

ELECTRONICS CORPORATION OF INDIA LIMITED
CONTROL AND AUTOMATION DIVISION
Materials Management Division

ECIL/CAD/MMS/2013-14

Dt: 21/01/2014

Sub: Tender through "tenders.gov.in" and "ECIL Website" – Reg.
Ref: Indent No: 1964/751872, dt: 21/01/2014

This request may please be put under the heading "TENDERS".

Enclosed herewith enquiry calling quotations for "Programmable AC Power Source" through "tenders.gov.in" and "ECIL Website".

Matter to be written in tenders column:

Manufacturers /Authorized Distributors of "Programmable AC Power Source " are invited to quote.

Due date: 13/02/2014

Data that is to be put on website consists of 08 pages is enclosed here with.

You are requested to publish on website "tenders.gov.in" & "ECIL Website".

Y. Hemalatha
(Y.HEMALATHA)
SM/PUR

G. Mohan Rao
THROUGH: (G.MOHAN RAO)
SDGM, MMS

G. Mohan Rao
(HEAD, CAD)

To
Shri M.P.Ranga Rao/ Shri A.C.Rao, SDGM
Administrator EC Net
ECIL.

V.S.B. Rao
DIRECTOR (P)

वी.एस.बी.राव
V.S.B. RAO
निदेशक (कार्मिक)
Director (Personnel)

Encl: As above



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 E-mail : yhemalatha@ecil.co.in, rrc@ecil.co.in, cadmms@ecil.co.in



Electronics Corporation of India Limited
 A Government of India Enterprise
CONTROL & AUTOMATION DIVISION-PURCHASE
 ECIL Post, Hyderabad - 500 062.
 Ph:

ENQUIRY No. EC/PUR/CAD/ 1964/751872
 2014.01.21

DATE :

2014.02.13

DUE DATE :

Contact: Y. HEMALATHA (SM).

e-mail:

EXTRA COPY

Dear Sir(s),

Kindly submit you quotation in a Sealed Envelope Superscribing Enquiry No. and Due Date for the supply of the following items as per terms and conditions overleaf to PURCHASE MANAGER - CONTROL & AUTOMATION DIVISION ECIL, HYDERABAD-62. QUOTATIONS AGAINST EACH TENDER SHALL BE SENT IN SEPARATE ENVELOPE. QUOTATIONS RECEIVED AFTER THE DUE DATE AND TENDERS SENT IN OPEN/UNSUPERSCRIBED ENVELOPE WILL BE REJECTED. PLEASE SEND REGRET LETTER, IF YOU ARE NOT ABLE TO QUOTE TO CONTINUE TO KEEP YOUR NAME IN OUR MAILING LIST.

IMPORTANT INSTRUCTIONS

Parties must give the following information otherwise offer may be rejected.

- | | |
|--|---|
| 1. Unit Rate and Terms of price | 6. Estimated Packing and Forwarding Charges |
| 2. Quantity discount if any | 7. Validity of quotation |
| 3. Rate of Excise Duty, Sales Tax if any | 8. Terms of payment |
| 4. Firm Delivery schedule | 9. Sales Tax Registration Number/
VAT and Service Tax Regn. No |
| 5. Mode of despatch | 10. SSI/NSI Regn. No. |

Sl.No.	Material Description and Specification	Estimated Requirement	
		Unit Code	Quantity
1	Programmable AC Power Source - 30KVA, 30, 400HZ as per Annexure-1 Note: 1.You shall provide Datasheets along with the Quotation. 2.You shall provide Detailed Technical specs along with Commercial bid 3.You shall Quote Price in Suitable Slabs (1-5). 4.Technical and Commercial bids shall be separately and Submitted. 5.You shall quote price in Rupees and Foreign Currencies 6.Equipment to be delivered to BARC. MUMBAI. <u>Special Notes.</u> 1.OUR PAYMENT TERMS ARE 30 DAYS CREDIT.PLEASE QUOTE WITH THE SAME TERMS. 2.PLEASE QUOTE TERMS OF PRICE AS FREE DELIVER TO OUR STORES 3.THE ABOVE MATERIALS ARE URGENTLY REQUIRED.PLEASE QUOTE EARLIEST DELIVERY DATE. 4.IF YOU ARE UNABLE TO QUOTE, SEND REGRET LETTER POSITIVELY	Nos.	3

- NOTE:** 1. CERTIFICATE OF COMPLIANCE/BATCH CERTIFICATE/COE/CMR/ATX/WARRANTY TEST CERTIFICATE SHALL BE FURNISHED. PLEASE CONFIRM.
 2. DATA SHEETS (CATALOGUES) SHALL BE SUPPLIED WITH THE QUOTATION.
 3. IF THE MATERIAL IS COVERED UNDER DGS & D RATE CONTRACT. PLEASE QUOTE THE RATES ACCORDINGLY.
 4. IF THE MATERIAL IS COVERED UNDER EXCISE, FURNISH EXCISE TARIFF NUMBER AND CLASSIFICATION.

