



NOTICE INVITING QUOTATION

NO. 23(18)/NIQ / ED III/CH / BSNL / 2018 / 159

Dated: 22.03.2018

The Executive Engineer (E), Bharat Sanchar Nigam Limited, Electrical Division III, Ground floor , Telephone Exchange 22, Kelleys Road, Chennai-10 (Phone: 044-26478616) Invites on behalf of the B.S.N.L. sealed item rate quotations for the following work, from the contractors satisfying the under mentioned eligibility conditions to be submitted **on or before 3.00 PM on 26.03.2018 in the O/o EE(E), ED III, Chennai-10**. The same shall be opened at **3:30 PM** on the same day.

Name of work : SITC of 5x1.5TR Split AC units in swith room to the newly proposed location for Sholinganallur Exchange.

ELIGIBILITY CRITERIA

The bidders satisfying the following conditions:

1. Original Manufacturer/Authorised Dealer/Distributor of 1.5 TR AC units of one of the makes specified in the schedule of Quantities.

OR

3. Enlisted contractors of BSNL of Class III & above category

Note: Required credentials satisfying the above eligibility shall be attached with the quotations, failing which the quotation shall be rejected.

Schedule of Quantities

Sl. No	Description of Item	Qty	Unit	Rate per unit excluding GST	CGST		SGST		IGST		Rate per unit including GST	Total Amount excluding GST (Net cost)	Total Amount including GST	HSN / SAC code
					%	Rate	%	Rate	%	Rate				
1	2	3	4	5	6	7 = 6 x 5	8	9 = 8 x 5	10	11 = 10 x 5	12 = 5 + (7+9) or (11)	13 = 3 x 5	14 = 3 x 12	15
1	Supply of 1.5 TR inverter type split AC unit 5 star as per BEE star rating having nominal cooling capacity of 4500 Kcal/hr (5.2 KW), minimum room air flow of 700 cub.mtr/hr and minimum Indian Seasonal Energy Efficient Ratio (ISEER) of 4.5 along with the copper pipe, suitable size of PVC insulated cord wire and PVC drain pipe up to the length of 5 mtrs including transportation etc., complete as per specifications, terms and conditions attached as required. (Make: Panasonic / Universal comfort (Voltas) /Hitachi / LG / Carrier / Daikin / Mitsubishi / O-General/ Videocon)	5 Nos	Each											
2	Installation, Testing and commissioning of 1.5 TR Inverter type AC unit along with the copper piping, PVC drain pipe and wiring up to the standard length of 5 mtrs (supplied as under Item.1) including gas charging, insulation and making opening in wall and making good the damages etc., as required.	5 Jobs	job											

Sl. No	Description of Item	Qty	Unit	Rate per unit excluding GST	CGST		SGST		IGST		Rate per unit including GST	Total Amount excluding GST (Net cost)	Total Amount including GST	HSN / SAC code	
					%	Rate	%	Rate	%	Rate					
3	Providing and fixing the following additional items suitable for the above AC units, over and above 5 mtrs length where ever required.														
a)	Suitable size of Copper pipes (hot gas and liquid line) including insulation etc., as required.	25 Mts	mt												
b)	Suitable size of PVC insulated cord wire.	25 Mts	mt												
c)	Suitable size of PVC drain pipe.	25 Mts	mt												
Grand Total amount excluding GST (Net Cost)															
Grand Total amount including GST															

IMPORTANT NOTES

1	The firm shall be responsible to ensure that GST shown in the above columns is correct & Input Tax Credit for the amount shown above is admissible as per GST Act as amended up to date.
2	Tax Invoice /Bill of supply should be pre-printed with all the details as per the requirement under GST Act.
3	The evaluation and comparison of responsive bids shall be done on the basis of Net cost to BSNL on the prices offered inclusive of packing, forwarding, freight and insurance charges etc., but excluding GST.
4	The rates for all items of work shall, unless clearly specified otherwise, include cost of all labour, materials and other inputs involved in the execution of the terms as specified in the scope of work.
5	No advance payments can be made. Stipulations like levy of interest if payment is not made in a specified time are also not acceptable and the payment is governed by the normal BSNL practice.
6	Bidders must mandatorily quote for all GST components (CGST, SGST, IGST) as applicable.
7	Bidders must mandatorily mention correct HSN / SAC codes.
8	The work is of urgent nature and the firm shall be ready to supply and take up installation in short notice.

