

INDIAN INSTITUTE OF TECHNOLOGY KANPUR



Tender Notice No. 87/Elect/2020

SCHEDULE OF QUANTITY

Name of Work: Providing DG supply in newly constructive tubewells 02 Nos. (a) near old type-III and (b) near water storage pumping station at IIT Kanpur.

Name of the Contractor					
S. No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
1	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FR PVC insulated copper conductor single core cable in surface / recessed steel conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FR PVC insulated copper conductor single core cable etc as required.				
1.1	Group A	10.00	Point		
2	Wiring for light/ power plug with 2X4 sq. mm FR PVC insulated copper conductor single core cable in surface/ recessed steel conduit alongwith 1 No 4 sq. mm FR PVC insulated copper conductor single core cable for loop earthing as required.	30.00	Metre		
3	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FR PVC insulated copper conductor, single core cable in surface/ recessed steel conduit as required				
3.1	2 X 2.5 sq. mm + 1 X 2.5 sq. mm earth wire	30.00	Metre		
3.2	4 X 16 sq. mm + 2 X 6 sq. mm earth wire	15.00	Metre		
4	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.				
4.1	15/16 amp switch	8.00	Each		
4.2	6 pin 15/16 amp socket outlet	8.00	Each		
5	Supplying and fixing following size/ modules, GI/PVC box alongwith modular base & cover plate for modular switches in recess etc as required.				

S. No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
5.1	6 Module (200mmX75mm)	4.00	Each		
6	Supplying, Installation, testing & Commissioning of Energy saving LED Tube light fitting housing of extruded aluminium in 4 ft run length suitable for surface, wall mounting with following features:-Suitable for operating voltage and frequency: 130-300 Va.c, 50 Hz.; wattage 20 Watts;Efficacy not less than 100 Lm/W; CCT 5700K; as required.	5.00	Each		
7	Supplying, Installation, testing & Commissioning of Energy saving LED street light equipped with power coated PDC aluminium body & secondary optical lens for superior light distribution with energy efficient electronic driver with following features:-Suitable for operating voltage and frequency: 130-300 Va.c, 50 Hz.; wattage 30 Watts;Efficacy not less than 110 Lm/W; CCT 5700K; Nominal surge protection 2.5 kV;Power factor not less than 0.9; Minimum IP protection 66; etc. as required.	3.00	Each		
8	Supplying and fixing of 32 mm dia X 2.00 metres long G.I. pipe (medium class) bracket for mounting of fluorescent / HPMV / HPSV street light fitting on pole including bending the pipe to the required shape, 2 nos 40 mm X 3 mm flat iron clamps with nuts, bolts and washer, painting the flat iron with primer and finish paint etc. as required.	3.00	Each		
9	Supply, Installation, Testing and Commissioning of 1200 mm sweep, BEE 5 star rated, ceiling fan with Brush Less Direct Current (BLDC) Motor, class of insulation: B, 3 nos. blades, 30 cm long down rod, 2 nos. canopies, shackle kit, safety rope, copper winding, Power Factor not less than 0.9, Service Value (CMM/W) minimum 6.85, Air delivery minimum 215 CMM, 350 RPM (tolerance as per IS : 374-2019), THD less than 10%, remote or electronic regulator unit for speed control and all remaining accessories including of fitting and health and safety temperature	1.00	Each		
10	Supplying and fixing two module stepped type electronic fan regulator on the existing modular plate switch box including connections but excluding modular plate etc. as required.	1.00	Each		

S. No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
11	Providing and fixing M.S. fan clamp type I or II of 16 mm dia M.S. bar, bent to shape with hooked ends in R.C.C. slabs or beams during laying, including painting the exposed portion of loop, all as per standard design complete.	1.00	Each		
12	Supplying and fixing of following ways surface/ recess mounting, vertical type, 415 volts, TPN MCB distribution board 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 (but without MCB's and incomer) as required . (Note : Vertical type MCB TPDB is normally used where 3 phase outlets are required.) and should have provision for MCCB as incomer.				
12.1	4 way (4 + 12), Double door	1.00	Each		
13	Supplying and fixing 5 amps to 32 amps rating, 240/415 volts, "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.				
13.1	Single pole	9.00	Each		
13.2	Triple pole	1.00	Each		
14	Supplying and fixing of 63 amp rating, 'C' Curve three pole, 415 V, MCB in the existing MCB DB complete with connections, testing and commissioning etc. as required.	1.00	Each		
15	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.				
15.1	125 A, 36KA, FPMCCB	4.00	Each		
16	Providing and fixing of Steel Enclosure for 125 A, 36 KA MCCB with drilling holes and making connections, etc. as required.	4.00	Each		

