

ELECTRICAL WORK AT SAHAKARNAGAR BRANCH, BENGALURU

S.No	Item description	Quantity	Unit	Rate	Amount
1	<p>MAIN PANEL BOARD:</p> <p>Supply, installation, testing and commissioning of cubicle wall mounting type, MAIN PANEL BOARD with <u>copper bus-bars, bottom and top entry cable chambers</u> for incoming & outgoing cables, dust and vermin proof, fabricated using 16SWG CRCA sheets with powder coated panel. Bus-bars shall be electrolytic quality copper with PVC heat shrinkable color coded sleeves and supported with SMC/DMC at adequate intervals, gaskets for doors, feeder designation etc. All wires inside shall be terminated with copper lugs & ferrules. The panel board should be designed for electrical system of 3 Phase, 4 wire, 415V, 50Hz, 35KW load. The panel shall be provided with the following:-</p> <p>INCOMER:</p> <p>1 No 100A, 16 kA 4 POLE MCCB 1 No Digital Multi data meter 1 Set of LED type RYB Phase indicating lamps with protection fuses 3 Nos 100/5A 10VA CL: 1.2 CT for ammeter</p> <p>OUTGOING:</p> <p>40A, DP MCB for Branch UPS – 2 Nos 32A, 4P MCB for lighting DB - 1 No 25A, DP MCB for AC - 1 No 20A, DP MCB for ATM UPS I/p - 2 Nos 20A, DP MCB for Name Board - 1 No</p> <p>CHANGEOVER:</p> <p>100A 4 pole on-load changeover - 1 No</p> <p>BUS BAR RATING:</p> <p>PH: 25 x 4 mm Cu Flat – 3 runs; NL & E : 25 x 4 mm Cu Flat – 1 run;</p> <p>There should be 2 sets of BUS BAR in such a way that AC load should not be connected to GENERATOR power.</p>	1	No		
2	<p>Supply and laying input wires from Main panel board to enclosure and from enclosure to UPS (Input) using PVC insulated multi stranded single core copper conductor FRLS wire through 25mm PVC conduits and 25mm flexible PVC hose as below:</p> <p>10 Sq.mm wire – 2 runs; 4 Sq.mm wire – 1 run</p>	30	m		
3	<p>Supply, installation, testing and commissioning of 63 A DPMCB -1No and 40A DPMCB – 1 No in 4 POLE enclosure for Branch UPS input</p>	1	No		
4	<p>Supply and laying output wires from UPS to main UPS DB in UPS room and from Main UPS Output DB to Sub UPS Output DB near Banking hall entrance using PVC insulated multi stranded single core copper conductor FRLS wire through 25mm PVC conduits and 25mm flexible PVC hose as below:</p> <p>6 Sq.mm wire – 2 runs; 2.5 Sq.mm wire – 1 run</p>	50	m		
5	<p>Supply, installation, testing and commissioning of 8way double door SPN DB with the following for UPS Main output control in UPS room</p> <p>Incoming 63A DP MCB – 1No Outgoing 20A DPMCB – 5Nos</p> <p>With necessary insulated copper bus bars, Neutral Links, earth Links and interconnections with suitable PVC insulated copper conductor wires in UPS room.</p>	1	No		

