CHAUVIN® ARNOUX
CHAUVIN ARNOUX GROUP

C.A 8332
C.A 8334

Three Phase Power Quality Analysers

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

OBSERVE, DIAGNOSE, MONITOR...

Site ALSTOM POWER Service - Massy (France)

- Ready-to-use measurements in a glance
- Structured use for accurate and effective operations
- Very simple connections; easily accessed keys
- An instrument "built for the field" (straps, around-the-neck holder)
- Measurements made in compliance with EN 50160

PRESENTATION

Designed for Electrical Energy departments and Maintenance services in industrial and administrative buildings, the Qualistar C.A 8332 and C.A 8334 give an instantaneous image of the main characteristics of the quality of your electrical network.
These instruments also provide numerous calculated values and processing functions in compliance with standards in use (EN 50160, IEC 61000-4-15, IEC 61000-4-30, IEC 61000-4-7).

Principal parameters measured:

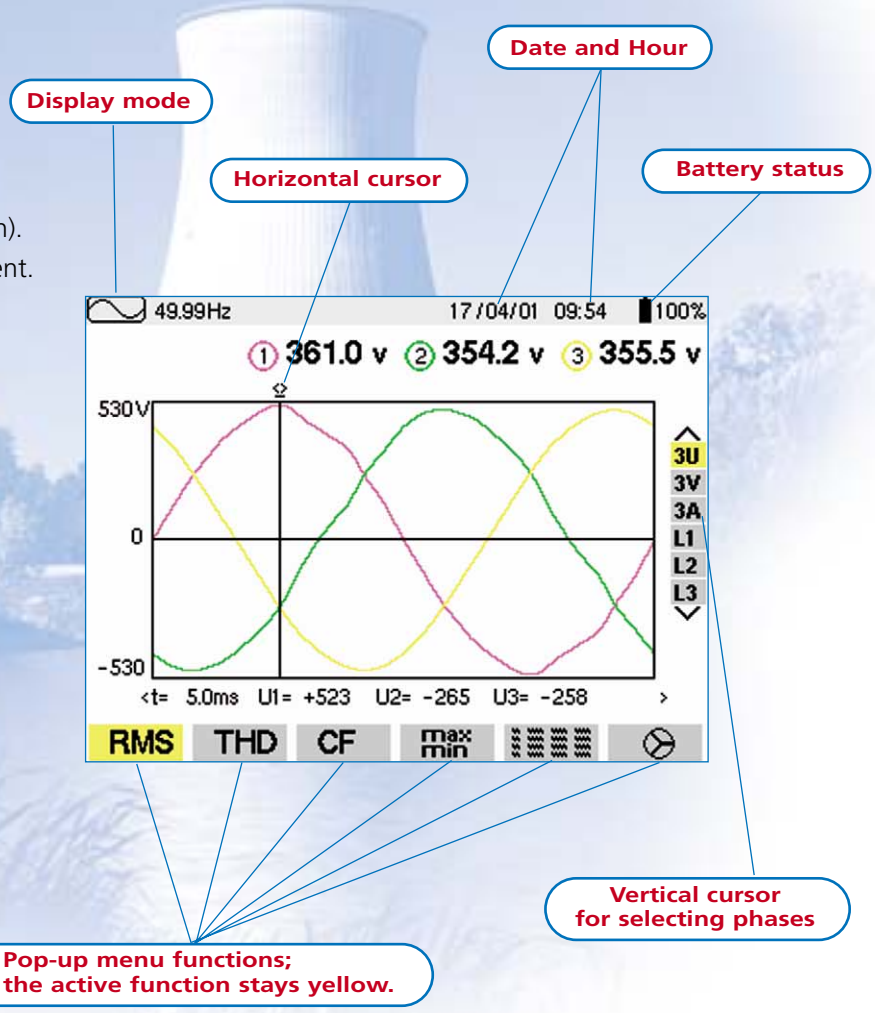
- TRMS AC+DC voltage: single voltage up to 480 V ; phase-phase voltage up to 830 V.
- TRMS AC, AC+DC current up to 6500 A (according to sensors used).
- Peak voltage and current.
- Frequency from 40 to 70 Hz.
- Active, reactive and apparent power per phase and their aggregate.
- Active, reactive, consumed and produced energy.
- Harmonics for voltage, current, or power up to the 50th order.

