

Tender Document for electrical work of Panaji Branch, Indian Bank

Sr.No	SPECIFICATIONS	
1	Invertor	Sukam/ Sudip/ Autobat or eque
2	Exhaust Fan	Crompton//Usha/Orient
3	Light Fittings	Philips
4	Cable & Wire	Finolex /Poly cab
5	Switch & Socket	Anchor/Roma
6	Casing Capping & Accessories	Modi/Asian
7	M.S. Conduits	Asian/BFC
8	PVC Conduits	Asian
9	Ceiling Roses, Bell Push, Bells	Anchor
10	DB/MCB/MCCB	MDS/Siemens
11	Cutout	Stanley/Havells
12	Bus Bar Chambers	Stanley/Samrat
13	Cable Glands & Lugs	Siemens
14	Telephone Wire	Finolex 'Delton
15	Capacitors	Crompton / Asian

CONTRACTOR

INDIAN BANK

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	SUMMARY	AMOUNT
B	ELECTRICAL	
C	COMPUTER AND DATA	
	TOTAL	
	GST AS APPLICABLE	

NO	ITEMS	UNIT	QTY	RATE	AMT
	SECTION - A				
2	MAIN INCOMING PANEL (MIP )	nos	1		
	Supply installation, testing and commissioning of wall / floor mounted indoor type, air insulated, totally enclosed vermin- proof, dead front, cubicle type, 2mm thick sheet steel enclosed main incoming panel ( MIP ) suitable for use on 415V, 3 Ph ., 4 wire, 50Hz A.C. system, instrumental panel, CTs, incoming and outgoing cable compartment, Each unit shall be accommodated in a totally separated compartment having gasketed hinged door with locking arrangement. The Panel shall be complete with switches of following ratings, interconnection, G.I. earth busbar of adequate size covering the total length of switch board with drilled holes , G.I. bolts, nuts,, washers, etc. The cubicle should be painted with 2 ( two ) coats of lights grey synthetic enamel paint over two coats of zinc chromate primer . Danger sign board in English , and Marathi.				
	The complete fabrication, construction shall be done as per the detailed specification and conforming to the relevant IS. Name place of Panel, Danger Board, incoming and outgoing feeders with Ampere rating of switches / change over switvh are to be fixed up on front door or below the respective switches. Short circuit I.C. of all MCBs should be of 10 KA (min.) The contractor shall submit the fabrication drawing for approval before fabrication.				
	The MIP consists of the following				
	INCOMING :				
	1 NO. : 415V 160A 4P MCB (25KA min.) having O/L & S/C Protection device.				
	1 NO. : 415V 50A TPN MCB				
	1 NO. : 0 - 150A 96mm sq Ammeter with selection switch (4 position - 3 way and off);				
	1 NO. : 0 - 60A 96mm sq Ammeter with selection switch (4 position - 3 way and off);				
	1 NO. : 0 - 500V 96mm sq Ammeter with selection switch (4 position - 3 way and off);with fuse base and carrier;				
	6 Nos. : Phase indicating lamps.				
	3 Nos : 150/5 A CTS				
	2 Section of PVC sleeved TPN Tinned Copper Busbar				
	A) 25mm x 6mm for phases & neutral for one section &				
	B) 20mm x 5mm for phases & neutral for one section.				
	G.I. EARTH BUSBAR				
	25m x6mm covering the total length of panel				
	outgoing				

