

Technical Specifications for Three-phase Power Meter suitable for frequency up to 400 Hz
Document No: EMC/CPM-03/2022

S.No	BHEL Specification
1	It shall measure and display Three-phase values of RMS voltage, current, active power, reactive power, apparent power, power factor, frequency and phase angle.
2	It shall support measurement in single-phase two-wire, three-phase three-wire and three-phase four-wire configuration.
3	It shall have Operating temp range: 5 °C to 40 °C or better
4	Input supply: 1-Ph, 230V, 50Hz standard Indian power supply
5	Measurable Voltage Range (selectable): up to 600V or better Accuracy: $\pm 1.5\%$ of nominal voltage or better (for frequency range up to 400Hz)
6	Measurable Current Range (selectable) : up to 20A or better Accuracy: $\pm 1.5\%$ or better (for frequency range up to 400Hz)
7	Measurable Frequency Range: 45Hz-400Hz or better
8	Measurable Power Factor Range: 0 to 1
9	It shall be able to connect to a computer through standard communication method for data transfer and supplier shall provide required software application if any.
10	Applicable Standards: a) Safety standard: EN61010 or equivalent or any suitable standard to meet over voltage protections Category 2 600V b) Emission: EN55011-Group1 or any equivalent standard or any suitable standard c) Immunity: EN61326 or any equivalent standard or any suitable standard
11	Accessories to be Supplied Standard Power Adapter and other standard accessories if any
12	Documents to be Provided Calibration Certificate/Test certificate Operation Manuals (softcopy/hardcopy/both)
13	The minimum acceptable warranty period shall be 12 months from the date of acceptance. Supplier shall comply with the minimum acceptable warranty period. The offers of the suppliers not complying with the minimum warranty period will be rejected.
14	Compliance sheet: Completely filled, duly signed and stamped compliance sheet- Doc.No: EMC/CS-04 (enclosed) shall be submitted along with technical offer.
15	Bill of Materials: Supplier shall clearly mention all deliverable in Bill of Material (BoM) and BoM shall be submitted along with technical bid.

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Compliance Sheet for Three-phase Power Meter suitable for frequency up to 400 Hz
Document No: EMC/CS-04/2022

S.No	BHEL Specification	Supplier Specification
1	It shall measure and display Three-phase values of RMS voltage, current, active power, reactive power, apparent power, power factor, frequency and phase angle.	
2	It shall support measurement in single-phase two-wire, three-phase three-wire and three-phase four-wire configuration.	
3	It shall have Operating temp range: 5°C to +40 °C or better	
4	Input supply: 1-Ph, 230V, 50Hz standard Indian power supply	
5	Measurable Voltage Range (selectable): up to 600V or better Accuracy: $\pm 1.5\%$ of nominal voltage or better (for frequency range up to 400Hz)	
6	Measurable Current Range (selectable) : up to 20A or better Accuracy: $\pm 1.5\%$ or better (for frequency range up to 400Hz)	
7	Measurable Frequency Range: 45Hz-400Hz or better	
8	Measurable Power Factor Range: 0-1	
9	It shall be able to connect to a computer through standard communication method for data transfer and supplier shall provide required software application if any.	
10	Applicable Standards: a) Safety standard: EN61010 or equivalent or any suitable standard to meet over voltage protections Category 2 600V b) Emission: EN55011-Group1 or any equivalent standard or any suitable standard c) Immunity: EN61326 or any equivalent standard or any suitable standard	
11	Accessories to be Supplied Standard Power Adapter and other standard accessories if any	
12	Documents to be Provided Calibration Certificate/Test certificate Operation Manuals (softcopy/hardcopy/both)	
13	The minimum acceptable warranty period shall be 12 months from the date of acceptance. Supplier shall comply with the minimum acceptable warranty period. The offers of the suppliers not complying with the minimum warranty period will be rejected.	
14	Make and Model Number	
15	Bill of Materials: Supplier shall clearly mention all deliverable in Bill of Material (BoM) and BoM shall be submitted along with technical bid.	

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