

*SD Card real time data recorder, true rms*

# DCA/ACA CLAMP METER

Model : CM-6010SD

ISO-9001, CE, IEC1010



**Lutron**

**LUTRON ELECTRONIC**

*The Art of Measurement*

SD card data recorder, true rms

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Model : CM-6010SD

**FEATURES**

- \* Real time data logger, save the data into the micro SD memory card and can be downloaded to the Excel, extra software is needed.
- \* Real time data logger, built-in clock ( year/month/date/hour minute/second ), sampling time can be set from 2 to 7200seconds.
- \* Measurement functions : ACA. DCA. ACV, DCV, Resistance, Diode, Continuity, Capacitance, Temp. ( optional Temp. probe )
- \* ACA range : 0 to 2000 ACA, auto range.
- \* DCA range : 0 to 2000 DCA, auto range.
- \* ACV range : 0 to 1000 ACV, auto range.
- \* DCV range : 0 to 1000 DCV, auto range.
- \* Resistance range : 0 to 60 Megohm, auto range.
- \* True rms measurement for ACV, ACA.
- \* CAT III 1000V, CAT IV 600V.
- \* DCA zero button.
- \* Hold, Peak ( Max., Min. measuring value ).
- \* 50 mm measuring conductor size.
- \* ACV, DCV input impedance is 10 Megohm.
- \* LCD with backlight.
- \* Micro SD memory card capacity : 1 GB to 32 GB, micro SD card.
- \* Powered by DC 1.5V ( UM-3/AA ) x 2 PCs batteries ( Alkaline type ) or DC 9V adapter. SD card data record function is available when the power supply is to use the DC 9V adapter.
- \* RS232/USB computer interface.
- \* Carrying case is included.
- \* Optional USB cable, USB-01.
- \* Optional data acquisition softwares, SW-U801-WIN, SW-E802.
- \* Optional type K Temp. probe, TP-11.

Display sampling time	Approx. 1 second.
Data Output USB/RS232	RS232 computer serial 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.
* Computer interface	
Operating Temp.	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 type ).
Power Consumption	34 mA DC.
Max. Conductor size	Clamp can accommodate up to 2.0" ( 50 mm ) diameter.
Dimensions	11.0 x 4.2 x 1.9" ( 280 x 106 x 47mm )
Accessories Included	Instruction manual.....1 PC Test Leads.....1 Set ( 2 pieces ) Alligator clips.....1 Set ( 2 pieces ) Carrying case.....1 PC Micro SD card(8 GB).....1 PC AC to DC 9V adapter ( Linear type, 110 V or 220 V ).....1 PC
Optional accessories	* Type K Temp. probe, TP-11. * USB cable,USB-01. * RS232 cable,UPCB-02. * Data Acquisition software,SW-U801-WIN.

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

**GENERAL SPECIFICATIONS:**

Circuit	Custom single-chip microprocessor LSI circuit.
Display	LCD Size: 3.2 X 2.4" ( 60 X 44.4 mm ). Dot Matrix backlight LCD ( 128 X 64 pixels ).
Measurements	DCV/ACV DCA/ACA Resistance/DIODE/Continuity Beeper Capacitance Frequency Temperature
A/D counts no.	6000 counts.
Voltage ranges	0.5 mV to 1000 V ( DCV/ACV, Auto or Manual Range ).
Current ranges	0.5 ACA to 2000 ACA ( DCA/ACA, Auto or Manual Range ).
Safety standard	IEC1010 CAT III 1000 V.
ACV input impedance	10M ohms.
Clamp frequency response	40 Hz to 1 KHz.
Over-load protection	DCV/ACV 1000 DCV / 1000 ACV RMS. DCA/ACA 2100 DCA/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.
Data Recording	Micro SD memory card ( 1 GB to 32 GB ).
Relative measure.	To offset the measurement value.
Peak to Peak	DCV/ACV,DCA/ACA peak to peak measurement value.
DCA zero adj.	DCA zero adjustment.
Range selection	Auto range with manual range selecting.
Polarity	Automatic Switching, " - " indicates negative polarity.
Data logger	* Real time data logger, saved the data into miro SD memory card and down load the all the measured value with the information ( year/month/date/ hour/minute/second ) down load to the Excel. * Sampling time for data logger : 2 seconds to 7200 seconds. * When the system detects micro SD format does not match with the Machine that will be mandatory for reformatting to ensure that data records can be normal. * Data error no. : ≤ 0.1% no. of total saved data typically.

**DCV**

Range	Resolution	Accuracy
600 mV / 6 V / 60 V / 600 V / 1000 V	0.1 mV / 0.001V / 0.01V / 0.1V / 1 V	600 mV ± ( 0.8%+2d ) 6V to 1000V ± ( 0.8%+1d )
Peak to Peak		± ( 5%+30d )

**ACV**

Range	Resolution	Accuracy
600 mV / 6 V / 60 V / 600 V / 1000 V	0.1 mV / 0.001V / 0.01V / 0.1V / 1 V	± ( 1%+2d )
Peak to Peak		± ( 5%+30d )

**DCA,ACA**

Range	Resolution	Accuracy
0.5A to 2000A	0.1A / 1 A	600A ± ( 1%+12d ) 2000A ± ( 1%+8d )
Peak to Peak		± ( 5%+30d )

**OHMS**

Range	Resolution	Accuracy
600/6K/60K/600K/6M/60M	0.1Ω / 0.001K / 0.01K / 0.1K / 0.001M / 0.01M	600 ohm ± ( 1%+2d ) 6K to 60M ± ( 1.5%+2d )

**DIODE**

Short/non conductance, good/defect test
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**Continuity Beeper**

Beeper will sound if measured resistance less than 5 ohm
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**Capacitance**

Range	Resolution	Accuracy
6 nF/60 nF/600 nF/6 uF/60 uF/600 uF	0.001nF/0.01nF/0.1 nF / 0.001uF/0.01uF/0.1uF	± ( 3%+5d )

**Frequency(ACV > 6.5V,ACA > 15A)**

Range	Resolution	Accuracy
40Hz to 999.9Hz	0.1Hz	± ( 0.5%+2d )

**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 )
-148.0°F to 391.8°F	0.1°F	± ( 1%+1.8°F )
392°F to 2372°F	1°F	± ( 1%+3.6°F )

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