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	1 NO. 415V 63A auto change auto reset switch.				
	2 NO. 415V 63A TPN MCB				
	5 Nos.415V 32A / 40A TP MCB				
	8 Nos. 240V 32A /40A SP MCB				
	18 Nos. 240V 16 A / 20A SP MCB				
3.5	ATM BOARD :- 40/32 Amps DP MCB in MS enclosure box	NOS	1		
3.6	AC POWER DISTRIBUTION BOARD 4 Ways TPN DB consists of Incomer :- 63 Amps DP MCB - 1No. Outgoing :- 63 Amps DP MCB - 1No	NOS	1		
	TOTAL SECTION A				
	SECTION - B				
	POWER CABLE & TERMINATION :-				
1	Supplying, Installation, Testing & Commissioning of LT Cable rated for 600/ 1100 Volts AC as per IS Standard with necessary accessories and termination as				
2	3.5 Core x 50 sq.mm Aluminium armoured Cable from Meter Room to main power Panel with 2 Nos. of 12SWG Copper Earth Wire .including crimping	Per m	10		
3	4 Core x 6 sq.mm Copper PVC Copper armoured cable with 1 no. of 12 SWG earth wire from MPP to AC DB.	Per m	10		
4	10 sq.mm x 2nos. Copper PVC Insulated wire from UPS output to UPS DB with 1 no of 6 sq.mm Copper earth wire	Per m	35		
5	25 sq.mm x 4 nos. of lead wire from meter to main switch in meter room.	Per m	25		
6	2 x 4 sq.mm + 1x1.5 sq.mm thru M.S conduit from main panel to glow Board	Per m	15		
7	3.5 Core 50 sq.mm PVC insulated Alu armoured cable with 2 nos.8 SWG G.I wire as running earth.	Per m	10		
	TOTAL SECTION B				
	SECTION - C				
	LIGHT POINT WITH WIRING				
	Note – The point mention below is inclusive of circuit wiring .Aa switch boards should be connected with separated from main panel.				
	Point wiring with 1100 V grade nos. single core 1.5 sq.mm (1 for phase , 1 (black colour ) for common neutral by looping method and 1 ( green colour) for common earth by looping method )PVC insulated flexible FRLS copper conductor cable (IS : 694) Through PVC conducts of 25mm /20mm of 16 gauge thickness (ISI marked embossed on conduit surface ) complete with junction box, circular box, elbows, bends, couplers and other accessories on surface				

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	above false ceiling or concealed by chase cutting on wall from light & fan switch board to light, fan & 6A socket outlet on the same switch board or separately mounted switch board. The work includes supply and fixing of all materials as specifies make modular type 6A switch for each light and fan point, 6A 2/3 pin shuttered socket outlet with switch , 3 place ceiling rose / angle or batten holder etc. as required.				
	The point wiring also includes circuit wiring with 1100 V grade 2 nos. single core 2.5 sq.mm (1 for phase and 1 (black colour ) for neutral + no. single core 1.5 sq.mm ( green colour for each) PVC insulated flexible (FRLS) copper conductor cable (IS :694) through suitable size PVC. Conduit as described above from DB to switch board, interconnection ,mending good all damages to original finish, painting etc. as required to be completed in all respect. All connections of wires to be done by means of 'wago' type connectors. (All wiring in strong room, locker room, records & stationary room will be of surface conduit type).				
1	Primary Light Point	Nos.	20		
2.	Secondary Light Point	Nos.	15		
2	Wall Bracket Fan point with 2/3 Pin socket ( to be installed at fan height and switch )	Nos.	12		
3	Ceiling Fan Point with supply and fixing of 2 Module step regulator/dimmer ( 280 W min )	Nos.	4		
4	Exhaust fan point	Nos.	3		
5	Call Bell Point with Push Bell ( Indicator Type or Ding Dong )	Nos.	1		
6	1 x 6A 2/3 pin shuttered with switch on separate switch board other than fan / light switch board.	Nos.	8		
7	1 x 6A 2/3 pin shuttered with switch on separate switch board other than fan / light switch board.	Nos.	4		
8	1x6 A 5 pin shuttered socket with switch on separate switch board on than fan / light switch board	NOS	4		
9	AC POWER POINT WITH WIRING -	Each	6		
	Ac power point wiring from DB with 1100volt grade 2 nos. single core 4 sq. mm. + 1no. 2.5 sq.mm (Green colour for earthing ) PVC insulated flexible FRLS copper conductor cable through suitable size M. S conduit (ISI marked embossed on conduit surface ) complete with junction box, circular box, elbows, bends, couplers and other accessories on surface above falls ceiling or concealed by chase cutting on wall. The work includes supply and fixing by chase cutting on wall, "north - west" make AC power unit having 25A 3 pin				

