

**KERALA CRICKET ASSOCIATION****KCA FORT MAIDAN STADIUM - PALAKKAD****Name of work: Maintenance/Renovation of existing electrical systems at Fort Maiden, Palakkad.****TENDER SCHEDULE**

Item No	Quantity	Unit	Details of work	Rate in figures	Unit	Rate in words	Amount
<b>1</b>			<b>MV PANEL (OFFICE/ PAVILION BUILDING)</b>				
1.1	1.00	NO'S	Charge for Dismantling the old existing DB		/NO'S		
1.2	10.00	sqm	Fabrication, supply, conveyance, installation testing and commissioning of floor or wall mounting, dust and vermin proof, cubicle type MV panel board comprising of the following components/ devices & complying to IS 8623.Fabrication of fully partitioned, dust and vermin proof enclosure for panel assembly as per form 4 of IS 8623 (with latest amendments) using CRCA sheet as per approved design and requirement, with front and rear access facility, bus bar chambers, hinged doors for all switch gear compartments, earthing the doors using 4 sq mm braided copper conductor, providing necessary cut-outs for mounting meters, relays, indication lamps, bus bar interconnection etc, detachable covers for bus bar chamber and cable alley, powder coating the assembly after subjecting to 7 tank process etc as required. CRCA sheet alone be used for the fabrication. Angles/ flats/ slotted angles etc shall not be used for the fabrication of panel assembly. The measurements will be taken the area of the complete sheets used for panel board including partitions, folding, shrouding etc.Supply and fabrication of MV panel board using 1.6mm CRCA sheet, powder coated (excluding base frame)		/sqm		
1.3	1.00	sqm	Supply and providing 3mm SMC sheet as shrouding for bus interconnection / terminations etc. including required nut & bolt etc.		/sqm		
1.4	25.00	metre	Supply and providing heavy duty 'A' section neoprene gasket in the panel board 'A' section neoprene bedding suitable for 1.60/ 2.00 mm sheet		/metre		

Item No	Quantity	Unit	Details of work	Rate in figures	Unit	Rate in words	Amount
1.5	6.00	metre	Supply and fabrication conveyance and installation of base frame of panel board using 75 x 40 mm rolled steel channel (ISMC)		/metre		
1.6	10.00	kg	Supply and fabrication conveyance and installation of angle iron frame work for wall mounting panel board		/kg		
1.7	1300.00	cm3	Supply and providing copper bus bars including finger type SMC bus bar supports in the bus chamber, suitable size nut & bolt, providing heat shrink sleeves etc. as required.		/cm3		
1.8	350.00	cm3	Supply and providing copper earth bus in the panel board		/cm3		
1.9	1.00	NO'S	Providing and fixing following rating and breaking capacity and pole MCCB in existing panel board including drilling holes in panel, making connection,etc,as required 4 pole 100 Amps, 30KA		/NO'S		
1.10	5.00		Providing and fixing following rating and breaking capacity and pole MCCB in existing panel board including drilling holes in panel, making connection,etc,as required 4 pole 63 Amps, 16KA				
1.11	1.00		Spreader terminal upto 100 Amps MCCB				
1.12	5.00	NO'S	Spreader terminal upto 32 to 63 Amps MCCB		/NO'S		
1.13	1.00	NO'S	Supply & fixing the following multi-function meters in the panel assembly.Multifunction meter to read :V,A,F,3 Phase accuracy class 1		/NO'S		
1.14	4.00	NO'S	Supply and fixing 100/5A ,5VA,accuracy class 1,Resin cast metering CT		/NO'S		
1.15	3.00	NO'S	Supply, conveyance, installation, testing and commissioning the LED type indicator for 230/415V red,green,yellow or orange colour in existing panel board		/NO'S		
1.16	1.00	NO'S	S&F Enamelled danger notice board of size 250*200mm with inscription (both English and Malayalam) and conventional skill and bone red colour.		/NO'S		
1.17	10.00	metre	Supply and drawing 650/1100 V grade FRLS PVC insulated stranded single core copper conductor cable conforming to IS 694 part1 1990 in the existing surface -recess conduit as required including giving necessary connection of the following size 1 Sqmm 1 run as control wiring		/metre		

