

**“ELECTRICAL WORKS TO BE CARRIED OUT IN CONNECTION WITH CIVIL REPAIR AND PAINTING WORK AT RETAIL VERTICAL, 2<sup>ND</sup> FLOOR, LIC BUILDING, H.O ANNEX, J.C ROAD, BENGALURU”**

Ref No: 1327/ELECTRICAL/HOPE/RETAIL VERTICAL/2025/CS

Date: 12.05.2025

**BOQ FOR ELECTRICAL WORKS**

SL.N O	DESCRIPTION OF ITEMS	UNIT	QTY	RATE	AMOUNT
	<b>INTERNAL POINT WIRING</b>				
1	<b>POINT WIRING</b>				
	Supply, Installation, Testing & Commissioning of light points, 5A socket outlets, exhaust fan points using necessary materials like 25mm dia PVC Conduit & other conduit accessories, using 2R x 1.5 +1R x 1.5 Sqmm FRLS category & insulated MSCC wires, 16G GI box and other point wiring accessories & carrying out surface / concealed wiring. The rate shall include earthing of all points. The quoted rates shall also include PVC coated metal flexibles & all accessories, tools, labour etc. No separate payment will be made for wall chasing, cleaning of debris, rough plastering the chased wall / floor. The rate shall include looping between points. The wiring size is limited to lighting circuits (Max.800W) & 5A power outlets in point wiring limited to 200W per socket outlet & looped to a max.of 4 outlets. All accessories shall be IS approved.				
	Chipping in wall for installation of conduits, putting JB/DBs in wall, taking cable in wall, chipping to be carried out within precast bricks / blocks etc. after installation, doing proper plastering with cement and complete the job in accordance with direction of engineer in charge.				
	Special notes for quoting point wiring :				
	i) Make of switches as per approved list.				
	ii) The max. nos. of points that may be considered for one circuit shall be eight points or less such that connected load is equal to or less than 800 watts.				

	iii) The rate shall include looping between switch/socket/Exhaust fan/light points etc. 2 X 1.5 + 1 X 1.5 SQMM MSCC PVC Insulated wires.				
	iv) The rate shall be worked out considering the average ceiling height of 3.35 mtrs high. However, it is the responsibility of the contractor to ensure that all building parameters, including height, possible length of wiring required in accordance with point wiring is assessed & included in the rate. No extra claims will be entertained on this account.				
1.1	One light point controlled by a 6A switch ( 2x2 light fixtures & Linear Lights)	Nos.	35.00		
1.2	Two light point controlled by a 6A switch	Nos.	15.00		
1.3	Three light point controlled by a 6A switch	Nos.	15.00		
1.4	Four light controlled by a 6A switch	Nos.	10.00		
1.5	6A, 3/5 pin, receptacle controlled by 6A switch located near light switch control. (half point)	Nos.	20.00		
1.6	6A 3/5 pin receptacle controlled by 6A switch located independently (full point) (Up to 6mtr)	Nos.	20.00		
1.7	6A 2/3 pin receptacle located on wall or column controlled by 6A switch for exhaust fan & Wall fan (switch & receptacle located separately)		25.00		
2	<b>LIGHTING, UPS AND RAW POWER WIRING :</b>				
2.1	Wiring for lighting/power circuit using one of FRLS PVC insulated 1100V Grade, multistrand Copper with low conductor resistance single core wire in open or concealed system of wiring with as per IS-694: confirming to latest amendments. The rate shall include necessary crimping lugs , with all necessary accessories.				
	a) 4R x 6.0 sqmm + 1R x 6.0 sqmm (For Lighting, Raw power, UPS and AC DB)	MTR	180.00		

