

No: 1951-T12/2021/NK/TVPM

T12

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**TENDER NOTICE- ELECTRIFICATION (T12)**

District Nirmithi Kendra invites Competitive Tenders from authorized Suppliers/Individual in the form attached herewith for the work of TSCCC-Electrification works

Sl. No.	PARTICULARS	QTY	UNIT
1	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc as required. Group C	32	pt
2	Wiring for twin control light point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, 2 way modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc as required	1	pt
3	Wiring for circuit/ submain wiring along with earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface / recessed medium class PVC conduit as required 2x1.5 sq.mm + 1x1.5 sq.mm earth wire	500	mtr
4	Wiring for circuit/ submain wiring along with earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface / recessed medium class PVC conduit as required 2X 2.5 sq. mm + 1 X 2.5 sq. mm earth wire	1080	mtr
5	Wiring for circuit/ submain wiring along with earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface / recessed medium class PVC conduit as required 4 X 6 sq. mm + 2 X 6 sq. mm earth wire	35	mtr
6	Wiring for circuit/ submain wiring along with earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in	40	mtr

	surface / recessed medium class PVC conduit as required 4 X 10 sq. mm + 2 X 6 sq. mm earth wire		
7	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/ recess including cutting the wall and making good the same in case of recessed conduit as required. 20mm	150	mtr
8	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required. 25mm	100	mtr
9	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/ recess including cutting the wall and making good the same in case of recessed conduit as required. 32 mm	50	mtr
10	Supplying and drawing following pair 0.5 mm dia FRLS PVC insulated annealed copper conductor, unarmored telephone cable in the existing surface/ recessed steel/ PVC conduit as required. 2 Pair	125	mtr
11	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required. Telephone socket outlet	25	E
12	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 amps modular socket outlet and 5/6 amps modular switch, connection etc. as required. (For light plugs to be used in non residential buildings)	14	E
13	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 6 pin 5/6 & 15/16 amps modular socket outlet and 15/16 amps modular switch, connection etc. as required	12	E
14	Supplying and fixing 3 pin, 5 amp ceiling rose on the existing junction box/ wooden block including connection etc as required.	13	E
15	Wiring for group controlled (looped) light point/fan point/exhaust fan point/ call bell point ( without independent switch etc.) with 1.5 sq. mm FRLS PVC insulated copper conductor single core cable in surface/ recessed PVC conduit, and	61	pt

	earthing the point with 1.5 sq. mm FRLS PVC insulated copper conductor single core cable etc. as required. Group C		
16	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 2 Nos. 3 pin 5/6 A modular socket outlets and 2 Nos. 5/6 A modular switches, connection etc. as required. (For light plugs to be used in non residential buildings).	61	E
17	Supplying and fixing 30 amps, 415 volts, TPN industrial type, socket outlet, with 4 pole and earth, metal enclosed plug top along with 30 amps "C" curve, TPMCB, in sheet steel enclosure, on surface or in recess, with chained metal cover for the socket outlet and complete with connections, testing and commissioning etc. as required.	9	E
18	Supplying and fixing 20 amps 415volts, TPN industrial type, socket outlet, with 4 pole and earth, metal enclosed plug top along with 20 amps "C" curve, TPMCB, in sheet enclosure, on surface or in recess, with chained metal cover for the socket outlet and complete with connections, testing and commissioning etc. as required	4	E
19	Providing and fixing M.V. danger notice plate of 200 mm X 150 mm, made of mild steel, at least 2mm thick, and vitreous enameled white on both sides, and with inscription in single red colour on front side as required	1	E
20	Supply, conveyance and fixing the following types & current rated control gears & switchgears conforming to IS 13947 suitable for 440 V, 50 Hz, AC supply in the existing panel assembly as required. 125A, 35/36 kA (Ics=100%Icu), 4 pole, current limiting type MCCB with microprocessor based release with overload setting of 50 - 100% having adjustable OL & SC	2	No
21	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. Single pole	50	E
22	Supplying and fixing 5 amps to 32 amps rating, 240/415 volts, "C" curve, miniature circuit breaker suitable for inductive load of following	22	E

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(8+18)  
Sum

	poles in the existing MCB DB complete with connections, testing and commissioning etc as required triple pole		
23	Supplying and fixing single pole blanking plate in the existing MCB DB complete etc. as required.	14	E
24	Supplying and fixing following rating, four pole, 415 volts, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required.40 amps	4	E
25	Supplying and fixing following rating, four pole, 415 volts, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required.63 amps	2	E
26	Supplying and fixing Cable End Box (Loose Wire Box) (IP 43) suitable for tripple pole and neutral, sheet steel, Vertical MCB distribution board, 415 V, on surface/ recess, complete with testing and commissioning etc. as required.	4	E
27	Supplying and fixing following rating, four pole, (three phase and neutral), 415 volts, residual current circuit breaker (RCCB), having a sensitivity current upto 300 milliamperes in the existing MCB DB complete with connections, testing and commissioning etc. as required.63 amps	2	E
28	Supplying and fixing following rating, four pole, (three phase and neutral), 415 volts, residual current circuit breaker (RCCB), having a sensitivity current upto 300 milliamperes in the existing MCB DB complete with connections, testing and commissioning etc. as required.40 amps	3	E
29	Providing and fixing H.T. danger notice plate of 250 mm X 200 mm, made of mild steel, at least 2mm thick, and vitreous enameled white on both sides, and with inscription in single red colour on front side as required.	1	E
30	Earthing with copper earth plate 600 mm X 600 mm X 3 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. (but without charcoal/ coke and salt ) as required	4	Set
31	Supply and installation of sheet steel, phosphatised and painted, dust and vermin proof enclosure of MCB DB including copper /brass bus bar, neutral link, earth bus and DIN rail suitable for fixing MCB/ isolator etc. fixed on wall using	4	E

	suitable anchor bolts or fixed in recess including cutting hole on the wall , making good the damages, colour washing etc. as required 6 way (8+18) - three phase double cover (IP42/43)		
32	Supply and installation of sheet steel, phosphatised and painted, dust and vermin proof enclosure of MCB DB including copper /brass bus bar, neutral link, earth bus and DIN rail suitable for fixing MCB/ isolator etc. fixed on wall using suitable anchor bolts or fixed in recess including cutting hole on the wall , making good the damages, colour washing etc. as required 8 way (8+12) - double cover TPN vertical DB with provision for fixing MCCB as incomer and SP/ TP MCB as outgoing (IP 42/43)	2	E
33	Supply and installation of sheet steel, phosphatised and painted, dust and vermin proof enclosure of MCB DB including copper /brass bus bar, neutral link, earth bus and DIN rail suitable for fixing MCB/ isolator etc. fixed on wall using suitable anchor bolts or fixed in recess including cutting hole on the wall , making good the damages, colour washing etc. as required 6 way (8+18) - double cover TPN vertical DB with provision for fixing 4P MCB / Isolator/ RCCB/ RCBO as incomer and SP/ TP MCB as outgoing (IP 42/43)	2	E
34	Supply & laying of one number PVC insulated and PVC sheathed armoured aluminium power cable of 1.1KV grade of the following sizes in ground including excavation of trench of size 35 x 75 cm, refilling the trench etc. as required but excluding sand cushioning and protective covering (in ordinary soil). 3.5 core 300 sq mm	65	mtr
35	Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed armoured aluminium power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages , colour washing etc. as required. 3.5 core 300 sq mm	10	mtr
36	Supply & laying of one number PVC insulated and PVC sheathed armoured aluminium power cable of 1.1KV grade of the following sizes in ground including excavation of trench of size 35 x 75 cm,	120	mtr

	refilling the trench etc. as required but excluding sand cushioning and protective covering (in ordinary soil).3.5 core 120 sq mm		
37	Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed armoured aluminium power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages , colour washing etc. as required.3.5 core 35 sq mm with factory made clamp	10	mtr
38	Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed armoured aluminium power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages , colour washing etc. as required.3.5 core 70 sq mm	15	mtr
39	Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed armoured aluminium power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages , colour washing etc. as required.3.5 core 150 sq mm	15	mtr
40	Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed armoured aluminium power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages , colour washing etc. as required.3.5 core 120 sq mm	16	mtr
41	Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed armoured aluminium power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages , colour washing etc. as required.4 core 6 sq mm with factory made clamp	45	mtr
42	Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed armoured aluminium power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages , colour washing etc. as required.4 core 10 sq mm with factory made clamp	120	mtr

