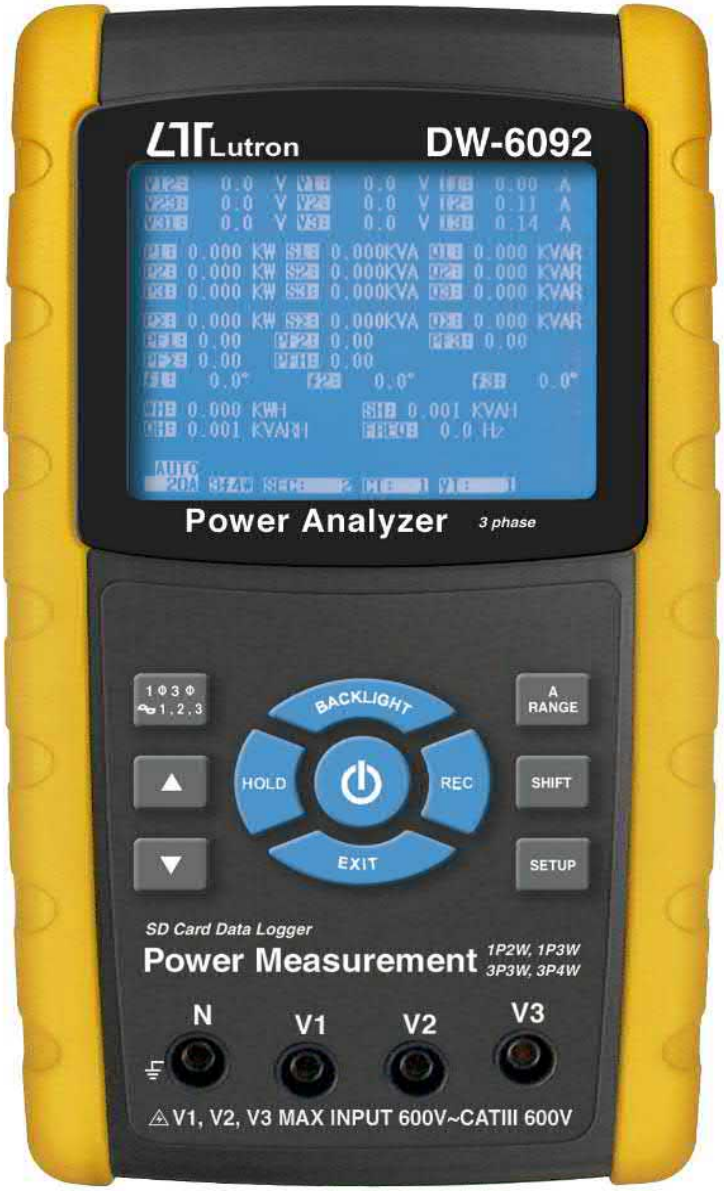
3 phase/4 wire, 3 phase/3 wire, RS232/USB
1 phase/2 wire, 1 phase/3 wire, SD card data recorder

3 PHASE POWER ANALYZER

Model : DW-6092 *ISO-9001, CE, IEC1010*



Clamp probess, A1, A2, A3
CP-1200

Lutron

LUTRON ELECTRONIC

The Art of Measurement

SD card real time data logger

3 PHASE POWER ANALYZER

Model : DW-6092

FEATURES

* Analysis for 3 phase multi-power system, 1P/2W, 1P/3W, 3P/3W, 3P/4W
* Voltage & Current are the True RMS value.
* True Power (KW、MW、GW) measurement.
* Apparent Power (KVA、MVA、GVA) measurement.
* Reactive Power (KVAR MVAR、GVAR) measurement.
* Watt-Hour (WH、SH、QH、PFH).
* Power Factor(PF)、Phase Angle(Φ).
* Voltage measurement range : 10 to 600 ACV
* Current measurement range: 0.2A to 1200 ACA.
* Programmable CT ratio (1 to 600) and PT ratio (1 to 1000).
* ACV input impedance is 10 Mega ohms.
* Safety Standard : IEC 1010, CAT III 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 down load the all the measured value with the time information (year/month/data/ hour/mimute/second) to the Excel directly, then user can make the further data analysis by themselves.
* Complete set with 4 PCs Test Leads, 4 PCs Alligator clips, 3 PCs Clamp Probe, AC to DC 9V adapter, 2 G SD memory card and Carrying bag.
* Computer data output, can cooperate with USB Cable /USB-01 RS232 cable/UPCB-02 and Data Acquisition software, SW-U811-WIN.

GENERAL SPECIFICATIONS

Circuit	Custom one-chip of microprocessor LSI circuit	
Display	* LCD Size : 81.4 X 61 mm (3.2 X 2.4 inch) * Dot Matrix LCD (320 X 240 pixels) with back light.	
Measurement	* ACV * ACA * AC WATT (True Power) AC WATT(Apparent Power) AC WATT(Reactive Power) * Power factor * Phase angle * Frequency	
Wire connections	1P/2W, 1P/3W, 3P/3W, 3P/4W.	
Voltage ranges	10 ACV to 600 ACV, auto range.	
Current ranges	0.2 ACA to 1200 ACA, auto range/manual range.	
Safety standard	IEC1010 CAT III 600 V.	
ACV input impedance	10 Mega ohms.	
Range select	ACV	Auto range.
	ACA	Auto range & manual range.
Clamp frequency response	40 Hz to 1 KHz.	
Spec. tested frequency	45 to 65 Hz.	
Over load protection	ACV	720 ACV rms
	ACA	1300 ACA with clamp probe CP-1200
Over Indicator	Show " OL ".	
Under Indicator	Show " UR ".	
Data Hold	Freeze the display reading.	
Data Record	SD Card Record.	
Sampling Time	Approx. 1 second.	
Power ON/OFF	Manual OFF by push button.	
Real time data logger	* Real time data logger, saved the data into SD memory card and down load the all the measured value with the time information (year/month/data/ hour/mimute/second) down load to the Excel	
	* Integration time for data logger : 2 seconds to 7200 seconds, the during of setting step are 2 seconds.	
Data Output USB/RS232 * Computer interface	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.	
Operating Temperature	0 to 50℃ (0 to 122℉).	
Operating Humidity	Less than 80% R.H..	
Power Supply	* DC 1.5V, AA (UM-3) Battery X 8 PCs (Alkaline or heavy duty battery). * AC to DC 9V power adapter.	
Power Consumption	* Meter : 300 DCmA. * Clamp : 20 DCmA.	
Clamp max. conductor Size	50 mm (2.0 inch) Dia. * For the Clamp ,CP-1201	
Weight	* Meter: 1049g (includes batteries) * Clamp : 522g	
Dimension	Meter : 225 X 125 X 64 mm (8.86 X 4.92 X 2.52 inch)	
	Clamp : 210 X 64 X 33mm (8.3 X 2.5 X 1.3 inch)	

