

Name of work: Special repairs to Electrical Installations in Statistics Block in Presidency College, Chennai 5

EMD: Rs. 25000/-			Date of Tender 29.04.22		
Sl. No.	Approximate Quantity	Description of Work	Rate in Figure & in Words	Per	Amount
1	222 Pts (Two hundred and twenty two points)	Re-Wiring with 2x1.5 sqmm (22/0.3) PVC insulated SC unsheathed Cu. Conductor of 1100V grade in suitable PVC rigid pipe on wall and ceiling with PVC accessories on wall with PVC Modular Junction and modular switch box and 6A modular FT switch (Higher End) with modular front plate in flush with wall and painting with suitable colour for Open PVC modular light / Fan Point (For electronic regulator) (5 Points Per Coil)		1 pt (One point)	
2	103 Nos (One hundred and three numbers)	Renewal by Supply and fixing of 4' LED Single box type fitting complete with TW round blocks on wall or ceiling with 18W LED tube with PVC unsheathed Copper leads from terminals to the fitting (Higher End)		1 No (Each)	
3	33 Nos (Thirty three numbers)	Renewal by Supply and fixing of 4' LED Twin box type fitting complete with TW round blocks on wall or ceiling with 2nos of 18W LED tube with PVC unsheathed Copper leads from terminals to the fitting. (Higher End)		1 No (Each)	
4	65 Nos (Sixty five numbers)	Supply and fixing of 4' LED Single box type fitting complete with TW round blocks on conduit pipe suspension from the ceiling with 18W LED tube with PVC unsheathed Copper leads from terminals to the fitting. (Higher End)		1 No (Each)	

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5	10 Nos (Ten numbers)	Renewal by Supply and fixing of 4' LED Twin box type fitting complete with TW round blocks on conduit pipe suspension from the ceiling with 2nos of 18W LED tube with PVC unsheathed Copper leads from terminals to the fitting. (Higher End)		1 No (Each)	
6	164 Nos (One hundred and sixty four numbers)	Renewal by Supply and fixing of 1200 mm (48") AC ceiling fan complete with 500mm down rod on the existing clamp with stepped electronic 300W regulator. (Higher End)		1 No (Each)	
7	58 Nos (Fifty eight numbers)	Renewal by Supply and fixing of 3 Nos. 6A modular 3pin wall socket with 6A modularFT control switches (Higher End) on wall with suitable PVC modular Box covered with modular front cover plate with connection.		1 No (Each)	
8	10 Nos (Ten numbers)	Renewal by Supply and fixing of 1 No. 16A modular 3pin wall socket with 16A modularFT control switch (Higher End) in suitable PVC modular Box covered with modular Front cover plate on wall with earth connection.		1 No (Each)	
9	4 Nos (Four numbers)	Renewal by supply and fixing of 20Amps DP Plug and Socket in sheet enclosure with 32A DP MCB in flush with wall with earth connection.(For AC Plug)		1 No (Each)	

10	4 Nos (Four numbers)	Renewal by supply and fixing of 32A 4P MCB 10kA along with sheet steel enclosure with suitable angle iron frame work on wall with earth connection.		1 No (Each)	
11	9 Nos (Nine numbers)	Renewal by supply and fixing of 12 way Single pole and neutral MCB sheet steel enclosure Distribution board with IP 42 protection metal Double door type with 1No 32 Amps DP MCB as incoming and 10 Nos 6A to 32A SPMCB outgoing on angle iron frame with earth connection only. The MCB DB and MCB's should be with ISI mark (Higher End)		1 No (Each)	
12	5 Nos (Five numbers)	Renewal by supply and fixing of 4 way TPN 7 Segment MCB DB with metal / acrylic door cover with IP 42 protection (Higher End) with 1 No. 63A FP MCB and 63A 30mA FP ELCB as incoming, 3nos. 63 A DP MCB Isolators for sub incomers and 12Nos. 6A to 32A SP MCB as outgoing on angle iron frame with MS cable entry boxes with earth connection. The MCBDB and MCB's should be with the ISI mark (Higher End)		1 No (Each)	
13	2 Nos (Two numbers)	Renewal by supply and fixing of 6 way TPN 7 Segment MCB DB with metal / acrylic door cover with IP 42 protection (Higher End) with 1 No. 63A FP MCB and 63A 30mA FP ELCB as incoming, 3nos. 63 A DP MCB Isolators for sub incomers and 18Nos. 6A to 32A SP MCB as outgoing on angle iron frame with MS cable entry boxes with earth connection. The MCBDB and MCB's should be with the ISI mark (Higher End)		1 No (Each)	

