Mains analysis clamp (RMS AC)

ref. VA6200

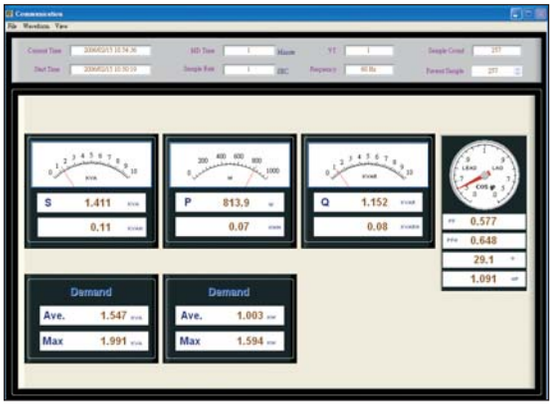
The screen on this clamp can be used either as a numeric display or as a graphical screen like an oscilloscope, or as a logging instrument. The clamp measures the true RMS voltage and current, apparent, reactive, active, balanced three-phase and single-phase power, cosφ, peak factor, total distortion, power consumption and maximum power demand. In graphics mode, it displays and quantifies the first 50 harmonics of the signal (simultaneously as a percentage of the fundamental component and in volts, response in amperes), the form of the U and I signals, the single-phase and three-phase diagram. In logging mode, the clamp stores information in its memory. The sampling frequency and the start/stop cues can be programmed. Long acquisitions at high frequencies, with several simultaneous quantities, are possible by using an RS232 output to a PC and special software.

OTHER FUNCTIONS AND FEATURES

- Measurement of the maximum demand in kW and kVA
- Programmable threshold for transient capture (128 events)
- 32 to 256 points/cycle can be saved on the internal memory
- Memory size: 50,000 logs can be programmed based on a period of between 1 and 6000s.
- Real time output of: oscillograms, power, settings and harmonics
- Autopower off automatically if not used
- Opening of clamping jaws: Ø55mm
- Dimensions/Weight: 270 x 100 x 45mm Weight 800g
- Supplied with probes and a carry case

OPTO-INSULATED RS232 INTERFACE

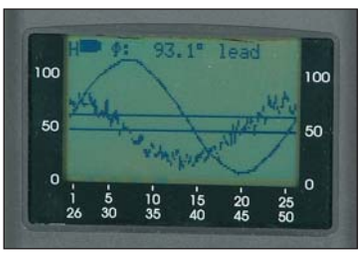
(8 bits, ASCII format) supplied as standard. System software for curve charts and numeric results on PC.



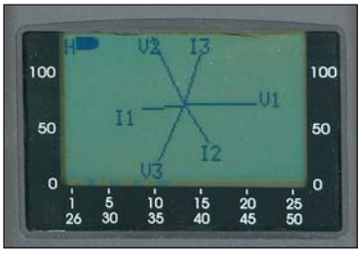
Reactive, active apparent power factor consumption

Peak current – THD - Harmonic spectrum

Total effective current – THD Harmonic current no.1
% harmonic no.1 / fundamental component



Oscillogram U and I Phase angle φ



Three-phase diagram V1 V2 V3 I1 I2 I3 φ

FUNCTIONS	RANGES	ACCURACY
IAC RMS	4.0 ~ 1500.0 A auto ranging	0.5% + 5 dgt
VAC RMS	4.0 ~ 600.0 V auto ranging	0.5% + 5 dgt
W - VA - VAR	1000.0 W - 10.000 - 100.00 - 1000.0kW	1% + 20 dgt
Energy Wh kWh	0 Wh ~ 999 999 kWh (resp VAh &VARh)	1% + 20dgt
Crest factor CF	1.00 - 99,99	5% + 30 dgt
THD total harmonic distortion	0.0 ~ 1000,0 %	2% - 6% - 10% (as per range)
Power factor	0.000 - 1.000	0.04
Phase angle	-180° ~ +180°	0.1°
Harmonics of AC voltage	Rang 1 ~ 20 : 0.0 ~ 100.0%	2%
in V and in %	Rang 20 ~ 50 : 0.0 ~ 100.0%	4%
Harmonics of AC current	Rang 1 ~ 20 : 0.0 ~ 100.0%	2%
in A and in %	Rang 20 ~ 50 : 0.0 ~ 100.0%	4%
IAC & VAC peak	Capture of transient events (32000)	