2.2	Supplying and Drawing flexible multicore FRLS cable manufactured with electrolytic grade flexible copper conductor confirming to table 3 class 5 of IS:8130-1984 and (virgin) PVC insulation and sheathed suitable for working voltage upto 1100volts as per IS-694:1990. The rate shall include necessary crimping lugs , with all necessary accessories.				
	a) 3Cx2.5Sqmm CU.Flexible (For Lighting Circuit mains, UPS Circuit mains, looping and IDU AC Units circuits and looping, Raw Power Circuits)	MTR	2,000		
	b) 3Cx4 Sqmm CU.Flexible	MTR	180		
2.3	<b><u>UPS /COMPUTER POINTS</u></b>				
2.3.1	Supply & fixing of 6/16A, 6 pin, commercial type switched socket outlet with indicator , G.I.box, cover plate and all wiring accessories including interconnection etc., complete. The box shall be flush/surface mounted on wall as required. (For Raw power & UPS)	Nos.	65.00		
2.3.2	Supply & fixing of 3 Nos. x 10A, 1 phase Universal type 5 Pin socket outlets Controlled by 1 No. 16A Switch for UPS points with G.I box, cover plate & all wiring accessories including interconnection etc. mounted on wall / Partition / Workstation Table as required. (For W/s UPS)	Nos.	65.00		
2.3.3	Supply & fixing of 2 Nos. x 10A, 1 phase Intel International type 3 Pin socket outlets Controlled by 1 No. 10A Switch for UPS points with G.I box, cover plate & all wiring accessories including interconnection etc. mounted on wall / Partition / Workstation Table as required.	Nos.	5.00		

3	INTERNAL LIGHT FIXTURES				
3.1	<p>Supply and fixing of recess mounting non integral type ..... LED ..... W luminaire comprising of pressure decast/extruded aluminium housing, with spring loaded false ceilin clamps, Power LEDs with CCT 6500 degree K, CRI &gt;70%, efficacy &gt;100 lumen per watt, 120 degree beam spread, life&gt;25000 burning hours and compliance to IS 10322/IEC 60598, LM 79 &amp; LM 80. The lamp compartment is enclosed with anti glare opal diffuser which enhances the lighting level. LEDs are driven by HF electronic driver integrated in a separate control gear assembly, with PF &gt;0.95, power loss should &lt;5% of lamp wattage, short circuit &amp; open circuit protection to be integrated in a separate control gear assembly with PF &gt;0.95, power loss should &lt;5% of lamp wattage, short circuit &amp; open circuit protection to be integrated in the circuit, THD less than 20%, Life as per LM 79. The operating input voltage should be between 130 to 275 volts. BIS approved and Tested by NABL/CPRI accredited laboratory with 2 years warranty against any manufacturing defect working under standard electrical condition.</p>				
	LED modular down light 2'x2' 36W	Nos.	10.00		
3.2	<p>Supply &amp; fixing of recess mounting non integrated type LED down light ..... W luminaire comprising of pressure decast/extruded aluminium housing, with spring loaded false ceilin clamps, LED of power /COB with CCT 6500 degree K, CRI&gt;70% efficacy &gt;100 lumen per watt, 120 degree beam spread, life&gt;25000 burning hours and compliance to IS 10322/IEC 60598, LM 79 &amp; LM 80. The lamp compartment is enclosed with anti glare opal diffuser which enhances the lighting level. LEDs are driven by HF electronic driver integrated in a separate control gear assembly, with PF &gt;0.95, power loss should &lt;5% of lamp wattage, short circuit &amp; open circuit protection to be integrated in the circuit, THD less than 20%, Life as per LM 79. The operating input voltage should be between</p>				

	130 to 275 volts. BIS approved and Tested by NABL/CPRI accredited laboratory with 2 years warranty against any manufacturing defect working under standard electrical condition.				
	b) 12 W	Nos.	20.00		
3.5	Recess Type Ceiling mounted Squarelight with size of 75mm x 75 mm) with 12 W.	Nos	56.00		
3.6	Suspension linear light 2400mm ( 8 feet ) 50mm width with PC diffuser with awattage of 72W having suspension length of 1.2 m steel wires from Ceiling.( 2 years warranty)	Nos	10.00		
3.7	Suspension linear light 1200mm ( 4 feet ) 50mm width with PC diffuser with awattage of 72W having suspension length of 1.2 m steel wires from Ceiling.( 2 years warranty)	Nos	10.00		
3.8	Supention Circular light 30-40 cm dia with PC diffuser with a wattage of 36Wattage having suspension length 1.2 m	Nos	10.00		
3.9	Recess mounted Cylindrical 12 W light fixtures ( The Body colour will be selected by Bank's Engineer) with 3000K LED color, 1250 lumens, and a rose gold reflector. The lights have a diameter of around 3 inches and a height of 4.5 inches.	Nos	20.00		
3.10	Supply & fixing - flexible 3 LED Strip Light .....W Power consumption in 5 mtrs length CCT 6500 degrees K, CRI>70% efficacy > 80 Lumend per watt, life >25000 burning hours and Compliance to IS 10322/IEC 60598, LM 79 & LM 80. The LED are driven by HF electronic driver non integrated, with PF >0.95, power loss should <5% of lamp wattage, short circuit & open circuit protection to be integrated in the circuit, THD less than 20%, life as per LM 79. The operating input voltage should be between 130 to 275 volts. BIS Approved with 2 years warranty against any manufacturing defect working under standard electrical condition.	MTR	100.00		