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	socket with matching plug, 20A starter in sheet steel enclosure with 4 module plate, mounting box complete with interconnection, mending good all damages to original finish, painting etc. as required. All connection of wires to be done by means off 'wago' type connectors.				
10	Supply and fixing of 16/6A 6 pin shuttered socket outlet with switch and indicator, mounting box and suitable size front plate on wall just opposite 2 switch board of strong room / locker room and supply of 1.1KV grade 3 core 2.5sq.mm round PVC insulated and PVC sheathed flexible copper conductor cable of 1.5meter length having (1) no. 16A 3 pin plug at on end and the other end will be parentally connected to the switch board inside the room including inter connection, chase cutting, mending good all damage to original finish, painting etc. as required.	No	1		
	TOTAL SECTION C				
	SECTION - D				
	LIGHT FIXTURE-				

	Supplying, Installation, Testing & Commissioning of following light fixtures complete of appoved make make as per specification with all fitting, accessories such as junction Box, Hardware, Starter, Connector, Lamps, Tube etc. Fittings and make as mentioned below consist of electronic ballast & colour 84 PL tube with direct & indirect lighting, all fittings, accessories such as Chain Link Support on Ceiling/ wooden framework approved by Architect . ( Before Installation Sample must be shown Architect )				
a	PHILIPS MAKE RC 3808 LED 25 6500 PS OD WH	Nos.	11		
b	PHILIPS MAKE DN 191B LED 6S - 6500 PSU WH	Nos.	9		
c	PHILIPS MAKE ASTRA BN150W LED 13S - 6500 PSE OD GR	Nos.	15		
6	CROMPTON CEILING FAN 1200MM dia , white colour with all accessories.	Nos.	3		
7	300mm Exhaust fan with all accessories with mounting ring and louver complete (white colour only ) GEC make .	Nos.	3		
8	400mm dia wall bracket fan all accessories ( white Colour only )	Nos.	10		
9	Supplying and fixing on wall call bell buzzer ( approved by Consultant ) suitable for 240 volt single phase A.C. supply including interconnection, etc. as required.	Nos.	1		
	TOTAL OF SECTION - D				

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	SECTION - E				
	TELEPHONE CABLING :-				
1	S/I/T Commissioning of 20 pair telescopic unarmoured cable from service point to Krone Box INCLUDING CONDUIT / CASHING CAPPING ( Make - Finolex / Delton / Polycab )	Per m	25		
2	TELEPHONE JUNCTION BOX				
	Supply and Fixing of 25 pair telephone junction box 'Krone make on wall /furniture / partition with hinged cover and screwed type tag strips complete with chase cutting, mending good, painting etc. Inc ( make – Krone type Delton / ITL )	Per nos.	1		
3	TELEPHONE WIRING	Per nos			

	Supplying and lying of 2 paid 0.50mm dia telephone cable through pre- laid rigid PVC conduit as shown in the drawing or otherwise as directed by the consultant from Telephone Junction box to Telephone socket outlet including interconnection, mending good, etc, as required to be completed in all respect. Including conduit	Per nos	200		
4	TELEPHONE SOCKET	Per nos.	10		
	Supply and fixing on wall / furniture/ partition recessed type Legrand / North – West / Novar make Telephone socket outlet (RJ 11 )with mounting box & front plate as shown in the drawing complete with chase cutting, mending good etc. as required.				
	TOTAL OF SECTION - E				
	SECTION - F				
	MISCELLANEOUS WORK :-				
3. 5. 1	Earthing the installation as per I.E. rules conforming to IS: 3043 – 1987 or its latest amendment by making earth section with 600mm x 6mm (min ) thick copper plate electrode to be installed such that its top edge shall be at a min depth of 3.0m below ground level after preparation of ground with charcoal and salt connecting the 25mm x 6mm copper earth lead-in-strip (upto 10m length ) by bolting and then brazing to the copper plate complete with copper bolts of suitable length double nuts and washers including supply and fixing of 50mm dia. Partly perforated G.I. pipe with funnel for watering arrangement. The copper earth lead-in-strip shall be PVC sleeved / insulated throughout the total length and the underground portion to be laid through suitable size heavy duty rigid PVC conduit (ISI embossed on conduit surface) at an average depth of 500mm below ground level.				
	The earthing installation should be provided with 300mm x 300mm x 300mm depth inside dimension masonry inspection pit with C.I. hinged cover having	Each	2		

