



Measure



Monitor



Analyze



Optimize



Alerts



# Ebrit Multi

**HPL Electric & Power Limited** brings to you a wide range of AC Energy meters. Ebrit Multi is Three Line Multifunction meter with LED Display to measure electrical value for HV/LV electrical network using 4 push-button on front panel.

## Applications

- Retrofit or new electrical panels where a compact cutout is preferred (MCC/PCC feeders, DG incomers, sub-panels)
- LV distribution monitoring for voltage, current and frequency within direct measurement limits (0–750 V AC, 0–7.5 A AC, 45–65 Hz)
- Three-phase networks where Star/Delta system selection and phase-wise indication are required (V3/A3/PF3/PM3/VAF/VAF+ variants)
- Commissioning and troubleshooting use cases using built-in Test Mode functions like connection check and phase sequence (three-phase models)

## Benefits

- Reduces commissioning time by enabling on-meter validation of CT/PT ratios, network type, and connection/phase sequence from the Test Mode
- Improves day-to-day readability with 14 mm seven-segment LED display, auto decimal adjustment, and manual/auto scroll viewing
- Helps standardize panel designs: same form factor and common key operations across multiple measurement variants (V, A, F, PF, Power, VAF)
- Supports controlled access to settings with password-based configuration and lock/unlock of parameters (minimizes accidental changes)

## Features

- Suitable for 3 phase 4 wire & 3 phase 3 wire LT & HT Network
- Wide-range AC / DC auxiliary power supply
- Field configurable CT/PT ratios
- Accuracy class 1.0 & 0.5s
- THD measurement for Voltage & Current
- RS485 MODBUS communication port
- Adjustable scroll time (1–99 s) and Favorite Display selection for run-mode parameters
- Measurement & display: 0–750 V AC, 0–7.5 A AC, 45–65 Hz; display range 0–9999; resolution 0.1 V / 0.001 A / 0.1 Hz; auto decimal
- IP54 front protection,
- Device safety as per IEC 61010, operating 0–60 °C, storage –20–70 °C, up to 95% RH





## Technical Specifications

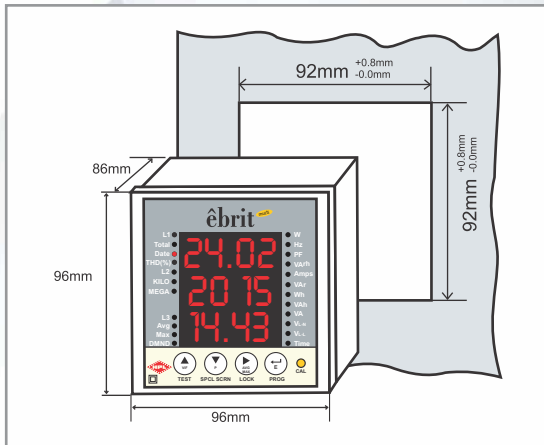
Parameters	Description	Details
<b>A. Input Current</b>	Via Current Transformer with primary	"From 5A to 9995A in multiple of 5 (For CT secondary = 5A) Or 1A to 2000A in multiple of 1 (For CT secondary = 1A)"
	Insulated secondary	5A / 1A (selectable)
	Current circuit burden	< 0.25VA
	Starting Current (Secondary)	10mA (Secondary)
	Overload Current	7A
	Overload Current (Primary)	9999A
<b>B. Input Voltage</b>	Measurement range	60V AC to 300V AC Phase to Neutral
	Via Voltage Transformer (PT) with Primary (3P4W)	110V / 1.1kV / 2.2kV / 3.3kV / 6.6kV / 11kV / 22kV / 33kV / 66kV / 121kV / 132kV (selectable)
	Insulated Secondary	110V (Fixed)
	Nominal Frequency Range	50/60 Hz
	Voltage circuit burden	≤ 2VA per phase
	Auxiliary Supply	80V to 300V AC/DC, 50Hz
<b>C. Enclosure</b>	Dimensions	96mm x 96mm x 86mm
	Weight	550gms. (Approx.)
<b>D. Front Panel</b>	Display	Three Line LED Display
	Digit Height	8mm x 5mm
	Protection Index	IP 54 (front panel)
<b>E. Pulse Output</b>	Duration	100ms
	Width	Power Ratio<101, 1pulse=1kWh
		Power Ratio>101 & Power Ratio<1001, 1pulse=10kWh
		Power Ratio>1001 & Power Ratio<10001, 1pulse=100kWh
		Power Ratio>10001 & Power Ratio<100001, 1pulse=1000kWh
	Power Ratio>100001, 1pulse=5000kWh	



