

*SD card real time data recorder, CAT IV 600 V*

# CLAMP POWER ANALYZER

Model : PC-6011SD

*ISO-9001, CE, IEC1010*



Micro SD card  
( 8GB, included )



Carrying case ( included )



**LUTRON ELECTRONIC**

*The Art of Measurement*

# CLAMP POWER ANALYZER

Model : PC-6011SD

**FEATURES**

* Power quality analyzer for single-phase or balanced three-phasesystem.
* Voltage and Current are the True RMS value.
* ACV input impedance is 10 Mega ohms.
* True Power ( KW · MW · GW ) measurement.
* Apparent Power ( KVA · MVA · GVA ) measurement.
* Reactive Power ( KVAR · MVAR · GVAR ) measurement.
* Power Factor ( PF ) · Phase Angle ( $\Phi$ ) measurement.
* Energy ( KWh · KVAh · KVARh · PFh ) measurement.
* Voltage measurement range: 10 to 600 ACV.
* Current measurement range: 5 to 2000 ACA.
* Graphic Phasor Diagram.
* Voltage and Current harmonic analysis ( 1-50th order ).
* Voltage and Current Total Harmonic Distortion analysis ( THD ) measurement.
* Voltage and Current waveforms show.
* Peak-to-Peak voltage and current measurement.
* Capture Transient events ( including Dip, Swell and Outage ) with programmable threshold ( % ).
* Thermocouple Temp. sensor: Type K ( -100.0°C to 199.9°C/200°C to 1300°C ), °C/F.
* Programmable PT ratio ( 1 to 1000 ).
* Safety Standard : IEC 1010, CAT IV 600V.
* Built-in clock and Calendar, real time data record with SD memory card , sampling time set from 2 to 7200 seconds. Just slot in the SD card into the computer, it can download the all the measured value with the time information ( year, month, data, hour, minute, second ) to the Excel directly, then user can make the further data analysis by themselves.
* Allow save the LCD screen picture to the photo BMP file, it is the useful tool for the user to make the further analysis.
* Micro SD CARD 32 GB maximum supported capacity.
* Powered by AA ( UM-3 ) DC 1.5 V X 2 batteries ( Alkaline type ) or DC 9V adapter ( linear 110V/220V ).
* Computer data output, can cooperate with optional USB Cable/USB-01, RS232 cable/UPCB-02 and Data Acquisition software, SW-U811-WIN.
* Optional type K probe: TP-11.

**GENERAL SPECIFICATIONS**

Circuit	Custom single-chip microprocessor LSI circuit
Display	LCD Size: 3.2 X 2.4" (60 X 44.4 mm) Dot Matrix backlit LCD (128 X 64 pixels)
Measurements	ACV ACA KW / KVA/ KVAR/ PF KWH/KVAH/KVARH/PFH Power factor Phase angle Frequency Harmonics display Temperature
Wire configurations	1 Phase, 3 Phase
Voltage ranges	10 ACV to 600 ACV (Auto Range)
Current ranges	5 ACA to 2000 ACA (Auto Range)
Safety standard	IEC1010 CAT IV 600 V
ACV input impedance	10 M ohms
Clamp frequency response	40 Hz to 1 KHz
Tested clamp	45 to 65 Hz
Over-load protection	ACV 720 ACV RMS ACA 2100 ACA with clamp probe
Over-range	* LCD display show " OL ". * The data save into the SD card will show " 9999 " or " 999 " (overlap the decimal point).
Data Hold	Freezes displayed reading
Datalogger	* Real time data logger, saved the data into SD memory card and download the all the measured value with the time information ( year/month/data/hour/minute/second ) download to the Excel. * Sampling time for data logger : 2 seconds to 7200 seconds, the during of setting step are 2 seconds * Data error no. : $\leq 0.1\%$ no. of total saved data typically.
Data Recording	Micro SD memory card
Sampling Time	Approx. 1 second

Data Output USB/RS232	* Computer interface * Connect the optional USB cable USB-01 will get the USB plug. * Connect the optional RS232 cable UPCB-02 will get the RS232 plug.
Operating Temperature	0 to 50°C ( 32 to 122°F ).
Operating Humidity	80% Relative Humidity max.
Power Supply	* DC 1.5V, AA ( UM-3 ) Battery X 2 PCs (Alkaline or heavy-duty battery). * AC to DC 9V power adapter ( LINEAR 110/220V )
Power Consumption	60 mA DC
Max. Conductor size	Clamp can accommodate up to 2.2" (57 mm) diameter
Dimensions	11.0 X 4.2 X 1.9" (280 X 106 X 47mm) Clamp Jaw: 3.5" (90 mm)
Accessories Included	Instruction manual..... 1 PC 8 GB micro SD card..... 1 PC Test Leads..... 1 set Alligator clips..... 1 set AC to DC 9V adapter ( linear 110V/220V )..... 1 PC Carrying case..... 1 PC

**ELECTRICAL SPECIFICATIONS (23±5 °C)****ACV**

Range	Resolution	Accuracy
10 to 600 V(RMS)	0.1 V	± (0.5%+3d)
Peak to Peak		± (5%+30d)

**ACA**

Range	Resolution	Accuracy
10.00A to 2000A	0.01A * < 100A	± (1%+0.5A)
	0.1A * $\leq 100A$ and < 1000A	$\leq 200A$
	1A * $\geq 1000A$	± (5%+5A) ± 200A ± (5%+30d)
Peak to Peak		

**Power factor**

Range	Resolution	Accuracy
0.00 to 1.00	0.01	± 0.04

 **$\Phi$  (Phase angle)**

Range	Resolution	Accuracy
-180° to 180°	0.1°	± 1° *ACOS(PF)

**Frequency**

Range	Resolution	Accuracy
45 to 65 Hz	0.1 Hz	± 0.1 Hz

**Active/Apparent/Reactive POWER**

Range	Resolution	Accuracy
0.0 to 1.8M (W/VA/VAR)	0.001K-0.001M(W/VA/VAR)	± (1.5%+20d)

**Active/Apparent/Reactive POWER Hour: (WH/SH/QH)**

Range	Resolution	Accuracy
0.000K to 9.9999M (WH/VAH/VARH)	0.001K to 0.001M (W/VA/VARH)	± (1.5%+20d)

**Harmonics Magnitude (Harmonic Level > 5%, Freq:50/60 Hz)**

	Range	Resolution	Accuracy
ACV	1 to 20th	0.1V	± (2%+5d)
	21 to 50th		± (4%+5d)
ACA	1 to 20th	0.1A to 1A	± (2%+5d)
	21 to 50th		± (4%+5d)

**Harmonics Percentage (Harmonic Level > 5%, Freq:50/60 Hz)**

	Range	Resolution	Accuracy
ACV	1 to 20th	0.1 %	± (2%+10d)
	21 to 50th		± (4%+20d)
ACA	1 to 20th	0.1 %	± (2%+10d)
	21 to 50th		± (4%+20d)

**Total Harmonic Distortion**

Range	Resolution	Accuracy
0 to 20 %	0.1 %	± (2%+5d)
20.1 to 100%		± (6%+10d)

**Type K Temperature**

Range	Resolution	Accuracy
-100.0°C to 199.9°C	0.1°C	± (1%+1°C)
200°C to 1300°C	1°C	± (1%+2°C)

\* Appearance and specifications listed in this brochure are subject to change without notice.

1503-PC6011SD