

Digital Multifunction Panel Meters



► Simultaneous measurements of various electrical parameters

Accuracy Class 1.0 (IEC 62053-21), 0.5s (IEC 62053-22) option, 0.2S for selected models.

Alpha numeric multi-colour display LCD Single Row with 10mm height for LG2XXX Series, and LED 3 Row 4 digits with 14mm height for :LG64XX series.

Field programmable Star (Wye) or Delta configuration. Energy Display programmable - counter based or resolution based.

Energy resetting at 99999999 kVAh x MF.

Individual phase energy through communication - helps branch monitoring, better load distribution study.

Pulse LED 16000 imp/kWh for 5A .

Communication with PCs, PLCs, DCS through optically isolated RS485 serial interface (WiFi optional).

Finger touch proof terminals to voltage and current connections.

Dynamic communication with the programmable address and user selectable parameter sequence.

CO2 emission, ON hrs, Power interruptions.

Applicable for single row LCD and 3 row LED:

Fixed / Sliding demand with RTC for W, VA, VAR (LG 2550 and LG 6400).

Demand control option with 2 relay (LG 2550).

Datalog, block profile (15/30 minutes integration) - Fixed parameters for 45 days.

Individual harmonics upto 15th for LG 2550 & LG 6400.

Wide measurement range 1 : 1000 (6mA to 6A)

High & low measurements for voltage and current (last one minute of data)

Motor load efficiency can be monitored for 5 different programmable slots along with Load Hrs. for Watts/Current.

Non resettable overvoltage hour in **diagnostic communication mode** for healthiness of system.

Capture. Analyse. Execute.

Collect various electrical load parameters from the field, visualise hidden patterns through an EMS solution and make data-driven management decisions.



Display Parameters



	LED - Single Row			LCD - Single Row 					LED - Three Row 	
	LG1119	LG 1199 Dual Source	LG 5120 Dual Source	LG2519E	LG2599E Dual Source	LG2510E	LG2520E Dual Source	LG2550E	LG6435E	LG6400E
Accuracy										
Class 1.0	[✓]	✓	✓	✓	✓	✓	✓	✓	✓	✓
Class 0.5S	[✓]	[✓]	[✓]	[✓]	[✓]	[✓]	[✓]	[✓]	[✓]	[✓]
Class 0.2S (for 5A version)								[✓]		[✓]
BASIC PARAMETERS (GROUP - 1)										
V12, V23, V31, VLL Avg	□		✓	✓		✓	✓	✓	✓	✓
V, V1, V2, V3			✓	✓		✓	✓	✓	✓	✓
A, A1, A2, A3			✓	✓	✓	✓	✓	✓	✓	✓
Hz			✓	✓		✓	✓	✓	✓	✓
Angle V & A, RPM								✓*		✓
Unbalance V & A								✓*		✓
POWER PARAMETERS (GROUP - 2)										
W, W1, W2, W3	□		✓			✓	✓	✓	✓	✓
VA, VA1, VA2, VA3	□		✓			✓	✓	✓	✓	✓
PF, PF1, PF2, PF3	□		✓			✓	✓	✓	✓	✓
ENERGY - IMPORT (GROUP - 3)										
Wh Import	□	✓	[□]	✓	✓	✓	✓	✓	✓	✓
VAh Import	□		[□]		✓	✓	✓	✓	✓	✓
Load Hours Import			✓		✓	✓	✓	✓	✓	✓
Phase Energy & Load Hours (COM)						✓*	✓*	✓*	✓*	✓*
Power Cycles					✓*	✓*	✓*	✓*	✓	✓
ON Hours					✓	✓	✓	✓	✓*	✓*
CO2 EMISSION								✓*		✓
REACTIVE ENERGY - IMPORT (GROUP - 4)										
VAR, VAR1, VAR2, VAR3								✓		✓
VARh - Ind - Import								✓		✓
VARh - Cap - Import								✓		✓
ENERGY - EXPORT PARAMETERS (GROUP - 5)										
Wh Export								✓		✓
VAh Export								✓		✓
Load Hours Export								✓		✓
REACTIVE ENERGY - EXPORT PARAMETERS (GROUP - 6)										
VAR, VAR1, VAR2, VAR3								✓		✓
VARh - Ind - Export								✓		✓
VARh - Cap - Export								✓		✓
THD (GROUP - 7)										
THD - Voltage								✓	✓	✓
THD - Current								✓	✓	✓
COMMUNICATION										
RS485 (MODBUS)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

[□] Programmable to either Wh or VAh.

□ Any one programmable for 1119N

✓ Default

✓* Default in communication

[✓] Optional

LED - Single Row			LCD - Single Row					LED - Three Row	
1119	1199	5120	2519E	2599E	2510E	2520E	2550E	6435E	6400E
	Dual Source					Dual Source			