Accessories Included	* Instruction manual.....1 PC * Test Leads (TL88-4AT)..... 1 Set (4 PCs) * Alligator clips (TL88-4AC).....1 Set (4 PCs) * Clamp Probe (CP-1200)..... 3 PCs * AC to DC 9V adapter.....1 PC * SD card (2 G)..... 1 PC * Carrying bag.....1 PC
Optional Accessories	* USB Cable , USB-01 * RS232 cable, UPCB-02 * Data Acquisition software, SW-U811-WIN

ELECTRICAL SPECIFICATIONS

ACV

Range	Resolution	Accuracy
10.0V to 600.0V * Phase to neutral line	0.1V	± (0.5%+0.5V)
10.0V to 600.0V * Phase to phase		

ACA

Range	Resolution	Accuracy
20A	0.001A, < 10 A 0.01A, ≧ 10 A	± (0.5%+0.1A)
200A	0.01A, < 100 A 0.1A, ≧ 100 A	± (0.5%+0.5A)
1200A	0.1A, < 1000 A 1A, ≧ 1000 A	± (0.5%+5A)

Power factor

Range	Resolution	Accuracy
0.00 to 1.00	0.01	± 0.04

Remark :
*** PFH : Long term average power factor (WH/SH)**
*** PFΣ :**
For 3Φ 4W, 3Φ 3W: PFΣ = (PF1 + PF2 + PF3)/3
For 1Φ 3W: PFΣ = (PF1 + PF2)/2

Φ (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 (Real) Power

Range	Resolution	Accuracy
0.000 to 9.999 KW	*0.001/0.01/0.1 KW	± (1%+0.008 KW)
10.00 to 99.99 KW	*0.01/0.1 KW	± (1%+0.08 KW)
100.0 to 999.9 KW	0.1 KW	± (1%+0.8 KW)
1.000 to 9.999 MW	0.001 MW	± (1%+0.008 MW)

* : The resolution is changed according the different ACA range.

Apparent Power

Range	Resolution	Accuracy
0.000 to 9.999 KVA	*0.001/0.01/0.1 KVA	± (1%+0.008 KVA)
10.00 to 99.99 KVA	*0.01/0.1 KVA	± (1%+0.08 KVA)
100.0 to 999.9 KVA	0.1 KVA	± (1%+0.8 KVA)
1.000 to 9.999 MVA	0.001 MVA	± (1%+0.008 MVA)

* : The resolution is changed according the different ACA range.

Reactive Power

Range	Resolution	Accuracy
0.000 to 9.999 KVAR	*0.001/0.01/0.1 KVAR	± (1%+0.008 KVAR)
10.00 to 99.99 KVAR	*0.01/0/0.1 KVAR	± (1%+0.08 KVAR)
100.0 to 999.9 KVAR	0.1 KVAR	± (1%+0.8 KVAR)
1.000 to 9.999 MVAR	0.001 MVAR	± (1%+0.008 MVAR)

* : The resolution is changed according the different ACA range.

Watt Hour (Active Power Hour) : WH

Range	Resolution	Accuracy
0.000 to 9.999 KWH	0.001 KWH	± (2%+0.008 KWH)
10.00 to 99.99 KWH	0.01 KWH	± (2%+0.08 KWH)
100.0 to 999.9 KWH	0.1 KWH	± (2%+0.8 KWH)
1.000 to 9.999 MWH	0.001 MWH	± (2%+0.008 MWH)

VA Hour (Apparent Power Hour) : SH

Range	Resolution	Accuracy
0.000 to 9.999 KVAH	0.001 KVAH	± (2%+0.008 KVAH)
10.00 to 99.99 KVAH	0.01 KVAH	± (2%+0.08 KVAH)
100.0 to 999.9 KVAH	0.1 KVAH	± (2%+0.8 KVAH)
1.000 to 9.999 MVAH	0.001 MVAH	± (2%+0.008 MVAH)

VAR Hour (Reactive Power Hour) : QH

Range	Resolution	Accuracy
0.000 to 9.999 KVARH	0.001 KVARH	± (2%+0.008 KVARH)
10.00 to 99.99 KVARH	0.01 KVARH	± (2%+0.08 KVARH)
100.0 to 999.9 KVARH	0.1 KVARH	± (2%+0.8 KVARH)
1.000 to 9.999 MVARH	0.001 MVARH	± (2%+0.008 MVARH)

PATENT	CHINA : ZL 2008 2 0189918.5 ZL 2008 2 0189917.0 TAIWAN : M 358970 M 359043 Germany : Nr. 20 2008 016 337.4 JAPAN : 3151214 U.S.A. : Pending

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