Yours faithfully,

For Electronics Corporation of India Limited

वाई. हेमलता / Y. HEMALATHA
 वरिष्ठ प्रबंधक / Senior Manager
 सीईडी-क्रय/CAD-PURCHASE
 ई सी आई एल, हैदराबाद
 ECIL, HYDERABAD-500 062

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7. Validity of quotation
8. Terms of payment
9. Sales Tax Registration Number/
VAT and Service Tax Regn. No
10. SSI/NSI Regn. No.

Sl.No.	Material Description and Specification	Estimated Requirement	
		Unit Code	Quantity
	BY FAX/MAIL. OUR FAX NO 27121013 AND MAIL ID yhemalatha@ecil.co.in. TO ENABLE US TO KEEP YOU IN MAILING LIST. 5. This is Two Part Bid Mechanism.		

- NOTE:**
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Yours faithfully,

For Electronics Corporation of India Limited

वाई. हेमलता / Y. HEMALATHA
वरिष्ठ प्रबंधक / Senior Manager
सीएडी-कम/ CAD PURCHASE
ई सी आई एल. हैदराबाद
ECIL, HYDERABAD 500 062

ANNEXURE-1

Specifications for 30KVA Programmable 3-PHASE AC Power Source

1. **Input Voltage Range:** 360 to 440V AC, Line to Line, 4-Wire (Star Connection).
2. **Input Frequency Range:** 47-53Hz

(Input Protection circuit & Line Filter must be provided).
3. **Output Voltage Range:** 220V (Nominal), Settable in range of 155-255V (Line-Line),
Acc: $\leq 0.2\%$, Resolution: $\leq 0.1\%$ even during total unbalanced loading conditions and during frequency changes.
4. **Output Phase:** 3 ϕ (3-Wire, Delta Connection) and 6-Single Phase, Phase Accuracy $\leq 1^\circ$
(Operating in both 3-PHASE and SINGLE-PHASE MODE).
5. **Output Frequency Range:** Nominal Frequency= 400Hz; Settable in the range of 350-450Hz, Acc: $\leq 0.1\%$, Resolution: $\leq 0.1\text{Hz}$
6. **Parallel Mode Operation (Optional):** Provision for parallel operation of 2/3 units to cater to higher loads.
7. **Load Regulation:** $\leq 1\%$
8. **Line Regulation:** $\leq 1\%$
9. **Harmonic Distortion:** Distortion to be $\leq 1\%$ in the entire frequency range.
10. **Apparent Power:** 30KVA (10KVA per Phase)

11. Power factor: ≥ 0.85

12. Efficiency: $\geq 80\%$

13. Temperature Range:

- a) Operating: 0-45 °C
- b) Storage: -40 to 80 °C
- c) Humidity: 30% to 90%

14. Interface: RS-232 for online changing of output voltage and frequency.

15. Load condition: 100% unbalanced load condition must be satisfied for 3-PHASE OUTPUT (All Possible Cases including ONE (Line-Line) OF THE THREE PHASES FULLY LOADED & OTHER KEPT OPEN).

16. Protections/Indications:

- a) Output Over load/Short Circuit
- b) Output Under/Over Voltage
- c) Over temperature
- d) Input Under/Over Voltage
- e) Input Phase fail/reversal

17. Input/output control & indications: Control and indications for input/output should be provided.

18. System Cooling: Suitable cooling arrangement to be provided for system cooling.

19. Cabinet:

- a) **Size:** The entire system has to be accommodated within 1.2m (height) x 0.6m (width) x 1.0m (length). Input and output cable entries should be from base of opposite face of front console.
- b) **IP21 Protection:** The system shall be housed in proper cabinets to provide IP21 protection.
- c) **Front face:** The front facia should have user console for displaying voltage, current frequency, power factor and power of each phase. There shall be voltage & frequency setting knobs/push button with locking facility and RS232 port (9-pin DBM) on front face. Also the voltage/frequency variable programmability shall be available on PC through RS232.
- d) **Rear Face:** All the input and output cable entry should be through the rear end of the cabinet.
- e) **Wheels & Studs:** Heavy duty wheels along with standing studs should be provided on bottom of the cabinet.

