

PRESENTATION

Designed for Energy Supply departments and Electrical Maintenance services in industrial and administrative buildings, the Qualistar C.A 8332 and C.A 8334 provide instantaneous images of a network's principal characteristics, which are enriched with calculated values and numerous processing functions.

Principal parameters measured:

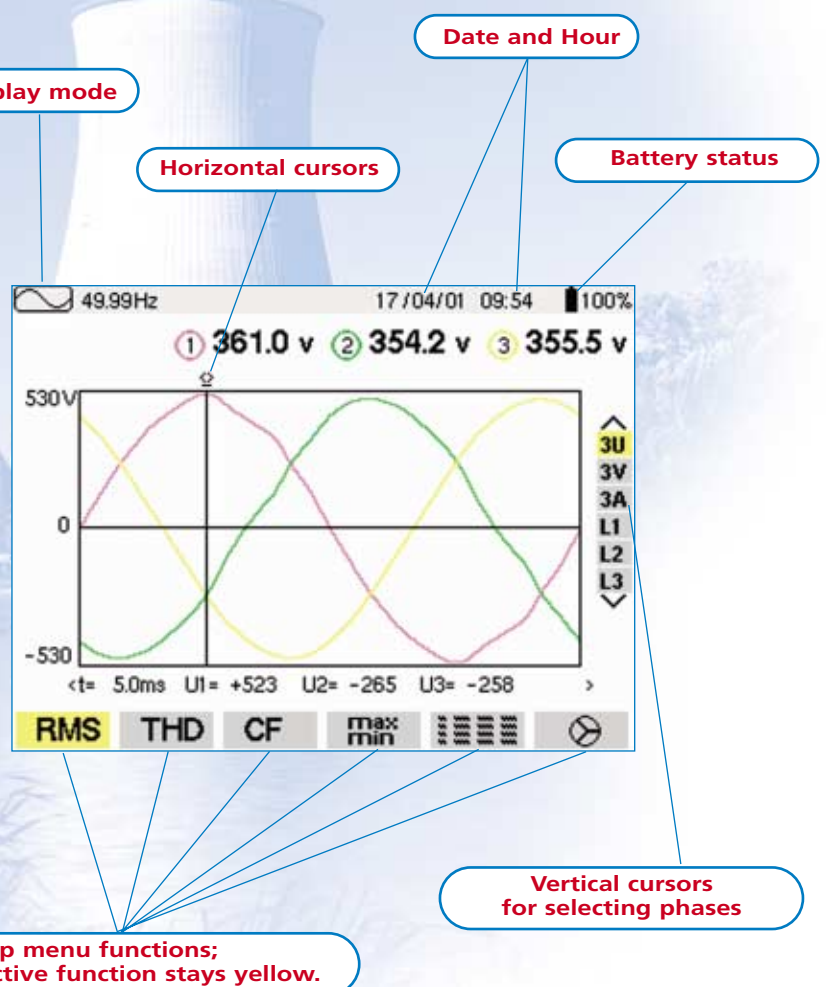
- TRMS AC+DC voltage: single voltage up to 480 V ; phase-phase voltage up to 600 V.
- TRMS AC+DC current up to 3000 A (according to sensors used).
- Peak voltage and current.
- Frequency from 10 to 70 Hz.
- Active, reactive and apparent power per phase and their aggregate.
- Active, reactive, acquired and transferred energy ; apparent energy.
- Harmonics for voltage, current, or power up to order 50.

Additional functions:

- Graphic data processing.
- Alarms, transients.
- Recording, dating and characteristics of disturbances (overvoltages, dips and cuts, etc.)
- Storage.
- Immediate printout of the screen on printer.
- Screen storage.
- Optical link communication.

Principal values computed:

- Neutral current.
- Crest factors for current and voltage.
- K factors for current (transformer application).
- Power factor, shift and tangent.
- Short-term flicker for voltage.
- Unbalance between phases for voltage and current.
- Total harmonic distortion.
- Average value of any computed value.



