

CENTRAL UNIVERSITY OF RAJASTHAN

FINANCIAL BID (Schedule of Works)

NIT No. - CURAJ/R/F.162/2998

Date: 19.12.2024

Name of Work: Supply, Installation, Testing and Commissioning of ductable type Air Conditioners along with Air Ducting and False Ceiling Work in 06 Nos. 125 seater Seminar Halls of Academic Building No- 4A3, 4A4 & 4A6 at Central University of Rajasthan.

A	B	C	D	E	F
Sr. No.	Description of Item	Qty	Unit	Rate (incl. GST)	Amount (in Rs.)
	SUPPLY OF DUCTABLE ACs:				
1	Supply of 11.0 TR capacity Ductable Air conditioning units (indoor+outdoor) with Scroll Compressor, Ecofriendly Refrigerant, vibration isolators, suitable foundation etc. complete as required. The unit shall deliver the rated capacity at AHRI Conditions and work even at 50°C ambient temperature without tripping. The unit shall be suitable to work on 400V +/- 10%, 3 Phase, 50Hz AC power supply. The unit shall be filled with first charge of the refrigerant and ready for use as required. The COP at AHRI conditions shall not be less than 3.1 and IEER not less than 6.5. Each unit shall comprise of separate indoor and outdoor unit. (Make- Daikin/Hitachi/Bluestar/O General/Mitsubhishi)	12	nos.		
	INSTALLATION, TESTING AND COMMISSIONING OF DUCTABLE ACs:				
2	Installation, Testing and Commissioning of Ductable Air conditioning Units (indoor & outdoor units) complete with all components such as M.S. Epoxy Painted Stand for condensing unit with vibration isolators, grouting for Bracket type stand without railing & catwalk, core cutting of holes in beam or slab (only with specific approval of Engineer-In-Charge) & finishing the same with provision of sleeves, mounting arrangement for units comprising anchor fasteners, clits, support rods, vibration isolators, Epoxy painted MS angles/ channel as per site requirements including charging of additional refrigerant required on site in accordance with the extra inter-connecting copper pipeline as per OEM Norms as per standard practice and directions of EIC.	12	jobs		
	REFRIGRANT COPPER PIPE, INTERCONNECTIONG MICROPRECESSOR BASED CABLE & DRAIN PIPE:				
3	Supply, Installation, Testing and Commissioning of interconnecting refrigerant copper pipe of suitable size as per OEM Norms along with microprocessor based communication copper cable of suitable size as per OEM Norms to interconnect outdoor and indoor unit, including insulated closed cell electrometric nitrile rubber/foam tubular insulation as per OEM Norms between each set of indoor & outdoor unit, including nitrogen pressure testing. All piping inside the room shall be properly fixed/supported with suitable size of clamp/ M.S. hanger and all external/exposed to sun piping shall run in M.S. painted cable tray as per standard practice and directions of EIC.	300	RMT		

4	Providing & Fixing of IS : 4985 - 2000 Class - 4 (10 Kg / Sqcm) 25/32 mm UPVC drain water piping with fittings (IS:7834 & 10Kg/sqcm) like elbow, socket, tee, solvent cement jointing, support with MS hanger on ceiling or recessed in wall with chasing & plastering with 6 mm thick closed cell elastomeric nitrile rubber insulation including leakage testing etc. as required of following nominal sizes as approved by the EIC.	220	Mtr		
DUCTING WORK:					
5	Design, Supply, installation, balancing and commissioning of fabricated at site GSS sheet metal rectangular/round ducting complete with neoprene rubber gaskets, elbows, splitter dampers, vanes, hangers, supports etc. as per approved drawings and specifications of following sheet thickness etc. complete in all respects as per standard practice and directions of EIC.				
5.1	Thickness 0.63 mm sheet (24 Gauge)	600	sq. mtrs.		
5.2	Thickness 0.80 mm sheet (22 Gauge)	280	sq. mtrs.		
6	Providing & Fixing of Fire retardent flexible canvass connection made of fibreglass weave having silver grey silicon rubber coating, of height 200 mm with sufficient fold to avoid transmission of vibration with GI frame ,Gasket Nut Bolts for air cooling Plants/AHU/FCU etc as required. All as per pre-approved by Engineer in charge	8	sq.m.		
SUPPLY & RETURN AIR ALUMINIUM GRILLS/DIFFUSERS:					
7	Design, Supplying & fixing of powder coated extruded aluminium Supply Air Grills with aluminium volume control dampers as per specifications. (Joints to be adjusted as per architectural requirements, random joints will not be permitted)	45	sqm		
8	Design, Supplying & fixing of powder coated extruded aluminium Return Air Grills with louvers but without volume control dampers complete as required. (Joints to be adjusted as per architectural requirements, random joints will not be permitted)	60	sqm		
INSULATION:					
9	Supplying and fixing of 13 mm thickness duly laminated aluminum foil of mat finish open cell Nitrile rubber (Class "O") insulation of duct after applying suitable adhesive for Nitrile rubber. The joints shall be sealed with 50 mm wide and 3 mm thick self-adhesive nitrile rubber tape insulation complete as per specifications and as required.	300	sqmm		
10	Supplying and fixing of 13/19 mm thickness duly laminated aluminum foil of mat finish closed cell Nitrile rubber (Class "O") insulation on duct after applying suitable adhesive for Nitrile rubber. The joints shall be sealed with 50 mm wide and 3 mm thick self-adhesive nitrile rubber tape insulation complete as per specifications and as required.	1050	sqmm		
ELECTRICAL WORK :					
11	Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface/ recessed steel/ PVC conduit / cable tray as required including making end connection and as per directions of EIC.				
11.1	4 X 6 sq. mm	1050	Mtr		