Supply,  
insulated,  
power cable  
using clamps  
of clamps

43

43	Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed armoured aluminium power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages , colour washing etc. as required.4 core 16 sq mm with factory made clamp	90	mtr
44	Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed armoured aluminium power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages , colour washing etc. as required.4 core 25 sq mm with factory made clamp	35	mtr
45	Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed armoured copper power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages , colour washing etc. as required.4 core 35 sq mm with factory made clamp	100	mtr
46	Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed armoured copper power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages , colour washing etc. as required.4 core 70 sq mm	30	mtr
47	Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed armoured copper power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages , colour washing etc. as required.4 core 6 sq mm with factory made clamp	100	mtr
48	Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed armoured copper power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages , colour washing etc. as required.4 core 4 sq mm with factory made clamp	50	mtr
49	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	2	set

	grade as required.3 1/2X 35 sq. mm (32mm)		
50	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.3 1/2X 70 sq. mm (38mm)	2	Set
51	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.3 1/2 X 120 sq. mm (45mm)	4	set
52	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.3 1/2 X 150 sq. mm (50mm)	2	set
53	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.4 X 10 sq. mm (25mm)	10	set
54	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.4 X 16 sq. mm (28mm)	8	set
56	Supplying and making end termination with brass compression gland and copper lugs for following size of PVC insulated and PVC sheathed / XLPE copper conductor cable of 1.1 kV grade as required. 4 X 35 sq. mm	6	E set
57	Supplying and making end termination with brass compression gland and copper lugs for following size of PVC insulated and PVC sheathed / XLPE copper conductor cable of 1.1 kV grade as required. 4 X 70 sq. mm	4	E set
58	Supply and drawing bare earthing conductors of the following sizes along with wiring/ cables and giving connection as required.3.15 mm copper conductor ( 10 SWG)	250	mtr
59	Supply and clamping the following size of strips on surface of wall/ parapet/ existing cable tray using clamps fabricated from 20 X 3 mm GI flat duly painted or heavy duty GI spacer saddles spacing of clamps not exceeding 1 m, making good the damages, colour washing etc. as	140	mtr

required strip  
Supplying a  
at 0.50  
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60

	required ( for horizontal run)25 x 3 mm copper strip		
60	Supplying and laying 25 mm X 5 mm copper strip at 0.50 metre below ground as strip earthelectrode, including connection/ terminating with nut, bolt, spring, washer etc. as required.(Jointing shall be done by overlapping and with 2 sets of brass nut bolt & spring washer spaced at 50mm)	50	mtr
61	Supply and clamping the following sizes of strips on surface of wall / parapet/ existing cable tray using clamps fabricated from 20 x3 mm GI flat duly painted or heavy duty GI spacer saddles, spacing of clamps not exceeding 1 m , making good the damages, colour washing etc. as required ( for vertical run).25 x 3 mm copper strip	20	mtr
62	Supply of superior quality copper earth socket for the following size of earth conductor including crimping etc. as required.3.15 mm (10 SWG)	40	E
63	Supplying and installing following size of perforated Hot Dipped Galvanised Iron cable tray "Tee" (galvanisation 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.(450 mm width X 62.5 mm depth X 2.0 mm thickness)	2	E
64	Supplying and installing following size of perforated Hot Dipped Galvanised Iron cable tray "bends" (galvanisation 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.(450 mm width X 62.5 mm depth X 2.0 mm thickness)	8	E
65	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.(450 mm width X 62.5 mm depth X 2.0 mm thickness)	75	mtr
66	Supply and installation of Integral, SMD LED, IP40, 40W Surface/Suspended Mounted LED	11	E

	<p>Batten with system efficacy of more than 100 lm/W. LED luminaire shall have sleek design with Extruded Aluminum Section. The luminaire shall have High Optically Efficient Polycarbonate Diffuser for Uniform illumination and wider light distribution. Screw less Design ensures ease of maintenance. LM 80-08 compliant LEDs from reputed makes should be provided. LEDs used in the product shall comply with EN 62471 for Photobiological safety and certificate for the same from manufacturer shall be provided. Luminaire manufacturer shall produce certificate of association with LED manufacturer for minimum five years. The LED shall be compliant with LM80-08 standard with Useful L70 life of 50000 Hrs tested at maximum current (Complete LM 80 test report for LED should be submitted for 10000 hrs of testing). The LEDs used should be with CCT of 5700 K and CRI of Minimum 80. LED Driver shall be Isolated type, Constant Current topology driver with proper heat sink for heat dissipation suitable to operate in input voltage range of 150V to 270V (nominal rated voltage - 240V) with 3 KV internal surge protection, Power factor greater than 0.95 and total harmonic distortion (THD) of less than 10% should be integral to the luminaire. Compliance to Indian Standards of IS10322 Part 5 / Sect 1:1967; 16105 : 2012; IS 16106 : 2012; IS 15885 (Part2/Sec13) : 2012; IS 16108 : 2012 &lt;br&gt;Wipro Model No. LL24-541-XXX-57-XX or equivalent from Philips/ Jaquar</p>		
67	<p>Supply and installation of 35W, High efficient suspended LED Housing made up of extruded Aluminum powder coated and non-yellowing PMMA diffuser. Aesthetic slim profile in ring type with edge lit concept for contemporary interiors. Revolutionary disc of light with horizontal plane creates circle of light. CRI&gt;80, IP20, Ambient temp-0 to 45 Deg C, CCT - 4000K, 50,000 hrs @ L70 life. Driver efficiency&gt;85%, THD&lt;15%, Power factor&gt;0.95, Surge protection-2 kV, Multistage Isolated Constant Current-Constant Voltage operated driver with range 150-270V AC and Safety Extra Low Voltage Safe level&lt;60V DC as per IEC standard. Luminaire lumen 2625 lm. (75 lm/W) Wipro make</p>	1	E