S.No	Item description	Quantity	Unit		
6	Supply, installation, testing and commissioning of 12way double door SPN DB with the following for UPS Sub DB near branch entrance Incoming 40A DP MCB – 1No Outgoing 10A SPMCB –6Nos With necessary insulated copper bus bars, Neutral Links, earth Links and interconnections with suitable PVC insulated copper conductor wires in UPS room.	1	No		
7	Supply and laying circuit mains for UPS points using PVC insulated multi stranded single core copper conductor FRLS wire in 19mm dia PVC conduit/casing 'n' capping to be laid in floors/ walls /partitions, etc., complete with all accessories from UPS output DB to counters & cabin. 2.5 Sq.mm – 2 runs; 1.5 Sq.mm – 1 run (Looping 3 sets of 3X6A socket outlet in one Ckt)	600	m		
8	Supply and fixing modular switches & sockets, in equivalent PVC box for UPS points: 5 pin socket of 6A - 3 Nos Indicator type switch 15A - 1 No Without indicator switch - 1 No Manager Cabin - 3 Nos; Hub rack - 1 No; Bulk Cash, officer and Single window counter - 09 Nos; Low counter - 06 nos	18	Nos		
9	Supply and fixing of modular switches & sockets, in equivalent PVC box for power points: 5 pin socket of 6/16A - 1 No 15A switch with indicator - 1 No Fire alarm - 01 No; Burglar alarm – 01 No;	18	Nos		
10	Supply & Laying of 1.1KV grade, PVC insulated, galvanized steel armored and overall PVC sheathed LTUG cable of below size using suitable brass compression glands and crimping type aluminum sockets with necessary clamping on walls/ceiling using SS clamps as below: 4 core 16 Sq.mm ALUMINIUM UG cable from main panel to LIGHTING DB, AC DB AND SUBUPS DB near branch entrance	150	m		
11	Supply, installation, testing and commissioning of 4way double door TPN DB with the following for lighting control and AC control near branch entrance Incoming 32A 4PMCB – 1 No Outgoing 10A SPMCB – 8 Nos With necessary insulated copper bus bars, Neutral Links, earth Links and interconnections with suitable PVC insulated copper conductor wires .	3	No		
12	Supply and laying raw/UPS power circuit main to switch boards from lighting DB using PVC insulated multi stranded copper conductor FRLS wire in 19mm dia PVC conduit/casing 'n' capping to be laid in floor/partitions/walls etc complete with all accessories. 2.5 Sq.mm – 2 runs; 1.5 Sq.mm – 1 run	550	m		
	POINT WIRING				
13	Point Wiring using 2 X 1.5 Sq.mm PVC insulated multi stranded single core copper conductor FRLS wires of approved make in 19mm dia 2mm thick rigid PVC FRLS conduit pipe run in the true ceiling /wall/flooring as per requirement complete with all materials, GI saddles with approved make 6A modular type switches, front plates, surface mounting/concealed type PVC/GI switch boxes as per requirement.			Note: UPS lighting switches should not be combined with RAW power lighting switches.Flexible	
a	one light / fan point control by 6A one way Switch	75	Nos		
b	6Amps universal socket	15	Nos		

14	Supply and laying PVC insulated multi stranded single core copper conductor FRLS wire 10Sq.mm in 19mm dia 2mm thick rigid PVC FRLS conduit run in the wall / flooring as per requirement complete with all materials from earthing chamber to respective DBs and panel board.	300	m		
15	EARTHING: (UPS DB and Main panel) Supplying, installing, testing and commissioning of 2' X 2' X 6' earth pit with 600X600X3mm thick copper plate, 2m long 40mm dia 'B' class GI pipe, watering arrangement, chamber funnel, excavation and refilling with charcoal, salt and connecting 25X3mm copper strip with copper plate extending upto the ground level for taking up the connection. The rate is including of masonry work along with heavy duty CI cover, funnel, digging and back filling.	3	Nos		
16	Supply and fixing of calling bell with modular bell push using 1.5 Sq.mm copper wires – 2 runs. Manager cabin – 01 No	1	No		
TELEPHONE WIRING					
17	Supply and fixing of double RJ11 telephone socket outlet in modular box of approved make in counters and cabins for intercom & telephone. Manager - 02 Nos; Supervisor and Low counter - 6 Nos	8	Nos		
18	Supply, laying, connecting & commissioning of 2 pair telephone communication cable in 19mm dia PVC conduits in counters / partitions / wall with all accessories as required.	500	m		
19	Supply and fixing of 10pair telephone Krone box with KRONE module connector	1	No		
21	Supply and laying circuit mains to name boards using PVC insulated multi stranded single core copper conductor FRLS wire in 19mm dia PVC conduits to be laid in walls/ceiling etc., complete with all accessories. 4.0 Sq.mm – 2 runs; 1.5 Sq.mm – 1 run PVC conduit to be clamped to ceiling / wall using SS clamps and not to be run over false ceiling or partitions.	50	m		
26	Supply and laying raw/UPS power circuit main to ATM points from enclosures in e-lounge using PVC insulated multi stranded copper conductor FRLS wire in 19mm dia PVC conduit/casing 'n' capping to be laid in floor/partitions/walls etc complete with all accessories. 2.5 Sq.mm – 2 runs; 1.5 Sq.mm – 1 run	80	m		
28	Supply and fixing of 36 Watts 2' X 2' 36W Recess Mounted Slim LED Light Fixture of dimension 596 X 596 mm in false ceiling. The lights should be hanged from true ceiling using chains and not to be rested on false ceiling Model: CRCO23R036HP65G1 WIPRO/Equivalent in Philips	45	Nos		
29	Supply and fixing of 48" 1200mm ceiling fan HIGH SPEED Crompton greaves make in 'U' clamps for mounting fan in Record room, pantry, UPS room , safe and strong rooms, customer hall. The rate should be inclusive of electronic regulators for the fan.	10	Nos		
30	WALL MOUNTING FANS: Supply and fixing of 16" hi-flo diamond wall mounting fan of CROMPTON GREAVES / Orient make including 1 No 6A socket – in 2 module box.	15	Nos		
31	Supply and installation of 12" Exhaust Fan(Make: Almonard)	4	Nos.		

