

# PQA820

Three-Phase Power Quality Analyzer





# Power analysis and energy saving evolve. In one finger.



383 parameters recorded simultaneously



IP65  
Suitable to any environment



Self-powered



Wi-Fi and USB



HTanalysis App for iOS™ and Android™



Share. Any style, place and time\*



Multimedia notes



100% "Made in Italy" technology and quality

- › **Turn your smartphone or tablet into the most advanced power and energy consumption analyzer in the world.**
- › **3 system types:** Single-phase, 3-wire Three-phase, 4-wire Three-phase.
- › **Easy to set up** directly **from Smartphone or Tablet.**
- › **Technology and straightforwardness.** Immediate display of all recordings and simple analysis thanks to rapid gestures and detailed zoom on all quantities.

- › **Real Time.** Instant display of all wave forms, harmonics, vector diagrams and summary function for a prompt reading of the most important parameters.
- › **Energy saving.** Discover absorption capacity of all your equipment with one click and save energy.
- › **383 parameters which can be displayed simultaneously.**
- › **Jump function.** Relation between time and frequency domains or between power and energy consumed available instantly.

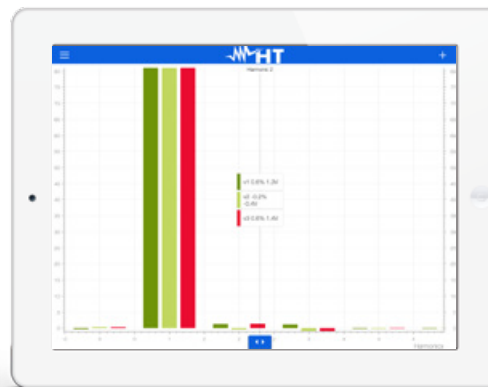
\* Using HTanalysis App for iOS™ or Android™ on Tablet or Smartphone. The App can be downloaded for free on AppStore™ or Playstore™

## Live. Real time analysis.

Using Wi-Fi connection you can display wave forms, vector diagrams, harmonics and all electrical parameters for each phase on your tablet/smartphone/PC.



Voltage and current wave forms



Current and voltage harmonics



Voltage and current vector diagram



## Zoom, Zoom, Zoom! Enlarge, jump, analyze. Two fingers needed.

PQA820 helps to dispel the myth that recording analysis is quite complex.

**App HTanalysis** makes it simple and clear.

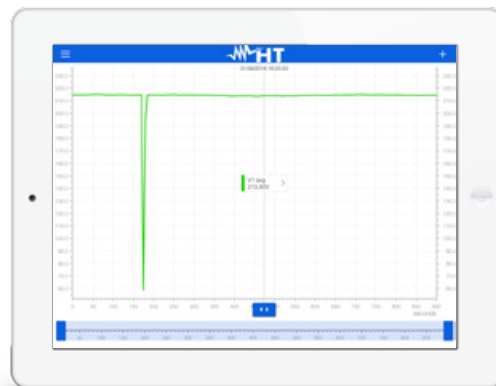
Using **ZOOM Functions** you can thoroughly display all the recorded quantities. **JUMP Function** permits to display harmonics in any recording step just by clicking on the quantity.

HTanalysis App can be downloaded for free on AppStore™ or Playstore™

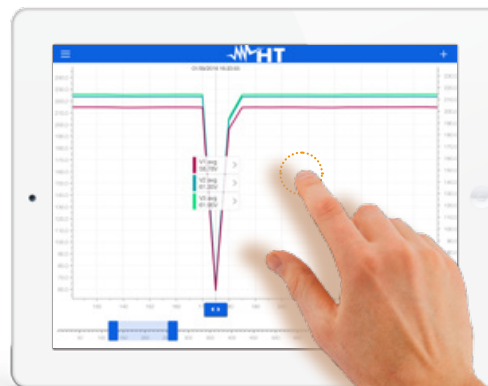
## Unstoppable.

