, designed for processing measurements on a PC (display, analyses, etc). This software is available solely on our Website, where it can be downloaded free of charge.



# TECHNICAL FEATURES

	C.A 8230	C.A 8220
>> Voltage range	from 6 VRMS to 600 VRMS AC+DC $\pm(0.5\%+2\text{pts})$	
>> AC current range	from 5mA to 6500 A $\pm(0.5\%+1\text{pts})$	
>> DC current range	from 1 A to 1700 A $\pm(1\%+1\text{pts})$	
>> Mini, Maxi, Ave., Peak values (+ and -), CF	Yes	
>> Fundamental frequency	from 40 Hz to 70 Hz	
>> Screen	Colour 1/4 VGA LCD	Backlit 173-segment LCD
>> Single-phase and three-phase balanced	Yes	
>> W, VA, var powers, DF, THD, Cos $\phi$	Yes	
>> varh and VAh energy	Yes	—
>> Harmonics (IEC 1000-4-7)	Up to 50 <sup>th</sup> order	
>> Recordings	up to several days	—
>> Alarms	4096	—
>> Flicker PST (IEC 1000-4-15)	Yes	—
>> Engine rotation speed	—	from 6 RPM to 120 kRPM $\pm(0.5\%)$
>> Temperature (Pt100)	—	from - 200°C to 850°C $\pm(1\%+10\text{pts})$
>> Resistance (coiling)	—	from 0.0 $\Omega$ to 2000 $\Omega$ $\pm(0.5\%+1\Omega)$
>> Phase rotation	Yes, with display of phase order in three-phase	
>> Measurement storage	Yes	
>> Use		
• Ambient temperature	23°C $\pm 3\text{K}$	
• Moisture content (relative)	(45% ; 75%)	
>> Protection factor	IP54	
>> RS232 Port	Yes	
>> IEC 61010-1	600 V, Cat. III	
>> Power	Batteries, autonomy up to 40 hours	Batteries (6 x AA)
>> Weight	880 g (with accumulators)	840 g (with batteries)
>>Dimensions	211 x 108 x 60 mm	

## TO ORDER

- C.A 8230 analyzer only ..... P01.1606.30
- C.A 8230 analyzer with MN93A current sensor (5 mA to 120 A) ..... P01.1606.31
- C.A 8230 analyzer with flexible Ampflex 450 current sensor (6500A) ..... P01.1606.32
- C.A 8220 analyzer only ..... P01.1606.20
- C.A 8220 analyzer with MN93A current sensor (5 mA to 120 A) ..... P01.1606.21
- C.A 8220 analyzer with flexible Ampflex 450 current sensor (6500A) ..... P01.1606.22

## COMPOSITION

**P01.1606.30:** 1 C.A 8230 instrument supplied with 1 carrying case, 6 mounted 1.2 V accumulators, 1 red banana lead (straight-straight), 1 black banana lead (straight-straight), 2 x 4-mm test probes (1 red, 1 black), 2 alligator clamps (1 red, 1 black), 1 mains adaptor, 1 RS232/USB optical cable and Dataviewer® software pack

**P01.1606.20:** 1 C.A 8220 instrument supplied with 6 mounted AA batteries, 1 red banana lead (straight-straight), 1 black banana lead (straight-straight), 2 x 4-mm test probes (1 red, 1 black), 2 alligator clamps (1 red, 1 black), 1 RS232/USB optical cable

## ACCESSORIES:

- 4-mm red and black test probes ..... P01.1018.55
- Red and black alligator clamp ..... P01.1018.48
- 4-mm red and black banana/banana lead ..... P01.1018.48
- MN93A BK clamp ..... P01.2950.91
- MN93 BK clamp ..... P01.1204.25
- A 193 Ampflex, 450 mm ..... P01.1205.26
- A 193 Ampflex, 800 mm ..... P01.1205.31
- PAC93 BK clamp ..... P01.1200.79
- C193 BK clamp ..... P01.1203.23

### YOUR DISTRIBUTOR



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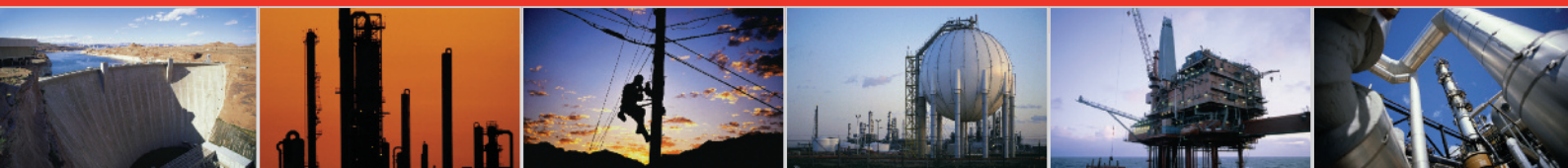
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## OUR COMMITMENT TO YOU

### 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



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