3.11	Supply & fixing of ceiling fan with capacitor rating as per guidelines of BEE 5 star rating and IS-374-1979 and also comply with IS:1709/1984 with latest amendment, Rated voltage on 220V / 50Hz Rated power input 48W $\pm$ . 10%. Rated current as per IS: 374-1979, Rated power factor 0.9 lagging (min), Rated speed 350 $\pm$ .10% RPM, Rated air delivery 210 $\pm$ 10% Cubic Meter minimum, Rated service value $\geq$ 4.2 CMM / Watt. Three Blades of blade leaf 1.05mm thick Aluminium Alloy sheet, Class B motor insulation, Bearing Two ball bearings, Top 6202, Bottom 6201, as per IS specification, Motor wdg. Temp rise shall not exceed 75 deg C over and ambient of 40 deg C by resistance method at 245 volts, insulation resistance shall not be less than Two Mega Ohms (2 M Ohms) Leakage current should not exceed 210 Micro Amp, power input, watt & current. Air Delivery & Fan speed as per IS IS-374-1979 with latest amendments, 2 year manufacturer warranty.	Nos.	2.00		
3.12	Supply and fixing wall mounting fan suitable to operate at single phase 230v AC supply.(Design will be selected by the Engineer in charges basic price Rs 2500/-)	Nos.	22.00		
3.13	Supply & fixing of 1440RPM heavy duty exhaust fan with bracket blades suitable suitable to operate on 230V 50Hz, AC supply complete	Nos.	4.00		
3.14	Supply and fixing on wall call bell buzzer (approved by Consultant) suitable for 230 volt single phase A.C.supply including interconnection, etc. as required .	Nos.	4.00		
4	Supply and laying of Medium gauge PVC conduit pipe .....dia....mm thick confirming to IS 2509 with suitable size bends, junction boxes, adhesives paste etc., and fixing using inverted wood plugs in case of RCC ceiling and RCC wal / stone structure or rawl plugs in case of brick walls and cement plastering the damaged portion using heavy gauge saddles at an interval of 700mm using NF screws.				

4.1	25 mm dia rigid 2mm thick PVC pipes of ISI mark	MTR	800		
4.2	Extra for Groove cutting in cc floor to the suitable depth for concealing of Conduit/Raceway's and plastering, finishing to the surface floor and complete accessories.				
	a) 50mm (w) x 50mm (d)	MTR	150		
4.3	<b>RACEWAYS WITH COVER IN CEILING AND FLOOR FOR POWER &amp; DATA CABLING</b>				
4.3.1	Supply and laying Raceways of following sizes made of 1.6mm thick pregalvanised sheet steel complete with 2mm thick screwed counter sunk type screws / Push to fit type cover. The raceways shall be of ready made or fabricated GI type.				
	200mm x 38mm raceways without central barrier.	MTR	30.00		
	100mm x 38mm raceways without central barrier.	MTR	80.00		
4.3.2	Supply & Installation of Floor & Ceiling Boxes of following sizes made of 1.6mm thick pregalvanised sheet steel complete with 2mm thick screwed counter sunk type screws / Push to fit type cover.				
	210mm x 210 x 40 mm box	Nos.	5.00		
	110mm x 110 x 40 mm box	Nos.	5.00		
4.4	<b>TRUNKING SYSTEM WITH OUT BARRIER (FOR DB AREA)</b>				
4.4.1	Fabricating, supplying to site & installation on ceiling / surface 2.0 mm thick M.S. powder coated (Shade: Siemens Grey) cable trunking without central barrier of height 80 mm and 2.0 mm thick with and openable cover in tray form with gaskets on fixed part, totally enclosed to make it dust and vermin proof complete. Fully plated bolt, nut, 2 plain washer & a spring washer would be used.				
	a) 200x100mm	MTR	10.00		