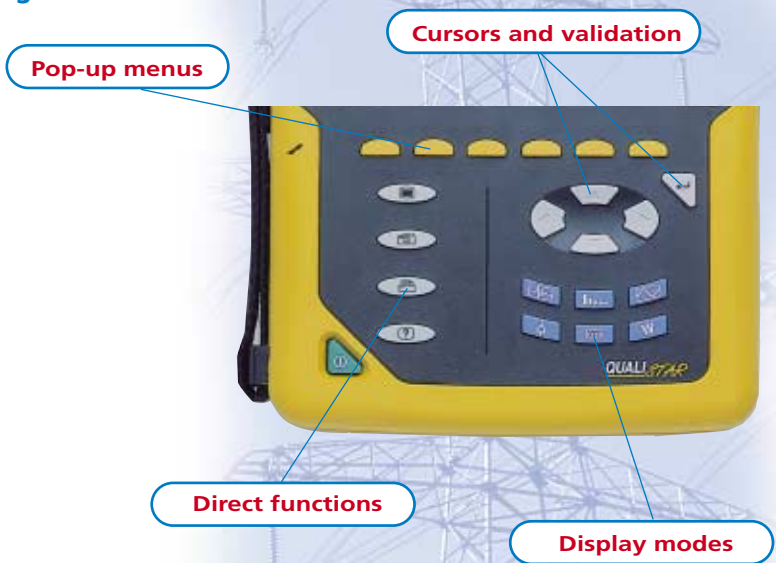
Regardless of the screen, the synergy between the display and the keyboard is very sophisticated.

FUNCTIONS

Along with its high-performance measurements, the Qualistar is ergonomic and offers a truly intuitive operating mode.

A keyboard divided into easily identifiable zones

The keys, which are clearly identifiable by their shapes, positioning and pictogram, make mastering the instrument's functions rapid and easy.



Very structured display modes for 3 distinct stages

"Observation" stage:

Waveform Mode

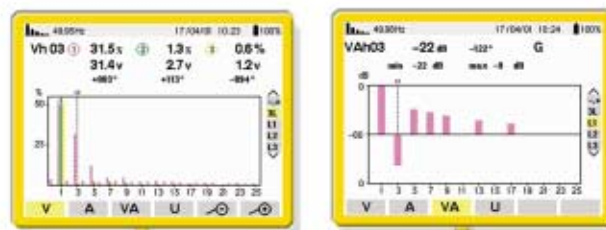
In this mode, three types of representations are possible: graphic, table, vectorial. Measures RMS in U and I. Measures PEAK, MIN, MAX, AVG, KF, Pst, CF, phase shift, unbalance.



"Diagnosis" stage:

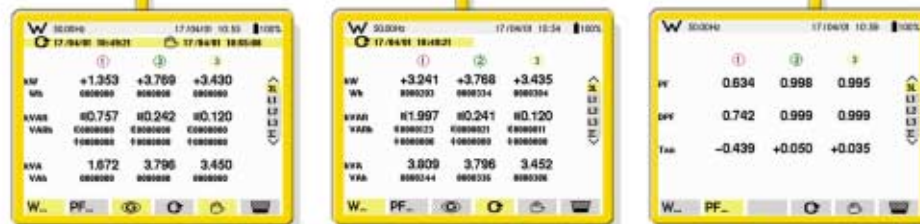
Harmonics Mode

Global THD and phase by phase in U, I, V, VA in %, and RMS value, phase shift of the harmonics. Only the C.A 8334 model offers the harmonics function in VA and the "expert mode". This mode provides an analysis of influence of harmonics on heating of the neutral or rotating machines.



Power / Energy Mode

This mode displays all of the values relative to the power and energy. The Start and Stop keys activate and deactivate the aggregate of energies. Measurements for: W, Var, VA, Wh, Warh, VAh, PF, DPF or cos φ and tan φ



"Monitoring" stage:

Alarms Mode

The alarms are defined during the instrument's configuration. The alarm mode displays all overruns which occur during the measurement period.



