

STATE BANK OF INDIA

LHO, MAHARASHTRA

ELECTRICAL WORKS OF PRAKASHA BRANCH, RBO DHULE

SL NO.	DESCRIPTION OF WORK	QTY	UNIT	RATE
1	Labour charges for dismantling of existing MSB, APFC Panels, cabling, wiring, fan and light fittings, switch boards and conduits including telephone and data lines etc. and arranging temporary light & fans, UPS/Raw Power, telephone connections etc. for the functioning of the Branch during the course of renovation work. All wiring has to be taken through conduits through ELCB. Safety of the Staff & customers has to be ensured by the tenderer during and after the renovation work. All wall openings for switch boards, wiring/cabling/light fittings has to be neatly sealed using cement mortar. (Materials dismantled are to be handed over to the BM with proper documentation)	1	Job	
2	ENERGY METER CUBICLE : Fabrication, Supply, Installation, testing & Commissioning of enery Meter cubicle made out of 16 SWG CRCA sheet consisting of the following. (to be fixed outside the building). Separate chamber for energy meter (with fixing plate, view glass and holes with rubber gromets), Separate Lockable CT chamber big enough to accommodate 3 nos. CTs comfortably, Chamber for Cutouts & switchgear etc. and consisting of the following. 3 Nos.100A Open Type cutout fuse with bakelite base and with 50A HRC fuses 125A, 16kA (at 415 volts) , 4 Pole MCCB with extended operating handle - 1No. 25x3 mm Tinned copper earth bench with black sleeve mounted on FRP insulators with SS Nuts & bolts for giving connections. 4 Runs 10 Sq.mm PVC insulated copper wire for giving internal connections between C/O fuses, MCCB, Neutral Link etc with copper Lugs and SS Nuts&Bolts. Spreader and SS Nuts & Bolts, Rubber gromets for metal crossings of wires, door knobs with lock nuts etc. Mark ON & OFF direction, MCCB & Cut out fuse ratings, cable size, consumer No., Name of Branch etc.neatly using good quality stickers /Paint. Complete with all interconnections and powder coated painting . The Panel Board shall be conforming to IS and Electrical Inspectorate / MSEDCL standards.	1	Set	

3	MAINS CHANGE OVER Supply and installation of 125A 4 Pole ON LOAD Change over switch with suitable metallic enclosure with cable entry box and powder coat painted and with 6 nos 2A SP MCB with 6 nos LED indicators for the identification of KSEB / DG Set 'ON' & neat marking thereof. (Separate chamber & door for COS chamber & Indicator + MCB Chamber). Use 1/1.5 Sq.mm rigid single core PVC insulated copper conductor for control wiring. Suitable metal supports shall be incorporated to guide/tie the control wiring and neat dressing thereof. All unused knock out holes/gaps shall be properly sealed.	1	No.	
4	MAIN PANEL (VDB) : Supply, Installation, testing and commissioning of Double door 8 Way TPN MCCB Vertical DB consisting of the following. 125A, 25kA (at 415Volts) TP MCCB as Incomer - 1 No. 100 A, 3 Pole MCB (C Series) - 1 No. (To NON ESSENTIAL VDB) 63A, 3 Pole MCB (C Series) - 1 No. (To APFC PANEL) 40A TP MCB (C Series) as Outgoing - Spare 63A SP MCB (C-Series) - 3 Nos. (UPS Inputs & Spare) 16/20A SP MCB (C-Series)-3 Nos. (To Name Boad DB & Server AC & Spare) Dummy Plates - 9 Nos. 125A Copper busbar for 3 phases The incoming copper conductors should be connected directly to the DB Earth benches and the body should be earthed from DB earth bench or out side main earth bench if any. Complete with all inter connections and neat marking/identification of DB Name, Cable Size, MCCB rating and outgoing MCBs .	1	Set	
5	APFC PANEL: Fabrication, Supply, Installation, testing and commissioning of wall mounting type dust and vermin proof cubicle type switch board (20 kVAr Microprocessor controlled Automatic Power Factor Correction Panel) made out of 16 SWG CRCA sheet with powder coated painting (siemens grey) and consisting of the following. 63A, 4 Pole MCB (C-Series) as Incomer -1 No. 25x3mm Tinned Copper Bus bar for 3 Phases and Neutral with heat shrinkable PVC sleeve with colour coding and SMC/BMC Busbar supprts -1 Set. 16A TP MCB (C-Series) as outgoing - 3 No. 10A TP MCB (C-Series) as Outgoing - 3 Nos. Microprocessor based 9 stage APFC Relay (3 CT Based) -1 No. 5 kVAr MPP-SH (Metallised Poly Propylene-Self Healing) Type Heavy Duty Capacitor - 3 Nos. 3 kVAr MPP-SH (Metallised Poly Propylene-Self Healing) Type Heavy Duty Capacitor - 1 Nos. 1 kVAr MPP-SH (Metallised Poly Propylene-Self Healing) Type Heavy Duty Capacitor-2 No. L&T Make MO C-3 type Capacitor Duty (AC-6b) Power Contactor with Kit, Coil, Thermal O/L Relay and 2 Sets of NO & NC Contacts each - 6 Sets. (for 1 to 5 kVAr) Digital VAF Meter with CTs- 1No. RYB LED Indicator Lamps for Mains- 3 Nos.			