4.5	Supplying and fixing 2mm thick Pre galvanised perforated cable tray on existing MS angle, Channel support using necessary GI bolts/nuts and washer or welding as required.				
	a) 150x50mm Wide perforated cable tray with 1no. 25x3mm flat at every 300mm using 12 mm threaded Rods. ( Black colour powder coated)	MTR	25.00		
4.7	<b>READY MADE DISTRIBUTION BOARDS</b>				
	Supply, Installation, Testing, Erection and commissioning of Double Door Distribution boards, floor/wall mounted including transportation to site of erection, unpacking, assembling including transportation from owner's store / yard to site of erection, unpacking, assembly, installation on foundations or fixing to wall or steel structures, aligning, leveling, grouting, testing and calibration of relays and meters etc. including all labour and materials complete as per specifications of this tender. Bus bars of 125A rating with electrolytic grade copper for phase, neutral & earth as required.				
4.7.1	Supply, fixing and termination of 6 Way TPN MCB DB with incomer 25A,4P,100mA RCBO as incomer and 18 Nos 10A,SP,10KA, MCB 'C' Curve as outgoings (For Lighting DB)	No.	3.00		
4.7.2	Supply, fixing and termination of 16 Way SPN MCB DB with incomer 40A,2P,MCB as incomer and 14 Nos ,SP,10KA, MCB 'C' Curve as outgoings (For UPS DB,Raw Power DB & Light DB)	Nos.	3.00		
4.7.3	Supply, fixing and termination of 12 Way SPN MCB DB with incomer 40A,2P,MCB as incomer and 10 Nos ,SP,10KA, MCB 'C' Curve as outgoings (For UPS DB & Light DB)		1.00		



4.7.4	Supply & fixing of 20A, single phase, 3 pin, industrial type plug & socket with chained link and metal cover controlled by 20A, DP, MCB,10KA, 'D'Curve with indicator and G.I box, cover plate and all wiring accessories including interconnection etc., complete. The box shall be flush mounted in brick wall / partition / Floor.	Nos.	6.00		
4.8	Supplying and laying of 1.1KV Aluminium LT UG cable XLPE or heat resistant PVC insulated, PVC extruded inner sheathed, armoured UG LT cable as per the IS - 1554 (part-1) or IS-7098 part-1, Armoring strip thickness in average + 5% and resistivity 14 Ohms/Kms (Max) as per IS -3975. Cables laid in cable trays/clamped to wall/ceiling complete with necessary clamps and hard wares.				
	a) 3.5 core 185 sq.mm AL.AR.XLPE Cable ( For Main panel)	MTR	50.00		
4.9	Supply & providing end terminations for the below listed XLPE aluminium cables with copper lugs, brass cable glands.				
	c) 3.5 core 185 sq.mm AL.AR.XLPE Cable ( For Main panel)	Nos.	2.00		
4.10	<b>CHEMICAL TREATED EARTH STATION AND EARTH STRIPS</b>				
	Supply, installation, testing and commissioning of Dual GI MS Pipes sealed at both ends earthing electrode with flat full length copper terminal inside & filled with highly conductive, non corrosive, non magnetic moisture boosting chemical for Ground Resistance improvement as per detailed specification given below (must comply to IS 3043 -1987/NEC/IEE code of practice for earthing.) Chemical is also to be put around above pipe electrode in earth pit in form of slurry to retain moisture.				