**UNLIMITED** battery life.

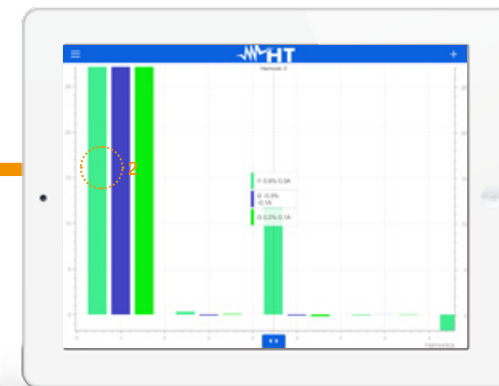
PQA820 gets self-powered during measurement recordings. This feature eliminates all problems related to limited life of standard batteries so **avoiding employment of external power supplies.**



**Zoom** on voltage and current drop.



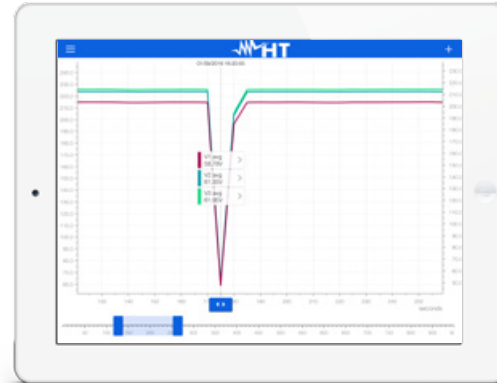
**Jump Function**  
1. Click on arrow close to the value under test.



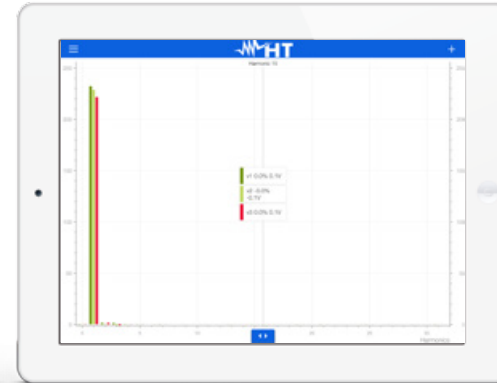
**Jump Function**  
2. Go to real time harmonic values.

## We see everything.

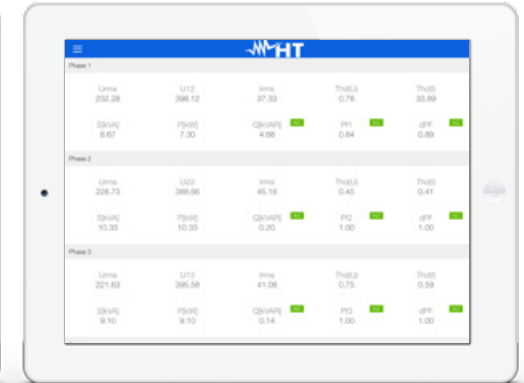
PQA820 is capable of recording **383 parameters simultaneously** on **THREE-PHASE** and **SINGLE-PHASE 3 or 4 Wire** systems. Thanks to softwares TopView and HTAnalysis (App for tablet and smartphone) you can display the tracking of all the recorded quantities, which can be selected from menu such as: voltages, currents, frequencies and powers, THD%, harmonics up to 49<sup>th</sup>, cosphi and voltage breaks. Trouble-shooting and pre-emptive service have never been achieved so easily and immediately.



Tracking of the main quantities.



Harmonics up to 49<sup>th</sup>.



All phases values in real time

## IP65. Rain doesn't scare us.

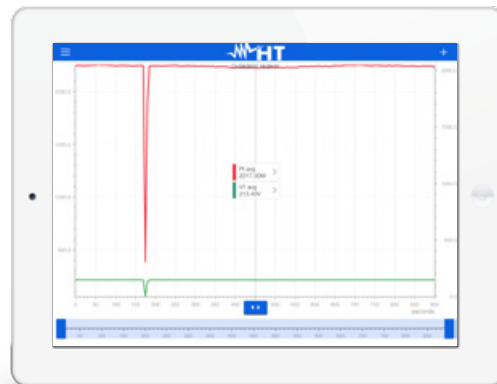
PQA820 is not afraid of the weather. Thanks to its heavy-duty and waterproof case the instrument is well protected and can be used in any environment.