12	Supply & Laying of Power Aluminium armoured XLPE cable of 3.5C*70 sq.mm. capacity for interconnecting the Ductable air conditioner unit's power supply panel to existing electrical panel alongwith connections etc. as required on site as per standard practice & directions of Engineer-in-charge. Make: RR/Polycab/Havells/Finolex				
12.1	3½ X 70 sq. mm	50	RMT		
13	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required				
13.1	3½ X 70 sq. mm (38mm)	6	Each		
14	Supplying and fixing of following ways surface/ recess mounting, vertical type, 415 V, TPN MCB distribution board of sheet steel, dust protected, duly powder painted, inclusive of 200 A tinned copper bus bar, common neutral link, earth bar, din bar for mounting MCBs (but without MCBs and incomer) as required . (Note: Vertical type MCB TPDB is normally used where 3 phase outlets are required.)				
14.1	4 way (4 + 12), Double door	3	Each		
15	Supplying and fixing 5 A to 32 A rating, 240/415 V, 10 kA, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required.				
15.1	32 A Triple pole and neutral	12	Each		
16	Providing and fixing following rating and breaking capacity and pole MCCB with thermomagnetic release and terminal spreaders in existing cubicle panel board including drilling holes in cubicle panel, making connections, etc. as required.				
16.1	100 A,30KA,FPMCCB	3	Each		
	HOT DIPPED GALVANISED IRON CABLE TRAY				
17	Supplying and installing following size of perforated Hot Dipped Galvanised Iron cable tray (Galvanisation thickness not less than 50 microns) with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with G.I. suspenders including G.I. bolts & nuts, etc. as required.				
17.1	150 mm width X 50 mm depth X 1.6 mm thickness	250	Mtr		
18	Dismantelling, reinstallation, testing and recommissioning of existing installed ceiling fans/panel lights/fire detectors/heat detectors/smoke detectors etc. from roof ceiling to false ceiling along with necessary additional wiring etc. complete in all respects, as per standard practice and directions of EIC.	330	each		
	FALSE CEILING:				
19	Design, Supply & fixing mineral fibre false ceiling tiles at all heights of size 595X595mm of approved texture, design and pattern. The tiles should have Humidity Resistance (RH) of 99%, Light Reflectance > 85%, Thermal conductivity k = 0.052 - 0.057 w/m K, Fire Performance as per (BS 476 pt - 6 &7)in true horizontal level suspended on interlocking T-Grid of hot dipped all round galvanized iron section of 0.33 mm thick (galvanized 120 gsm) comprising of main T runners of 15x32 mm of length 3000 mm, cross T of size 15x32mm of length 1200 mm and secondary intermediate cross T of size 15x32 mm of length 600 mm to form grid module of size 600x600 mm suspended from ceiling using galvanized mild steel item (galvanised@80gsm) 50				

	mm long 8mm outer diameter M-6 dash fasteners, 6 mm diameter fully threaded hanger rod up to 1000 mm length and L-shape level adjuster of size 85x25x2 mm, spaced at 1200 mm centre to centre along main 'T'. The system should rest on periphery walls /partitions with the help of GI perimeter wall angle of size24x24X3000 mm made of 0.40 mm thick sheet, to be fixed to the wall with help of plastic rawl plug at 450 mm centre to centre & 40 mm long dry wall S.S. screws. The exposed bottom portion of all T-sections used in false ceiling support system shall be pre-painted with polyester baked paint, for all heights. The work shall be carried out as per specifications, drawings and as per directions of the engineer-in charge.				
19.1	With 20 mm thick beveled tegular mineral fibre false ceiling tile (NRC 0.7)	1050	sq. mtrs.		
	Total Amount (in Rs.) incl GST				
	Say Rs.				

NOTE:

- 1) The bidder should quote the rates after visiting the site.
- 2) The quoted rates shall be inclusive of all taxes, labour, tools & plants and overhead charges etc. Nothing shall be paid extra in this regard.

Seal & Signature of Bidder:

Name of Firm:

*****END OF FINANCIAL BID*****