Automatic time and date recording of the alarm, the maximum corresponding value, and the duration of the occurrence.

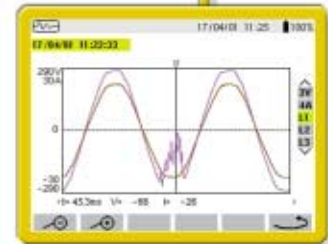
Recording Mode

All desired parameters are saved with their visual graphics during a recording. Note that a bargraph located at the top of the window gives the total recording period. Programmable recording period and storing rate.



Transient Mode

The transient mode captures occurrences on the voltage and current with triggers on thresholds. Representation over 4 periods of the captured occurrence at 256 counts / period, also available with zoom.



Direct function keys:

Configuration

The instrument's configuration is especially intuitive, so much that the graphic representations are privileged whenever possible: type of clamp, connection, color of phases, parameters to record...



Printing

Qualistar can be connected directly to a printer for immediate printing the screen



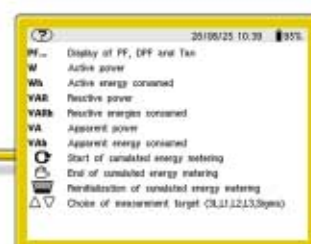
Screen Shot

Press this key to make a copy of the screen. Storing the viewed screen is automatic with date and time recording. Up to 12 screen recordings (C.A 8334).



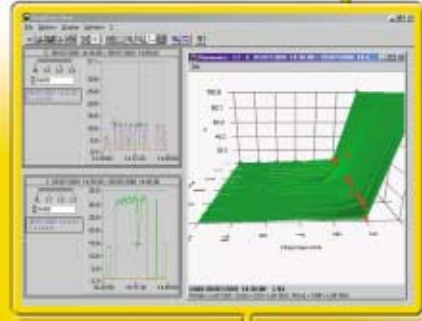
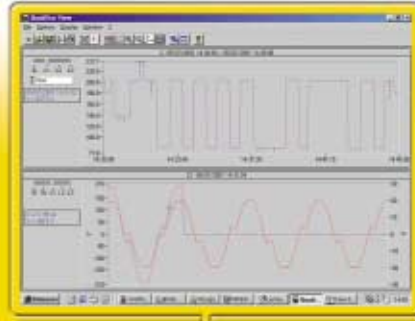
Help

If needed, the help key explains functions in relation to the viewed screen in simple terms.



OPERATING SOFTWARE

- Configuration of instrument via software possible: setup, recording and alarms modes.
- Processes recorded and alarm data.
- Graphic representation of data in Windows™ environment.
- Transfers screen printouts and transients in BMP format.
- 3D representation of harmonics.
- Processes data on spreadsheet (Excel).



Input characteristics

Voltages: phase - phase: 830 V TRMS
600 V TRMS
phase - neutral: 480 V TRMS

Currents: according to sensors
MN clamp: 2 A... 240 A
C clamp: 3 A... 1 200 A
ampFLEX 3 A... 3 000 A
PAC 1 A... 1 000 A AC
1 A... 1 400 A DC
Adapter unit casing for external CT

Functional characteristics

Functions	C.A 8332	C.A 8334
Display	color LCD 320 x 240	color LCD 320 x 240
Memory	2 Mb	4 Mb
Battery	17 Wh	35 Wh
Harmonics	Yes	Yes + expert mode
Recording	Yes (limited)	Yes
Alarms	Yes	Yes
Transients	No	Yes
Mains	AC+DC	AC+DC
Digital link	RS 232	RS 232

General characteristics

Power supply: Mains: 110 V and 230 V
NiMH (9.6 V) rechargeable battery

Autonomy: 10 hours

Temperature for use: 0°... 50°C

Storage temperature: - 40°... 70°C

Standards: EN IEC 61010, 600 V cat. III,
pollution level 2
Double insulation for inputs and outputs
in relation to the earth