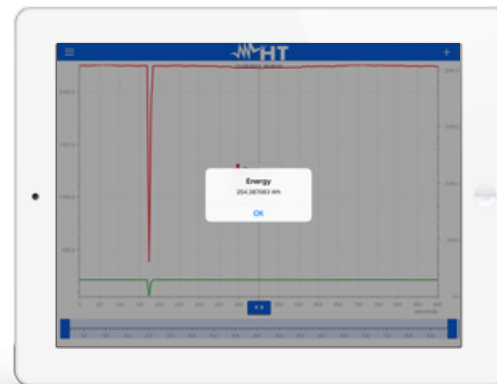
IP65 - Waterproof and resistant to extreme weather conditions.

## We work, you save up.

PQA820 is capable of recording all active, reactive and apparent powers over a long period, comparing them with cosphi, THD%, harmonics and power factor. Reduction of energy dissipation will be possible thanks to the HTAnalysis App.



Tracking of powers.



Jump function to check how much energy was consumed.



All quantities selectable on the right panel

## Functions

- DC/AC TRMS voltage (4 inputs)
- DC/AC TRMS current (4 inputs)
- DC and AC active, reactive, apparent power
- Active, reactive, apparent energy
- Power factor and cosPhi
- Analysis of voltage/current harmonic up to 49th order
- Voltage anomalies (sag, swell) with 10 ms resolution
- Voltage unbalance
- LED indication of phase sequence
- Frequency
- Parameter data table, graphs, harmonic histograms, voltage and current phasors with PC or iPad/iPhone and Android device connection
- Max 383 parameters simultaneously selectable
- Recording with integration period ranging between 5s and 60 min

## Electrical Specifications

### AC TRMS Voltage

Measuring range: 10.0V ÷ 265.0V (L-N)  
50.0 ÷ 460.0V (L-L)  
Basic accuracy: ±(0.5% reading + 0.2V)  
Frequency: 42.5Hz ÷ 69.0Hz

### Voltage anomalies (sags, swells)

Measuring range: 15.0V ÷ 265.0V (L-N)  
Basic accuracy: ±(1.0% reading + 2 digits)  
Time resolution: 10ms @ 50Hz  
Time accuracy: ±1/2 period

### AC/DC TRMS Current – Standard transducer (STD)

Transduced voltage range: 5.0mV ÷ 9999mV  
Resolution: 0.1 mV  
Basic accuracy: ±(0.5% reading)  
Frequency: 42.5Hz ÷ 69.0Hz

### DC and AC Active, Reactive, Apparent power

Measuring range: 0.000 ÷ 9999 kW/kVAR/kVA  
Resolution: 0.001 kW/kVAR/kVA  
Basic accuracy: ±(0.7% reading)

### Active, Reactive energy

Measuring range: 0.000 ÷ 9999 kW/kVAR/kVA  
Resolution: 0.001 kW/kVAR/kVA  
Basic accuracy: ±(0.7% reading)

### Power factor (Cosphi)

Measuring range: 0.20 ÷ 1.00  
Resolution: 0.01  
Basic accuracy: 0.6° ÷ 1.0°

### Voltage/Current harmonics

Range: DC ÷ 49th order  
Resolution: 0.1V / 0.1A  
Basic accuracy: ±(5.0% reading + 2 digits) for DC ÷ 25th order  
Frequency: 42.5Hz ÷ 69.0Hz