	2A SP MCB for control supply - 3 Nos. Over Voltage, Undervoltage & Phase Protection Relay- 1 Set On / Off push button & Auto Manual Selector Switch - 7 Sets ON /OFF LED Indication Lamps (Red & Green) for Individual capacitors- 6 Sets. The panel shall be provided with required nos of louvers in the capacitor chamber for its cooling. Also required nos of ventilation fans with auto sensing thermostat shall be provided in the panel to improve capacitor life & ventilation fans. Complete with all interconnections and powder coated painting. The Panel Board shall be conforming to IS and Electrical Inspectorate / MSEDCL standards.	1	Set	
6	MAIN SWITCH (To be installed at Entrance): Supply and installation of 100 A 16 kA 4 Pole MCCB with spreaders at in and out and with suitable extended rotary operating handle and with suitable painted metallic enclosure marked with "Main Switch"	1	Set	
7	NON ESSENTIAL VDB : Supply, Installation, testing and commissioning of Double door 4 way VERTICAL TPN MCB DB consisting of the following. 100A 4 pole MCB as Incomer - 1 No. 63A TP MCB C Series as outgoing - 2 Nos. (AC DB & SPARE) 32A TP MCB C Series as Outgoing - 2 Nos. (LDB & PDB) The incoming copper conductors should be connected directly to the DB Earth benches and the body should be earthed from DB earth bench or out side main earth bench if any. Complete with all inter connections and neat marking/identification of DB Name, Cable Size and outgoing MCBs using good quality stickers /paint.	1	Set	
8	AC DB : Supply, Installation, testing and commissioning of Double door 4 way VERTICAL TPN MCB DB consisting of the following. 63A 4 pole MCB and separate 63A 4 Pole 100mA ELCB as Incomer - 1 No. 25A SP MCB C series as out going - 3 nos. (To Cassette AC) 20A SP MCB C series as out going - 3 nos. (To Split AC & Spare) Dummy Plates - 6 Nos. The incoming copper conductors should be connected directly to the DB Earth benches and the body should be earthed from DB earth bench or out side main earth bench if any. Complete with all inter connections and neat marking/identification of DB Name, Cable Size and outgoing MCBs using good quality stickers /paint.	1	Set	
9	BRANCH LDB : Supply, erection, testing and commissioning of wall mounted type double door dust and vermin proof 4 way TPN MCB DB fixed on wall comprising the following: 32 A FP MCB as Incomer - 1 No. 40A, 30mA 4 pole ELCB as Incomer- 1 No. 6A SP MCB - 12 Nos. The DB Earth Bench and DB enclosure should be directly connected to the UPS Main Earth Bench using 4 Sq.mm PVC insulated copper wire with copper lugs, SS Nuts and bolts etc.			

