

PQR-R01

PQR For Digital Ammeter and voltmeter PI No- 240932369

S. No	Description of requirement	Document to be attached
1	Bidder should be OEM / OEM authorized representative,	Self-Declaration of OEM or OEM authorization certificate.
2	Bidder should have supplied same or similar type of meters in any one of last five financial Year to BHEL or any Central / State Govt Organization / PSU.	Purchase Order copy(s)/ Invoice(s) / Any other document certifying the supplies

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INSTRUMENTS**Item -01 - DIGITAL AMMETERS**

S.NO.	TECHNICAL SPECIFICATION	Vendor to give compliance in Yes/No
1	Four Digit LED Display CT operated digital 3-Phase A.C. Ammeter	
2	IS/IEC Compliance Standards: IS 1248/2003 or Any other standard as applicable.	
3	CTR – 400-200-100/1A or 600-300/1-1A; However CTR should be Field configurable for CT primary and secondary values suitable for both 1A & 5A secondary currents.	
4	The meter shall have the facility to take 3-Phase CT input for display of 3-phase current & Neutral.	
5	The display is 4-Line which will display all the three phase currents and neutral currents simultaneously without any requirement of inbuilt selector switch (However 3-line display is also acceptable with provision of display of neutral current by scrolling/switching).	
6	The display shall be of LED type with minimum 4 digits and a decimal point with display range 0.000 to 999.9.	
7	Class of accuracy - 0.5	
8	Current measurement range: 0-120% of CT Secondary.	
9	The Ammeter shall work with auxiliary supply is 110V or 240V AC with $\pm 20\%$ variation(to be informed during execution).	
10	The burden on auxiliary supply shall be less than 3 VA.	
11	The current circuit burden shall be <0.1 VA per phase for 1A & <0.3 VA Per phase for 5A secondary.	
12	Size 96x96mm and the depth shall not exceed 110mm.	
13	The connector shall accommodate 2.5sq.mm copper cable.	
14	The short time current bearing capacity shall be as applicable IS/IEC standards.	
15	Ingress protection IP54 front facia and IP 20 for back terminals.	
16	Password protection for setup is preferable.	
17	Maximum Overload – 1.2 times continuous	

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Item -02 - DIGITAL Voltmeter

S.NO.	TECHNICAL SPECIFICATION	Vendor to give compliance in Yes/No
1	Four Digit LED Display digital A.C. Voltmeter	
2	IS/IEC Compliance Standards: IS 1248/2003 or Any other standard as applicable.	
3	PTR – 11kV/110V, However PTR should be field configurable.	
4	Soft selection to view phase to phase and phase-neutral voltages for all the three phases based on selection.	
5	The display shall have at least 3 lines to display simultaneously all three phases/phase to phase voltages with display parameters selection facility for onsite view.	
6	The display shall have at least 3 lines to display range 0.000 to 999.9.	
7	Class of accuracy - 0.5	
8	Measurement Voltage range (PT Secondary): 5V to 200V (phase to phase), 100V phase to neutral with $\pm 20\%$ variation.	
9	The Voltmeter shall work with auxiliary supply is 110V or 240V AC with $\pm 20\%$ variation (to be informed during execution).	
10	The burden on auxiliary supply shall be less than 3 VA.	
11	The voltage circuit burden shall be $<0.25\text{VA}$ per phase.	
12	Size 96x96mm and the depth shall not exceed 110mm	
13	The connector shall accommodate 2.5sq.mm copper cable.	
14	The short time current voltage bearing capacity shall be as applicable IS/IEC standards.	
15	Ingress protection IP54 front facia and IP 20 for back terminals.	
16	Password protection for setup is preferable.	
17	Maximum Overload – 1.2 times continuous	

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NOTES:-

S.NO	NOTE	Vendor to give compliance in Yes/No
001	2 copies of panel cutout, terminal diagram are to be furnished along-with offer.	
002	1 copy of type test reports along with order acceptance (less than 5 years old).	
003	2 copies of routine test certificates are to be furnished at the time of delivery.	
004	The supplier shall guarantee the satisfactory performance of the meter for a period of 66 months from the date of receipt at BHEL Bhopal or 60 months from the date of commissioning, whichever is earlier.	

ACCEPTANCE CRITERIA:

1. Visual checks for cracks and surface finish.
2. Rating plate as per specification parameters.
3. Availability of all routine test certificates.

Prep. by :

Approved by :

Date :

Date :