

# INDIAN INSTITUTE OF TECHNOLOGY KANPUR



## Tender Notice No. 48/Elect/2020

### SCHEDULE OF QUANTITY

**Name of Work: Providing external power supply to air conditioning system of PEB blocks at Media Lab and other associated work.**

Name of the Contractor					
S. No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
1	Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface/recessed steel/PVC conduit as reqd.				
a	3 X 1.5 Sq.mm	200.00	Mtr		
b	3 x 4 Sq.mm	25.00	Mtr		
c	3 X 6 Sq.mm	80.00	Mtr		
d	6 X 16 Sq.mm	30.00	Mtr		
2	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 3 pin 5/6 A modular socket outlet and 5/6 A modular switch, connections etc. as required.	32.00	Nos.		
3	Supplying and fixing following way prewired vertical type TP&N MCB distribution board of steel sheet for 415 volts on surface/ recess complete with loose wire box of sheet steel, dust protected, duly powder painted, inclusive of 200 amps tinned copper bus bar, common neutral link, earth bar, din bar for mounting MCB's, terminal connectors for all incoming and outgoing circuits, duly prewired with adequate size of FR PVC insulated copper conductor upto the terminal connector/ neutral link, earthing etc as required (But without MCB/ RCCB/ Isolator). (Note : Prewired vertical type MCB TPDB is normally used where 3 phase outlets are required.)				
a	12 way (4 + 36) Double door	2.00	Nos.		

S. No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
4	Supplying and fixing following rating, 240 volts, 'C' series, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc as reqd.				
a	Single Pole ( 5 Amp to 32 Amp )	32.00	Nos.		
b	Tripple Pole ( 5 Amp to 32 Amp )	8.00	Nos.		
c	Four Pole ( 5 Amp to 32 Amp )	8.00	Nos.		
5	Earthing with G.I. earth plate 600 mm X 600 mm X 6 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required.	2.00	Set		
6	Providing & fixing 25mm x 5mm GI strip on surface or in recessd for connection etc. as reqd.	30.00	Mtr		
7	Supply of one no. PVC insulated and PVC sheathed aluminium conductor steel armoured cable of size 3-1/2 x 300 Sqmm grade 1.1 kV as reqd.	760.00	Mtr.		
8	Laying of one no. PVC insulated, PVC sheathed/XLPE power cable of 1.1kV grade of size exceeding 185 sqmm but not exceeding 400 sqmm in following manner.				
a	Direct in ground l/c excavation, sand cushioning, protective covering and refilling the trench etc. as reqd.	350.00	Mtr.		
b	Additional cable Laying in same trench	350.00	Mtr.		
c	In pipe	40.00	Mtr.		
d	In open duct	10.00	Mtr.		
e	In surface	10.00	Mtr.		
9	Supplying and making end termination with brass compression gland with aluminium lugs for following size of PVC insulated & PVC sheathed/XLPE aluminium cable of 1.1kV grade as reqd.				

S. No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
a	3-1/2x 300 sqmm	4.00	Nos.		
10	Providing, laying and fixing following dia G.I. pipe (medium class) in ground complete with G.I. fittings including trenching (75 cm deep)and re-filling etc as required				
a	100 mm dia	40.00	Mtr.		
11	Supply, installation, testing and commissioning of cubical type LT panel suitable for 415V, 3 phase, 4 wire 50 Hz AC supply system fabricated in compartmentalized (preferable) design from CRCA sheet steel of 2mm thick for frame work and covers. 3mm thick for gland plated i/c cleaning & finishing complete with 7 tank process for powder coating in approved shade, having suitable capacity extensible type 630 A FP Aluminium alloy Bus bars of high conductivity. DMC.SMC bus bar supports. bottom base channel of MS section not less than 100mm x 50mm x 5mm thick, fabrication shall be done in transportable sections, entire panel shall have a common earth bar of suitable size at the rear with 2 Nos earth solid connections from main bus bar to switch gears with required 1.5 sqmm zero halogen fire retardant low smoke insulated copper conductor s/c cable, cable alleys, cable gland plate in two half.				
	<b>Incomer: 01 No.</b> 630 A, FP, 36 kA, MCCB with Microprocessor based O/C,S/C,& E/F protection with rotary handle. and should have suitable arrangements for connecting 2nos 3 1/2 C X 300 sq.mm. cables.				
	Three phase multifunction meter with parameters : V, A, F, PF, kW, kVA, Old energy, On and Run hours, site selectable kWh/ kVAh. RYB phase and On OFF LED indicating Lights.				
	<b>Out Goings:</b> 250 A, TP, 35 kA, MCCB with Microprocessor based O/C,S/C, protection with rotary handle.- 4 Nos.				

S. No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
	All outgoing should have Three phase multifunction meter with parameters : V, A, F, PF, kW, kVA, Run hours, kWh, Old energy, Site selectable kWh / kVAh. On OFF LED indicating Lights.	1.00	No.		
12	Providing and fixing following rating and breaking capacity four pole 415V 50Hz MCCB with Microprocessor based release with O/L,S/C in existing cubicle panel board including drilling holes in cubicle panel, making connections, etc as required.				
a	250 Amp, 35/36 KA	2.00	Nos.		
13	S&F connecting and commissioning independent mounting of MCCB enclosure suitable upto 250 amp MCCB as per approved make in surface/recess I/c cutting the wall and making good the same in case of recessed as per approved make etc as reqd.	2.00	Nos.		
14	Supplying, installation DLP mini- trunking 32mm x 20mm and accessories white-system with independent cover-without central partition etc. as reqd.	50.00	Mtr.		
15	Supply and fixing of following items for plastic trunking accessories suitable for size 32 mm x 20 mm				
a	End cap	10.00	Nos.		
b	Internal angle/ External angle	4.00	Nos.		
c	Changeable flat angle	6.00	Nos.		
d	Flat Junction	10.00	Nos.		
16	S & F metal enclosure suitable for DP/FP MCB/ on surface or recessed etc as reqd.	8.00	Nos.		
	<b>Total Rs.</b>				