



QUASAR

Intelligent Panel Meter





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ELECTRICAL STANDARD PRODUCTS

L&T's Electrical Standard Products offer a wide range of low voltage switchgear components, metering & protection systems, reactive power management solutions, signalling & control devices etc.

All the products are designed to serve customers having varying application needs. Customer requirements are met by appropriate design adaptations to with stand adverse factors like corrosive atmosphere, wide voltage fluctuations, excessive humidity, dust, high ambient temperature and different skill levels.

Many of our products have won the prestigious Good Industrial Design award at the Hannover Fair in Germany.

L&T offers multi parameter Intelligent Panel Meter which can efficiently monitor healthiness of the power system with many user friendly features. This multi-faceted meter can also be used in Energy Management System.

APPLICATION

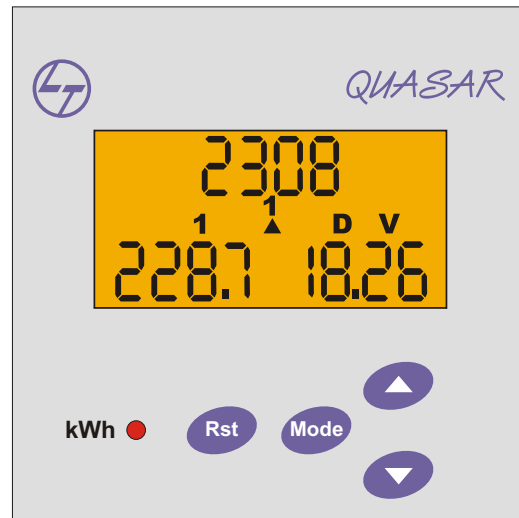
Comprehensive measuring device for all electrical parameters

- Control & Relay panels
- MCCs / PCCs
- Distribution Boards
- Test benches
- Test equipments
- Machine tools
- Building automation
- Power management systems
- Reactive power compensation systems

FEATURES

- Dimension: 96 x 96 mm - saves panel space.
- Display of 3 parameters per screen
- 21 screens of measured values
- Class 1.0 accuracy
- 3 ph 3 wire / 3 ph 4 wire measurement
- Instantaneous & Cumulative values of parameter
- Max / Min values of critical parameters
- Remote Metering Feature - RS 485 communication
- Economical

FRONT PANEL CONTROLS



- Up / Dn push buttons for scrolling
- Mode selector push button for feeder parameters programming
- Reset push button for resetting the integrated values

PARAMETERS MEASURED

Screen 1	V, A, kW
Screen 2	R-Y-B Voltages
Screen 3	R-Y-B Currents
Screen 4	R-Y-B kW
Screen 5	R-Y-B kVAr
Screen 6	R-Y-B kVA
Screen 7	R-Y-B pF
Screen 8	R-Y-B Volt angles
Screen 9	R-Y-B Phase angles
Screen 10	kW + kVAr + kVA
Screen 11	Pd + pF + F
Screen 12	kWh
Screen 13	kVArh (L)
Screen 14	kVArh (C)
Screen 15	kVAh
Screen 16	R ph. Voltage - Harmonics
Screen 17	Y ph. Voltage - Harmonics
Screen 18	B ph. Voltage - Harmonics
Screen 19	R ph. Current - Harmonics
Screen 20	Y ph. Current - Harmonics
Screen 21	B ph. Current - Harmonics

TECHNOLOGY

- DSP based design
- Custom built LCD display
- Low power consumption
- Class 1.0 accuracy
- Direct reading
- EMI / EMC compliant
- Programable input parameters

COMMUNICATION INTERFACE (OPTIONAL)

- RS 485 Port
- Modbus – RTU protocol
- Memory map – provided



TECHNICAL SPECIFICATIONS

Accuracy	For Power Class 1.0 IEC 1036 / IS13779 For Voltage 0.5% of reading (+/- 2 digits) For current 0.5% of reading (+/- 2 digits)
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Voltage input Vn

3 ph 4 W	415 V ac (-40% to +20%) 110 V ac (-40% to +20%)
3 ph 3 W	110 V ac (-40% to +20%)