Dimensions (l x H x D): 180 x 240 x 55

Weight: 1.5 kg with battery

Frequency range: 10 - 70 Hz

Voltage accuracy: ± 0.5 % + 0.5 V

Current: ± 0.5 % + 0.2 A

Power: ± 1 % + 20 pts

Power factor: ± 0.01

Frequency: ± 0.01 Hz

THD (total harmonic distortion): ± 1 % L ± 2 pts

Energy: ± 1 % L ± 20 pts

Sampling frequency: 12.8 kHz / channel at 50 Hz



With the around-the-neck holder, making measurements is easy: operating the instrument and reading the displays at the same time.

Power Quality Analyser :

C	A	8	3	3	2
C	A	8	3	3	4

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Instrument comes complete (as per grill) with:

- 1 QualistarView software
- 1 DB9F standard optical lead
- 4 x 3m leads fitted with banana plugs
- 4 crocodile clips
- 1 mains lead
- User's manual

VERSIONS

French F R
 International I N

CURRENT SENSORS IN A SHOULDER BAG

None X X
 Set of 3 C193 clamps (1000A- dia: 52 mm) C X
 Set of 3 Ampflex A193 (3000A-dia: 140 mm / length 450 mm) A 1
 Set of 3 Ampflex A193 (3000A-dia: 250 mm / length 800 mm) A 2
 Set of 3 MN93 clamps (240A- dia: 20 mm) M N
 Set of 3 PAC93 clamps (1400A- dia: 42 mm) P A

LANGUAGES FOR USER'S MANUALS

French (by default) F R
 English G B
 German A L
 Italian I T
 Spanish E S
 Portuguese P T

2P+E MAINS SUPPLY LEAD

French, German, or Spanish (by default) F
 English G
 Italian I
 Swiss C

Or:

P01160501:	WATT C.A 8332-F MN clamp	P01160503:	WATT C.A 8332-Int MN clamp
P01160601:	WATT C.A 8334-F MN clamp	P01160603:	WATT C.A 8334-Int MN clamp
P01160502:	WATT C.A 8332-F Ampflex	P01160504:	WATT C.A 8332-Int Ampflex
P01160602:	WATT C.A 8334-F Ampflex	P01160604:	WATT C.A 8334-Int Ampflex

ACCESSORIES:

P01120327:	SET OF 3 C193-F* CLAMPS	P01120321:	SET OF 3 C193-Int** CLAMPS
P01120422:	SET OF 3 MN 93-F* CLAMPS	P01120423:	SET OF 3MN 93-Int** CLAMPS
P01120535:	SET OF 3 AMPFLEX A193 450MM-F*	P01120523:	SET OF 3 AMPFLEX A193 450MM-Int**
P01120536:	SET OF 3 AMPFLEX A193 800MM-F*	P01120524:	SET OF 3 AMPFLEX A193 800MM-Int**
P01120076:	SET OF 3 PAC 93-F* CLAMPS	P01120077:	SET OF 3 PAC 93-Int** CLAMPS
P01101959:	5A CA833X-F* ADAPTER UNIT	P01101959A:	5A CA833X-Int** ADAPTER UNIT
P01298051:	SHOULDER BAG FOR CABLE N°6	P01298055:	SHOULDER BAG FOR INSTRUMENT N°21

* F: red, green, yellow, blue ** Int.: red, blue, black, white



YOUR DISTRIBUTOR

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906 211 032 - Ed. 1 - 10/2001 - Characteristics subject to modifications according to technological developments.

QUALISTAR

Display your network
analysis... all in picture format!

C.A 8332
C.A 8334

**Three Phase
Power Quality
Analysers**

OBSERVE, DIAGNOSE, MONITOR...



Site ALSTOM POWER Service - Massy (France)

- Exploitable measurements in a glance
- Structured use for accurate and effective operations
- Implicit connections (easily accessed keys)
- An instrument "built for the field"
(straps, around-the-neck holder for readings)

 **CHAUVIN
ARNOUX**