SPECIFICATIONS FOR 1.5 TR INVERTER TYPE AC UNITS

Technology : Variable speed compressor motor
Cooling capacity : 4500 Kcal/hr (5.2 KW) as per IS 1391 (part 2)
Minimum Room air Flow : 700 m³/hr
Energy Efficiency as per ISEER : 4.5
Star Rating Plan – Mandatory Phase : **5 Star**

Compressor : Rotary
Refrigerant : R 410A / R32

1 CONSTRUCTION

1.1 General:

- 1.1.1 The Air conditioner and its parts shall be constructed with the strength and rigidity adequate for normal conditions of handling, transport and usage.
- 1.1.2 There shall be no sharp edges or corners liable to cause injury under normal conditions of use and all moving parts which constitute accident hazards shall be effectively guarded.
- 1.1.3 Parts which require periodic servicing shall be readily accessible.

1.2 Material:

- 1.2.1 Materials used in the construction of cabinet, front panel etc. shall comply with the corresponding Indian Standards wherever applicable except where such requirements are modified.
- 1.2.2 The material shall be free from defects which are liable to cause undue deterioration or failure.
- 1.2.3 Under normal conditions of use and maintenance, the materials used shall not shrink, deteriorate, warp or cause mould or odors and shall be resistant to attack of vermin and destructive pests.
- 1.2.4 Sealing and insulating material shall not lose their essential properties such as adhesion, moisture and heat resistance.
- 1.2.5 Internal and external finishes shall be capable of being cleaned effectively without undue deterioration and shall be such as to afford protection against climatic action in all seasons under normal use. All metal parts which are exposed to moisture or ambient conditions shall be corrosion resistant or adequately protected against corrosion.

1.0 REFRIGERANT CIRCUIT:

- 1.1 The refrigerant pipes and fittings shall be of approved quality and shall withstand normal working pressure of air conditioners and should conform to IS 10773:1983 or equivalent national standard/international standard.
- 2.2 The refrigerant uses shall be chemically pure, free from moisture or any other chemical contamination.

3.0 Electrical Ratings

- 3.1 Ratings in watts for split air conditioners shall be based on standard voltage which shall be 230 V, single phase, 50 Hz. The units, however, shall be capable of working at any voltage within ± 10 percent of the standard voltage.

4. Rating and Test Conditions

4.1 Capacity and test conditions:

The split air conditioner shall have nameplate rating determined by tests conducted as per the standard procedures prescribed for the purpose.

Notes

1. If rated frequency is not available, the capacity measured shall be corrected by a correction factor depending upon frequency actually measured during the testing.

2. Percentage drop in frequency shall be applied as percentage drop in voltage for power consumption.
3. The pipe length between indoor unit and outdoor unit shall be 5m when laid horizontally.

4.2 Maximum Operating Test conditions

The maximum Operating test conditions shall be conducted under the conditions specified below:

Room air temperature

- a) Dry bulb - 35° C
- b) Wet bulb - 24° C

Outside air temperature

- a) Dry bulb - 46° C
- b) Wet bulb - 27° C

Test voltage - Rated Voltage.

Test frequency - 90 percent and 110 percent of name plate rating.