	a) Type 1: This type will have pipe electrode which is 3m long & outer shell to have min 80 mm dia x 3.65 mm thick, inner shell to be max. 50mm dia x 3.25 mm thick. with Cu coating of 80 to 120 microns for outer shell & about 200 to 300 microns for inner shell. Terminal & electrode flat size should be 40 x 6 mm or equivalent copper conductor. Pipe Electrode will be laid inside a bore of about 200mm dia.	Nos.	4.00		
	b) Type 2: This type will have pipe electrode which is 3m long & outer shell to have min 80 mm dia x 3.65 mm thick, inner shell to be max. 50mm dia x 3.25 mm thick. with GI coating of 80 to 120 microns for outer shell & about 200 to 300 microns for inner shell. Terminal & electrode flat size should be 40 x 10 mm or equivalent GI conductor. Pipe Electrode will be laid inside a bore of about 200mm dia.	Nos.	2.00		
	c) GI strip 25x6mm	MTR	150		
	d) CU strip 25x3mm	MTR	15		
	e) Supplying and running GI/Copper conductor for grounding and (along with other wires in conduit system of wiring) using necessary suitable size clamps, nails, guttas/spacers etc., Copper wire 8SWG (For AC Body Earthing)	MTR	100		
4.11	<b>LT PANELS</b>				
	Design, manufacture, supplying, fixing in position, testing and commissioning of following MV switchgear panels made up of 14/16G, suitable for 415 V, 3 phase, 4 wire, 50 Hz power distribution system. The incoming and outgoing feeders shall be accommodated in a modular multitier arrangement and shall be interlocked to avoid paralleling, adequate size cable alley, painting, earthing, numbering, danger plate etc. as required as per specifications and drawings. The panels should be with all items as per SLD and Specification.	No	1.00		

	<b>INCOMER:</b> 1 No 250A, 36 kA 4 POLE DPX3 MCCB 1 No Digital Multi data meter 1 Set of LED type RYB Phase indicating lamps with protection fuses 3 Nos 200/5A 10VA CL: 1.2 CT for ammeter  <b>OUTGOING:</b> 160A, 36kA, 4POLE MCCB for UPS & AC – 4 Nos 63A, 10kA, 4POLE MCB for lighting/ spare etc – 8 Nos BUS BAR RATING: PH: 25 x 10 mm Cu Flat – 3 runs; NL & E : 25 x 6 mm Cu Flat – 2 runs;				
5.1	Supply and fixing of double RJ11 telephone socket outlet with shutter module (2 module) with modular face plate and PVCbox of approved make in cabins /tables for intercom & telephone	No	75		
5.2	Supply and laying connecting & commissioning of 2 pair telephone cable for telephone intercompoints in 19mm dia PVC conduits laid in counters partitions/Wall with all accessories as required	RMT	1800		
5.4	Supply and laying 100 pair jelly filled unarmoured cable	Rmt	100		
	Supply and laying 50 pair jelly filled unarmoured cable	Rmt	200		
5.5	Supply installation testing & commissioning of 1.5/3/6w ceiling speaker complete as required	No	20		
5.6	Supply laying connecting & commissioning of speaker cable two pair 2 core ,1.5 sqmm with fire retardant PVC insulated copper conductor cable in appropriate PVC conduit ISI marked along with the accessories in concealed system etc as required .The wiring should connected to UPS DB	Rmt	150		
	<b>GRAND TOTAL (Excl. GST) (Rs.)</b>				

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SNo	Materials	Approved Make / Brands
C	Electrical Work	
1	Moulded Case Circuit Breaker (MCCB)	AB,L & T, Siemens, Schnider
2	Switch Fuse Unit (SFU)	ABB, L & T, Siemens
3	Contactors	Schneider, L & T, Siemens. sCHNIDER
4	Meters	L & T, IMP
5	LT cable	Polycab, Havells, Finolex
6	Cable Termination	Dowells, Comet
7	Cable Tray	Profab, Metalemmms, Asian Ancillary Corporation
8	Conduit Steel / PVC	Precisions, Supreme
9	Wires	Polycab, Havells, Finolex
10	Modular Switches & Sockets with PVC/ METAL Box	MK, Crabtree, Legrand (myrius)
11	Distribution Board, MCB & ELMCB	Legrand, Siemens, Schnider, ABB
12	Data Cable & accessories	D-Link, AMP, Systimax
13	Telephone cable	Delton, Finolex, National, polycab
14	Light Fixtures	Wipro, Philips, Crompton Greaves
15	Tubes, PL's & CFL's, LED	Wipro, Philips, Crompton Greaves
16	Ceiling Fan/ Wall fan	Crompton Greaves, Bajaj, Orient, Usha
17	Exhaust Fan	Crompton Greaves, Bajaj, Usha

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