

Supply & Commissioning of Automatic Power Factor Correction Panel as per the BHEL Technical specification given below.

SUPPLIER:

CONTACT PERSONS:	
ADDRESS:	
TELEPHONE NOS:	
MOBILE NOS:	
FAX NOS:	
E-MAIL ADDRESS:	

- 1 Supplier must submit complete information against all clauses.
- 2 The "Offered" Column and where applicable, the "Deviations" & "Remarks" Column of this format shall be filled in by the Supplier and submitted along with the offer, Inadequate / incomplete, ambiguous, or unsustainable information against any of the clauses of the specifications/ requirements shall be treated as non-compliance.

SPECIFICATIONS:

SI.No.	Description for BHEL Requirement	Required	Deviations	Remarks
1	Manufacturer Name & Address			
2	APFC Panel Rating	500 KVAR		
3	No. and rating of capacitor stages, type (min 11 stages)	100KVAR/ 2Nos., 50KVAR/ 4Nos., 25 KVAR / 3Nos., 12.5 KVAR / 2 Nos.		

4	Model and make of capacitor	MD Heavy Duty capacitor / MDXL Super Heavy Duty capacitor.		
5	Rated Voltage	415 Volts +/-10%		
6	Rated Frequency	50 HZ.+/-5%		
7	Current measurement CT ratio	1000/5.		
8	System	3 Phase, 4 wire system.		
9	Type of service	Continuous, indoor operation.		
10	Panel Protection	IP 42		
11	Full Confirmation to relevant latest International Standards	Vendor to confirm		
12	Automatic PF control- make Electronican/L&T/ABB/Schnider /EPCOS or other make acceptable to BHEL.	Intelligent Microprocessor based power factor controller.		
13	Switching Time	Variable and selectable		
14	Protection	Over voltage		
15	Detection and display.	Over voltage, over current, harmonics		
16	Manual operation.	Selectable option		
17	Switching mode of capacitors	Thyristors & transient free with suitable protection for thyristors.		
18	Incoming MCCB, make - Simens/L&T/Schnider/ABB or other make acceptable to BHEL.	TP+N MCCB Micro processor based O/L, S/C protection.		
19	Digital indicating meters for current ,voltage and power factor, %THD should be to be provided in the panel front	Vendor to confirm		
20	No volt release in the event of power failure.	Vendor to confirm		
21	Necessary switchgear, contactors, HRC fuses.	Vendor to confirm		

22	Panel Fabrication	minimum 3 mm thick CRCA sheet		
23	Panel dimension	Vendor to confirm		
24	Panel ventilation	Exhaust fans		
25	Max. temperature range Ambient	+/- 50 deg. C		
26	Panel shall conform to IER with provision for earthing, fully wired. painted required	Vendor to confirm		
27	Detuned harmonic suppression filters	Copper reactor rated for 7% of capacitive reactance for individual capacitor controls. Thermal protection for filters required.		
28	Test Certificate	Vendor to confirm		
29	Panel heater with thermostat	Required		
30	Final inspection to be offered before despatch.	Vendor to confirm		
31	Installation, commissioning & training at BHEL, CSU&FP, Jagdishpur, Distt Amethi,Uttar Pradesh, India 227817	Vendor to confirm		
32	Standard Accessories: As Applicable (vendor to specify in a separate sheet)	Vendor to confirm		
33	Spares: Vendor to recommend spares and offer them as optional items, for at least 2 yrs of satisfactory service of the APFC panel after expiration of the warranty period.	Vendor to confirm		
34	03 sets of Operation,Maintenance and Programming manual in English for Micro Processor, with circuit/ wiring diagram to be supplied along with the panel Required. Single copy of make, rating details, technical details and catalogue of all the bought out items used in the panel.	Vendor to confirm		
35	Technical catalogue furnishing the features of the controller and panel shall be enclosed with the offer Required.	Vendor to confirm		
36	The capacitor, APFC controller and contactors/switch gears offered should be reputed make acceptable to BHEL.	Vendor to confirm		

37	GA drawings and bill of materials to be submitted for approval before manufacturing of the panels.	Vendor to confirm		
38	During commissioning the APFC panel in the substation, programming of the capacitors to suit the reactive compensation to be supported by the firm and necessary training to our staffs should be given.	Vendor to confirm		
39	Onsite Warranty: Min.2 Yr from the date of satisfactory commissioning.	Vendor to confirm		
40	List of Authorized Service Centers in India with service terms & conditions	Vendor to confirm		