

**BHARAT HEAVY ELECTRICALS LIMITED, JHANSI**

Specification No. 9401

Item No. SP/test/9401/1 &amp; 2

Location BOGIE SHOP

Quantity TWO NUMBER

**SCOPE :****DESIGN, MANUFACTURING, TESTING, SUPPLY INSTALLATION AND COMMISSIONING OF RECTIFIER DEVICE FOR D.C.MOTOR RUN TEST****NOTE :**

- 1 VENDOR must submit complete information against clause No.11.0 (Qualifying condition). The offer meeting this clause would only be processed.
- 2 The "offered" Column and where applicable, the "Deviations" Column of this format shall be filled in by the Vender and submitted along with the offer. Technical details also submitted with the offer. Inadequate / incomplete, ambiguous, or unsustainable information against any of the clauses of the specification / requirements shall be treated as non-compliance.
- 3 The offer and all documents enclosed with offer should be in English language only.

**SPECIFICATION CUM COMPLIANCE CERTIFICATE OF RECTIFIER DEVICE FOR D.C.MOTOR TEST**

S.NO.	DESCRIPTION FOR BHEL REQUIREMENT	OFFERED	DEVIATIONS
1.0	<b>SCOPE</b>		
1.1	This specification governs the quality requirements of design, manufacturing, testing, packing and supply of rectifier device for D.C.Motor run test complete in all respect ready to use.	VENDER TO CONFIRM	
2.0	<b>REQUIREMENT</b>		
2.1	Indoor panel mounted Rectifier device for D.C.motor run test	VENDER TO CONFIRM	
2.2	Rectifier device should be suitable to test 3 motors in parallel	VENDER TO CONFIRM	
3.0	<b>QUANTITY</b>		
	<b>TOTAL - 2 Number</b>	VENDER TO SPECIFY	
4.0	<b>SPECIFICATION</b>		
4.1	Type - Indoor	VENDER TO CONFIRM	
4.2	<b>INPUT</b>		
4.2.1	Input voltage : 415 Volt $\pm 10\%$ , 3 Phase	VENDER TO CONFIRM	
4.2.2	Frequency range : 47 to 53 HZ	VENDER TO CONFIRM	
4.2.3	Input protection : A.C. Fuses & Soft start	VENDER TO CONFIRM	
4.2.4	Indication : LED for input ON (Red)	VENDER TO CONFIRM	
4.2.5	Metering : Analogue meter for input Voltage	VENDER TO CONFIRM	
4.3	<b>OUTPUT</b>		
4.3.1	Output voltage : 5 to 110 Volt (Maximum) adjustable	VENDER TO CONFIRM	
4.3.2	KW rating : Not less than 25KW	VENDER TO CONFIRM & SPECIFY	
4.3.3	Regulation : $\pm 1\%$ line and load		
4.3.4	Ripple : Less than 3%	VENDER TO CONFIRM	
4.3.5	Protection : Out put over voltage	VENDER TO CONFIRM	
	: Over load	VENDER TO CONFIRM	
	: Short circuit	VENDER TO CONFIRM	
4.3.6	LED for output (ON) green	VENDER TO CONFIRM	
	LED for output over voltage (Yellow)	VENDER TO CONFIRM	
	LED for overload (Amber)	VENDER TO CONFIRM	
	LED for short circuit (RED)	VENDER TO CONFIRM	
4.3.7	Metering : Analogue meters for output voltage and current	VENDER TO CONFIRM	
4.3.8	Termination : Terminal block shall be provided for connection of 25 sq. mm cable.	VENDER TO CONFIRM	

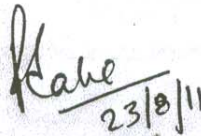
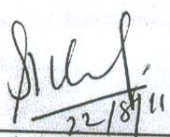
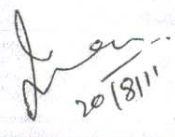
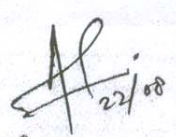