## General Specifications

### Simultaneously recorded parameters

- Line to Neutral and Line to Line voltages, DC voltage
- Voltage anomalies (sags, swells)
- Line current, Neutral current, DC current
- Voltage/Current harmonics
- Phase and total Active, Reactive, Apparent power
- Phase and total power factor and cosphi
- Phase and total Active energy (class 2 EN61036)
- Phase and total Reactive energy (class 3 IEC1268)
- Maximum number of selectable parameters: 383
- Maximum number of voltage anomalies: 65530
- Integration period: 5, 10, 30s, 1, 2, 5, 10, 15, 60 min
- Recording duration: > 30 days (IP = 10 min)
- Power supply: rechargeable Li-ION battery
- External power supply: 100 ÷ 415V, 50/60 Hz
- PC interface: USB and WiFi
- Dimensions (L x D x H): 245 x 210 x 110mm 9.6 x 8.3 x 4.3in
- Weight (including batteries): 1.5 kg / 3.3lb
- Safety: IEC/EN61010-1, double insulation
- Pollution degree: 2
- Mechanical protection: IP65
- Measuring category: CAT IV 300V, max 415V among inputs
- Reference standards: EN50160
- Working temperature: 0° ÷ 40°C / 32° ÷ 104°F
- Working humidity: <80%RH
- Storage temperature: -10° ÷ 60°C / 14° ÷ 140°F
- Storage humidity: <80%RH

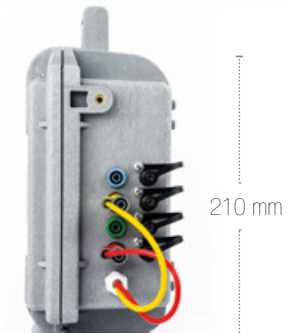


245 mm



210 mm

110 mm



210 mm

## Standard accessories

- **KITMPPACW** Set of 4 measuring cables
- **KITMPPACC** Set of 4 alligator clips
- **606-IECN** Adapters with magnetic ends, 4 pcs.
- **HTFLEX33L** 0÷100A, 0÷1000A AC flexible clamp, 174mm, 4 pcs.
- **TOPVIEW2007** PC Windows software + USB cable

- **BORSA2051** Carrying case
- **Quick user's guide**
- **User's manual** on CD-ROM
- **Calibration certificate** ISO9000



KITMPPACW



KITMPPACC



606-IECN (set da 4)



HTFLEX33L (set da 4)

## Optional accessories

- **HP30C2** Clamp transducer AC 200-2000A/1V, diameter 70mm
- **HT96U** Clamp transducer AC 1-100-1000A/1V, diameter 54mm
- **HT98U** Clamp transducer DC 1000A/1V, diameter 50mm
- **HP30D1** Clamp transducer DC 1000A/1V, diameter 83mm
- **HT903** Box 3 x 1-5A/1V for connection to external CTs
- **ACONBIN** Adapter for clamp transducer



HP30C2



HP30D1



HT96U



HT98U



ACONBIN

## Crosstable

Functions	PQA 820	PQA 819
AC TRMS voltage in single phase/trthree phase plants	•	•
AC TRMS current in single phase/trthree phase plants	•	•
Power/Energy Active, Reactive and Apparent	•	•
Cosphi and Power Factor	•	•
DC voltage, current, power	•	•
Neutral current	•	
Voltage Dips and Swells on 10ms	•	
Voltage unbalance (NEG%, ZERO%)	•	
Measurements by external CTs and VTs	•	•
Voltage/current waveforms	• (On mobile device)	• (On mobile device)
Voltage/current harmonic histograms and THD% calculation	• (On mobile device)	• (On mobile device)
Voltage/current vectorial diagram	• (On mobile device)	• (On mobile device)
Recording analysis with selectable integration period IP	• (5s-60m)	• (5s-60m)
Max number of selectable parameters for simultaneous recording	383 (Fixed)	44 (Fixed)
Voltage/current harmonic analysis up to 49 <sup>th</sup> order	•	• (Real time)
THD% voltage/current recording	•	•
Voltage anomalies (sags, swells) from 10ms (@50Hz)	•	
Recording duration indication	• (On mobile device)	• (On mobile device)
Battery	Li-ON	Li-ON
Auto Power Off	•	•
Durata indicativa memoria (in giorni@PI=15min@max num parametri)	30 (PI=10min)	230 (PI=15min)
PC interface	USB/WiFi	USB/WiFi
Contextual help at display on each screen	• (On mobile device)	• (On mobile device)
Saving of recordings and snapshots	• (On mobile device)	• (On mobile device)
Dimensions (LxWxH) mm	255x200x115	255x200x115
Weight (batteries included)	0,7 Kg	0,7 Kg
Safety in compliance with IEC/EN61010-1	•	•

# Artificial Intelligence.

Thanks to the creation of App HTanalysis it is possible to interface HT last generation instruments with tablets and smartphones. **HTanalysis** is a professional software allowing to display and look at measurements or recordings on your devices then sharing them on HTCloud database.