Principal values computed:

- Neutral current.
- Crest factors for current and voltage.
- K factors for current (transformer application).
- Power factor, displacement factor and tangent.
- Short-term voltage flicker.
- Voltage and current unbalance.
- Total harmonic distortion.
- Average, min and max values of any computed value.

Additional functions:

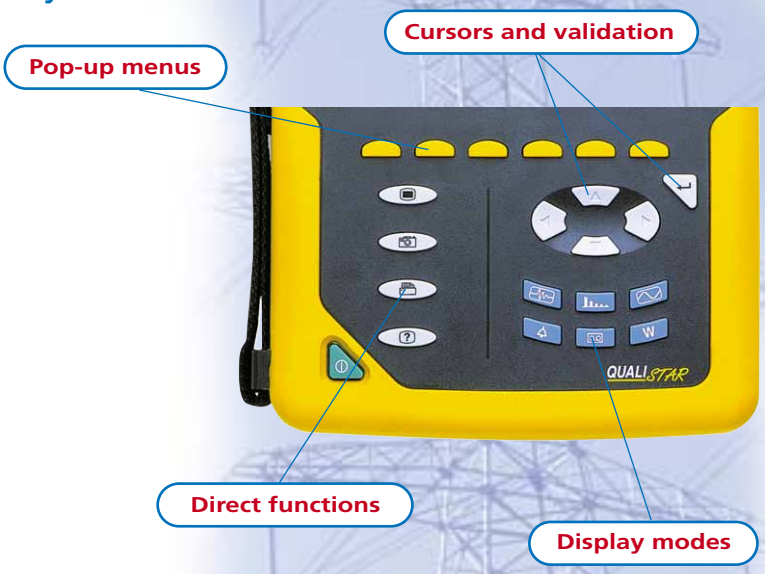
- Graphic data processing.
- Alarms, transients.
- Recording, dating and characteristics of disturbances (swells, dips and interruptions, etc.)
- Data storage.
- Immediate screen printout to printer.
- Screen storage.
- Optical link communication.



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

FUNCTIONS

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



A keyboard divided into easily identifiable zones

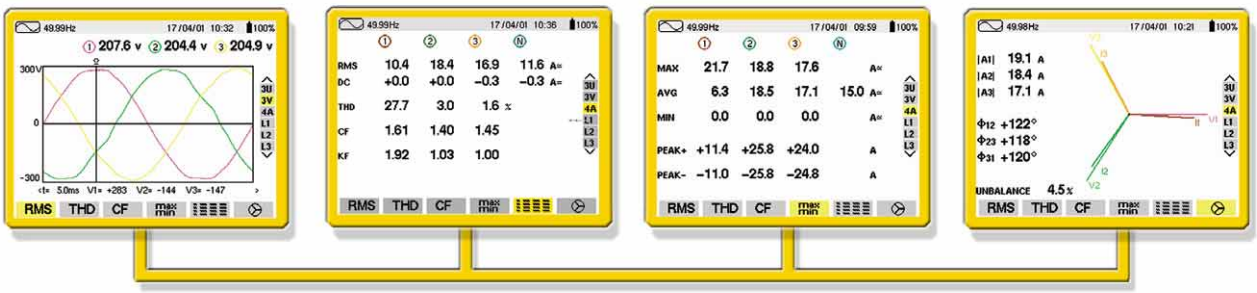
The keys, which are clearly identifiable by their shapes, positioning and pictogram, make mastering the instrument's functions rapid and easy.