	:LM230R-621-XX57-XW or equivalent in Philips /Jaquar		
68	Supply and installation of 18W, High efficient deep inset recess mounted LED round downlighter with white powder coated, pressure die cast aluminium housing. High transmittivity PS diffuser provides soft light. CRI>80, IP20, Ambient temp-0 to 45DegC, CCT - 4000/5700K, 50,000 hrs @ L70 life.Driver efficiency>85%, THD<10%, Power factor>0.9, Surge protection-2 kV, Multistage Isolated Constant Current-Constant Voltage operated driver with range 90-265V AC and Safety Extra Low Voltage Safe level<60V DC as per IEC standard. Wipro make: LD06X-221-XX-57-XX or equivalent	60	E
69	Supply and installation of 15W, High efficient retrofit matching recess mounted LED round downlighter with white powder coated, pressure die cast aluminium housing. High transmittivity PS diffuser provides soft light. CRI>80, IP20, Ambient temp-0 to 45DegC, CCT - 4000/5700K, 50,000 hrs @ L70 life. Driver efficiency>85%, THD<10%, Power factor>0.9, Surge protection-2 kV, Multistage Isolated Constant Current-Constant Voltage operated driver with range 90-265V AC and Safety Extra Low Voltage Safe level<60V DC as per IEC standard. Wipro make: LD06-171-XXX-57-XX or equivalent in philips/ havells	6	E
70	Supply and installation of LED suspended downlighter should have white powder coated pressure die cast aluminium housing and bottom frame , lumen output greater than 1000 lm and maximum system wattage of 10W including separate CC,CV APFC driver with surge protection of 2 kV. LM 80-08 compliant, ANSI rated LEDs from reputed makes should be provided. The LEDs used in luminaire should be ANSI standard Rated LED with CCT of	2	E

requires  
Concrete  
Supply &  
conductor  
interval  
require  
74

	4000 K +/- 500K and CRI of Minimum 70. LEDs used must be tested as per EN62471 for photo biological safety of humans. Isolated type, multistage constant current Constant Voltage topology driver suitable to operate in input voltage range of 150V to 270V ( nominal rated voltage - 240V) with driver efficiency greater than 85 %. LED tube should have THD < 10%, power factor > 0.9, system efficacy of lamp greater than 100 lumen/watt and including all necessary accessories as required complete.		
71	Supply and installation of IP65 rated LED Bulkhead fitting with aluminium diecast housing with powder coated ,Polycarbonate opal diffuser,High quality silicon gasket for IP65 Protection,Ambient temp-0 to 45 DegC,LED with 50000 burning hours as per L70 Criteria, CRI>70, color temperature- 5700K, , Complete assembly with LED, Driver and accessories pre wired up to terminal block Driver With efficiency>85%, THD<10%, Power factor>0.95, Surge protection in CM-2KV, Multistage Isolated Constant Current-Constant Voltage Operated driver with range 150-270V AC and Safety Extra Low Voltage Safe level<60V DC as per IEC standard. 10W LED Bulkhead luminaire delivering > 720lm, similar to WIPRO make : LW07-141-XXX- 57-G1 or equivalent in Philips/ Jaquar.	10	E
72	Supply installation testing and commissioning of unitised substation (outdoor type) having 200KVA, 11KV/433V, 3 phase, outdoor type, vector DYN-11 transformer with off circuit tappings from +5% to -10% in steps of 2.5%, changeable on off circuit by tap links provided, with WTI & LV terminals included MCCB 2 runs of PVCA cable and HV terminals connected to 11 KV, 26.3 KA, 630 A Load Break Switch, with incoming suitable for XLPE cable, with HT HRC fuses,3 Nos CTs, 1 No PT, provision for fixing TOD Meter and output connected to 11KV seal off bushings to the transformer with an outer enclosure for outdoor use.	1	E
73	Supply & fixing of 8mm solid aluminium round conductor with necessary holders @ required interval as specified below: Meets the requirement of (IS/IEC 62305) : semi-hard (E-AlMgSiO5 )with 50 sq.mm cross sectional area. Govt approved Indian labs test certificate	30	mtr

	required. Terrace Conductor Fibre Reinforce Concrete Holder @ every 1 meters		
74	Supply & fixing of 8mm solid aluminium round conductor with necessary holders @ required interval as specified below: Meets the requirement of (IS/IEC 62305) : semi-hard (E-AlMgSi05 )with 50 sq.mm cross sectional area. Govt approved Indian labs test certificate required. Parapet Holder made of weather resistant plastic @ every 0.4 meters	70	mtr
75	Providing and fixing of Stainless Steel Test Joint suitable with suitable Outdoor Enclosure: For 8mm dia solid round aluminium conductor & 10mm dia copper coated solid steel round conductor having 100 microns of copper bonding (if pure copper conductor 25x3 mm solid tape also can be used). Conforms to the requirements according to (IS/IEC 62305).The enclosure should be outdoor glass-fibre reinforced polycarbonate opaque having minimum inner dimension of 75mm x 75 mm x 50 mm. The test link has to be straight and needs minimum 4 mounting screws for strong joints. Inspection of bimetallic corrosion at site required. Single bolt joints are not permitted. Govt approved Indian labs test certificate required.	8	E
76	Supply & fixing of 8mm solid aluminium round conductor with necessary holders @ required interval as specified below: Meets the requirement of (IS/IEC 62305) : semi-hard (E-AlMgSi05 )with 50 sq.mm cross sectional area. Govt approved Indian labs test certificate required. Down Conductor Holder made of weather resistant plastic @ every 0.8 meters	60	mtr
77	Providing and laying copper coated steel solid round conductor 10mm diameter from earth electrode directly in ground as required. copper coated steel, high corrosion resistant (if pure copper conductor 25x3mm solid tape can also be used). Meets the requirement of (IS/IEC 62305) copper coating thickness of 100microns tape can also be used). Meets the requirement of (IS/IEC 62305) copper coating thickness of 100microns Should be tested and use exclusively for lightning protection earthing system and ring equipotential bonding. After test link needs to be routed inside Heavy duty conduit	110	mtr

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three c

	to avoid touch potential till ground level. Govt approved Indian labs test certificate required.		
78	mm aluminium rod meter rod Meets the requirement (IS/IEC 62305) Semi-hard (E-AlMgSi05) Suitable for high wind load. All air terminal must have Interception Tip at the Top of air terminal. System consist of Fang Fix with base and clamp on the top air terminal is erected. Air terminal Joining Clip Stainless Steel SS 304 clamp made of cable bracket, lightning tested for 100 KA 10/350 micro sec waveform. Stainless Steel Wall Clamp/16 KG stone of 365 mm diameter, high level of stability. No of stones/wall clamps depending on wind load. Quick and easy mounting of interception rod using anchors. Concrete, frostresistant, can be stacked. Govt approved Indian labs test certificate required. 2 meter air terminal with necessary mounting accessories Make: Cape/OBO/Erico	2	E
79	Providing and fixing of maintenance free Earthing system comprises of molecularly bonded copper of 99.9% purity on low carbon steel of 3m length , having a diameter of 20mm with copper bonding thickness of 250 microns with self-coupling peg & bore arrangement with fault current withstand capability of 30 KA rms value for 1 second and I peak of 76 KA. Exothermic welded Clamp for clamping as suggested as per NBC 2016. Impact point on the bottom rod for easy insertion. Earth enhancing mineral compound is used for improving the soil conductivity. The material shall be mineral inert to sub soil and shall not pollute the environment and non corrosive to earth rod. The material should have a resistivity less than 0.2 m. It should be free from hazardous substances. The mineral compound is required to have minimum 30 Kg of the total composite. The compound should be chemically inert and needs to submit Govt approved Indian labs test certificate. Concrete Earth electrode inspection chamber with heavy duty cover should be used to cover the Earth Rod. The dimension shall be 320mmx 320mmx 190mm with a weight bearing capacity of 50KN. Govt approved Indian labs test certificate required. Make: Cape / Erico / Furse	4	E
80	Supply and Installation of 12KV Ring Main Unit, Outdoor Type with enclosure, Rated short	1	E

