

Government of India
Bhabha Atomic Research Centre
Post Irradiation Examination Division
Radiological Laboratories, Trombay, Mumbai 400 085

Tel: 25594047, Fax: 2550 5151

Ref: PIED/KMP/2021/633

16.09.2021

**Sub: Fabrication, Supply, Installation and Commissioning of Variable voltage
Variable Frequency Drives for motion control at PIED, RLG**

Dear Sir,

Please send us your lowest quotation for the following fabrication, supply, installation and commissioning works at NHF, RLG as per the site condition and the scope of work given below:

Scope of work:

A) Fabrication and Supply of Variable voltage Variable Frequency Drives for motion control at PIED, RLG consists of

Drive Type	Voltage	Rated Power	Rated current	Quantity
Type A	Single phase 220-240V 200V class	400W	2.5A	40 nos.
Type B	Three phase 380-440V 400V class	2200W	5.5A	10 nos.
General Specifications:				
Sr No.	Parameter	Specifications		
1	Input Voltage (V)	Single phase 220-240V Three phase 380-440V		
2	Input Frequency	50Hz/ 60Hz		
3	Output voltage (V)	0 – Input Voltage		
4	Output Frequency (Hz)	0 – 400Hz		
5	Control mode	V/f		
6	Max output frequency	400 Hz		
7	Adjustable speed ratio	1:100		
8	Overload capacity	150% of rated current: 1 min 180% of rated current: 10 seconds 220% of rated current: 1 second		
9	Terminal analog input resolution	<= 20 mV		
10	Terminal Switch Input resolution	<= 2 ms		
11	Analog Input/ Output	1 input 0-10V/ 0-20mA; 1 output 0-10V/ 0-20mA		
12	Digital input/ output	5 common input, 1 Y output and 1 programmable relay output		
13	Communication	RS485 communication		
14	Mounting	Wall mountable		
15	Fault protection	Overcurrent, overvoltage, under voltage, over temperature, overload and other protections		
16	Braking unit	Standard		
17.	Keypad unit	Removable type Shall be installable on the panel front panel		

B) Installation and commissioning of entire system

- 1) This consists of integration of the drives with the existing control system.
- 2) Setting up of parameters related to the existing system
- 3) Wiring of the system
- 4) Demonstration of the working system

Please note the following:

1. The work is to be completed within 60 days of receiving the firm work order from us.
2. The sealed quotations shall reach the office of the Head PIED, New Hot Cells Facility, RLG, Mumbai – 85 on or before **27.09.2021 11:00hrs** only by **Indian Postal Service**.
3. Please address your offer to: **K M Pandit, SO/F, Post Irradiation Examination Division, RLG, BARC, Trombay, Mumbai-400 085.**
4. The quotations are to be sent in a sealed envelope with the following information marked on top of the envelope: "Quotation for Variable voltage Variable Frequency Drives at NHF"
5. Offers sent by telegram, telex, fax or e-mail will **not** be considered.
6. All taxes should be mentioned clearly.
7. Quotation should be in the printed letter head /quotation format which should consist of Sales Tax Registration Number, PAN Number of the firm, Service Registration Number, etc.
8. **Goods & Services Tax : 5%**. The goods proposed to be fabricated on this work order are meant for research purpose of Research Institution under Department of Atomic Energy and are exempt from payment of GST in terms of Notification No. 47/2017 integrated tax (rate) dated 14.11.2017 issued by Ministry of Finance, Department of Revenue of Government of India. In the event of order, the Purchaser will make available the certificate to avail integrated GST @5% duly signed by the authorized officer in the Department of Atomic Energy.
9. **Quotation shall be signed by proprietor or authorized person and affix company seal.**
10. Computer generated quotation form will not be accepted.
11. Income Tax @2%, surcharge on IT as applicable and educational cess @3% (on IT & surcharge) will be deducted at source from your bill
12. Offer should be on free delivery basis to RLG Zonal Stores, BARC, Trombay.
13. Delivery period should be mentioned with all the possible consideration.
14. Payment will be made within 30 days from the date completion.


K M Pandit
SO/F, PIED
16/9/2021