5. Air conditioners shall be capable of performing the functions as cooling, dehumidifying, air circulating and filtering. The Air conditioners shall be provided with adjustable step less type electronic thermostat.
 6. Outdoor unit of the air conditioners shall be fitted with discharge cooled type rotary compressor operating at Refrigerant non-CFC refrigerant R-410A / R-32 with suitably rated variable speed motor. It shall be equipped with overload protection and shall be mounted on resilient mountings for quiet operation. The Rotary compressor shall be of Matsushita/Hitachi/Toshiba/GMCC / Emerson /LG/ Tecumseh/Danfoss make and shall be covered by manufacturers test certificate and Type Test Certificate according to JIS or ASHRAE.
 7. Remote cordless control with LCD/LED Display shall be provided with one On/Off timer, selecting fan speed (three speed) and setting up of temperature. Display shall be provided on indoor unit or on handset or on both.
 1. Air conditioners shall be provided with standard 5mtrs refrigerant Copper pipe, electrical wire and drain pipe.
 2. Type Test Certificate for two samples of each type/model of air conditioners from any NABL/ILAC Accredited lab. Shall be submitted by the firm. The type test results shall include capacity test at standard rating test conditions and maximum operating test as specified in IS:1391(Part-2)-1992.
- 10**Servicing:** Free servicing shall be provided for 15 months from the date of supply or 12 months from the date of installation of air conditioner whichever is earlier. Firm is also required to send service engineer at least 3 times during the warranty period, whenever required.
11. **Manufacturer's Guarantee:** The manufacturer shall give a guarantee for the soundness of construction and performance of the air conditioner and shall be responsible for putting right any manufacturing defects free of charge for a period of 15 months from the date of supply or 12 months from the date of installation of air conditioner, whichever is earlier.

- 12. Installation:** The installation charges shall include the following work: -
- i) Mounting/Fitting indoor and outdoor units at the respective locations.
 - ii) Laying refrigerant piping of required length and connecting both the units after drilling hole/holes in the wall, if required, and making them good.
 - iii) Leak testing of the entire system.
 - iv) Charging Refrigerant gas in the unit.
 - v) Suitable electric wiring between indoors and outdoors units of required length up to switch at location of indoor unit. Switches/Sockets/Plugs are not included in the scope of supply.

13. Inspection:

Quality inspection certificate/Routine test certificate of the Inverter AC units shall be submitted at the time of supply.

14. The firm should fill up the Technical specification for 1.5 TR Inverter type AC unit as per the proforma in Annexure B and submit the quotation

Annuxure – B

Technical specification for 1.5TR inverter type Air conditioner			
1	Name of the Manufacturer		
1.1	Model No.		
1.2	Nominal cooling capacity	Kcal/hr(KW)	
1.3	Type of Compressor		
1.4	ISEER Star Rating		
1.5	Type of Refrigerant		
2.0	Overall Dimensions of Room Unit(Wall Mounted)	LxWxH (mm)	
2.1	Overall Dimensions of Outdoor Unit	LxWxH (mm)	
3.0	Name of the Compressor Manufacturer		
3.1	Model of Compressor		
3.2	Capacity of Compressor at Rated Test Conditions as per 1S:10617(P-1):1983 (Reaffirmed 2001) incorporating amend no 1 to 3	Kcal/hr	
3.3	Rating of Compressor Motor	KW	
4	Condenser		
4.1	Face Area of Condenser	Sq.m	
4.2	Tube Material of condenser. Outer diameter	mm	
4.3	No. of Rows (Condenser)	Nos.	
4.4	No. of Tubes per Row (Condenser)	Nos.	

4.5	Fin Material & thickness (Condenser)		
4.6	No. of Fins per cm (Condenser)	Nos.	
5	Evaporator coil		
5.1	Tube Material , Outer diameter	mm	
5.2	No. of rows of Evaporative Coil	Nos.	
5.3	No. of Tubes per Row	Nos.	
5.4	Fin Material & thickness of Evaporative coil		
5.5	No. of Fins per cm Evaporative coil	Nos.	
5.6	External surface area of Evaporative coil.	Sq.m	
6	Filter		
6.1	Material of Filter		
6.2	Whether slip on type filter provided.	Yes / No	
7	Drip Tray	Yes / No	
8	Are manufacturer's instructions and operation service, installation manual are provided	Yes/ No	

Executive Engineer (E)

Contractor