Very structured display modes for 3 distinct stages

"Observation" stage:

Waveform Mode

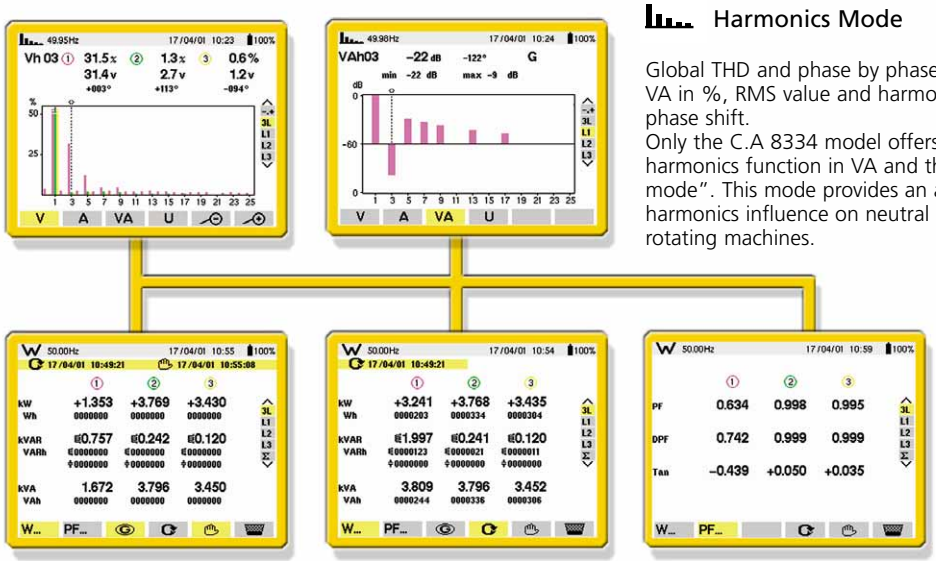
In this mode, three types of representations are possible: graphic, table, vectoral.
RMS measurements in U and I. PEAK, MIN, MAX, AVG, KF, Pst, CF, phase shift, unbalance measurements…



"Diagnosis" stage:

Harmonics Mode

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

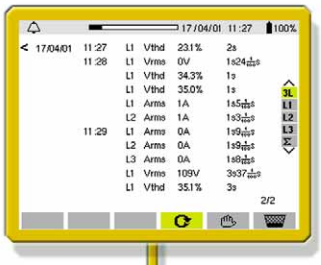
- W, Var, VA
- Wh, Warh, VAh
- PF, DPF or cos φ and tan φ

"Monitoring" stage:

Alarms Mode

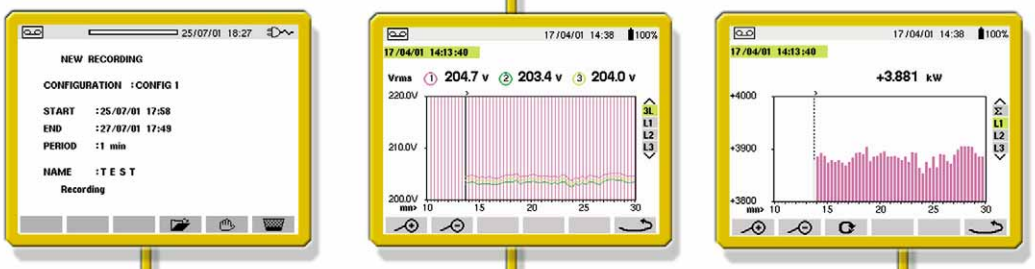
The alarms are defined during the instrument's configuration. The alarm mode displays all threshold events which occur during the measurement period.

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



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.



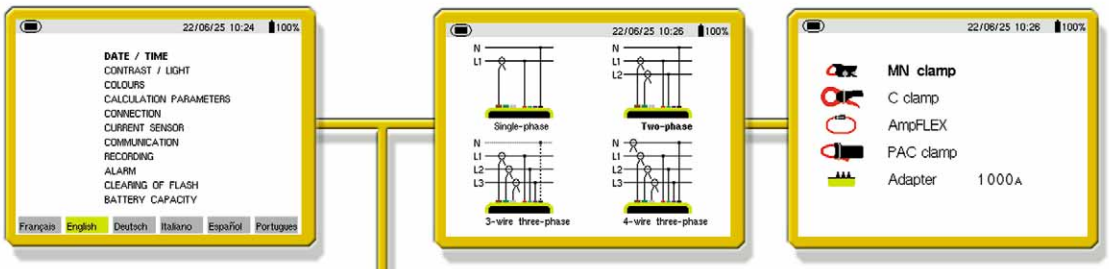
Transient Mode

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

Direct function keys:

