



LG

DIGITAL MULTIFUNCTION METER

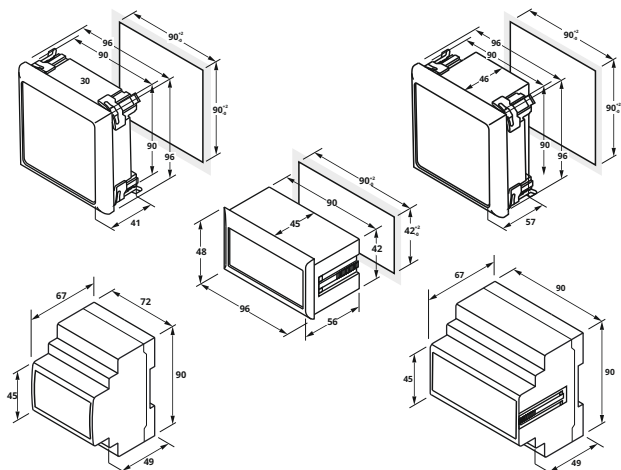
Basic | Power | Energy | Dual Source Meter | Load Manager

SIMULTANEOUS MEASUREMENT OF VARIOUS ELECTRICAL PARAMETERS!

Features:

- Accuracy Class 1.0 (IEC 62053-21), 0.5s (IEC 62053-22) & 0.2s optional
- 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 & 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 bar available for (A/W/VA) (Only for LG 64xx Series)
- High sampling rate 128 samples/cycle simultaneous sampling of Volts & Amps
- High & Low measurements for Voltage and Current (Last one minute of data) (Only for LG 64xx Series)
- Motor load efficiency can be monitored for 5 different programmable slots along with time for Watts/Current (Only for LG 64xx Series)
- Non re-settable Over voltage Hour in diagnostic communication mode for healthiness of system
- Sliding demand for W, VA, VAR (LG 6400 only).
- 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
- Communication with PCs, PLCs, DCS through optically isolated RS485 serial interface
- Finger touch proof terminals to voltage and current connections
- Dynamic Communication register map with the programmable address and user selectable parameter sequence
- Co2 emission, ON Hrs, Power Interruptions (Only for LG 64xx Series)

Mechanical Specification:



Parameters:	LG 1119	★ LG 3120	★ LG 1199	★ LG 51100	★ LG 5120	LG 6425 Any 2 groups	LG 6435 Any 3 groups	LG 6445 Any 4 groups	LG 6400
GROUP 1 (BASIS)									
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 only	✓	✓	✓	✓	✓	✓	✓	✓	✓
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 0.25		✓	✓	✓	✓	✓	✓	✓	✓
Class 0.55		✓	✓	✓	✓	✓	✓	✓	✓
RS 485	✓	✓	Built	✓	✓			Built In	
*50A projection CT (MOQ)	✓	✓		✓	✓	✓	✓	✓	✓
*60A/100A/200A hanging CT(MOQ)	✓	✓	✓	✓	✓	✓	✓	✓	✓
DINrail - 4Din (LED)	✓	✓		✓	✓				
DINrail - 5Din (LCD)	✓				✓				
μG (96x48mm, LED)	✓				✓				
DINrail - 120A Direct Current (LED)					✓	✓			
*IoT Add on with 14GB Memory									✓

• Programmable to either Wh or VAh. • Any one parameter for 1119N
 * Restricted additional option ★ Dual Source *LCD MOQ available on Request

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
$\sqrt{3} \times V_{Pri} \times A_{Pri}$							
Multiplication Factor:	0.01	0.1	1.0	10	100	1000	10000
Unit of display	kWh			MWh		GWh	

Technical Specification:

LG 1000/3000/5000 Series

LG 6000 Series

GENERAL CHARACTERISTICS

Display type	LED 1 row	LED 3 row
Integrated Digits	6	8
Instantaneous Digits	4	
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).	
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 61000-4-2	
Immunity to Electromagnetic RF Fields	IEC 61000-4-3	
Conducted Immunity	IEC 61000-4-6	
Immunity to Magnetic Fields	IEC 61000-4-8	
Immunity to voltage dips and interruptions	IEC 61000-4-11	
Fast transient	IEC 61000-4-4	
Immunity to surge waves	IEC 61000-4-5	
Conducted and Radiated emissions	CISPR- 22	

SAFETY AND STANDARDS

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

Mechanical characteristics

Weight	Unpacked: 275 gms, Packed: 350 gms	
Torque at terminals	1 N-m	
Wire Gauge at terminals	11 AWG	