32	Supply and fixing of lightning , UPS and AC supply indicators made of 18 gauge CRCA Sheet with top cover. The box duly painted with 2 coats of red oxide primer, vermin proof and frosted white powder coating finish . The box is provided with: 1. 6 Amps single pole MCB C Curve 3 nos. (Legrand/LnT Make) 2. Din Channel mounted Connectors-3 nos. 3. RYB Indicating Lamps 1 no. each (Make Salzer) Note: The cover plate of the box to be punched with a round hole to fix the indicators. The Box needs to be provided with an earthing bolt.(This rate includes the transportation charges, chiseling, core cutting etc)	1	Nos		
33	Supply and providing of timer for the Glow Sign Board consisting of LnT timer 25Amps 2 pole C&S Contactor In IP 56 protected(sintex) heavy duty PVC mounred on the wall with all the accessories	3	Nos		
34	<u>TUBE LIGHTS:</u> Supply and fixing of 36W 6500K BATTEN LED lights with surface mounted brackets on true ceiling. Model:D533665 36W WIPRO GARNET/Equivalent In PHILIPS	18	Nos		
	Supply & Laying of 1.1KV grade, PVC insulated, galvanized steel armored and overall PVC sheathed LTUG cable of below size using suitable brass compression glands and crimping type aluminum sockets with necessary clamping on walls/ceiling using SS clamps as below:				
	4 core 50 Sq.mm ALUMINIUM UG cable From main panel to Building main panel	80	MTR		
	4 core 35 Sq.mm ALUMINIUM UG cable From main panel to generator	60	MTR		
32	Supply, installation, testing and commissioning of 8 way double door TPN DB with the following for AC input control:- Incoming 63A 4 pole MCB – 1 No Outgoing 25A 2 pole MCB – 4 Nos – 3.0TR CASSETTE AC I/p 20A 2 pole MCB – 2 Nos – 1.5 TR Cassette AC I/p 20A 2 pole MCB – 2 Nos – 1.0 TR Split AC I/p With necessary insulated copper bus bars, Neutral Links, earth Links and interconnections with suitable PVC insulated copper conductor wires in UPS room.	1	NOS		
33	Supply and laying circuit mains to AC points from AC DBs using PVC insulated multi stranded single core copper conductor FRLS wire in 19mm dia PVC conduits to be laid in walls/ceiling etc., complete with all accessories. 4.0 Sq.mm – 4 runs; 1.5 Sq.mm – 1 run PVC conduit to be clamped to ceiling / wall using SS clamps and not to be run over false ceiling or partitions.	400	MTR		
34	Supply , fixing, testing and commissioning of AC box with socket, Plug top and SPMCB with 2 nos. of 4.00 sqmm and 1 nos. of 2.50 sqmm copper ind. Fronmm AC DB to AC Cable with suitable PVC conduit.	8	NOS		

