

**Ideal Instrument for Corrective  
Maintenance**

**Portable Load Manager  
ALM 31**

Followed IEC 61000-4-30 for accurate RMS measurements



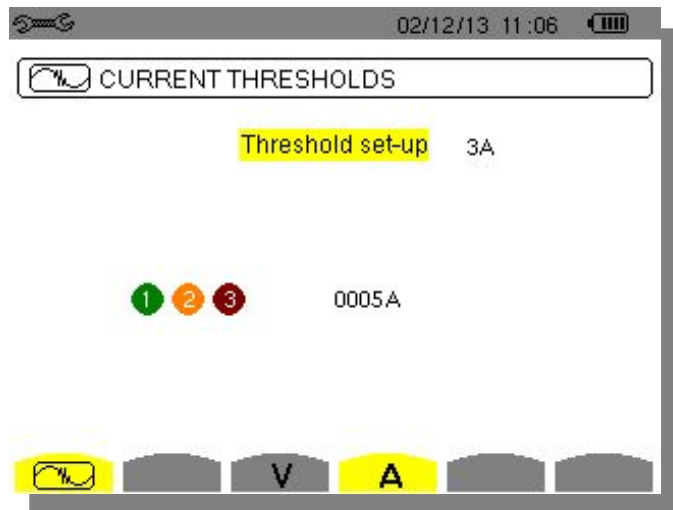
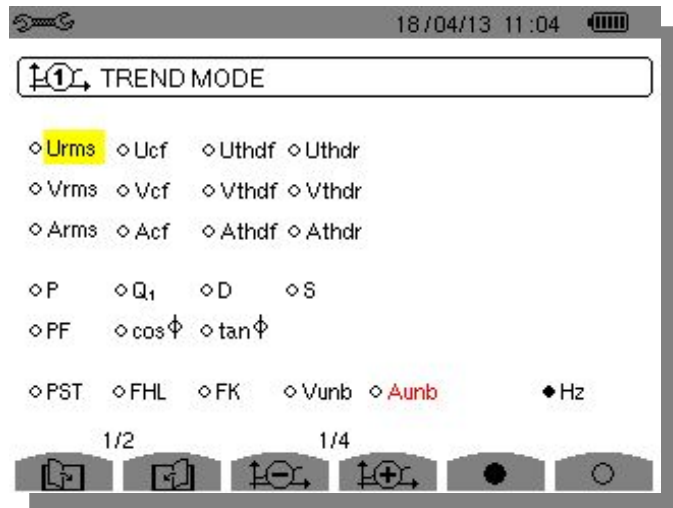
- Superior Display with advanced TFT technology
- 256 samples/cycle, 12.8 kHz frequency
- 2GB Memory to measure and record all parameters
- Direct keys to access all parameters
- CAT IV 600V, Highest Safety standards
- USB port for downloading