	time withstand(main and earth) 20 kA 3 seconds, 630A continuous, rated current, Normal ambient temperature - 25 °C to + 40 °C, IP 67 Rated High voltage live parts, SF6 tank, 300 mm <sup>2</sup> three core or 500 mm <sup>2</sup> single core maximum cable size, fuses conforming to IEC 60282-1, DIN 43625,		
81	supply, installation, testing and commissioning of 200 kVA(160kW), Diesel Generating Set with CPCBII approved acoustic enclosure comprising of Radiator Cooled Diesel engine having 1500 RPM, complete with standard accessories. Coupled to "Stamford" Alternator rated at 160KW/200 KVA at 415 Volts mounted on Channel Iron Base Frame complete with Fuel Tank, Control Panel and Batteries with battery charger.	1	E
II	<b>Metering Panels</b>		
1	Fabrication, supply, conveyance, installation testing and commissioning of floor or wall mounting, dust and vermin proof, cubicle type MV panel board comprising of the following components/ devices & complying to IS 8623. Fabrication of fully partitioned, dust and vermin proof enclosure for panel assembly as per form 4 of IS 8623 (with latest amendments) using CRCA sheet as per approved design and requirement, with front and rear access facility, bus bar chambers, hinged doors for all switch gear compartments, earthing the doors using 4 sq mm braided copper conductor, providing necessary cut-outs for mounting meters, relays, indication lamps, bus bar interconnection etc, detachable covers for bus bar chamber and cable alley, powder coating the assembly after subjecting to 7 tank process etc as required. CRCA sheet alone be used for the fabrication. Angles/ flats/ slotted angles etc shall not be used for the fabrication of panel assembly. (Utility Panel) INCOMER : 6 3 A T P N ISOLATOR OUTGOINGS: 40A TP MCB - 2 Nos 32A TP MCB - 2 Nos 25A TP MCB - 2 Nos	1	E
2	Fabrication, supply, conveyance, installation testing and commissioning of floor or wall mounting, dust and vermin proof, cubicle type MV panel board comprising of the following	1	E set

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shall be of 2  
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	<p>components/ devices &amp; complying to IS 8623.&lt;br&gt;Fabrication of fully partitioned, dust and vermin proof enclosure for panel assembly as per form 4 of IS 8623 (with latest amendments) using CRCA sheet as per approved design and requirement, with front and rear access facility, bus bar chambers, hinged doors for all switch gear compartments, earthing the doors using 4 sq mm braided copper conductor, providing necessary cut-outs for mounting meters, relays, indication lamps, bus bar interconnection etc, detachable covers for bus bar chamber and cable alley, powder coating the assembly after subjecting to 7 tank process etc as required. CRCA sheet alone be used for the fabrication. Angles/ flats/ slotted angles etc shall not be used for the fabrication of panel assembly.(UPS Panel)&lt;br&gt;INCOMER: 200A FP MCCB&lt;br&gt;OUTGOINGS:&lt;br&gt;125A TP MCCB - 3 Nos&lt;br&gt;63A TP MCCB - 2Nos</p>		
3	<p>Fabrication, supply, conveyance, installation testing and commissioning of floor or wall mounting, dust and vermin proof, cubicle type MV panel board comprising of the following components/ devices &amp; complying to IS 8623.&lt;br&gt;Fabrication of fully partitioned, dust and vermin proof enclosure for panel assembly as per form 4 of IS 8623 (with latest amendments) using CRCA sheet as per approved design and requirement, with front and rear access facility, bus bar chambers, hinged doors for all switch gear compartments, earthing the doors using 4 sq mm braided copper conductor, providing necessary cut-outs for mounting meters, relays, indication lamps, bus bar interconnection etc, detachable covers for bus bar chamber and cable alley, powder coating the assembly after subjecting to 7 tank process etc as required. CRCA sheet alone be used for the fabrication. Angles/ flats/ slotted angles etc shall not be used for the fabrication of panel assembly. (A C Panel) INCOMER: 100A T P N ISOLATOR&lt;br&gt;OUTGOINGS:&lt;br&gt;63A TP MCB - 3 Nos&lt;br&gt;40A TP MCB - 3Nos</p>	1	E set
4	<p>Supply installation testing and commissioning of 80 KVAR APFC panel with block reactors. The voltagerating of the Power Factor correction requirement shall be at 440 Volts between phases. The total KVAR shall be divided into</p>	1	E set

	<p>automatically switched steps of suitable rating. The no. of switching stages shall be designed appropriately in steps of 20*2,15*1, 10*1&amp; 5*3 for 150 KVAR. Individual Capacitors shall be of 3phase construction in design using Heavy Duty Polypropylene as a dielectric with vacuum deposited conductors on the polypropylene as electrodes. Dielectric material shall be low loss, less than 0.3 watts per KVAR. The controller should be fully automatic, intelligent microprocessor based relay operated offering minimum 8 stage. The enclosure shall be made from 14/16 gauge CRCA sheet steel. Seven tank process shall be carried out for treating the sheet metal</p>		
5	<p>Fabrication, supply, conveyance, installation testing and commissioning of floor mounting, dust and vermin proof, cubicle type MV panel board comprising of the following components/ devices &amp; complying to IS 8623. Fabrication of fully partitioned, dust and vermin proof enclosure for panel assembly as per IS 8623 (with latest amendments) using CRCA sheet as per approved design and requirement, with front and rear access facility, bus bar chambers, hinged doors for all switch gear compartments, earthing the doors using 4 sq mm braided copper conductor, providing necessary cut-outs for mounting meters, relays, indication lamps, bus bar interconnection etc, detachable covers for bus bar chamber and cable alley, powder coating the assembly after subjecting to 7 tank process etc as required. CRCA sheet alone be used for the fabrication. Angles/ flats/ slotted angles etc shall not be used for the fabrication of panel assembly. The panel must be compatible with BMS system. (MSB Panel) INCOMER: 320A, 50K A, 4P MCCB with E/F - 2 nos 325A 4P CONTACTOR - 2 nos AMF relay with interlock - 1 no 51G relay - 1 no OUTGOINGS: 125A, 25KA, TP, MCCB - 2 nos 100A, 25KA, TP, MCCB - 2 nos 200A FP MCCB - 2 nos 200A TP MCCB - 1 no</p>	1	E set

2) Bid Price

The contract shall be for the full quantity as described above. Corrections if any shall be made by crossing out re-writing with initial and date.

- a) The rate should be all inclusive of taxes, levies, transports etc. Usual deduction of taxes will be made from the gross amount of bill.
  - b) The rate quoted by the bidder shall be fixed for the duration of the contract and shall not be subject to adjustment on any account.
  - c) The price should be quoted in Indian rupees only.
- 3) Each bidder shall submit only one tender

4) Validity of tender

Tender shall remain valid for a period not less than 45 days after the dead line date specified for submission

5) Evaluation of tender

The purchaser will evaluate and compare the tenders determined to be substantially responsive ie which

- a) Are properly signed
- b) Confirm to the terms and conditions and specification.

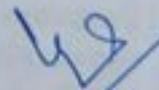
6) Award of Contract

- a) The purchaser will award the contract to the bidder whose tender has been determined to be substantially responsive and who has offered the lowest evaluated tender price
- b) Not with standing above, the purchaser reserves the right to accept or reject any tender and to cancel the bidding process and reject all tender at anytime prior to the award of the contract
- c) The bidder whose bid is accepted will be notified of the award of the contract by the purchaser prior to expiration of the tender validity period. The terms of the accepted offer shall be incorporated in the purchase order.

7) The amount will be released after verification of the material in physical ,quality and receipt of invoice in this office according to the availability of funds. Individual or authorized dealers/agents are only eligible.