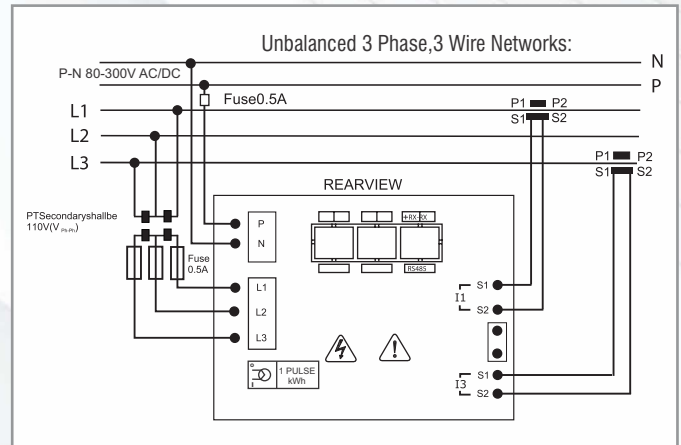
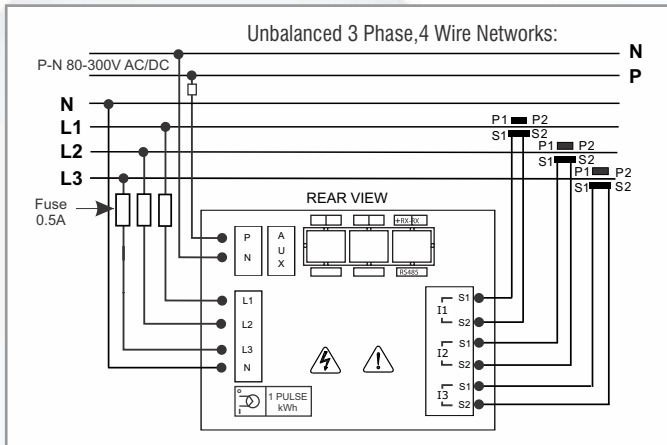
## Display Parameters

Mode	Display Parameters	3P3W	3P4W
<b>A. Auto Scroll Mode</b>	Inst. Phase Wise Phase – Neutral Voltage (Volt)	•	
	Inst. line Voltage (Volt)		•
	Inst. Phase Wise Current (Amp)	•	•
	Frequency (Hz)	•	•
<b>B. Push Button VIF Mode</b>	Inst. Phase Wise Phase – Neutral Voltage (Volt)	•	
	Inst. Phase Wise Current (Amp)	•	•
	Inst. line Voltage (Volt)	•	•
	THD (%) Phase Wise Phase – Neutral Voltage (Volt)	•	
	THD (%) Phase Wise Current (Amp)	•	•
	THD (%) line Voltage (Volt)		•
	Frequency (Hz)	•	•
	Real Date & Time	•	•
<b>C. Push Button Test Mode</b>	LED Segment Check	•	•
	CTRatio	•	•
	PTRatio	•	•
	RTC Status	•	•
	EEPROM Status	•	•
	Phase Sequence of Voltage	•	•
	Phase Sequence of Current	•	•
<b>D. Push Button P Mode</b>	Phase Association Status	•	•
	Inst. Phase Wise Active Power (kW)	•	
	Inst. Phase Wise Apparent Power (kVA)	•	
	Inst. Phase Wise Reactive Power (kVAr)	•	
	Total Active, Apparent & Reactive Power	•	•
	Inst. Phase Wise Power Factor (PF)	•	
	System Power Factor (PF)	•	•
	Active Power Maximum Demand (kW)	•	•
	Active Power Maximum Demand Date & Time	•	•
	Apparent Power Maximum Demand (kVA)	•	•
<b>E. Push Button Special Screen Mode</b>	Apparent Power Maximum Demand Date & Time	•	•
	R Phase – kW, Current, Voltage	•	
	Y Phase – kW, Current, Voltage	•	
	B Phase – kW, Current, Voltage	•	
	R Phase – Power Factor, Current, Voltage	•	
	Y Phase – Power Factor, Current, Voltage	•	
	B Phase – Power Factor, Current, Voltage	•	
	R Phase – kW, kVAr, kVA	•	
	Y Phase – kW, kVAr, kVA	•	
	B Phase – kW, kVAr, kVA	•	
<b>F. Push Button Avg Max Mode</b>	Phase Wise Average Voltage (Volt)	•	
	Phase Wise Average Current (Amps)	•	
	Avg. Active, Apparent & Reactive Power	•	•
	Phase Wise Maximum Voltage (Volt)	•	
	Phase Wise Maximum Current (Amps)	•	
	Max. Active, Apparent & Reactive Power	•	•
	Run Hour	•	•
	Power On Hour	•	•
<b>G. Push Button E mode</b>	Active Energy (kWh)	•	•
	Apparent Energy (kVAh)	•	•
	Reactive Energy (kVArh) Lag	•	•
	Reactive Energy (kVArh) Lead	•	Y

## Dimensions (mm)



## Electrical Connection



## Ordering Information

Type	Display	Item Code	
		Accuracy Class 1.0	Accuracy Class 0.5s
Ebrit Multi	LED	PAMEBRITMF11	PAMEBRITMF15
Ebrit multi with Rs485	LED	PAMEBRITMF21	PAMEBRITMF25
Ebrit multi THD with Rs485	LED	PAMEBRITMF31	PAMEBRITMF35