14	1 No. (One number)	Supply and fixing of Three Phase 8 way Vertical type MCB DB with IP 42 protection Double door type DB with 1No 63A 4P MCB 10kA as incoming and 6 Nos 32A TP MCB and 6 Nos 6-32A SP MCB as outgoing with cable entry boxes on angle iron frame with MS cable entry boxes with earth connection only. (The MCB DB and MCB's should be Like (Higher End)		1 No (Each)	
15	905 mts (Nine hundred and five metres)	Supply and run of 2 of 2.5sqmm (22/0.3) PVC insulated SC unsheathed Cu.Conductor of 1100V Grade in suitable PVC rigid pipe on wall and ceiling with continuous earth wire connection 14SWG TC wire with painting of suitable colour.		1 Mt (One Metre)	
16	404 mts (Four hundred and four metres)	Renewal by supply and run of 2 of 4 sqmm (56/0.3) PVC insulated SC unsheathed Cu.Conductor of 1100V Grade in suitable PVC rigid pipe on wall and ceiling with continuous earth wire connection of 14 SWG TC wire with painting of suitable colour		1 Mt (One Metre)	
17	7 mts (Seven metres)	Renewal by supply and run of 4 of 4 sqmm (56/0.3) PVC insulated SC unsheathed Cu.Conductor of 1100V Grade in suitable PVC rigid pipe on wall and ceiling with continuous earth wire connection of 14 SWG TC wire with painting of suitable colour		1 Mt (One Metre)	
18	56 mts (Fifty six metres)	Supply and run of 4 of 10 sqmm (140/0.3) PVC insulated SC unsheathed Cu Conductor of 1100 V grade in suitable PVC rigid pipe on wall and ceiling with continuous earth wire connection of 14 SWG TC wire with painting of suitable colour		1 Mt (One Metre)	

19	12 mts (Twelve metres)	Renewal by Supply and laying of 3 1/2 x120 sq.mm PVC armoured LTUG cable in HDPE pipe 90mm/76mm in a trench to be excavated at a depth of 0.75 metre and refilling the earth to make good.		1 Mt (One Metre)	
20	162 mts (One hundred and sixty two metres)	Supply and clamping of 31/2 x 240 sq.mm PVC LTUG armoured LTUG cable on post or on wall with MS Clamps.		1 Mt (One Metre)	
21	4 Nos (Four numbers)	Supply and fixing of brass cable gland for 31/2 x 240 sq.mm PVC armoured LTUG cable with earth connection.		1 No (Each)	
22	4 Nos (Four numbers)	Supply and providing cable end termination of 3 1/2 x 240 sq.mm PVC LTUG Aluminum armoured cable with necessary aluminium cable sockets by crimping etc. with electrical connection complete.		1 No (Each)	
23	214 mts (Two hundred and fourteen metres)	Supply and clamping of 31/2 x 120 sq.mm PVC LTUG armoured LTUG cable on post or on wall with MS Clamps.		1 Mt (One Metre)	