S. No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
17	Providing and fixing following 125 amp rating, 4 pole Changeover switch with steel Enclosure with drilling holes in cubical panel, making connections, etc.confirming to IS/IEC 60947-3 complete as required.	1.00	Each		
18	Providing and fixing Automatic Star delta Starter with D range contractor for 25 hp, 3 phase, 415 V Induction Motor with overload relay and electronic star delta timer in steel enclosure, making connections, etc.confirming to IS/IEC 60947-4-1 complete as required.	1.00	Each		
19	Supplying and fixing of 300 mm size, 900 RPM heavy duty exhaust fan complete with suitable size louvers with all accessories suitable for use on 230 V , 50 Hz ac supply in the existing opening, including making good the damage , connection, testing and commissioning etc. as required.as required	1.00	Each		
20	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.				
20.1	3½ X 25 sq. mm (28mm)	6.00	Each		
20.2	3½ X 70 sq. mm (38mm)	4.00	Each		
20.3	3½ X 150 sq. mm (50mm)	2.00	Each		
20.4	3½ X 240 sq. mm (62mm)	2.00	Each		
21	Supplying of PVC insulated, PVC sheathed XLPE aluminium conductor armored cable of Following size, 1.1 KV grade, etc. as required [conforming to I.S-1554/1/88].				
21.1	3½ X 25 sq. mm	10.00	Metre		
21.2	3½ X 70 sq. mm	70.00	Metre		
21.3	3½ X 150 sq. mm	430.00	Metre		
21.4	3½ X 240 sq. mm	725.00	Metre		

S. No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
22	Laying of PVC insulated, PVC sheathed XLPE aluminium conductor armored cable of Following size, 1.1 KV grade , direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc. as required.				
22.1	Above 35 sq. mm and upto 95 sq. mm	50.00	Metre		
22.2	Above 95 sq. mm and upto 185 sq. mm	380.00	Metre		
22.3	Above 185 sq. mm and upto 400 sq. mm	650.00	Metre		
23	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size in the existing RCC/ HUME/ METAL pipe as required.				
23.1	Above 35 sq. mm and upto 95 sq. mm	20.00	Metre		
23.2	Above 95 sq. mm and upto 185 sq. mm	50.00	Metre		
23.3	Above 185 sq. mm and upto 400 sq. mm	75.00	Metre		
24	Laying and fixing of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size on wall surface as required.				
24.1	Upto 35 sq. mm (clamped with 1mm thick saddle)	10.00	Metre		
25	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				
25.1	80 mm dia	70.00	Metre		
25.2	100 mm dia	75.00	Metre		

S. No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
26	Design, Fabrication, Supplying, Installation, Testing and Commissioning of front operated free standing Outdoor type (IP 65) panel board(Feeder Pillar) suitable for use at 415 volt, 3 phase, 4 wire, 50 hertz system suitable for fault level of required value symmetrical at 415 volts, made out of 2mm thick CRCA sheet having double door with locking arrangement including structural reinforcement with suitable angle/ channel/ T/ flat sections with 3mm thick gland plates on bottom and lifting hooks and GI earth strip of required size with 2 nos. earthing terminal and powder coated paint finish of approved shade over metalsurface cleaned and treated with seven tank process complete with 300 mm legs duly erection in ground and interconnection with copper conductor etc. complete as required				
26.1	<p>Incoming</p> <p>(a) 125 amp, 4P, 36KA, 50HZ, 415V, AC MCCB with thermal magnetic based releases for O/C & S/C protection = 02 Nos.</p> <p>(b)On load Manual Changeover switch of 125 amp 4P, 50HZ, 415V, AC =01 Nos</p> <p>Bus Bar</p> <p>125 amp TPN Aluminium,.</p> <p>Outgoing</p> <p>(a) 125 amps, 4P, 36KA, 50HZ, 415V, AC MCCB with thermal magnetic based releases for O/C & S/C protection = 01 Nos.</p> <p>(b)inbuilt Star delta starter for 25 hp to 35 hp induction motor.</p> <p>(c) Earthing studs 2 Nos</p> <p>(d) Danger plate – 01 Nos</p> <p>Metering</p> <p>(a) Digital Multi function meter - 01 Nos with accuracy class 0.5 and measuring parameters V, A, F, PF, kW, kVA, kWh/kVAh.</p> <p>(b) RYB indicating lamp</p> <p>(c) Suitable CT's</p>	1.00	Each		
27	Earthing with G.I. earth pipe 4.5 metre long, 40 mm dia including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc. with charcoal/ coke and salt as required.	4.00	Each		
28	Supplying and laying 25 mm X 5 mm G.I strip at 0.50 metre below ground as strip earth electrode, including connection/ terminating with G.I. nut, bolt, spring, washer etc. as required. (Jointing shall be done by overlapping and with 2 sets of G.I. nut bolt & spring washer spaced at 50mm)	30.00	Mtr.		
29	Providing and fixing 25 mm X 5 mm G.I. strip on surface or in recess for connections etc. as required.	20.00	Mtr.		

S. No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
30	Providing and fixing of 3- phase Multifunction meter of accuracy class of 1.0, input voltage measurement range 50-520 Vac, Parameter measure:- V, A, F, PF, kW, kVA, Old energy,kWh/kVAh etc with suitable CT's in steel Enclosure with drilling holes in cubical panel, making connections, etc. complete as required.	1.00	Each		
	Total Rs.				