	Complete with all inter connections and neat marking/identification of DB Name, I/C Cable Size and outgoing MCBs using good quality stickers /paint.	1	Set	
10	BRANCH PDB : Supply, erection, testing and commissioning of wall mounted type double door dust and vermin proof 4 way TPN MCB VERTICAL DB fixed on wall comprising the following: 40A 4P MCB as Incomer - 1 No. 40A, 100mA ELCB as Incomer- 1 No. 6A / 10A SP MCB - 12 Nos. The DB Earth Bench and DB enclosure should be directly connected to the UPS Main Earth Bench using 4 Sq.mm PVC insulated copper wire with copper lugs, SS Nuts and bolts etc. Complete with all inter connections and neat marking/identification of DB Name, I/C Cable Size and outgoing MCBs using good quality stickers /paint.	1	Set	
11	UPS INPUT DB : Supply and Installation of Single Door 4 Way SPN MCB DB Consisting of 40A DP MCB (C-Series) and Separate 40A, 100mA ELCB with all interconnections.	2	Set	
12	UPS OUTPUT DB: Supply and installation of 20 A DP MCB in suitable metallic enclosure for UPS Output. (The earth conductor from UPS and enclosure should be directly connected to UPS Earth bench only and joints inside enclosure should be avoided.)	1	Nos.	
13	COMPUTER DB : Supply, erection, testing and commissioning of wall mounted type double door dust and vermin proof 12 way SPN MCB DB fixed on wall comprising the following: 20A DP MCB as Incomer - 1 No. 6A / 10A SP MCB - 10 Nos. The DB Earth Bench and DB enclosure should be directly connected to the UPS Main Earth Bench using 4 Sq.mm PVC insulated copper wire with copper lugs, SS Nuts and bolts etc. Complete with all inter connections and neat marking/identification of DB Name, I/C Cable Size and outgoing MCBs using good quality stickers /paint.	1	Set	
14	NAME BOARD DB: Supply and installation Single door 6 or 8 Way SPN MCB DB with 16A DP MCB and 25A 100mA ELCB as incomer and 2 Nos. 10A SP MCB (C-Series) as out goings for Name Board & Outside Lights Control of Branch (1 No.). The DB name and out going MCBs shall be marked neatly using good quality stickers / paint. Complete with all interconnections. (Branch & ATM Name Boards)	1	No.	
15	Supply and Installation of L&T/Legrand make 24 Hour Dual Timer with enclosure for Branch Board Light & Outside lights, ATM Board Light & Server room exhaust fan.	3	No.	
16	AC CONTROL: Supply and installation of modular type 25/32A Double Pole Two module switch with indicator. All AC switches (excluding BM, CO & ATM) should be placed together but mounted on separate boxes.	4	Nos.	
17	AC PLUG SOCKET: Supply and installation of modular type 20/25A 3 Pin 3 module plug socket for Split AC Indoor unit (Server Room)	1	Nos.	
18	Supply and installation of 16A combined Power plug & 10A SP MCB in suitable PVC/metallic box. for Kitchen Power plug & ATM UPS Input. (corresponding MCB rating in PDB shall be 16A)	2	Nos.	