8) You are requested to provide your offer latest by 12 hours on **04.09.2021** and the Tenders will be opened at **04.09.2021**

We look forward to receiving your tender and thank for your interest in this work.  
EMD cost=0,

  
Project Manager

Copy to:1. Website

2. Notice board

Format of Tender (T12)

Sl No	Description	Quantity	Unit	Rate	AMOUNT	
					Amount in figures	Amount in words
1	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVCinsulated copper conductor single core cable in surface / recessed medium class PVC conduit,with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FRLSPVC insulated copper conductor single core cable etc as required.Group C	32	pt			
2	Wiring for twin control light point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, 2 way modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc as required	1	pt			
3	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface / recessed medium class PVC conduit as required2x1.5 sq.mm + 1x1.5 sq.mm earth wire	500	mtr			
4	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface / recessed medium class PVC conduit as required2X 2.5 sq. mm + 1 X 2.5 sq. mm earth wire	1080	mtr			
5	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface / recessed medium class PVC conduit as required4 X 6 sq. mm + 2 X 6 sq. mm earth wire	35	mtr			

6	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface / recessed medium class PVC conduit as required 4 X 10 sq. mm + 2 X 6 sq. mm earth wire	40	mtr		
7	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/ recess including cutting the wall and making good the same in case of recessed conduit as required. 20mm	150	mtr		
8	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required. 25mm	100	mtr		
9	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/ recess including cutting the wall and making good the same in case of recessed conduit as required. 32 mm	50	mtr		
10	Supplying and drawing following pair 0.5 mm dia FRLS PVC insulated annealed copper conductor, unarmored telephone cable in the existing surface/ recessed steel/ PVC conduit as required. 2 Pair	125	mtr		
11	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required. Telephone socket outlet	25	E		
12	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 amps modular socket outlet and 5/6 amps modular switch, connection etc. as required. (For light plugs to be used in non residential buildings)	14	E		
13	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing	12	E		

and fixing 6 pin  
modular socket ou  
modular switch, c  
required  
Supplying and fixing 3  
rose on the  
wooden b  
as r  
14

	and fixing 6 pin 5/6 & 15/16 amps modular socket outlet and 15/16 amps modular switch, connection etc. as required				
14	Supplying and fixing 3 pin, 5 amp ceiling rose on the existing junction box/ wooden block including connection etc as required.	13	E		
15	Wiring for group controlled (looped) light point/fan point/exhaust fan point/ call bell point ( without independent switch etc.) with 1.5 sq. mm FRLS PVC insulated copper conductor single core cable in surface/ recessed PVC conduit, and earthing the point with 1.5 sq. mm FRLS PVC insulated copper conductor single core cable etc. as required. Group C	61	pt		
16	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 2 Nos. 3 pin 5/6 A modular socket outlets and 2 Nos. 5/6 A modular switches, connection etc. as required. (For light plugs to be used in non residential buildings).	61	E		
17	Supplying and fixing 30 amps, 415 volts, TPN industrial type, socket outlet, with 4 pole and earth, metal enclosed plug top along with 30 amps "C" curve, TPMCB, in sheet steel enclosure, on surface or in recess, with chained metal cover for the socket outlet and complete with connections, testing and commissioning etc. as required.	9	E		
18	Supplying and fixing 20 amps 415volts, TPN industrial type, socket outlet, with 4 pole and earth, metal enclosed plug top along with 20 amps "C" curve, TPMCB, in sheet enclosure, on surface or in recess, with chained metal cover for the socket outlet and complete with connections, testing and commissioning etc. as required	4	E		
19	Providing and fixing M.V. danger notice plate of 200 mm X 150 mm, made of mild steel, at least 2mm thick, and vitreous enameled white on both sides, and with inscription in single red colour	1	E		

	on front side as required				
20	Supply, conveyance and fixing the following types & current rated control gears & switchgears conforming to IS 13947 suitable for 440 V, 50 Hz, AC supply in the existing panel assembly as required. 125A, 35/36 kA (Ics=100%Icu), 4 pole, current limiting type MCCB with microprocessor based release with overload setting of 50 - 100% having adjustable OL & SC	2	No		
21	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. Single pole	50	E		
22	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 triple pole	22	E		
23	Supplying and fixing single pole blanking plate in the existing MCB DB complete etc. as required.	14	E		
24	Supplying and fixing following rating, four pole, 415 volts, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required. 40 amps	4	E		
25	Supplying and fixing following rating, four pole, 415 volts, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required. 63 amps	2	E		
26	Supplying and fixing Cable End Box (Loose Wire Box) (IP 43) suitable for tripple pole and neutral, sheet steel, Vertical MCB distribution board, 415 V, on surface/ recess, complete with testing and commissioning etc. as required.	4	E		
27	Supplying and fixing following rating, four pole, (three phase and neutral), 415 volts, residual current circuit breaker	2	E		

(MCCB), having  
 300 milliamperes  
 complete with co  
 commissioning etc.  
 four pole, (4  
 volts

	(RCCB), having a sensitivity current upto 300 milliamperes in the existing MCB DB complete with connections, testing and commissioning etc. as required.63 amps				
28	Supplying and fixing following rating, four pole, (three phase and neutral), 415 volts, residual current circuit breaker (RCCB), having a sensitivity current upto 300 milliamperes in the existing MCB DB complete with connections, testing and commissioning etc. as required.40 amps	3	E		
29	Providing and fixing H.T. danger notice plate of 250 mm X 200 mm, made of mild steel, at least 2mm thick, and vitreous enameled white on both sides, and with inscription in single red colour on front side as required.	1	E		
30	Earthing with copper earth plate 600 mm X 600 mm X 3 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. (but without charcoal/ coke and salt ) as required	4	Set		
31	Supply and installation of sheet steel, phosphatised and painted, dust and vermin proof enclosure of MCB DB including copper /brass bus bar, neutral link, earth bus and DIN rail suitable for fixing MCB/ isolator etc. fixed on wall using suitable anchor bolts or fixed in recess including cutting hole on the wall , making good the damages, colour washing etc. as required6 way (8+18) - three phase double cover (IP42/43)	4	E		
32	Supply and installation of sheet steel, phosphatised and painted, dust and vermin proof enclosure of MCB DB including copper /brass bus bar, neutral link, earth bus and DIN rail suitable for fixing MCB/ isolator etc. fixed on wall using suitable anchor bolts or fixed in recess including cutting hole on the wall , making good the damages, colour washing etc. as required8 way (8+12) - double cover TPN vertical DB with provision for fixing MCCB as incomer and SP/ TP MCB as outgoing (IP 42/43)	2	E		

33	Supply and installation of sheet steel, phosphatised and painted, dust and vermin proof enclosure of MCB DB including copper /brass bus bar, neutral link, earth bus and DIN rail suitable for fixing MCB/ isolator etc. fixed on wall using suitable anchor bolts or fixed in recess including cutting hole on the wall  making good the damages, colour washing etc. as required 6 way (8+18) - double cover TPN vertical DB with provision for fixing 4P MCB / Isolator/ RCCB/ RCBO as incomer and SP/ TP MCB as outgoing (IP 42/43)	2	E		
34	Supply & laying of one number PVC insulated and PVC sheathed armoured aluminium power cable of 1.1KV grade of the following sizes in ground including excavation of trench of size 35 x 75 cm, refilling the trench etc. as required but excluding sand cushioning and protective covering (in ordinary soil).3.5 core 300 sq mm	65	mtr		
35	Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed armoured aluminium power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages , colour washing etc. as required.3.5 core 300 sq mm	10	mtr		
36	Supply & laying of one number PVC insulated and PVC sheathed armoured aluminium power cable of 1.1KV grade of the following sizes in ground including excavation of trench of size 35 x 75 cm, refilling the trench etc. as required but excluding sand cushioning and protective covering (in ordinary soil).3.5 core 120 sq mm	120	mtr		
37	Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed armoured aluminium power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps	10	mtr		