24	12 Nos (Twelve numbers)	Supply and fixing of brass cable gland for 31/2 x 120 sq.mm PVC armoured LTUG cable with earth connection.		1 No (Each)	
25	12 Nos (Twelve numbers)	Supply and providing cable end termination of 3 1/2 x 120 sq.mm PVC LTUG Aluminum armoured cable with necessary aluminium cable sockets by crimping etc. with electrical connection complete.		1 No (Each)	
26	87 mts (Eighty seven metres)	Supply and clamping of 31/2 x 70 sq.mm PVC LTUG armoured LTUG cable on post or on wall with MS Clamps.		1 Mt (One Metre)	
27	8 Nos (Eight numbers)	Supply and fixing of brass cable gland for 31/2 x 70 sq.mm PVC armoured LTUG cable with earth connection.		1 No (Each)	
28	8 Nos (Eight numbers)	Supply and providing cable end termination of 3 1/2 x 70 sq.mm PVC LTUG Aluminum armoured cable with necessary aluminium cable sockets by crimping etc. with electrical connection complete.		1 No (Each)	

29	5 mts (Five metres)	Supply and laying of 31/2 x 35 sq.mm PVC armoured LTUG cable in a trench to be excavated at a depth of 0.75 meter putting 0.15 mt. Layer of sand and covering the cable completely with bricks and sand and refilling the earth to make good.		1 Mt (One Metre)	
30	152 mts (One hundred and fifty two metres)	Supply and clamping of 31/2 x 35 sq.mm PVC LTUG armoured LTUG cable on post or on wall with MS Clamps.		1 Mt (One Metre)	
31	8 Nos (Eight numbers)	Supply and fixing of brass cable gland for 31/2 x 35 sq.mm PVC armoured LTUG cable with earth connection.		1 No (Each)	
32	8 Nos (Eight numbers)	Supply and providing cable end termination of 3 1/2 x 35 sq.mm PVC LTUG Aluminum armoured cable with necessary aluminium cable sockets by crimping etc. with electrical connection complete.		1 No (Each)	
33	20 mts (Twenty metres)	Supply and laying of 4 x 16 sq.mm PVC armoured LTUG cable in a trench to be excavated at a depth of 0.75 meter putting 0.15 mt. Layer of sand and covering the cable completely with bricks and sand and refilling the earth to make good.		1 Mt (One Metre)	

34	110 mts (One hundred and ten metres)	Supply and clamping of 4 x 16 sq.mm PVC LTUG armoured LTUG cable on post or on wall with MS Clamps.		1 No (Each)	
35	6 Nos (Six numbers)	Supply and fixing of brass cable gland for 4 x 16 sq.mm PVC armoured LTUG cable with earth connection.		1 No (Each)	
36	1 No. (One number)	<p>Supply, Erection, Testing and commissioning of 125A capacity Dust and Vermin Proof Cubical Panel Board made up of 16 SWG CRCA sheet steel with supply and fixing of the following interior mounting fuse switches with HRC fuses arranged in two Horizontal or vertical rows with one switch over the other with a central bus bar chamber and two nos of Horizontal or vertical cable chambers at the two ends one on each side next to the fuse switch chamber and confirming to IE rules.</p> <p>1. 125A TPN SDF unit interior only with HRC fuses Double break Switch - = 1 no</p> <p>2. 63A TPN SDF unit interior only with HRC fuses Double break Switch) - = 6 nos</p> <p>(All the TPN switches should be (Higher End) with front handle make only)</p>		1 No (Each)	