19	MAINS INDICATION : Supply and Installation of 3 nos. L & T make LED Indicators (R, Y & B) on suitable ready made indicator/push button box controlled by 3 nos. 6A Modular switches including wiring by 4x1 Sq.mm PVC insulated copper wire through 20mm medium guage PVC conduit for a length not less than 15 meters. (to be installed in Banking Hall in a indirectly visible from customer area). The switches shall be placed separately at user accessible heights for safe operation.	1	LS	
20	CABLE LAYING AND TERMINATIONS Supply, laying and dressing of the following size of 1.1 KV grade PVC insulated armoured cable with aluminium conductor concealed or clamped on wall / ceiling / trench / cable tray/lamps if necessary.			
a.	3.5x 70 Sq.mm AYFY(Meter Box to Main VDB via COS)	40	Mtr.	
b	3.5 x 50 Sq.mm AYFY Cable (Main VDB to Non Essential DB thru Main Switch)	25	Mtr.	
c	4 x 25 Sq.mm AYFY Cable (Main VDB to APFC Panel)	10	Mtr.	
d	3 x 10 Sq.mm Armoured Copper Cable (AC DB)	10	Mtr.	
e	4 x 6 Sq.mm Armoured Copper Cable (LDB & PDB)	35	Mtr.	
f	3 x 4 Sq.mm Armoured Copper Cable (UPS INPUT & OUTPUT DBs)	30	Mtr.	
21	End termination of the following size of cables using flange type cable glands and heavy duty tinned aluminium crimping type cable sockets including gland earthing.			
a.	3.5x 70 Sq.mm AYFY	4	No	
b	3.5 x 50 Sq.mm AYFY Cable	4	No	
c	4 x 25 Sq.mm AYFY Cable	2	No	
d	3 x 10 Sq.mm Armoured Copper Cable	2	No	
e	4 x 6 Sq.mm Armoured Copper Cable	4	No	
f	3 x 4 Sq.mm Armoured Copper Cable	8	No	
22	PIPE EARTHING: Supply and providing ISI pipe earthing as per IS 3043 with 2.5m long 40mm dia B class G.I. pipe providing GI clamp at the top of the GI pipe test joint, filling around the GI pipe at the radius of 15cm with homogeneous mixture of charcoal, commol salt and river sand up to height of 2.5m from the botton and the rest of the portion with excavated soil, providing brick work masonries, plastering, fixing cast iron/concrete cover of 30x30cm size etc. complete. (Use only SS Nuts, Bolts and washers along with copper sockets for giving connections).	4	Nos.	
23	EARTH CONDUCTORS Supply and laying of the following size of bare copper conductor along with above cables, for interconnections between panels, DBs, change over switches etc.and also for interconnections between earth pits.			
	No.10 SWG (rate for single run) (From MVDB to Sub DBs) Total 2 runs 10SWG Cu for single and Independant DB Total 3 Runs 10 SWG Cu for two DBs placed nearby. (One run each to each DB and third one for interlinking) Total 4 Runs 10 SWG Cu for three or more DBs placed nearby. (One Run each to each DB and one for interlinking.	100	Mtr.	
24	Supply and laying of 2 X No. 8 SWG copper conductor through 20mm PVC conduit for UPS earthing & Energy meter cubicle to VDB.	60	Mtr.	
	WIRING FOR LIGHT, FAN, PLUG, SOCKETS ETC			