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damages  
required.3.5 core  
made clamp  
Supply, laying  
insulated  
ab

	not exceeding 60cms, making good the damages , colour washing etc. as required.3.5 core 35 sq mm with factory made clamp				
38	Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed armoured aluminium power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages , colour washing etc. as required.3.5 core 70 sq mm	15	mtr		
39	Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed armoured aluminium power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages , colour washing etc. as required.3.5 core 150 sq mm	15	mtr		
40	Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed armoured aluminium power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages , colour washing etc. as required.3.5 core 120 sq mm	16	mtr		
41	Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed armoured aluminium power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages , colour washing etc. as required.4 core 6 sq mm with factory made clamp	45	mtr		
42	Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed armoured aluminium power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages , colour washing etc. as required.4 core 10 sq mm with factory made clamp	120	mtr		
43	Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed armoured	90	mtr		

damages , colour washing etc. as required.4 core 16 sq mm with factory made clamp  
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	aluminium power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages , colour washing etc. as required.4 core 16 sq mm with factory made clamp				
44	Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed armoured aluminium power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages , colour washing etc. as required.4 core 25 sq mm with factory made clamp	35	mtr		
45	Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed armoured copper power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages , colour washing etc. as required.4 core 35 sq mm with factory made clamp	100	mtr		
46	Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed armoured copper power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages , colour washing etc. as required.4 core 70 sq mm	30	mtr		
47	Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed armoured copper power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages , colour washing etc. as required.4 core 6 sq mm with factory made clamp	100	mtr		
48	Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed armoured copper power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the	50	mtr		

	damages , colour washing etc. as required.4 core 4 sq mm with factory made clamp				
49	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.3 1/2X 35 sq. mm (32mm)	2	set		
50	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.3 1/2X 70 sq. mm (38mm)	2	Set		
51	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.3 1/2 X 120 sq. mm (45mm)	4	set		
52	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.3 1/2 X 150 sq. mm (50mm)	2	set		
53	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.4 X 10 sq. mm (25mm)	10	set		
54	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.4 X 16 sq. mm (28mm)	8	set		
56	Supplying and making end termination with brass compression gland and copper lugs for following size of PVC insulated and PVC sheathed / XLPE copper conductor cable of 1.1 kV	6	E set		

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 sections, joine  
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	grade as required. 4 X 35 sq. mm				
57	Supplying and making end termination with brass compression gland and copper lugs for following size of PVC insulated and PVC sheathed 1 XLPE copper conductor cable of 1.1 kV grade as required. 4 X 70 sq. mm	4	E set		
58	Supply and drawing bare earthing conductors of the following sizes along with wiring/ cables and giving connection as required 3.15 mm copper conductor ( 10 SWG)	250	mtr		
59	Supply and clamping the following size of strips on surface of wall/ parapet/ existing cable tray using clamps fabricated from 20 X 3 mm GI flat duly painted or heavy duty GI spacer saddles spacing of clamps not exceeding 1 m, making good the damages, colour washing etc. as required ( for horizontal run) 25 x 3 mm copper strip	140	mtr		
60	Supplying and laying 25 mm X 5 mm copper strip at 0.50 metre below ground as strip earthelectrode, including connection/ terminating with nut, bolt, spring, washer etc. as required.(Jointing shall be done by overlapping and with 2 sets of brass nut bolt & spring washer spaced at 50mm)	50	mtr		
61	Supply and clamping the following sizes of strips on surface of wall / parapet/ existing cable tray using clamps fabricated from 20 x3 mm GI flat duly painted or heavy duty GI spacer saddles, spacing of clamps not exceeding 1 m , making good the damages, colour washing etc. as required ( for vertical run). 25 x 3 mm copper strip	20	mtr		
62	Supply of superior quality copper earth socket for the following size of earth conductor including crimping etc. as required. 3.15 mm (10 SWG)	40	E		
63	Supplying and installing following size of perforated Hot Dipped Galvanised Iron cable tray "Tee" (galvanisation not less	2	E		

	<p>nan 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 &amp; nuts, etc. as required.(450 mm width X 62.5 mm depth X 2.0 mm thickness)</p>				
64	<p>Supplying and installing following size of perforated Hot Dipped Galvanised Iron cable tray "bends" (galvanisation 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 &amp; nuts, etc. as required.(450 mm width X 62.5 mm depth X 2.0 mm thickness)</p>	8	E		
65	<p>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 &amp; nuts, etc. as required.(450 mm width X 62.5 mm depth X 2.0 mm thickness)</p>	75	mtr		
66	<p>Supply and installation of Integral, SMD LED, IP40, 40W Surface/Suspended Mounted LED Batten with system efficacy of more than 100 lm/W. LED luminaire shall have sleek design with Extruded Aluminu Section. The luminaire shall have High Optically Efficient Polycarbonate Diffuser for Uniform illumination and wider light distribution. Screw less Design ensures ease of maintenance. LM 80-08 compliant LEDs from reputed makes should be provided. LEDs used in the product shall comply with EN 62471 for Photobiological safety and certificate for the same from manufacturer shall be provided. Luminaire manufacturer shall produce certificate of association with LED</p>	11	E		

and downlight housing. High pressure provides soft light. Ambient temp-0 to 4000/5700K. life.Driver to eff.

	<p>manufacturer for minimum five years. The LED shall be compliant with LM80-08 standard with Useful L70 life of 50000 Hrs tested at maximum current (Complete LM 80 test report for LED should be submitted for 10000 hrs of testing). The LEDs used should be with CCT of 5700 K and CRI of Minimum 80. LED Driver shall be Isolated type, Constant Current topology driver with proper heat sink for heat dissipation suitable to operate in input voltage range of 150V to 270V (nominal rated voltage - 240V) with 3 KV internal surge protection, Power factor greater than 0.95 and total harmonic distortion (THD) of less than 10% should be integral to the luminaire. Compliance to Indian Standards of IS10322 Part 5 / Sect 1:1967; 16105 : 2012; IS 16106 : 2012; IS 15885 (Part2/Sec13) : 2012; IS 16108 : 2012 &lt;br&gt;Wipro Model No. LL24-541-XXX-57-XX or equivalent from Philips/Jaquar</p>				
67	<p>Supply and installation of 35W, High efficient suspended LED Housing made up of extruded Aluminum powder coated and non-yellowing PMMA diffuser. Aesthetic slim profile in ring type with edge lit concept for contemporary interiors. Revolutionary disc of light with horizontal plane creates circle of light. CRI&gt;80, IP20, Ambient temp-0 to 45 Deg C, CCT - 4000K, 50,000 hrs @ L70 life. Driver efficiency&gt;85%, THD&lt;15%, Power factor&gt;0.95, Surge protection-2 kV, Multistage Isolated Constant Current-Constant Voltage operated driver with range 150-270V AC and Safety Extra Low Voltage Safe level&lt;60V DC as per IEC standard. Luminaire lumen 2625 lm. (75 lm/W) Wipro make :LM230R-621-XX57-XW or equivalent in Philips /Jaquar</p>	1	E		
68	<p>Supply and installation of 18W, High efficient deep inset recess mounted LED</p>	60	E		