	locking arrangement and restoring the surfaces duly rammed				
3.5.2	Earth lead-in-strip exceeding 10m length as mentioned in item no. 3.5.1. with supply and fixing of 25mm x 6mm copper strip having PVC sleeved / insulated to be fixed on wall surface with tinned copper bar saddles . camps at an interval of 300mm etc.as required to be completed in all respect. Min clearance between wall surface and copper earth lead-in-strip should be 6mm.	Mtrs	15		

	1 no. 16A modular type controlling switch				
	1 no. front cover of suitable size				
	1 no. Moulding box of suitable size				
	Note : - All power supply is thru DB. The Control switch is to be located in another board above table. the supply socket is located on another board below				
3.3	UPS Power Distribution Board	Nos.	2		
	4 way TPN DB Consist of				
	Incomer :- 63 Amps DP MCB - 1 NO.				
	Outgoing :- 10/16 Amps SP MCB - 14 nos.				
3.4	UPS INPUT / OUTPUT Consists of	Nos.	4		
	63 Amps / 40 Amps DP MCB in MS enclosure box				
	TOTAL OF SECTION - F				
	SECTION - G				
	DATA CABLING AND COMPUTER POINTS				
	COMPUTER SOCKET POINT :- ( thru UPS supply only )	set	10		
	COMPUTER SOCKET POINT :- ( thru UPS supply only )				
	Computer socket outlet cluster point wiring 1100V grade 3nos.single core (1 for earth , green colour) 1.5 sq.mm . PVC insulated flexible FRLS copper conductor cable conforming to IS : 694 through suitable size rigid PVC. Conduit ( ISI mark embossed on conduit surface ) and conduit accessories partly thorough concealed in wall , embedded in floor, partly on surface above false ceiling and partly through partition or through flexible conduit from CDB to computer socket outlet cluster as detailed below and up to connection of 2 nos. socket clusters in 1 ( one ) circuit connecting by looping method. The work includes supply and fixing of socket outlet cluster as detailed below and up to connection of 2 no. socket cluster 1(one) circuit connecting by looping method. The work includes supply and fixing of socket outlet cluster competent ( legrand / north - west / novar make) as detailed				
	Each computer socket outlet cluster compressing the following ..				
	3 nos. 6A 2/3 pin modular type shuttered socket				



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	3 nos. 6A modular controlling switch				
	1 no. 16/6A pin modular type shuttered socket				
	Supply and installation of Cat 6 UTP Cable	Per mt	400		
	Cat 6 information outlet with Face plate	Per Mt	10		
	24 Port Cat 6 jack panel (existing)		1		
	3 ft Patch Cord cat 6	Per No	10		
	7 ft. Patch cord cat 6	Per No	10		
	24 Port 10/100 Fast Ethernet switch (Existing)	Per No	1		
	12 Uwall mounting 19"Standard Net working Rack (Existing)	Per No	1		
	Total of G				
	SUMMARY				
	TOTAL SECTION A				
	TOTAL SECTION B				
	TOTAL SECTION C				
	TOTAL SECTION D				
	TOTAL SECTION E				
	TOTAL SECTION F				
	TOTAL SECTION G				
B	ELECTRICAL GRAND TOTAL				
	+GST				