25	POINT WIRING Supply and wiring for light/fan/exhaust fan/calling bell/mirror lamp/bulk head light/wall fans etc.with 3 plate ceiling rose and by using 3 X 1.5 Sqmm FRLS PVC insulated copper conductor wire in 20mm dia 1.5mm thick rigid PVC conduit, controlled by 6 Amps modular type switch with provisions for modular type ceiling fan regulator on separately fabricated MS Box. The M. S. box should be earthed properly. One way point. (The switch boards shall be placed at user friendly locations for easy ON/OFF. Separate controls for EB/UPS lights for BM cabin and Cash Officer. All other counters including 1 row of customer area, 2 SBs + UPS SB on back side wall of counters. Separate SB near entrance & Visitors lounge). The Raw Power & UPS Power Supply to Strong Room and Locker Room shall be taken through 16A S/S (Raw Power) and 6A S/S (UPS Power) fixed outside the respective entrance and to be taken to SBs inside Strong Room & locker Room using 6/16A plug Top with 3 core 2.5 Sq.mm flexible cable. Similarly 16A S/S for record Rooms (Raw Power Only)	50	No.	
26	Same as above but for secondary light points (looped points)	20	Nos.	
27	Supply and fixing of Modular type 6A, 2/3 pin plug points controlled 6A modular switch mounted on suitable box. (on common switch board)	10	No.	
28	Same as above but for modular type 6A 2/3 pin plug points with 6A modular type switch in separate location.	5	No.	
29	Supply and fixing of modular type 6/16A, 3 module plug socket with 16A modular type switch mounted on suitable Box.	4	No.	
30	Same as above but for 2 Nos. modular type 6/16A, 3 module plug points with 2 nos. 16A modular type switch in separate location.(for Data Rack-1 No.)	1	Nos.	
31	RAW POWER STATION : Supply and installation of combined 6A, 3pin modular plug socket & 16A combined 3 module modular plug socket in suitable single PVC box. for raw power supply in counters, tables etc. 1 No. each in all counters and tables including BM & Cash Officer.	6	Nos.	
32	Same as above but with additional 5A Modular switch on the same box. (for cash Officer side table / back side for Note sorting machine and BM cabin - above side table.	1	Nos.	
33	Supply and providing 6/16 A plug top and 1.5m long 3 core 2.5Sqmm flexible copper cable for taking incoming supply from 6/16A socket. (For Raw Power & UPS power supply to Strong room (Cash), Record Rooms and Water Pump. The 3 core cable shall be laid through braided hose (green) with supporting clamps placed inside strong room/locker room/record room for safe keeping of connecting cable.	4	Nos.	
34	CIRCUIT WIRING Same as above but with 3 x 2.5 Sq.mm FRLS PVC Insulated copper wire. (Lighting Circuit-Max 10 points per circuits, UPS Circuit- Max 3 Tables/Counters per circuit, Raw Power Circuit- Max 3 tables/counters per circuit, Name Board, Water pump, etc.)	350	Mtr.	
35	Same as above but with 3 x 4 Sq.mm FRLS PVC Insulated copper wire. (for 1.5/2 Tonne AC and UPS I/P & O/P to COS to Computer DB and for Name Boards if there are multiple Nameboards or extra ordinarily lengthy Name Boards)	50	Mtr.	

36	UPS POWER STATIONS Supply, install, test and commissioning of computer power stations with 4 Nos. 6A modular type two module 2/3 pin sockets mounted on suitable PVC / M.S.Box. The boxes should be fixed on wall / partitions (wooden) consealed or open as required at site. (2 Sets per table / counter including BM and cash officer)	10	No.	
37	Supply, install, test and commissioning of 16A modular type master switch with indicator with suitable PVC box for the main control of UPS & raw Power Station in the Tables.	20	No.	
38	Marking of Panels, DBs, its switch and fuse ratings, cable size, location etc (Neat identification from top to extreme load end of both light and power distribution including Raw Power / UPS plug sockets and generator switch boards) using white / black paint and stencil. (free hand writing not allowed). Good quality stickers may also be used.	1	LS	
39	Charges for fixing wooden/steel framed laminated copies of Electrical Inspectorate/GED/Bank's Engineer/Architect approved as fitted drawings inside the UPS room.(Copy of final as fitted drawing approved by Electrical Inspectorate. both schematic and layout drawings.)	1	LS	
40	Charges for marking the telephone sockets and its correspondonding cable in the KRONE Box and preparation of single line diagram / layout of the whole telephone wiring showing location and numbering marked in the plan using AutoCAD, lamination and displaying it inside the Server Room/Manager Cabin.	1	LS	
41	Charges for preparation od drawings, completion report etc to local MSedCL authorities on behalf of bank/landlord for & getting order for statutory payments, obtaining new power connection / enhancement of connected load / shifting/replacement of suitable energy meter if necessary with MSedCL.	1	LS	
42	LIGHT FIXTURES & FANS			
a.	Supply and Installation of Philips make recess mounting (gypsum board ceiling) 30 Watts LED FULL GLOW type square luminaire Cat. No.RC380B G5 LED 36S-6500 PSE OD WH Or OSRAM Luxpower (including fixing frame if any required)	15	Nos.	
b	Supply & installation of 1 X 13.5 Watts Philips Greenperform sleek DN 296B LED 15S-6500 PSU WH led Down Light fittiing with lamps and white reflector on false ceiling or Osram Luxstar 13/14Watts.(including UPS Lights)	20	Nos.	
c	Supply and Installation of 21 watts LED type weather proof Yard lighting Luminaire with suitable angle GI pipe support for wall mounting. Philips GreenLine Smart Hi power LED BRP 022	5	Nos.	
d	Supply and Installation of 20 / 21W, 4 Feet LED Batten Light fitting with suitable mounting clips. Philips Slimline / Panasonic Harrow AL	10	Nos.	
e	Supply and providing IP 20 type, 10 Watts / Metre LED Strip light (Blue Colour) with the corresponding driver of 5/10A including cost of driver unit. Wipro Garnet make.	25	Mtr.	
g	Supply & installation of Mains power operated electronic calling bell	1	No.	