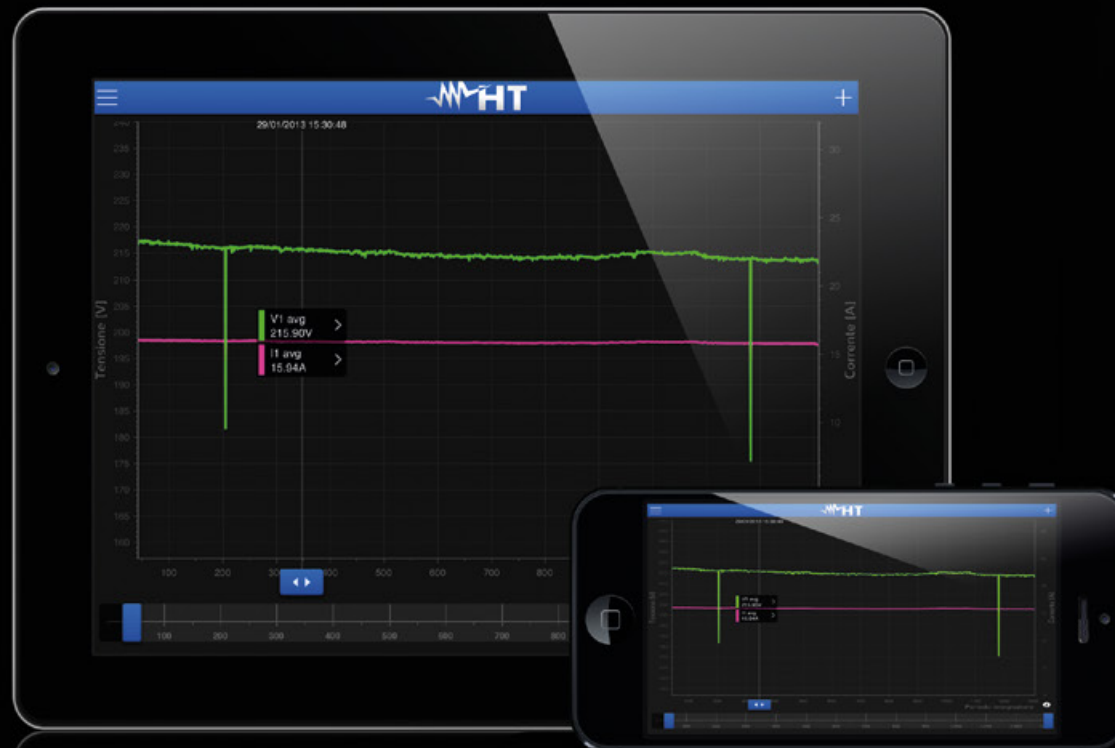
HTanalysis permits to create professional reports complete with pictures, texts, video and voice notes. Interfacing the instrument with your device's display you can look at a fast and detailed tracking of the recorded quantities on touch-screen.

## With PQA820

- › It enables you to display **recordings of voltage, current, power, harmonics, THD%, cosphi and frequency.**
- › It enables you to display **all wave-forms, vector diagrams and harmonics instantly.**
- › It enables you to **store all recordings into HTCloud database sharing them through mail as well.**

## With MacroTestG3 and CombiG2

- › It enables you to create **reports complete with pictures, videos, text and voice notes, store them into HTCloud database and share them through mails.**







Share.  
**Whenever, whatever  
and wherever.**

Install App HTanalysis to avail yourself of **HTCloud** database and **share** measurement results and recordings with your colleagues **from any place on the planet.**





**optec**  
energie ist messbar

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