20. The following kind of programmability should be offered at the output of the equipment:**a. Voltage changes**

- i. Continuous operation at 220V (nominal voltage).
- ii. Prolonged variation (10-15 min) at voltage between 209-231V. The voltage value should be selectable by the user with resolution of 1V.
- iii. Repeated cycles of voltage value between 191-238V. The number of repeated cycles should be operator selectable between 1-10 times. The voltage should be selectable by the operator at a resolution of 5V. The repeat cycle time shall 3 to 5 sec for low/high voltages.
- iv. One short duration cycle of 165-237 V. Voltage value selectable by the operator with a resolution of 5V. The time shall be 3- 5sec for low/high voltages.

b. Frequency changes

- i. Continuous operation at 400Hz (nominal frequency).
- ii. Prolonged variation (10-15 min) at frequency between 384-408Hz. The frequency value should be selectable by the user with resolution of 1Hz.
- iii. Repeated cycles of frequency value between 380-416Hz. The number of repeated cycles should be operator selectable between 1-10 times. The frequency should be selectable by the operator at a resolution of 1Hz. The repeat cycle time shall be 3 to 5 sec for low/high frequency.
- iv. One short duration cycle of 372-416Hz. Voltage value selectable by the operator with a resolution of 1Hz. The time shall 3- 5sec for low/high frequency.

PS- one cycle will consist of change of value from the nominal value and then coming back to the nominal value after the specified duration

- 21. Driver Software:** The program driver shall be provided for Windows OS (version XP and above). PC will not be part of the deliverable.
- 22. Accessories:** Standard accessories should be provided along with the documents (User manual, Calibration certificate, ATP, Reliability report, Software CD's for interface)
- 23. Burn-in Test:** ~~There is required to have~~ 168 hours continuous of full load operation of the system at ambient temperature (~30°C) included in the test schedule before being delivered at the site.
- 24. Warranty:** 1 to 3 Years with comprehensive AMC (min 5 years) after warranty expiry.
- 25. Delivery:** The delivery of the system to be done within 6-8 weeks.

26. Criteria for Technical Evaluation:

- a) The Vendor shall be an **ISO-9000** certified Company.
- b) The vendor shall have 3-10 years of experience in executing similar jobs in Defence /Aerospace/DAE sectors (Documentary evidence in support of this to be enclosed).
- c) The vendor shall have well equipped in-house testing & quality control facilities.
- d) The vendor should furnish audited balance sheets and profit/loss accounts (Annual reports) of last 3-years.

SPECIAL NOTES

1. Suppliers should conduct other standard tests as applicable to the equipment.
2. The ATP (Acceptance Test Procedure) should be submitted within one month from the date of release of purchase order for approval in the equipment.
3. Suppliers shall offer for user inspection by user at their premises before dispatch.
4. The equipment to be dispatched to BARC, Mumbai, against shipping release from ECIL after performing all the tests and offering for inspection as per approved Acceptance Test Procedure (ATP). Installation at BARC shall be within the scope of supplier.
5. Suppliers must give details of service facility in INDIA to provide emergency support in case of equipment failure/operational inconvenience. Service facility must be available in Mumbai and Visakhapatnam.
6. The AMC (minimum of 5 years) terms and conditions shall be provided along with the quotation as a separate line item. The sites are at Mumbai and Vishakhapatnam.
7. Suppliers are requested to put their compliance matrix alongside ECIL specs in a tabular format clearly specifying the deviations if any with data sheets/catalogue.

INSTRUCTIONS AND COMMERCIAL CONDITIONS
ENQUIRY NO: 751872

1. The Quote is to be submitted by courier in Duplicate.
2. The BID is of TWO-PART BID Mechanism.
Viz: i) Technical Bid (PART-A) and ii) Price Bid (PART-B).
i) The Technical Bid shall contain:
 - a) Technical Data.
 - b) Quality Plan
 - c) Commercial conditions.
 - d) Deviations from our Technical Specifications if any.
3. The Standard Liquidated Damages clause is applicable for delayed deliveries.
The Clause Read as "In the event of any delay in Deliveries according to Purchase Order, Liquidated Damages will be recovered @ $\frac{1}{2}\%$ per week subject to maximum of 5% on undelivered portion.
4. In the event of order, you need to submit Performance Bank Guarantee for 5% of P.O value and valid till Warranty, while claiming payment.
5. The standard Risk Purchase Clause is applicable to this requirement. The Clause Read As "In the event of failure to comply with the Purchase Order Terms & Conditions, ECIL has Right to cancel the order and proceed with an alternate source. In such case, you shall have to bear the extra cost incurred by us which will be recovered from your available Credits. Please convey your acceptance in your quote.
6. Security Deposit: Shall be provided for 5% of the order value immediately after receiving the purchase order. However this amount can be converted into Performance Bank Guarantee. Security Deposit waived off for small scale Industries. Documentary Evidence should be provided.