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S.NO.	DESCRIPTION FOR BHEL REQUIREMENT	OFFERED	DEVIATIONS
4.3.9	Cooling : Suitable cooling arrangement shall be provided	VENDER TO CONFIRM & SPECIFY	
4.3.10	Main incoming switch : Suitable rating main incoming ICTPN fuse switch unit shall be provided for the termination of main incoming cable. :	VENDER TO CONFIRM & SPECIFY	
4.3.11	Suitable interlocking shall be provided	VENDER TO CONFIRM & SPECIFY	
<b>5.0</b>	<b>PAINTING</b>		
5.1	Paint - Enamel Light Grey, Shade no. 631 of IS : 5	VENDER TO CONFIRM	
<b>6.0</b>	<b>INSPECTION AND TESTING AT SUPPLIER WORKS</b>		
6.1	<b>ROUTINE TESTS - As per IS</b>	VENDER TO CONFIRM	
<b>7.0</b>	<b>GUARANTEE</b>		
7.1	<b>Guarantee for complete rectifier device and all supplied accessories/ attachments/equipments/items shall be for 24 months from the date of commissioning of the device.</b>	VENDER TO CONFIRM	
<b>8.0</b>	<b>ERECTION AND COMMISSIONING</b>		
8.1	The rectifier device is to be Erected at site by the supplier with their own labour, tools and tackles.	VENDER TO CONFIRM	
8.2	The supplier shall bring their own instruments for the commissioning of panel ( on returnable basis ). The load test shall be performed at BHEL site for proving of the rectifier device.	VENDER TO CONFIRM	
8.3	Commissioning-spares, required if any for commissioning of the rectifier device shall be brought by the supplier on returnable basis.	VENDER TO CONFIRM	
8.4	Schedule of Erection and Commissioning shall be submitted before starting of erection work	VENDER TO CONFIRM	
8.5	Charges, duration, terms & conditions for E&C should be furnished in detail separately by vendor along with offer.	VENDER TO CONFIRM & SUBMIT	
<b>9.0</b>	<b>TRAINING:</b>		
9.1	Vendor to impart training to BHEL personnel for operation & for maintenance at BHEL works after Erection, Commissioning and handing over of the rectifier device.	VENDER TO CONFIRM	
<b>10.0</b>	<b>DOCUMENTATION :</b>		
10.1	<b>During participation in technical Bid.</b>	VENDER TO CONFIRM	
10.1.1	G.A. Drawing.	VENDER TO CONFIRM	
10.1.2	Technical literature	VENDER TO CONFIRM	
10.2	<b>After Receipt of LOI/Order:</b>		
10.2.1	G.A.Drawing, schematic and control circuit diagram for approval	VENDER TO CONFIRM	
10.2.2	Vendor to submit appropriate Q.A. Plan.	VENDER TO CONFIRM	
10.3	<b>With the supply</b>		
10.3.1	Operating manuals - 3 Sets.	VENDER TO CONFIRM	
10.3.2	Detailed Maintenance manual of rectifier device, Spares- part list / concerned drawing of the spares -3 Sets.	VENDER TO CONFIRM	
10.3.3	Catalogues, O&M Manuals of all bought out items including drawings, wherever applicable.	VENDER TO CONFIRM	



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S.NO.	DESCRIPTION FOR BHEL REQUIREMENT	OFFERED	DEVIATIONS
11.0	QUALIFYING CONDITIONS		
11.1	Only those venders, who are in the line of panel manufacturing shall quote and submit company profile with test facilities available	VENDER TO CONFIRM & SUBMIT	
11.2	Only those vendors, who have supplied and commissioned at least one similar device (D.C.source) or equivalent in past 10 years and such device is presently working satisfactorily (As on date of opening of tender) should quote. Vendor to submit performance certificates from the customers whom said machine is supplied for the satisfactory performance of the machine after one year of commissioning of the machine and the equipment is presently working satisfactorily.	VENDER TO SUBMIT	
11.3	Name of the customer / company where similar equipment is installed.	VENDER TO SUBMIT	
11.4	Complete postal address of the customer.	VENDER TO SUBMIT	
11.5	Month & Year of commissioning.	VENDER TO SUBMIT	
11.6	Name and designation of the contact person of the customer.	VENDER TO SUBMIT	
11.7	Phone, FAX no. and e-mail address of the contact person of the customer.	VENDER TO SUBMIT	
12.0	BHEL reserves the right to verify information submitted by vender. In case the information is found to be false/ incorrect, the offer shall be rejected.	Vender to confirm	
	 23/8/11	 22/8/11	 20/8/11
	R.K. Saha AGM (CQX & Test) - Loco	S.J. Chakraborty Sr. DGM (WE&S)	Inder Mathur Sr. Manager (WE&S)
			 22/08
			Mohd. Arshad Manager (LMM)