CAT IV  
600V

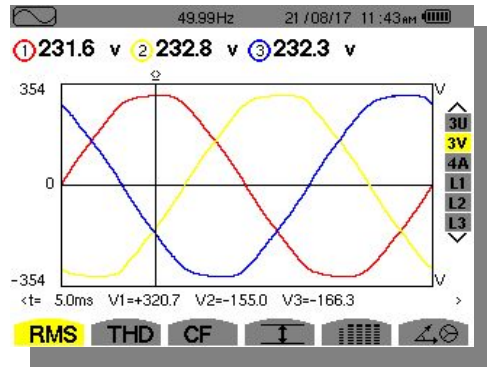
IP 53

IK 08

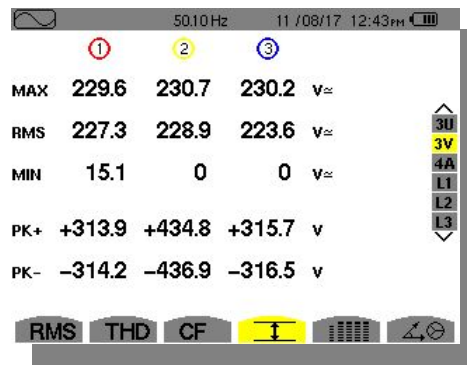
USB



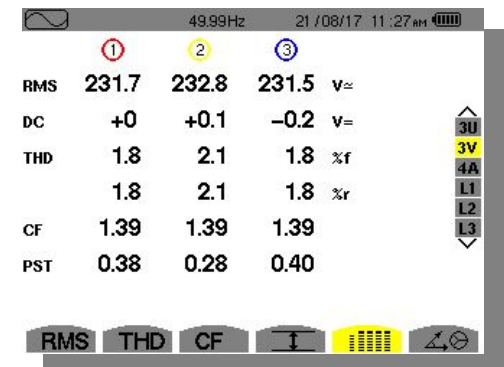
- Choice to select any parameter for recording
- Field programmable CT & PT ratio in instrument, suitable for HT secondary measurements
- External power adaptor **85-265V** for increased reliability
- High Electrical safety standards with CAT IV 600V, better protection IP53 /IK08
- Long Battery back-up
  - 13 hours in operation
  - 40 hours in logger mode



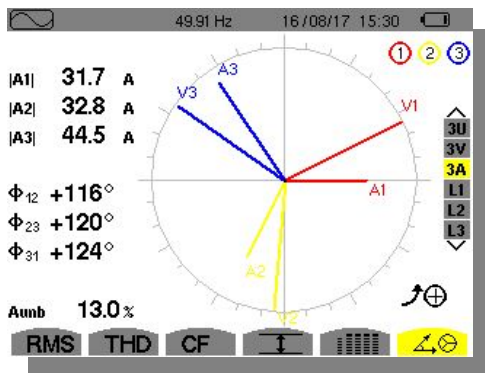
Voltage, Current, Fr, THDf, THDr, CF



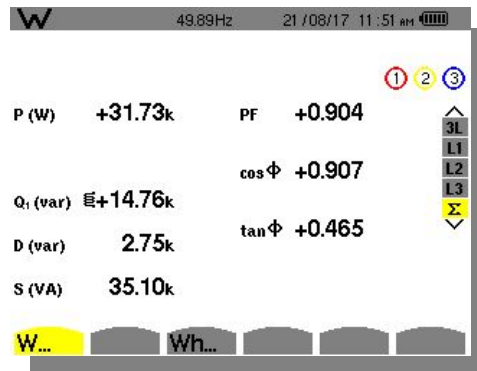
Voltage, Current Min/Max, Peak



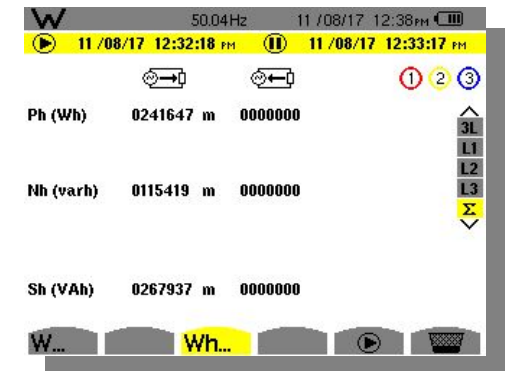
V & A DC Component, Distortion factor CF, Flicker Pst



Phasor Diagram, V&A Unbalance



DPF, PF, kW, kVA & kVAR



Energy Counter

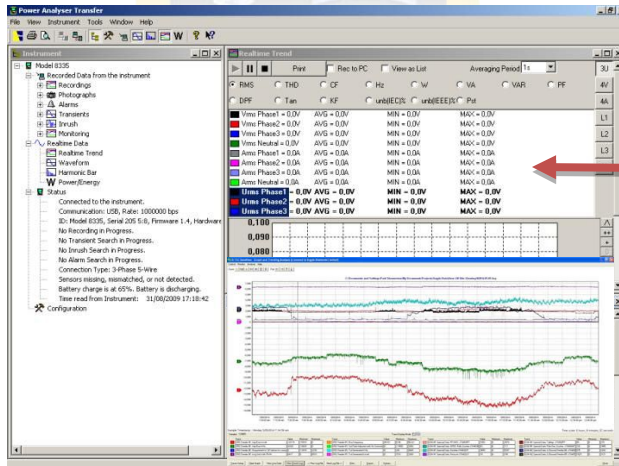
These features help you in your daily audits



