



LG

DIGITAL MULTIFUNCTION METER

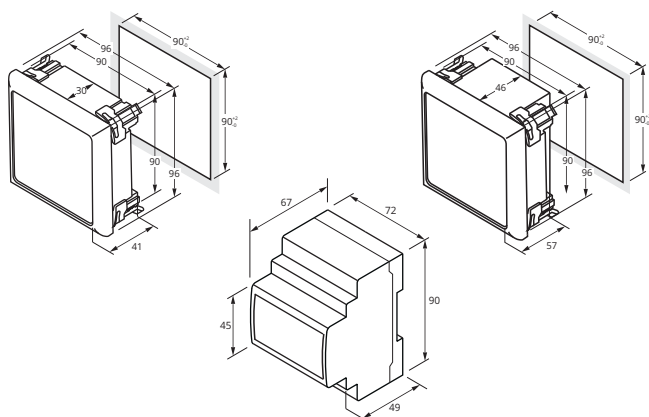
Basic | Power | Energy | Dual Source Meter | Load Manager

SIMULTANEOUS MEASUREMENT OF VARIOUS ELECTRICAL PARAMETERS!

Features :

- Accuracy Class 1.0 (IEC 62053-21), 0.5s (IEC 62053-22) option.
- Patented alpha numeric display with bar graph 14 mm height, 4 Digits 3 row for 64xx series 10mm for single row.
- Available in LED 1 row 6 Digits, LCD 1 Row 7 Digits & LED 3 Row 4 Digits each.
- Field programmable Star (Wye) or Delta or Single Phase configuration.
- Programmable PT, CT ratio upto 2000 MVA.
- Wide measurement range 1: 600 (10mA – 6A).
- Graphical representation of programmable load Available for (A, W, VA)
- High sampling rate 128 samples/cycle Simultaneous sampling of Volts & Amps.
- High & Low measurements for Voltage and Current (Last one minute of data).
- Load efficiency can be monitored for 5 different programmable slots along with time.
- Non re-settable Over voltage Hour in diagnostic communication mode for healthiness of system.
- Sliding demand for W, VA, VAR (option for LG 6400).
- Energy display programmable – counter based or resolution based.
- Energy resetting at 9999999 kVAh x MF.
- Individual phase energy through communication - helps branch monitoring, better load distribution study.
- Front LED pulse 16000 imp/kWh of secondary input.
- Optional IO module available for DI, DO, AI, AO.
- Auto configuration through communication.
- Communication with PCs, PLCs, DCS through optically isolated RS485 serial interface.
- Safety Construction : Self extinguishable V0 plastic.
- Clearance and creepage distance meets UL safety standard.
- Finger touch proof terminals to voltage and current connections.

Mechanical Specification



Parameters:

	LG 1119	LG 2119	LG 3120	LG 5120	LG 2520	LG 2600	LG 6425	LG 6435	LG 6445	LG 6400
GROUP 1 (BASIC)										
V V1 V2 V3 V12 V23 V31				✓	✓	✓	✓	✓	✓	✓
A A1 A2 A3	•			✓	✓	✓	✓	✓	✓	✓
Hz				✓	✓	✓	✓	✓	✓	✓
RPM						✓	✓	✓	✓	✓
Phase angle V/A							✓	✓	✓	✓
Unbalance V/A							✓	✓	✓	✓
GROUP 2 (POWER)										
PF PF1 PF2 PF3	•	✓	✓	✓	✓	✓	✓	✓	✓	✓
W W1 W2 W3	•	✓	✓	✓	✓	✓	✓	✓	✓	✓
VA VA1 VA2 VA3	•	✓	✓	✓	✓	✓	✓	✓	✓	✓
GROUP 3 (ENERGY)										
Wh (Import)	•	•	•	✓	✓	✓	✓	✓	✓	✓
VAh (Import)	•	•	•	✓	✓	✓	✓	✓	✓	✓
Load Hours (Import)				✓	✓	✓	✓	✓	✓	✓
ON Hours				✓	✓	✓	✓	✓	✓	✓
Individual phase energy via communication	•	•				•	•	•	•	•
Number of interruptions						✓	✓	✓	✓	✓
CO ₂						✓	✓	✓	✓	✓
GROUP 4 (REACTIVE)										
VAR, VAR1 VAR2 VAR3						✓	✓	✓	✓	✓
kVARh inductive (Import)						✓	✓	✓	✓	✓
kVARh capacitive (Import)						✓	✓	✓	✓	✓
GROUP 5 (ENERGY EXPORT)										
Wh (Export)						✓	✓	✓	✓	✓
VAh (Export)						✓	✓	✓	✓	✓
Load Hours (Export)						✓	✓	✓	✓	✓
GROUP 6 (REACTIVE EXPORT)										
VAR VAR1 VAR2 VAR3						✓	✓	✓	✓	✓
kVARh inductive (Export)						✓	✓	✓	✓	✓
kVARh capacitive (Export)						✓	✓	✓	✓	✓
GROUP 7 (THD)										
Voltage THD upto 15th order							✓	✓	✓	✓
Current THD upto 15th order							✓	✓	✓	✓
DEMAND										
Demand W VA VAR										■
Max. Demand W VA VAR										■
OPTIONAL										
Class 0.2S				■	■	■	■	■	■	■
Class 0.5S	■	■	■	■	■	■	■	■	■	■
RS 485	■	■	■	■	■	■	■	■	■	■
#50A projection CT	■	■	■	■	■	■	■	■	■	■
#100A / 200A hanging CT	■	■	■	■	■	■	■	■	■	■
DIN rail - 4Din (LED only)	■	■	■	■	■	■	■	■	■	■
*TCP/IP Option with 14GB Memory							■	■	■	■
#*IO module							■	■	■	■
✓ Programmable to either Wh or VAh. ■ Any one parameter for 1119 # MOQ applies * Restricted additional option • Only through Communication ■ Optional										
LG 6325: any 2 groups can be programmable GROUP 1 GROUP 2 GROUP 3 GROUP 4 LG 6335: any 3 groups can be programmable GROUP 5 GROUP 6 GROUP 7 LG 6345: any 4 groups can be programmable										