	<p>round downlighter with white powder coated, pressure die cast aluminium housing. High transmittivity PS diffuser provides soft light. CRI&gt;80, IP20, Ambient temp-0 to 45DegC, CCT - 4000/5700K, 50,000 hrs @ L70 life.Driver efficiency&gt;85%, THD&lt;10%, Power factor&gt;0.9, Surge protection-2 kV, Multistage Isolated Constant Current-Constant Voltage operated driver with range 90-265V AC and Safety Extra Low Voltage Safe level&lt;60V DC as per IEC standard. Wipro make: LD06X-221-XX-57-XX or equivalent</p>				
69	<p>Supply and installation of 15W, High efficient retrofit matching recess mounted LED round downlighter with white powder coated, pressure die cast aluminium housing. High transmittivity PS diffuser provides soft light. CRI&gt;80, IP20, Ambient temp-0 to 45DegC, CCT - 4000/5700K, 50,000 hrs @ L70 life. Driver efficiency&gt;85%, THD&lt;10%, Power factor&gt;0.9, Surge protection-2 kV, Multistage Isolated Constant Current-Constant Voltage operated driver with range 90-265V AC and Safety Extra Low Voltage Safe level&lt;60V DC as per IEC standard. Wipro make: LD06-171-XXX-57-XX or equivalent in philips/ havells</p>	6	E		
70	<p>Supply and installation of LED suspended downlighter should have white powder coated pressure die cast aluminium housing and bottom frame , lumen output greater than 1000 lm and maximum system wattage of 10W including separate CC,CV APFC driver with surge protection of 2 kV. LM 80-08 compliant, ANSI rated LEDs from reputed makes should be provided. The LEDs used in luminaire should be ANSI standard Rated LED with CCT of 4000 K +/- 500K and CRI of Minimum 70. LEDs used must be tested as per EN62471 for photo biological safety of humans. Isolated type, multistage constant</p>	2	E		

Supply & fix  
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	<p>current Constant Voltage topology driver suitable to operate in input voltage range of 150V to 270V ( nominal rated voltage - 240V) with driver efficiency greater than 85 %. LED tube should have THD &lt; 10%, power factor &gt; 0.9, system efficacy of lamp greater than 100 lumen/watt and including all necessary accessories as required complete.</p>				
71	<p>Supply and installation of IP65 rated LED Bulkhead fitting with aluminium diecast housing with powder coated Polycarbonate opal diffuser, High quality silicon gasket for IP65 Protection, Ambient temp-0 to 45 DegC, LED with 50000 burning hours as per L70 Criteria, CRI&gt;70, color temperature- 5700K, Complete assembly with LED, Driver and accessories pre wired up to terminal block Driver With efficiency&gt;85%, THD&lt;10%, Power factor&gt;0.95, Surge protection in CM-2KV, Multistage Isolated Constant Current- Constant Voltage Operated driver with range 150-270V AC and Safety Extra Low Voltage Safe level&lt;60V DC as per IEC standard. 10W LED Bulkhead luminaire delivering &gt; 720lm, similar to WIPRO make : LW07-141-XXX- 57-G1 or equivalent in Philips/ Jaquar.</p>	10	E		
72	<p>Supply installation testing and commissioning of unitised substation (outdoor type) having 200KVA, 11KV/433V, 3 phase, outdoor type, vector DYN-11 transformer with off circuit tappings from +5% to -10% in steps of 2.5%, changeable on off circuit by tap links provided, with WTI &amp; LV terminals included MCCB 2 runs of PVCA cable and HV terminals connected to 11 KV, 26.3 KA, 630 A Load Break Switch, with incoming suitable for XLPE cable, with HT HRC fuses, 3 Nos CTs, 1 No PT, provision for fixing TOD Meter and output connected to 11KV seal off bushings to the transformer with an outer enclosure for outdoor use.</p>	1	E		

73	<p>Supply &amp; fixing of 8mm solid aluminium round conductor with necessary holders @ required interval as specified below: Meets the requirement of (IS/IEC 62305) : semi-hard (E-AlMgSi05 )with 50 sq.mm cross sectional area. Govt approved Indian labs test certificate required.&lt;br&gt;Terrace Conductor Fibre Reinforce Concrete Holder @ every 1 meters</p>	30	mtr			
74	<p>Supply &amp; fixing of 8mm solid aluminium round conductor with necessary holders @ required interval as specified below: Meets the requirement of (IS/IEC 62305) : semi-hard (E-AlMgSi05 )with 50 sq.mm cross sectional area. Govt approved Indian labs test certificate required.&lt;br&gt;Parapet Holder made of weather resistant plastic @ every 0.4 meters</p>	70	mtr			
75	<p>Providing and fixing of Stainless Steel Test Joint suitable with suitable Outdoor Enclosure: For 8mm dia solid round aluminium conductor &amp; 10mm dia copper coated solid steel round conductor having 100 microns of copper bonding (if pure copper conductor 25x3 mm solid tape also can be used). Conforms to the requirements according to (IS/IEC 62305).The enclosure should be outdoor glass-fibre reinforced polycarbonate opaque having minimum inner dimension of 75mm x 75 mm x 50 mm. The test link has to be straight and needs minimum 4 mounting screws for strong joints. Inspection of bimetallic corrosion at site required. Single bolt joints are not permitted. Govt approved Indian labs test certificate required.</p>	8	E			
76	<p>Supply &amp; fixing of 8mm solid aluminium round conductor with necessary holders @ required interval as specified below: Meets the requirement of (IS/IEC 62305) : semi-hard (E-AlMgSi05 )with 50 sq.mm cross sectional area. Govt approved Indian labs test certificate</p>	60	mtr			

	required. Down Conductor Holder made of weather resistant plastic @ every 0.8 meters				
77	Providing and laying copper coated steel solid round conductor 10mm diameter from earth electrode directly in ground as required. copper coated steel, high corrosion resistant (if pure copper conductor 25x3mm solid tape can also be used). Meets the requirement of (IS/IEC 62305) copper coating thickness of 100microns tape can also be used). Meets the requirement of (IS/IEC 62305) copper coating thickness of 100microns Should be tested and use exclusively for lightning protection earthing system and ring equipotential bonding. After test link needs to be routed inside Heavy duty conduit to avoid touch potential till ground level. Govt approved Indian labs test certificate required.	110	mtr		
78	mm aluminium rod meter rod Meets the requirement (IS/IEC 62305) Semi-hard (E-ALMgSiO5) Suitable for high wind load. All air terminal must have Interception Tip at the Top of air terminal. System consist of Fang Fix with base and clamp on the top air terminal is erected. Air terminal Joining Clip Stainless Steel SS 304 clamp made of cable bracket, lightning tested for 100 KA 10/350 micro sec waveform. Stainless Steel Wall Clamp/16 KG stone of 365 mm diameter, high level of stability. No of stones/wall clamps depending on wind load. Quick and easy mounting of interception rod using anchors. Concrete, frostresistant, can be stacked. Govt approved Indian labs test certificate required. 2 meter air terminal with necessary mounting accessories Make: Cape/OBO/Erico	2	E		
79	Providing and fixing of maintenance free Earthing system comprises of molecularly bonded copper of 99.9% purity on low carbon steel of 3m length.	4	E		

same complete  
Panel and Batter  
Metering Panels  
Fabrication,  
Installation, sup  
of floor or v  
vermic