All measurements are direct values for Immediate action like kVAR, K-Factor, FHL, Flicker & Harmonic measurements

All key functions can be reached with one touch, You don't require special training to operate the instrument

User can define start & Stop time to log the data and can select only the required parameters including Harmonics. Allows you to record few Hours to Days and 100 files can be stored



### Free License for Lifetime Dataview Software

A PQ analyser need a powerful software to analyse the recorded data and prepare user friendly & editable reports

- With One touch you can export complete data to Excel or PDF

- Default report template are available with standard formats , user can create own templates and export the reports

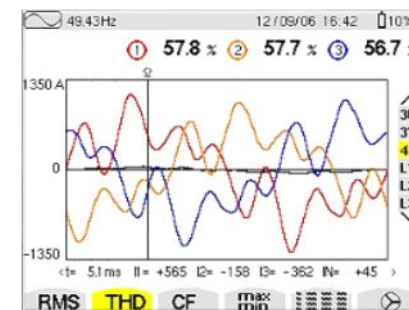
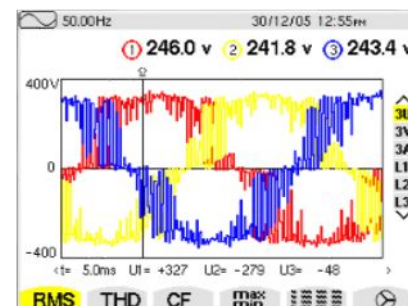


## Accurate on all load conditions

True RMS measurements with 12.8 kHz sampling frequency continuously on all Voltage & Current channels

### Benefits for you :

- Accurate on non-linear loads like VFDs, Rectifiers, UPS etc..
- **Accurate on low PF conditions (no load on motors, transformers) or on lead PF conditions (can measure kVAR & kW directly on Capacitor Banks)**
- Accurate on low current measurements
- Accurate on Dynamic load conditions like welding machine, high speed printing machine, packing machines etc.



## IEC 61000-4-30 followed For accurate RMS Measurement

- |                            |                               |
|----------------------------|-------------------------------|
| • Industrial frequency     | • Voltage & Current THD       |
| • Supply voltage amplitude | • Voltage & Current harmonics |
| • Supply voltage unbalance |                               |



## Technical Support & Training

- An adequate training will be provided with expert members and free Tele and Email support
- An experience technical team to support on your application and educate on new standard and methods
- Calibration check and Error adjustment facilities available with us no need o instruments abroad for calibration and repairs (where most of the equipment's are imported and have to send for repairs & Calibration to OEMS)

## In-house Calibration tools and Service centre





ALM 3x new series automatically recognizes the CTs when connected to the instrument. Independent current channels allows user to connect different models of CTs at the same time to measure different current ranges or range of currents.

## Select CTs as per your need

- 10 clamp choices for different needs
- 5mA to 6500A; 28mm ID to 450mm ID
- AC/DC clamps for DC load applications
- Special CT for measuring low DC current accurately
- Adapter for measuring secondary current of Panel CTs



## Measure up to 1000V Ph-N

Complies with CAT IV 600V, CAT III 1000V as per IEC 61010-1 standards

### Benefit for you:

Momentary high-voltage transients or spikes can travel through instruments at any time without warning. Motors, capacitors, lightning, and power conversion equipment, such as variable speed drives, are all possible sources of spikes.

Analysers designed for CAT IV standards provide users with higher degree of protection from high voltage transient spikes compared to CAT III, CAT II, or CAT I designs.