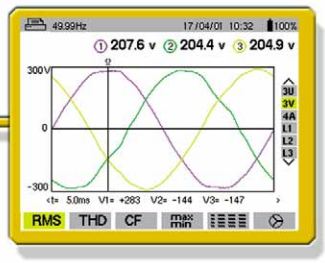
Configuration

The simplicity of the instrument's set-up is enhanced by the use of graphic representations: type of clamp, connection, color of phases, parameters to record…



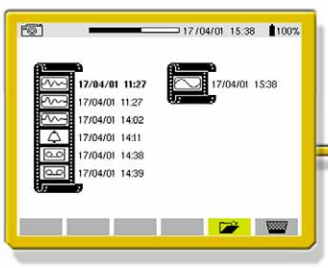
Printing

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



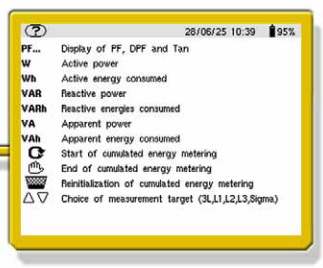
Screen Shot

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

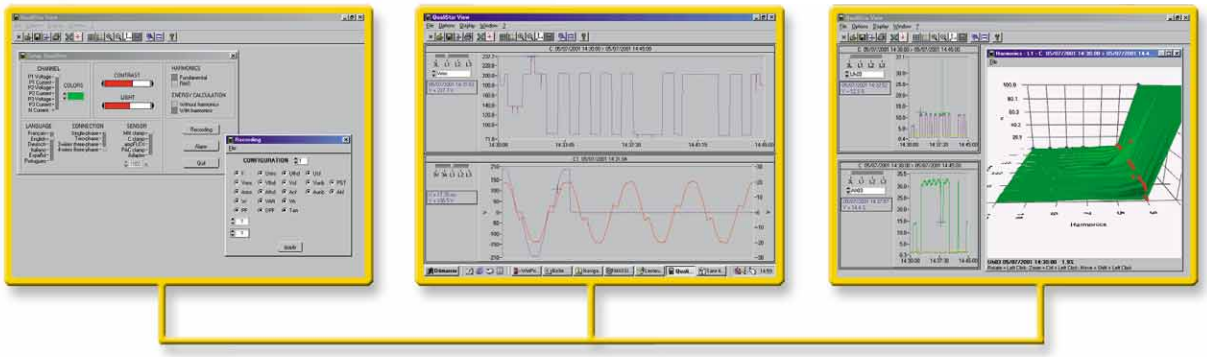
If needed, the help key explains functions in relation to the viewed screen in simple terms.



Operating Softwares

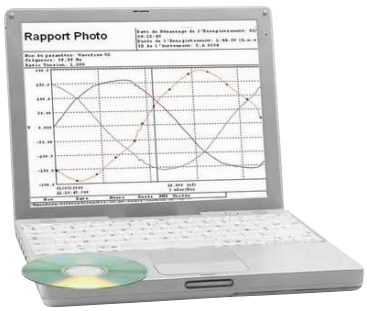
Qualistar VIEW

- Configuring instrument via software: setup, recording and alarms modes.
- Recorded and alarm data processing.
- Graphic representation of data in Windows™ environment.
- Data analysis in compliance with EN 50160 standard.
- Screen printout and transient transfers in BMP format.
- 3D representation of harmonics.
- Data to spreadsheet transfer (Excel).



