

TECHNICAL SPECIFICATION FOR 'DC PROGRAMMABLE SOURCE (0-24 V, 0-15 A)'**SPECIFICATION NO. EMT - 6871**

1. Vendor must submit complete information against Pre Qualifying conditions (PQR) clause no. 11. The offer meeting this clause would only be processed further.
2. The "Offered" Column and where applicable, the "Deviations" Column of this format shall be filled in by the Vendor and submitted along with the offer. Inadequate / incomplete, ambiguous or unsustainable information against any of the clause of the specifications/ requirements shall be treated as non-compliance.
3. The offer and all documents enclosed with offer should be in English language only.

SL NO.	DESCRIPTION OF BHEL REQUIREMENT	To be Specified / confirmed by	Offered	Deviations
1.0	PURPOSE :			
1.1	DC Programmable Source (0-24 V, 0-15 A) is required for producing stable output power, output voltage and output current for testing the response of various electrical circuits and electronics instruments used in Control Panels.	Vendor to note.		
2.0	SCOPE :			
2.1	The scope of supply includes the design, manufacturing, supply, installation and prove out of the equipment at BHEL works, Haridwar.	Vendor to confirm.		
3.0	TECHNICAL SPECIFICATION OF DC PROGRAMMABLE SOURCE (0- 24 V, 0-15 A):			
3.1	Job Description:- Reliable DC supply for testing of various electrical and electronics components used in manufacturing of control panels	Vendor to confirm.		
3.2	Output Voltage: 0-24 V (or Higher)	Vendor to confirm.		
3.3	Output Current: 0-15 A (or Higher)	Vendor to confirm.		
3.4	Output Power: 500 W or Higher	Vendor to confirm.		
3.5	Load Regulation (Voltage & Current) :0.2 % or better	Vendor to confirm.		
3.6	Response/Transient Time: 80 ms or less maximum from power ON until output stable	Vendor to confirm.		
3.7	Output Ripple (Peak-Peak), Voltage: 80mV or better	Vendor to confirm.		
3.8	Display: 3 Digit LED Display/LCD Display/TFT Display	Vendor to confirm.		
3.9	Measurement Accuracy:0.5% or better for both Voltage & Current	Vendor to confirm.		
3.10	External Programming ports: Suitable External Programming ports like Ethernet, RS232, USB & GPIB interface to be provided.	Vendor to confirm.		
3.11	Rated voltage: Single phase 230 V $\pm$ 10% V, 50Hz $\pm$ 3%	Vendor to confirm.		
3.12	Configuration & Working: Flexible connection of multiple units in parallel or series with active current sharing for minimum continuous 5 days.	Vendor to confirm.		
3.13	Extensive device protection: Over-temperature, over-current and over-voltage protection (OVP) to shut down the power supply output when a fault condition occurs.	Vendor to confirm.		

dui
(Chander K. Singh)
BS. 000

Pallu Singh
(PALLU SINGH)
MR/CSE
Page 1 of 3

V. Ashish
(Vishal K. Ashish)
E-1 EMT

Neeraj
(Neeraj Mishra)
E3, DC-4&6

3.14	Weight & Dimensions : Suitably to be operated on tables	Vendor to confirm.		
4.0	SOURCE OF ELECTRIC SUPPLY :			
4.1	BHEL will provide input power supply of Single phase 230 V $\pm 10\%$ V, 50Hz $\pm 3\%$ from Isolator Switch (BHEL scope). Cable connection (approximately 2 meters) from isolator switch to DC Power Source is in the scope of vendor. There will be no neutral wire and Earthing will be provided through shop structured column.	Vendor to confirm		
5.0	ENVIRONMENTAL CONDITION :			
5.1	Ambient Temperature: 5 to 40 °C, 30 to 80% RH	Vendor to confirm		
6.0	OPERATION AND MAINTENANCE MANUALS :			
6.1	3 Sets of operation, maintenance and spare part manuals in English language shall be supplied along with the equipment. The operation, maintenance and spare part manual should contain detail part numbers of components and drawings used as DC Programmable Source. O & M Manual shall include do's and don'ts, maintenance of DC Programmable Source. In addition to operation and maintenance instructions, these manuals shall have complete technical details of bought out items along with their source of supply.	Vendor to confirm.		
7.0	INSTALLATION & COMMISSIONING :			
7.1	Installation & Commissioning of DC Programmable Source shall be done by the vendor at BHEL Haridwar works. Vendor shall demonstrate function of the equipment during installation and commissioning and also train BHEL persons on various operations of the Machine. Programmable Source will be accepted only after successful demonstration at BHEL, Haridwar works.	Vendor to confirm.		
7.2	During installation, if any item is damaged / not functioning, vendor shall replace the same without any cost to BHEL.	Vendor to confirm.		
8.0	GUARANTEE / WARRANTY:			
8.1	Vendor shall offer 12 months Guarantee / Warranty from date of successful commissioning for the offered item.	Vendor to confirm.		
9.0	PACKING :			
9.1	The equipment shall be suitably packed to prevent damage during transit and storage. All small and loose items etc. should be suitably packed in separate boxes to prevent any damage during transit.	Vendor to confirm.		
10.0	PRODUCT LEAFLET/ CATALOGUE :			
10.1	Vendor /supplier to submit product catalogue / Leaflet / Drawing /Sketch of the offered item along with the offer.	Vendor to submit		
10.2	Vendor to submit their offer giving clause wise confirmation to this specification.	Vendor to submit		

Pallu Singh
CPALLU SINGH
MBR/CSE

Chandra Kishore
ES, ACN

V. Ashish
(Vishal Kr. Ashish)
EMT

Neeraj
Neeraj Mishra
E3, QC-4&6

11.0 PRE-QUALIFYING REQUIREMENTS FOR 'DC PROGRAMMABLE SOURCE (0-24 V, 0-15 A):-

DESCRIPTION OF BHEL REQUIREMENT	TO BE SUPPLIED/ CONFIRMED/ SUBMITTED BY	OFFERED	DEVIATION	REMARKS
Only those vendors will be qualified who have supplied and commissioned at least one number "DC Programmable Source of rating 0-24V, 0-15 A or higher rating" in the past Ten years (On the date of opening of Tender). The following information should be submitted by the vendor about the companies where referred 'DC Programmable Source' have been supplied. This is required from all the vendors for qualification of their offer.	Vendor to accept & confirm.			
11.1 Name of the customer / company where referred "DC Programmable Source" is supplied and installed.	Vendor to inform.			
11.2 Complete postal address of the customer.	Vendor to inform.			
11.3 Month & Year of commissioning	Vendor to inform.			
11.4 Parameters of "DC Programmable Source" supplied and application for which the it is supplied.	Vendor to inform.			
11.5 Name and designation of the contact person of the customer.	Vendor to inform.			
11.6 Phone, Fax No. and email address of the contact person of the customer.	Vendor to inform.			
11.7 Copy of purchase order and supporting acceptance papers for supplied "DC Programmable Source" from the customers will be required.	Vendor to submit.			
11.8 BHEL reserves the right to verify the information provided by vendor. In case the information provided by vendor is found to be false/ incorrect, the offer shall be rejected.	Vendor to accept & confirm.			

Pathan S.W.
msh/cse
dw
(Ganesh)
ES, AEM

V. Ashish
(Vishal Kr. Ashish)
ES, EMT

Neeraj
Neeraj Mishra
E3, QC 466