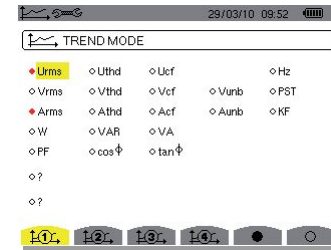
## Record what you want; save memory & time

Offers 4 user-configurable recording profiles to record different sets of parameters for different applications; no need to fill your memory with unwanted data

Set start and stop time for data logging; each record can be saved as a separate data file; 100 data files can be stored in the instrument

## Benefits for you:

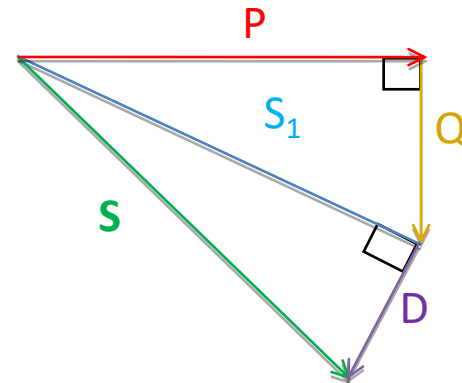
- Preconfigured profiles help save memory and time; you can setup and start recording in seconds.
- Record data only for desired duration using Start & Stop record feature saving memory space.
- Record different files with different names for easy identification.



Models	Parameters	Memory
ALM 31	All	4.95 Hours (Trend recording = 1 second)
	All	13 days (Trend recording = 1 Minute)
	All	61 days (Trend recording = 5 Minute)

Now it's possible to quantify the power generated by the harmonics. This power value is better known as Distorting Power (D) and it is linked to the distorting amperes. The unit is distorting Volt-Ampere (VAd); This **distortion** power has an immediate effect on the waveform and on the THD of the current.

*Power factor correction equipment will not be of any use because it acts only on the displacement power factor. Correcting reactive power generated by the harmonics will become more dangerous for power factor correction equipment. To reduce the current harmonics (and therefore the distorting amperes), you must install filtering equipment.*

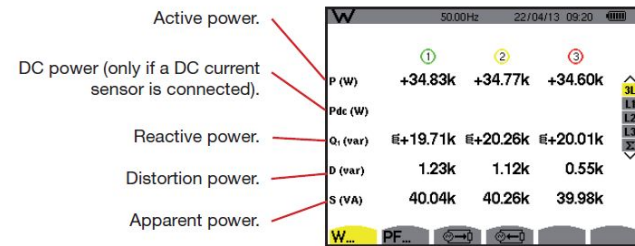


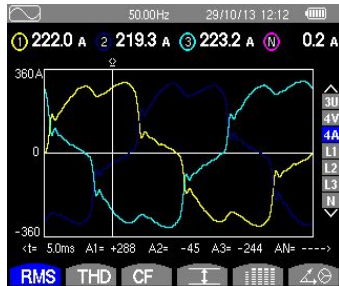
In mathematical terms, the relation is as follows:

$$S = \sqrt{P^2 + Q^2 + D^2} = \sqrt{S_1^2 + D^2} \text{ where } S_1^2 = P^2 + Q^2$$

Q = reactive power without harmonics

This can be represented as shown in the diagram opposite.





## Display Night Mode

### Advantages:

Inverted colors. Better comfort reading during dark light.



## Power Supply

90 Vac to 264 Vac  
External Adapter



## Security Slot



Theft-prevention device. It is used to secure the device with padlock. Ideal for engineers & auditors on the move.



## Velcro Cable Ties for CT Cables


- Reusable
- Long enough
- Easy to use

## Ingress Protection IP53

5 – Protection against solid objects	3 – Protection against liquids
 protected against dust – limited ingress permitted (no harmful deposit)	 protected against sprays up to 60° from the vertical

## Better Mechanical Protection IK08

impact 5 Joule (1.7 kg out of 29.5 cm)



# KRYKARD®

atandra  
*measure. protect. conserve*

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