DATA VIEWER Pro

- Complete instrument configuration
- Measured values and waveforms displayed in real-time
- Automatic qualitative measurement analysis
- Selective parameter display
- Pre-defined measurement reports (EN 50160) or customized models



Characteristics

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 °C ... +70 °C
Standards:	EN IEC 61010, 600 V cat. III, pollution 2 Double insulation for inputs and outputs
Dimensions (L x W x H):	180 x 55 x 240
Weight:	1.5 kg with battery
Frequency range:	40 - 70 Hz
Accuracy:	Voltage/Current: ± 0.5 % Power: ± 1 %
Power factor:	± 0.01
Frequency:	± 0.01 Hz
THD (total harmonic distortion):	± 1 % L ± 2 pts
Energy:	± 1 % L
Sampling frequency:	12.8 kHz / channel at 50 Hz

Input characteristics

Voltages:	phase-phase:	830 V TRMS
	phase-neutral:	480 V TRMS
Currents:	according to sensors	
	MN clamp:	(bi-range) 0.1...100 A ; 0.005...5 A for CT
	C clamp:	3 A... 1 200 A
	AmpFLEX:	10 A... 6 500 A
	PAC:	10 A... 1 000 A AC ; 10 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 Mbytes	4 Mbytes
Battery	1800 mAh	3800 mAh
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

TO ORDER

Power Quality Analyser:

Instrument comes complete (as per grid) 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

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

VERSIONS (terminals colors)

Model 1: green, yellow, red, blue	F	R
Model 2: black, red, blue, white	I	N

CURRENT SENSORS IN A SHOULDER BAG

None	X	X
Set of 3 C193 clamps (1000 A- dia: 52 mm)	C	X
Set of 3 Ampflex A193 (6500 A-dia: 140 mm / length 450 mm)	A	1
Set of 3 Ampflex A193 (6500 A-dia: 250 mm / length 800 mm)	A	2
Set of 3 MN93 clamps (100 A or 5 A- dia: 20 mm)	M	N
Set of 3 PAC93 clamps (1400 A- dia: 42 mm)	P	A

USER'S MANUAL LANGUAGES

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

2P MAINS SUPPLY LEAD

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

Or:

P01.1605.01B: WATT C.A 8332-F MN 93A clamp
P01.1606.01B: WATT C.A 8334-F MN 93A clamp
P01.1605.02A: WATT C.A 8332-F AmpFLEX (450 mm)
P01.1606.02A: WATT C.A 8334-F AmpFLEX (450 mm)

P01.1605.03B: WATT C.A 8332-Int MN 93A clamp
P01.1606.03B: WATT C.A 8334-Int MN 93A clamp
P01.1605.04A: WATT C.A 8332-Int AmpFLEX (450 mm)
P01.1606.04A: WATT C.A 8334-Int AmpFLEX (450 mm)

ACCESSORIES:

P01.1203.27: Set of 3 C193-F* clamps
P01.1203.21: Set of 3 C193-Int** clamps
P01.1204.22: Set of 3 MN 93-F* clamps
P01.1204.23: Set of 3 MN 93-Int** clamps
P01.1204.31: Set of 3 MN 93A-F* clamps
P01.1204.32: Set of 3 MN 93A-Int** clamps
P01.1205.35: Set of 3 AmpFLEX A193 450 mm-F*
P01.1205.23: Set of 3 AmpFLEX A193 450 mm-Int**
P01.1205.36: Set of 3 AmpFLEX A193 800 mm-F*
P01.1205.24: Set of 3 AmpFLEX A193 800 mm-Int**
P01.1200.76: Set of 3 PAC 93-F* clamps
P01.1200.77: Set of 3 PAC 93-Int** clamps

P01.1019.59: 5A CA833X-F* adapter unit
P01.1019.59A: 5A CA833X-Int** adapter unit
P01.2980.51: Shoulder bag for cable N°6
P01.2980.55: Shoulder bag for instrument N°21
P01.2980.62: Field hard case

* *F = French version: User's manual in French – L1 / green, L2 / yellow, L3 / red, N / blue*
** *Int. = International version: User's manual in English – L1 / black, L2 / red, L3 / blue, N / white*

With the around-the-neck holder (n° 21), making measurements is easy: operating the instrument and reading the displays at the same time.

YOUR DISTRIBUTOR

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906 211 032 - Ed. 06 - VS 10/2004 - Characteristics subject to modifications according to technological developments.