	Frame complete with Fuel Tank, Control Panel and Batteries with battery charger.				
ii	<b>Metering Panels</b>				
1	<p>Fabrication, supply, conveyance, installation testing and commissioning of floor or wall mounting, dust and vermin proof, cubicle type MV panel board comprising of the following components/ devices &amp; complying to IS 8623.&lt;br&gt;Fabrication of fully partitioned, dust and vermin proof enclosure for panel assembly as per form 4 of IS 8623 (with latest amendments) using CRCA sheet as per approved design and requirement, with front and rear access facility, bus bar chambers, hinged doors for all switch gear compartments, earthing the doors using 4 sq mm braided copper conductor, providing necessary cut-outs for mounting meters, relays, indication lamps, bus bar interconnection etc, detachable covers for bus bar chamber and cable alley, powder coating the assembly after subjecting to 7 tank process etc as required. CRCA sheet alone be used for the fabrication. Angles/ flats/ slotted angles etc shall not be used for the fabrication of panel assembly. (Utility Panel)&lt;br&gt;r &gt; I N C O M E R : 6 3 A T P N ISOLATOR&lt;br&gt;OUTGOINGS:&lt;br&gt;40A TP MCB - 2 Nos&lt;br&gt;32A TP MCB - 2 Nos&lt;br&gt;25A TP MCB - 2 Nos</p>	1	E		
2	<p>Fabrication, supply, conveyance, installation testing and commissioning of floor or wall mounting, dust and vermin proof, cubicle type MV panel board comprising of the following components/ devices &amp; complying to IS 8623.&lt;br&gt;Fabrication of fully partitioned, dust and vermin proof enclosure for panel assembly as per form 4 of IS 8623 (with latest amendments) using CRCA sheet as per approved design and requirement, with front and rear access facility, bus bar chambers, hinged doors for all</p>	1	E set		

Power requirement between phases divided into a steps of suitable switching stage design.

	<p>having a diameter of 20mm with copper bonding thickness of 250 microns with self-coupling peg &amp; bore arrangement with fault current withstand capability of 30 KA rms value for 1 second and 1 peak of 76 KA. Exothermic welded Clamp for clamping as suggested as per NBC 2016. Impact point on the bottom rod for easy insertion. Earth enhancing mineral compound is used for improving the soil conductivity. The material shall be mineral inert to sub soil and shall not pollute the environment and non corrosive to earth rod. The material should have a resistivity less than 0.2 m. It should be free from hazardous substances. The mineral compound is required to have minimum 30 Kg of the total composite. The compound should be chemically inert and needs to submit Govt approved Indian labs test certificate. Concrete Earth electrode inspection chamber with heavy duty cover should be used to cover the Earth Rod. The dimension shall be 320mmx 320mmx 190mm with a weight bearing capacity of 50KN. Govt approved Indian labs test certificate required. Make: Cape / Erico / Furse</p>						
80	<p>Supply and Installation of 12KV Ring Main Unit, Outdoor Type with enclosure, Rated short time withstand (main and earth) 20 kA 3 seconds, 630A continuous, rated current, Normal ambient temperature - 25 °C to + 40 °C, IP 67 Rated High voltage live parts, SF6 tank, 300 mm<sup>2</sup> three core or 500 mm<sup>2</sup> single core maximum cable size, fuses conforming to IEC 60282-1, DIN 43625,</p>	1	E				
81	<p>supply, installation, testing and commissioning of 200 kVA (160kW), Diesel Generating Set with CPCBII approved acoustic enclosure comprising of Radiator Cooled Diesel engine having 1500 RPM, complete with standard accessories. Coupled to "Stamford" Alternator rated at 160KW/200 KVA at 415 Volts mounted on Channel Iron Base</p>	1	E				

<p>the Power Factor correction requirement shall be at 440 Volts between phases. The total KVAR shall be divided into automatically switched steps of suitable rating. The no. of switching stages shall be designed appropriately in steps of 20*2, 15*1, 10*1 &amp; 5*3 for 150 KVAR. Individual Capacitors shall be of 3 phase construction in design using Heavy Duty Polypropylene as a dielectric with vacuum deposited conductors on the polypropylene as electrodes. Dielectric material shall be low loss, less than 0.3 watt per KVAR. The controller should be fully automatic, intelligent microprocessor based relay operated offering minimum 8 stage. The enclosure shall be made from 14/16 gauge CRCA sheet steel. Seven tank process shall be carried out for treating the sheet metal</p>					
<p>5 Fabrication, supply, conveyance, installation testing and commissioning of floor mounting, dust and vermin proof, cubicle type MV panel board comprising of the following components/ devices &amp; complying to IS 8623. Fabrication of fully partitioned, dust and vermin proof enclosure for panel assembly as per IS 8623 (with latest amendments) using CRCA sheet as per approved design and requirement, with front and rear access facility, bus bar chambers, hinged doors for all switch gear compartments, earthing the doors using 4 sq mm braided copper conductor, providing necessary cut-outs for mounting meters, relays, indication lamps, bus bar interconnection etc, detachable covers for bus bar chamber and cable alley, powder coating the assembly after subjecting to 7 tank process etc as required. CRCA sheet alone be used for the fabrication. Angles/ flats/ slotted angles etc shall not be used for the fabrication of panel assembly. The panel must be compatible with BMS system. (MSB Panel) INCOMER: 3</p>	1	E set			

20A, 50KA,  
 nos <br> 325  
 2no <br> AMF  
 no <br> 51G  
 TP

	<p>switch gear compartments, earthing the doors using 4 sq mm braided copper conductor, providing necessary cut-outs for mounting meters, relays, indication lamps, bus bar interconnection etc, detachable covers for bus bar chamber and cable alley, powder coating the assembly after subjecting to 7 tank process etc as required. CRCA sheet alone be used for the fabrication. Angles/ flats/ slotted angles etc shall not be used for the fabrication of panel assembly.(UPS Panel)&lt;br&gt;INCOMER: 200A FP MCCB&lt;br&gt;OUTGOINGS:&lt;br&gt;125A TP MCCB - 3 Nos&lt;br&gt;63A TP MCCB - 2Nos</p>					
3	<p>Fabrication, supply, conveyance, installation testing and commissioning of floor or wall mounting, dust and vermin proof, cubicle type MV panel board comprising of the following components/ devices &amp; complying to IS 8623.&lt;br&gt;Fabrication of fully partitioned, dust and vermin proof enclosure for panel assembly as per form 4 of IS 8623 (with latest amendments) using CRCA sheet as per approved design and requirement, with front and rear access facility, bus bar chambers, hinged doors for all switch gear compartments, earthing the doors using 4 sq mm braided copper conductor, providing necessary cut-outs for mounting meters, relays, indication lamps, bus bar interconnection etc, detachable covers for bus bar chamber and cable alley, powder coating the assembly after subjecting to 7 tank process etc as required. CRCA sheet alone be used for the fabrication. Angles/ flats/ slotted angles etc shall not be used for the fabrication of panel assembly.(AC Panel) INCOMER : 100A TP N ISOLATOR&lt;br&gt;OUTGOINGS:&lt;br&gt;63A TP MCB - 3 Nos&lt;br&gt;40A TP MCB - 3Nos</p>	1	E set			
4	<p>Supply installation testing and commissioning of 80 KVAR APFC panel with block reactors. The voltagerating of</p>	1	E set			

20A,50KA, 4P MCCB with E/F - 2 nos 325A 4P CONTACTOR- 2no AMF relay with interlock- 1 no 51G relay- 1 no OUTGOINGS: 125A ,25KA, TP,MCCB - 2nos 100A , 25KA, TP, MCCB - 2 nos 200A FP MCCB - 2nos 200A TP MCCB - 1no					
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Gross Total Cost - Rs.....

(In words) We agree to supply the above goods in accordance with the technical Specification for a total price of Rs.....(amount in figure).....(amount in words) with in the period specified in the invitation for quotation.

**Signature of Supplier**