Current Input In	5 A or 1 A
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Starting Current	0.2% In (Class 1.0)
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Frequency	50 Hz +/- 10%
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Load Characteristics

Potential circuit	< 8 VA
Current circuit	< 0.5 VA

Short time over current	40 times In for 500 ms
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Case Material	Plastic moulded Protected to IP 51
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Display	Backlit LCD, 10 mm height digits
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Temperature	0°C to 60°C for operation -20°C to + 70°C for storage
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Humidity	95% RH non condensing
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Dimension (mm)	96 W x 96 H x 105 D
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Weight	< 600 gms
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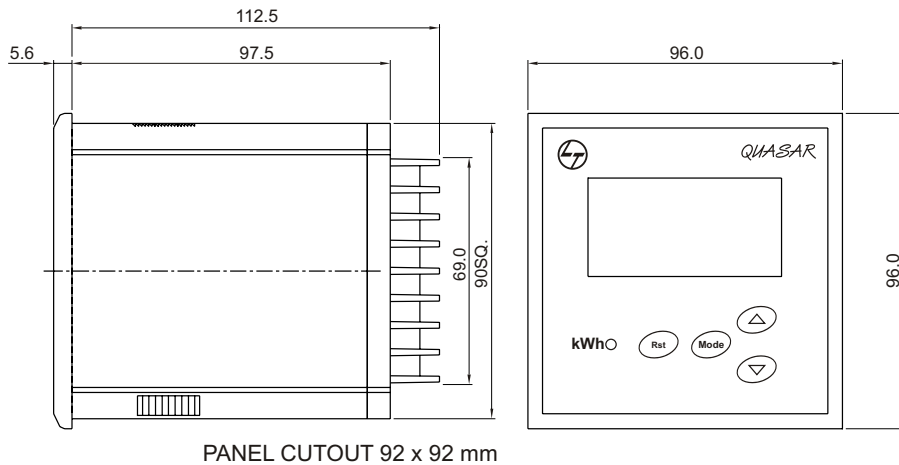
MEASURING INPUTS

QUASAR can be used in both HT and LT applications. In case of LT, the meter can be connected to 415 V line to line voltage directly. In case of HT, the meter receives inputs from external CTs and PTs. The CT / PT ratios can be programmed in the meter so that the measurements are direct reading, without the need for scaling.

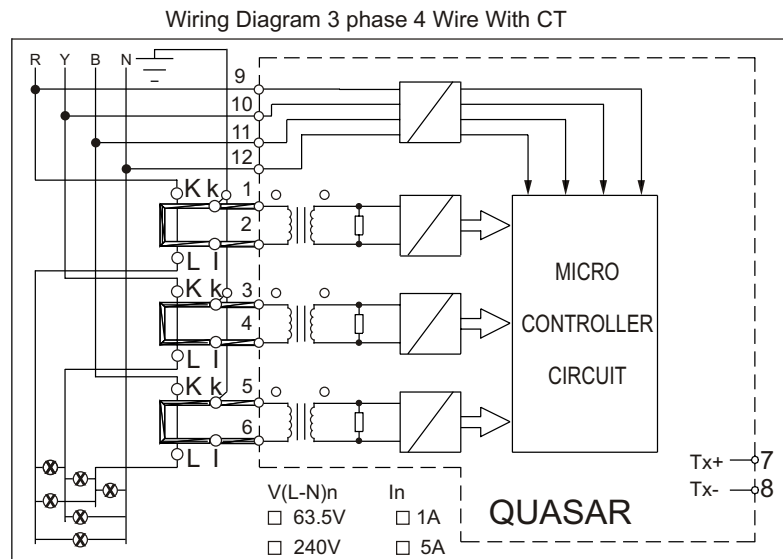
ORDERING INFORMATION

- Type of connection : 3 phase 3 wire OR 3 ph 4 wire
- PT input : 415 V / 110 V
- CT input : 1 A / 5 A
- With / without RS 485 communication

OVER ALL DIMENSIONS



TYPICAL WIRING DIAGRAM



Note : Please refer operating manual for more information

All Dimension are in mm.



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