Multiplication factor for counter based energy mode

Full Scale in Watts :	0.4k to 4.0k	4.01k to 40k	40.1k to 400k	400.1k to 4000k	4M to 40 M	40 M to 400 M	400M to 4000M
$\sqrt{3} \times V_{Pri} \times A_{Pri} / 1000$							
Multiplication Factor:	0.01	0.1	1.0	10	100	1000	10000
Unit of display	kWh			MWh		GWh	

Technical Specification:

LG LED (1 Row)

LG 2000 Series

LG 6000 Series

GENERAL CHARACTERISTICS

Sensing / Measurement	True RMS, 1 Sec update time, 4 Quadrant Power & Energy		
Rated voltage	50-600 VLL		
Rated current	10mA-6A		
Frequency	45-65 Hz		
Poles description	1P + N, 3P, 3P + N		
Sampling rate	128 samples/cycle		
Measured Accuracy Class	Class 1 default / Class 0.5S / Class 0.2 as per IEC 62053-22 (Optional).		
Display type	LED 1 row	LCD 1 row	LED 3 row
Instantaneous Digits	4	4	4
Integrated Digits	6	7	8
Programmable Setting	110 or 415V LL Nominal & Primary Programmable up to 999 kV. Burden: 0.2VA Max. per phase		
Permissible overload	120%, Burden:0.2VA per phase		
External Fuse Rating	200mA slow blow		
CT PT Ratio Max	2000 MVA Programmable		
Auxiliary supply	80-300 V AC/DC (40 - 300V AC/DC Optional)		
Power consumption	4VA		
Data update rate	1sec		

COMMUNICATION

Device ID & Parity	1 to 247 & Odd, Even, None (Preferred Even)
Protocol & Interface	Modbus. RTU & RS 485
Baud rate	2400 bps to 38.4k bps (Preferred 9600)
Isolation	2000 volts AC isolation for 1 minute between communication and other circuits

ENVIRONMENTAL CHARACTERISTICS

Operating temperature	-10°C to + 55°C (14°F - 131°F)
Storage temperature	-25°C to +70°C (-13°F - 158°F)
Humidity	5% to 95% non-condensing
Altitude	Below 2000 mts
Measurement Category	CAT III
Pollution degree	2 (As per IEC 61010)

PROTECTION CLASS

Ingress protection	IP 51 (IP 54 front facia optional) & Double Insulation (As per IEC 61010-1)
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ELECTROMAGNETIC COMPATIBILITY

Electrostatic discharge	IEC 61000-4-2g
Immunity to Electromagnetic RF Fields	IEC 61000-4-3g
Conducted Immunity	IEC 61000-4-6g
Immunity to Magnetic Fields	IEC 61000-4-8g
Immunity to voltage dips and interruptions	IEC 61000-4-11g
Fast transient	IEC 61000-4-4g
Immunity to surge waves	IEC 61000-4-5g
Impulse voltage	CISPR- 22
Conducted and radiated emissions	

SAFETY AND STANDARDS

Construction	IEC/EN 61010-1 ed.3, CAT III, 300 V LN / 600 V LL , protective class II.
Standards	UL 61010-1, IEC/EN 62052-11

Mechanical characteristics

Weight	Unpacked: 275 gms, Packed: 350 gms
Dimensions	96x96 mm
Torque	1 N-m
Wire Gauge	11 AWG