

**PROJECT: INDIAN BANK AT SECTOR-06 DWARKA BRANCH.**

**SUB:- ELECTRICAL WORKS**

**ARCHITECT :- BURMAN ET.AL.**

SL No	PARTICULARS	UNIT	QTY	RATE	AMOUNT
1	<b>ELECTRICAL WIRING &amp; EARTHING</b>				
1.1	Supply,laying,connection & testing of light,fan point, wiring by 2x1.5mmsq(2x3/.029) +1x1mmsq PVC insulated, multistrand single core copper conductor FRLS wire maintating the colour code as per direction in PVC conduite of 20mm with ISI mark 1.5mm thickness to conceal in wall partition mending good the damage, complete with PVC circular box, bend to be done as per drawaing including 3 point ceiling rows wherever required GI saddle to be used for fixing,metal flexiable/PVC flexiable pipe may use if requied in partition wall. All PVC pipes should be with ISI mark. No joints will be allowed inside pipe,light, fan & plug point complete with modular type switch plate & MS box . rate Including the main circuite line 2x2.5mmsq+1x1.5mmsq earth PVC insulated Cu. Wire from DB to switch board ,maintaining the colour code. Circuite line for lighting switch board & 6Amps plug board are to be drawn from lighting DB to Lighting board & plug point board (independent ), 6/16 Amps plug point line are to be draw from power DB.as per DBschedule /SLD				
a)	1 light by 1 switch	Nos.	9		
b)	2 light by 1 switch	Nos.	11		
c)	3 light by 1 switch	Nos.	4		
e)	Ceiling fan point with step type electronic regulator	No	2.00		
f)	Same as above, but for exhaust fan excluding regulator.	No	4.00		
g)	Same as above 5A Point in the switchboard itself.	No	4.00		
h)	same as above Wiring for call-bell point including buzzer	No	1.00		
i)	Wiring (2x2.5mmsq+1x1.5mmsq from power DBs) for independant 6A multi pin socket along with 6A modular type switches housed in painted MS box (upto 3 independent plug points can be taken in one circuit). For Fan	No	8.00		
1.2	Supply and installation of modular type 2 nos 6A & multi pin sockets with 2 nos 6 Amp one way switch housed in MS box to be fixed in partitions or concealed in wall. The box shall be painted with 2 coats of enamel paint over a coat of red oxide primer including wiring for Raw power socket outlet using 2 R runs of 2.50 Sqmm and single run of 1.5 sqmm PVC insulated multi stranded single core copper conductor FRLS wire in 20mm PVC conduit to be laid in floor, partitions, etc. complete with all accessories (looping 2 sets of 2x6A socket outlet in one circuit- from DB) (Raw power). for counter	No	8.00		
1.3	Supply and installation modular type 16A, 5-pin socket with 16A one way switch housed in MS box to be fixed in partitions or concealed in wall. The box shall be painted with 2 coats of enamel paint over a coat of red oxide primer , the rate shall include wiring fusing 2R 4.0 sqmm & single run of 2.5 sqmm PVC insulated multi stranded single core copper conductor FRLS wire in 25mm PVC conduit to be laid in floor, partitions, etc complete with all accessories (for line printer : or optional).(upto 2 independent plug points can be taken in one circuit)	Nos.	12.00		
1.4	Supply and installation of power supply disconnection arrangement for strong room consisting of 1 no 10A DP MCB housed in manufacturer's powder coated MS box to be fixed inside the strong room and connected with 1 no 3-pin metal clad plug with 2 metre long 3 core 2.5 sqmm PVC insulated flexible copper	Set	1.00		
1.5	<b>Acs electrification :-</b>				