	<p>The bus bar chamber will consist of suitable size of copper flat (30mm x3mm) for phase and neutral buses on epoxy moulded bus insulators at proper and sufficient spacing between the buses as per IE rules. This bus bar chamber should be segregated from the adjacent chambers by providing hylem sheet of suitable thickness as partisans suitable size of copper flats should be provided all round the panel for earth bus.</p> <p>The fuse switches should be connected with the phase and neutral buses with suitable size of rigid copper rod or flat and each switch should be connected with 2 nos. 25x3 mm earth bus with 2 runs of No:8 SWG rigid copper rod with suitable lugs. Phase and neutral copper buses should be tinned properly.</p> <p>The panel should be painted with one coat of Red oxide as primer coat and two coats of enamel paint of approved colour, Approved by the site engineer and also the danger board. The capacity of fuse switches, size of the incoming and outgoing cables, the place to which the supply is fed shall be marked on switch chamber.</p> <p>The panel should have a LED indicator lamps arrangement provided with control switches and fuse units.</p> <p>The panel board should be mounted on suitable MS channel provided all round at bottom of the panel. The whole arrangement should be erected on a masonry pedestal to be constructed with suitable foundation bolts and nuts such that the lowest switch handle is at the height of 0.75m from the ground level.</p>		
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37	2 Nos (Two numbers)	<p>Supply, Erection, Testing and commissioning of 250A capacity Dust and Vermin Proof Cubical Panel Board made up of 16 SWG CRCA sheet steel with supply and fixing of the following interior mounting fuse switches with HRC fuses arranged in two Horizontal or vertical rows with one switch over the other with a central bus bar chamber and two nos of Horizontal or vertical cable chambers at the two ends one on each side next to the fuse switch chamber and confirming to IE rules.</p> <p>1. 250A TPN SDF unit interior only with HRC fuses Double break Switch - = 1 no</p> <p>2. 125A TPN SDF unit interior only with HRC fuses Double break Switch - = 4 nos</p> <p>3. 63A TPN SDF unit interior only with HRC fuses Double break Switch - = 5 nos</p> <p>(All the TPN switches should be Higher End with front handle make only)</p> <p>The bus bar chamber will consist of suitable size of copper flat (not below 30x6mm) for phase and neutral buses on epoxy moulded bus insulators at proper and sufficient spacing between the buses as per IE rules. This bus bar chamber should be segregated from the adjacent chambers by providing hylem sheet of suitable thickness as partisans suitable size of copper flats should be provided all round the panel for earth bus.</p> <p>The fuse switches should be connected with the phase and neutral buses with suitable size of rigid copper rod or flat and each switch should be connected with 2 nos. 25x3 mm earth bus with 2 runs of No:8 SWG rigid copper rod with suitable lugs. Phase and neutral copper buses should be tinned properly.</p>		1 No (Each)	
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Contractor

Chief Engineer

		<p>The panel should have a separate metering chamber at the top side consisting of Digital Multifunction meter Model LT MFM 4405 LED meter CI 0.5/ like and 300/5 CTR CT arrangements LED indicator lamps should be provided with control switches and fuse units.</p> <p>The panel should be painted with one coat of Red oxide as primer coat and two coats of enamel paint of approved colour, Approved by the site engineer and also the danger board. The capacity of fuse switches, size of the incoming and outgoing cables, the place to which the supply is fed shall be marked on switch chamber.</p> <p>The panel board should be mounted on suitable MS channel provided all round at bottom of the panel. The whole arrangement should be erected on a masonry pedestal to be constructed with suitable foundation bolts and nuts such that the lowest switch handle is at the height of 0.75m from the ground level.</p>			
38	2 Nos (Two numbers)	Renewal by supply and fixing of 315A TPN Switch Disconnecter Fuse Units in Sheet Steel Enclosure with HRC fuses Double Break switch with suitable angle iron frame work with MS cable entry boxes with PWD earthing		1 No (Each)	
39	57 Nos (Fifty seven numbers)	Renewal by Supply and fixing of 12mm MS fan hook by chipping the ceiling, find the rod and fixing fan hook and redoing the ceiling well with rich cement mortar as directed by the site officer		1 No (Each)	

40	14 Nos (Fourteen numbers)	Renewal by Supply and fixing of Modular Surface Switch Box - 12 Module with 1nos of 6A 5pin modular socket and 6nos of 6A modular FT switch (Crabtree / Legrand / Hager / Equivalent) with modular front plate on wall as directed by the site officer		1 No (Each)		
41	4 Nos (Four numbers)	Earthing as per the ISI specification with an earth electrode of 2.1mt class 'B' GI pipe of dia not less than 40mm, with copper earth plate of size 125mm x 50mm x 6mm, with necessary funneling arrangements with necessary masonry work and with 38mm RCC cover slab for the brick masonry		1 No (Each)		
42	414 mts (Four hundred and fourteen metres)	Supply and run of 1 of NO: 8 SWG Cu wire for earth connection.		1 Mt (One Metre)		
			TOTAL			
		12%	GST			
			GRAND TOTAL			
		42 Items (Forty two items)				