Optional Features

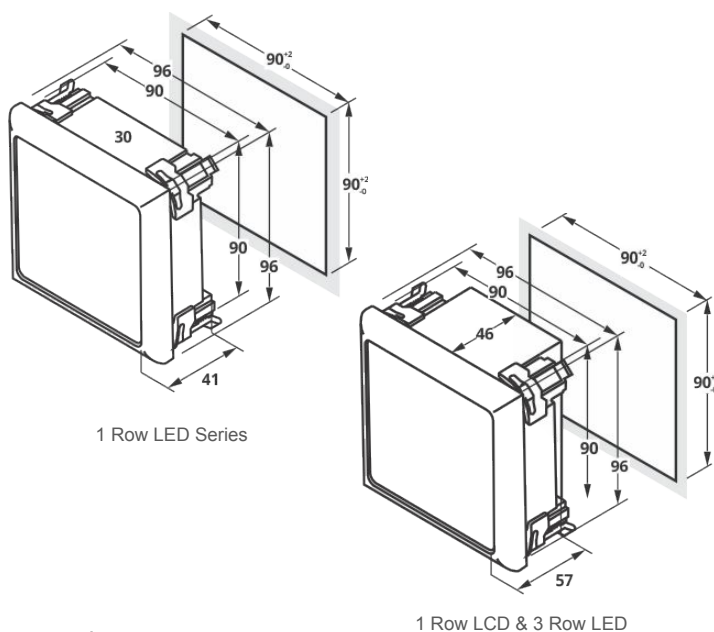
Hanging CT upto 100A (3 in 1, 16mm dia.)		✓	✓		✓		✓		✓	
Demand Monitor: W,VA,VAR (with RTC, Fixed / Sliding for CT operated)						✓ (W,VA)		✓		✓
Datalog, block profile (15/30 minutes Integration) - Fixed parameters for 45 days								✓		✓
Demand Control with 2 Relay								✓		✓
WiFi (for CT Operated only) - MOQ										✓
Relay output upto								2		2
Individual Harmonics upto 15th								✓		✓

Energy Reset Value

Full scale in Watts: $\sqrt{3} \times V_{Pri} \times A_{Pri}$	0.4k to 4.0k	4.01k to 40k	40.1k to 400k	400.1k to 4000k	4M to 40M	40M to 400M	400M to 4000M
Reset Value (VAh)	999.99999M	9.9999999G	99.999999G	999.99999G	9999.9999G	9999.9999G	9999.9999G

Mechanical Specifications:

Mounting: Panel

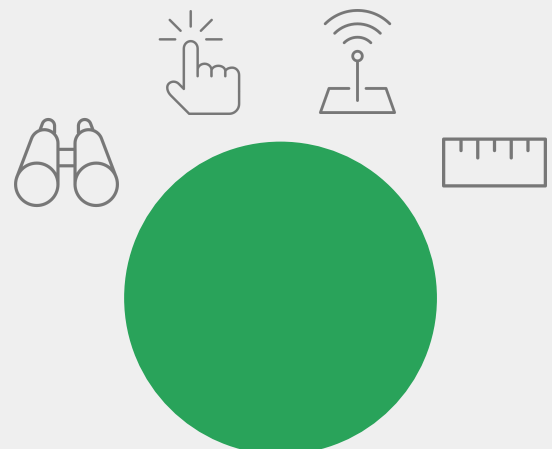


Applications:

- High performance digital meter for simultaneous measurements of electrical qualities like voltage, current, power, energy, frequency, power factor parameters.
- Designed to offer precise energy measurements for power and metering and network monitoring applications.

Extensive versatility to meet your needs.

Consistent reliability, superior design, and the flexibility to meet your energy metering needs. With a huge range of selectable models to suit various field applications, our MFM LG series offer you unrivalled energy visibility by providing granular second-wise data of the parameters that matter.



Technical Specifications

GENERAL CHARACTERISTICS			
Display type	LED Single Row (6 digits)	LCD Single Row (7 digits)	LED 3 Row (4 digits each)
Sensing / Measurement	True RMS, 1 sec update time, 4 quadrant Power & Energy		
Rated voltage	50 - 550 VLL		
Rated Current	10mA - 6A for 5A meter	6mA - 6A for 5A meter	
Frequency	45 - 65 Hz		
Poles description	3P + N		
Measured accuracy class	Class 1.0 default (Class 0.5S / Class 0.2S as per IEC 62053-22 Optional)		
Programmable setting	415V LL Nominal & Primary Programmable upto 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	80-300V AC/DC, Lower AUX available on request for selected models.		
Power consumption	5 VA Max.		
Data update rate	1sec		
COMMUNICATION			
Device ID & Parity	1 to 247 & Odd, Even, None (Preferred Even)	1 to 125 & Odd, Even, None (Preferred Even)	
Protocol & Interface	Modbus RTU & RS485 Baud rate: 4800 bps to 38.4kbps (Preferred 9600). Isolation: 2000 volts AC isolation for 1 minute between communication and other circuits		
		WiFi Communication: WiFi Protocol: 802.11 b/g/n Frequency: 2.4 GHz ~ 2.5 GHz Security: WPA/WPA2, WPA-PSK/WPA2-PSK Encryption: WEP/TKIP/AES Network Protocol: IPv4, TCP Receive Sensitivity: -83 dBm Typical	
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 & Double insulation (as per IEC 61010-1)		
SAFETY AND STANDARDS			
Construction	IEC/EN 61010-1 edition 3, CAT III, 300V LN / 550V LL, Protection class II		
Standards	UL 61010-1, IEC/EN 62052-11		
MECHANICAL CHARACTERISTICS			
Weight	Unpacked: 250gms, Packed: 300gms		Unpacked: 275 gms, Packed: 350gms
Torque at terminals	1 N-m (CT Operated), 2.5 N-m (Direct Current)		
Wire-gauge at terminals	11 AWG (for CT Operated)		