(a)	Supply and fixing 25 Amps 3-pin modular socket with 25 Amp one way switch with indicator (near AC indoor unit) housed in manufacturers MS powder coated box to be concealed in wall including Wiring using 2R 6.0 sqmm & single run of 2.5 sqmm PVC insulated multi stranded single core copper conductor FRLS wire in 25mm PVC conduit to be laid in floor, partitions, etc complete with all accessories. (for split AC units) -(from Stabilizer to IDU)Supply.	Nos	5.00		
(b)	Supply and fixing 25 Amp - 3 pin metal clad socket with plug controlled by a 25 Amp SP MCB (for Ac wall mounted stabilizers) housed in manufacturers MS powder coated box to be concealed in wall including Wiring using 2R 6.0 sqmm & single run of 2.5 sqmm PVC insulated multi stranded single core copper conductor FRLS wire in 25mm PVC conduit to be laid in floor, partitions, etc complete with all accessories. (for split AC units) from AC DB to Stabilizer	Nos	5.00		
(c)	Supply and fixing 20A 3-pin modular socket with 20A one way switch with indicator (near AC indoor unit) housed in manufacturers MS powder coated box to be concealed in wall including Wiring using 2R 4.0 sqmm & single run of 2.5 sqmm PVC insulated multi stranded single core copper conductor FRLS wire in 25mm PVC conduit to be laid in floor, partitions, etc complete with all accessories. (for split AC units) -(from Stabilizer to IDU)Supply.	Nos	5.00		
(d)	Supply and fixing 20A - 3 pin metal clad socket with plug controlled by a 20A SP MCB (for Ac wall mounted stabilizers) housed in manufacturers MS powder coated box to be concealed in wall including Wiring using 2R 4.0 sqmm & single run of 2.5 sqmm PVC insulated multi stranded single core copper conductor FRLS wire in 25mm PVC conduit to be laid in floor, partitions, etc complete with all accessories. (for split AC units) from AC DB to Stabilizer	Nos	5.00		
2	<b>LAYING OF CABLE :</b>				
2.1	Supply laying fixing main power with 50mm sq 3.5 core PVC insulated,PVC sheated Alu.Conductor, 1100 v. grade armoured cable complete with 02 nos 8 SWG bear GI.wire as running earth .( Meter panel to Main Panel & Dgset to Main Panel	Mts.	25		
2.2	End termination of 50mmsq 3.5 Core armoured cable,complete with brass cable gland , Alu. Lug, PVC tape.	Nos	4		
2.3	- Do - 3.5 x 16 sqmm with 02 nos 8 SWG bear GI.wire as running earth. for Light D.B	Mts	25		
2.4	- Do - 3.5 x 25 sqmmth with 02 nos 8 SWG bear GI.wire as running earth. for POWER & A.C D.B and UPS	Mts	20		
2.5	- Do - termination of 25 & 16 Sqmm 3.5 Core	Nos	6		
3	<b>Out door type glow sign board wiring :-</b>				
3.1	Supply laying of main line with 2x2.5 +1x1.5 mmsq through MS conduite from main panal to glow sign board.	Mts	25		
3.2	Supply installation of 16 amps DP MCB at main entrance Glow sign board	Set	1		
4	<b>EARTHING STATION :</b>				
	<b>Earthing installation as per I.E. rule conforming</b> to IS 3043-1987 or its latest amendent by making earth station with 600x600x3mm(mini-mun) thick copper plate electrode to be installed such that is top edge shall be at a minimum depth of 3.3mts below ground level after preparation of ground with charcoal, sand ,& salt, connecting the 25x3mm thick copper lead in strip (upto 10 mts length) by bolting and brazing to the copper plate complete with Brass bolt of suitable length double nuts & washer including supply & fixing of 50mm dia 2.3Mts long partly perforated G.I. Pipe with funnel for watering arragment. <b>N.B :- The Copper plate to be buried under 3.3Mts depth from ground level, including C.I. Pit 300x300mm with necessary brick wall ( For UPS earthing).</b>	Set	1		

(ii)	Supply laying 2x8SWG copper bear wire from earth spike to main panel.(Electrolite wire)	Mts	50		
5	<b>MAIN ELECTRICAL DISTRIBUTION</b>				
	<b>Main Panel (wall Mounted Type)</b>				
	Supply, fabricating,assembling,internal- connection, testing & conncting with				
	Incomer - 100A 4P MCCB 25Ka with adjustable thermal & Magnetic trip unit -1 Nos				
	OUTGOINGS -				
	<b>63 Amps 4 pole MCB. = 04 Nos.(AC &amp; Power DB,ATM ,UPS,spare )</b> <b>40 Amp 4 Pole MCB :2 nos (Lighting DB,Spare)</b> <b>25 Amps DP MCB = 02 Nos.(</b> <b>sign board , Fire Alarm) Amps</b> <b>Meter 0-100 Amps with 3 Nos. CT &amp; selector switch 96x96mm 01</b>				
	<b>100Amps 4pole Cu. Bus Bar. 01 Set.</b> <b>100Amps 4 pole Change over switch. 01 No.</b> <b>100 Amps FP MCCB 25KA as Gen - Set main incoming 01 NO.</b>				
	Volt meter 0-500volt A.C. 50 Hz.96x96mm with selector switch. AE make.n 01 Set				
	20mmdia LED indicator lamp 06 Nos.				
	02 Amps Sliding Fuse. 06 Set.				
	150x100mm enamel <b>Danger</b> board 440 volt. (to set on bus bar cover). 01 No.				
	Cable entry from top & bottom - removable gland plates (bottom at 2 points) c/w	Set	1		
5.1	<b>POWER DB &amp; AC DB. Make standard/Legrand/ABB</b>				
	<b>6 way TPN MCB DB with</b>				
	63 TP&N MCB as main				
	16Amps SP MCB - 9 Nos+32AMPS SP X9 NOS.				
	including Neutral Bar. 01 Set	Set	1		
5.2	<b>LIGHTING DB Make standard/Legrand/ABB</b>				
	<b>6 way TPN MCB DB with</b>				
	63A TP&N MCB as main				
	16 Amps SP MCB - 03 Nos.+				
	10 Amps SP MCB - 09 Nos.				
	Including Neutral Bar. 01 Set	Set	1		
6	<b>UPS SYSTEM</b>				
6.1	<b>UPS Main DB</b> Supply, erection, testing and commissioning of three phase 4 WAY, TPN MCB DB double door type with "C" Curve MCBs, IP 42 powder coated for UPS with 63A 4P MCBs – 1No as INCOMER 32A TP MCBs – 4 Nos. as OUTGOING Including all interconnections & accessories etc MAke standard/Legrand/ABB	Nos	1		
6.2	<b>UPS DB-1 &amp; 2</b> 8 Way SPN MCB DB with 'C' curve MCBs. <b>Incoming</b> : 1 No. 40A DP MCB <b>Outgoing</b> : 6 Nos 6/10A SPO MCBs Make standard/Legrand/ABB	Nos	1		
6.3	Supply and installation of modular type 3 nos 6A multi pin sockets with 2 nos 6A one way switch with indicator housed in MS box to be fixed in partitions or concealed in wall. The box shall be painted with 2 coats of enamel paint over a coat of red oxide primer including making connections complete the rate inclusive of Supplying and running of 3 runs of 2.5 sq.mm UPS DB's to individual powerstation through .(looping 2 sets of 3X6 A socket outlet in one circuit / or as per SLD the following size of 660 volts grade, Finolex brand PVC insulated wire (For UPS point only) )	Nos	9.00		
6.4	Supply & Laying of 4 runs of 6.0 Sqmm and 2 runs of 2.5 sqmm, PVC insulated, single core, multistranded copper conductor cable in suitable rigid / flexible metal conduit from MainUPS DB to auto phase shifter.	mtr	20.00		