35	<p>DOWN LIGHTER:</p> <p>Supply and fixing of 15W LED down lights of WIPRO make in false ceiling.</p> <p>Model: 10W white square LED Down Lighter D311065 (6500K – 640 lumens)</p>	30	NOS		
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ATM WIRING					
36	<p>Supply and laying circuit mains from Main panel to ATM Power DB in using PVC insulated multi stranded single core copper conductor FRLS wire in 25mm dia PVC conduits to be laid in walls/ceiling etc complete with all accessories.</p> <p>4 Sq.mm – 4 runs</p> <p>PVC conduit to be clamped to ceiling / wall not to be run over false ceiling or partitions.</p>	120	m		
37	<p>Supply and fixing of modular switches & sockets, in equivalent PVC box for power points:</p> <p>5 pin socket of 6/16A - 1 No 15A switch with indicator - 1 No</p> <p>ATM UPS I/p and O/p - 03 Nos; ATM UPS Output points – 03 Nos</p>	3	Nos		
38	<p>Supply, installation, testing and commissioning of 4way double door TPN DB with the following for ATM Input</p> <p>Incoming 32A 4PMCB – 1 No Outgoing 10A SPMCB – 1 No - for lighting circuit 25A DPMCB – 2No – For UPS I/P 20A DPMCB – 1 No - for AC I/p 20A DPMCB – 1 No – for name board</p> <p>With necessary insulated copper bus bars, Neutral Links, earth Links and interconnections with suitable PVC insulated copper conductor FRLS wires.</p>	1	No		
39	<p>Supply and fixing 16A DPMCB – 1 No - with PVC enclosure for ATM output</p>	3	No		
40	<p>Supply and laying raw/UPS power circuit main to ATM points from enclosures in e-lounge using PVC insulated multi stranded copper conductor FRLS wire in 19mm dia PVC conduit/casing 'n' capping to be laid in floor/partitions/walls etc complete with all accessories.</p> <p>2.5 Sq.mm – 2 runs; 1.5 Sq.mm – 1 run</p>	70	m		

DATA CABLING WORKS

SL.NO	DESCRIPTION OF ITEMS	QUANTITY	UNIT		
1	Supply & laying of computer (LAN) socket wiring with four pair CAT -6 unshielded twisted pair (UTP) cable of COMMSCOPE MAKE through pre laid PVC conduit /PVC Casing capping etc complete. All complete as per standard specifications.	700.00	MTR		
1(A)	Same as item No.1, but for ATM	100.00	MTR		
2	Supply & fixing of LAN information outlet UTP CAT 6E shuttered flush mounted with face plate and GI/PVC mounting box including termination with dual plate/connection. All complete as per standard specifications.	18.00	nos.		
2(A)	Same as item No.2, but for ATM	3.00	nos.		
3	Supply of CAT 6 Patch/mounting card				
a	2 meter long	18.00	nos.		
b	1 meter long	18.00	nos.		

4	Supply & fixing of LAN patch panel CAT -6, 24 PORT jack panel and terminating CAT -6 LAN cables from information outlets. All complete as per standard specifications.	1.00	nos.		
5	25MM PVC Conduit pipe / Channel	120.00	MTR		
6	Supply and fixing of 12U closed metal rack with glass door and 6" Magnetic fan	1.00	Nos		
SUB TOTAL					
CSGT					
SGST					
GRAND TOTAL					

SIGNATURE OF THE TENDERER WITH SEAL

APPROVED MAKES OF MATERIALS

1	MCCB	LEGRAND / L & T
2	MCB	LEGRAND (' C ' CURVE)
3	ISOLATOR	LEGRAND
4	DB BOARD	LEGRAND
5	CABLES	HAVELLS / POLYCAB / V - GUARD
6	CABLE GLANDS AND LUGS	SIEMENS
7	WIRES	FINOLEX / RR / POLYCAB - FRLS wires only
8	SWITCHES	ANCHOR ROMA (Modular switches)
9	MODULAR BOX	ANCHOR ROMA (Modular type)
10	CEILING FAN	CROMPTON GREAVES high speed (WHITE COLOUR)
11	16" WALL FAN	CROMPTON - hi flo / ORIENT - white colour only
12	12"/9" EXHAUST FAN	HAVELLS / ALMONARD with double ball bearing only
13	CASING CAPPING	MODI'S, GEMINI, ISI MARK
14	PVC CONDUITS	AVON PLAST, BAJAJ PLAST, KUNDAN ISI MARK
15	White/grey colour FRLS pipes only. Black colour should not be used	
16	G.I. B-CLASS PIPES (ISI)	ITC, PRAKASH
17	TIMER	L&T
18	ELECTRONIC REGULATORS	ANCHOR ROMA
19	CHANGEOVER	HPL
20	MEASURING INSTRUMENTS	A.E., IMP, MECCO, SIEMENS
21	DOUBLE RJ 11	ANCHOR ROMA / LEGRAND

GUARANTEE: 2 Years - for ALMONARD exhaust fans provided by manufacturer

WARRANTY:

1 year - for all light fittings, fans;

5 years - for all LEGRAND MCBs installed in LEGRAND DBs
provided by manufacturer

2 years - LED light fittings

COLOUR CODING:

Colour coding of wires to be followed strictly and all the DB boards to be named

RED - Phase, BLACK - Neutral, GREEN - Earth