Sheet1

h	Supply and installation of Angle batten holder with 9W Cool Day Light LED bulb on suitable PVC box (for toilets/UPS Points)	3	Nos.	
i	Supply and installation of 9" size medium duty exhaust fan with metallic body and blades. (Toilets) Crompton / Almonard make. The cost shall be inclusive of cost of wall cutting, its re-plastering finishing and mettalic grill grouted to the outside wall.	3	Nos.	
j	Supply and installation of 12" size Heavy duty exhaust fan with metallic body and blades in the new UPS Room with required wall opening and its finishing thereof. The cost shall be inclusive of cost of wall cutting, its re-plastering finishing and mettalic grill grouted to the outside wall.	2	No.	
k	Supply and installation of 5 star rated 1200mm Sweep BLDC fan with remote control and remote control stand. (Atomberg/Crompton make)	10	Nos.	
l	Supply and providing fan rod with painting (upto 1m length) (other than that supplied with fan and if required)	3	Nos.	
m	Supply and providing fan hook on ceiling.	3	No.	
n	Supply and providing tinned copper earth bench using 25 x 3 mm copper strip (25 Cm in length)	3	Nos.	
o	Supply and providing of 6A, 3 pin modular socket on suitable metal box for TV /Token Display	2	Nos.	
p	Supply and providing of Electrical Grade Rubber Mat (2m x 1m x 6mm) (for COS & UPS room)	1	Nos.	
q	Supply and fixing of wooden/steel framed Shock Treatment chart with glass of Standard size. (UPS room & Near VDB)	1	Nos.	
r	Supply and fixing of LT DANGER BOARD Sticker (Red back ground with white letters and size of Min. 15x10 Cms) (on All DBs & UPS Room Door)	1	LS	
43	TELEPHONE Supply and wiring using 2 pair telephone cable 20mm PVC conduit from the EPABX to the individual points. One separate cable for each point. Number of cables in one conduit limited to 5.			
a.	2 pair telephone cabling (0.50 Sq.mm)	150	m	
b.	10 pair Armoured telephone cabling (0.50 Sq.mm)	30	m	
44	Supply and fixing of RJ 11 type modular telephone socket on suitable PVC / metal boxes.			
a.	Telephone socket - single (modular type)	5	No.	
b.	Telephone socket - double (modular type)	1	No.	
45	Supply and installation of KRONE connector telephone junction box of 10 pair. (Outside)	1	Nos.	
46	Supply and installation of KRONE connector telephone junction box of 10 pair. (Inside)	1	Nos.	
GRAND TOTAL				

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