6.5	Supply, installation, testing and commissioning of 40A rated 3 phase to single phase auto phase shifter for 3.0 KVA UPS (SLHD of Swift make)	Nos	2.00		
6.6	Supply & Laying of 2 runs of 6.0 Sqmm and 1 run of 2.5 sqmm, PVC insulated, single core, multistranded copper conductor cable in suitable rigid PVC conduit from automatch phase shifter to UPS unit	mtr	10.00		
6.7	Supply and Installation of Moduler type 20A plug & socket housed in for UPS output control	Nos	2.00		
6.8	Supply & Laying of 2 runs of 4.0 Sqmm and 1 run of 2.5 sqmm, PVC insulated, single core, multistranded copper conductor cable in suitable rigid / flexible metal conduit from 3 KVA UPS to UPS DB	mtr	10.00		
7	<b>Earthing</b>				
7.1	<b>Supplying and earthing of :</b> 600mmX600mmX3mm electrolytic copper plate connected to a 40mmX3000mm "B" class GI pipe by means of 4 no. "L" clamps with stainless steel bolts and nuts and washers, buried under the ground with one run of 25mmX3mm copper flat connected to the copper plate by means of 2 no. stainless steel bolts and nuts and washers run along the pipe upto the top and connected to a suitable clamp fastened to the earth pipe at every one meter length. The earth pipe should have 10mm holes at 150 mm apart along the length all round. The above said assembly should be installed in an earth pit of size 750 mmX750mmX 3250mm and filled with charcoal and salt mixed with sand in alternate layers of 150mm each upto a height of 3000mm from the bottom. The outgoing 10 sq.m insulated copper wire in PVC conduit to be connected directly to the earth flat from the bottom of the pipe by means of a steel bolt, nuts and washers. The cost of digging the pit, backfilling and shifting the debris shall also be included. (Maintenance free earthing with 10 years warranty & necessary certificate to be provided)	No.	1.00		
7.2	1 run of 7 /20 PVC insulated wire along with PVC conduits for earthing.	mts	50.00		
<b>sub total I</b>					
8	<b>ELECTRICAL FITTINGS (S/I/T/C</b>				
8.1	S/I/T/C of Fixture recessed type 2'-0" x 2'-0" Philips cat. no. (RC380B G2 LED 28S 4000 PSD OD WH) PHILIPS MAKE.	Nos.	9		
8.2	S/I/T/C SURFACE & WALL MOUNTED LED BETTEN, (BN150W LED13S - 6500 PSE OD GR	Nos.	10		
8.3	S/I/T/C Round down light Philips cat. no. (DN193B LED12S - 3000 PUS WH S1	Nos	25		
8.4	S/I/T/C RC 380B LED 32S -6500 L120W 30 PSU OD PHILIPS MAKE	NOS.	0		
8.5	S/I/T/C 225 mm dia heavy duty Exhust fan 230 volt A.C.( EPC / Crompton make).	Nos	3		
8.6	S/I/T/C <b>Metal body Wall mountaing fan</b> 450 mm dia 230 volt A.C.	Nos.	8		
8.8	S/I/T/C of 36" CEILING FAN WHITE COLOUR(ORIENT/KHAITAN)	Nos.	2		
8.9	S & F of Rope Light with driver (Philips/ Bajaj/ Havells)	Rmts.	25		
<b>SUB TOTAL</b>					
<b>TOTAL FOR ELECTRICAL WORK (B)</b>					