Item No	Quantity	Unit	Details of work	Rate in figures	Unit	Rate in words	Amount
1.18	6.00	NO'S	Supplying and fixing 5 amps to 32 amps rating, 240/415 volts, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required.Single pole		/NO'S		
1.2.1	3.00	NO'S	supply and providing N/L mounted on DMC/SMC base		/NO'S		
1.2.2	3.00	NO'S	suply and providing 400/500 Din type fuse unit with 63A HRC fuse		/NO'S		
			<b>SUB TOTAL</b>				
<b>2</b>			<b>MINI MAST (IN FRONT OF THE OFFICE)</b>				
2.1	5.00	NO'S	Supply Conveyance, installation, testing and commissioning of <b>75W LED Flood light</b> output greater than 105lumen/W 4000-6000 K with IP 66 protection LED Chip make Cree/Lumilled/Nichea with power factor greater than 0.95 at full load, internal surge protection up to 8 KV,and Aluminium pressure die-cast Powder coated housing, acrylic cover complete with THD less than 10%, power factor greater than 0.98, RoHS compliant, duly wired up for use on 230 V AC supply. Driver compartment should be seperatly accessible for maintenance (LM 79&80 certificates from NABL accredited Third party lab to be produced mentioning chip manufacturer)		/NO'S		

Item No	Quantity	Unit	Details of work	Rate in figures	Unit	Rate in words	Amount
2.1.1	2.00	sqm	Fabrication, supply, conveyance, installation testing and commissioning of floor or wall mounting, dust and vermin proof, cubicle type MV panel board comprising of the following components/ devices & complying to IS 8623.Fabrication of fully partitioned, dust and vermin proof enclosure for panel assembly as per form 4 of IS 8623 (with latest amendments) using CRCA sheet as per approved design and requirement, with front and rear access facility, bus bar chambers, hinged doors for all switch gear compartments, earthing the doors using 4 sq mm braided copper conductor, providing necessary cut-outs for mounting meters, relays, indication lamps, bus bar interconnection etc, detachable covers for bus bar chamber and cable alley, powder coating the assembly after subjecting to 7 tank process etc as required. CRCA sheet alone be used for the fabrication. Angles/ flats/ slotted angles etc shall not be used for the fabrication of panel assembly. The measurments will be taken the area of the complete sheets used for panel board including partitions, folding, shrouding etc.Supply and fabrication of MV panel board using 1.6mm CRCA sheet, powder coated (excluding base frame)		/sqm		
2.1.2	5.00	metre	Supply and providing heavy duty 'A' section neoprene gasket in the panel board U' section rubber beeding suitable for 1.60/ 2.00 mm sheet		/metre		
2.1.3	10.00	kg	Supply and fabrication conveyance and installation of angle iron frame work for wall mounting panel board		/kg		
2.2			<b>SWITCHING</b>				
2.2.1	1.00	NO'S	Supply and fixing following rating,double pole,(single phase and neutral),240V,residual current circuit breaker (RCCB),having a sensitivy current 30mA MCB DB complete with connections ,testing and commissioning etc. as required 40Amps		/NO'S		
2.2.2	1.00	NO'S	Supplying and fixing 5 amps to 32 amps rating, 240/415 volts, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required.Double pole		/NO'S		

Item No	Quantity	Unit	Details of work	Rate in figures	Unit	Rate in words	Amount
2.2.3	1.00	NO'S	Supplying and fixing following rating, double pole, 240 volts, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required.40 amps		/NO'S		
2.2.4	10.00	metre	Supply and drawing the following sizes of multi-core PVC insulated & FRLS PVC sheathed 650/1100 V grade copper conductor round flexible cables conforming to IS 694 part I 1960 in the existing surface / recess conduit as required including giving necessary connections of the following sizes.3 core 1.50 sq mm		/metre		
2.3			<b>CABLE,HRFR CABLE AND DWC,</b>				
2.3.1	55.00	metre	Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed armoured aluminium power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages , colour washing etc. as required.4 core 16 sq mm with factory made clamp		/metre		
2.3.2	55.00	metre	Supply & laying of one number PVC insulated and PVC sheathed armoured aluminium power cable of 1.1KV grade of the following sizes in the existing RCC/ HUME / STONE WARE/ GI/ DWC pipe as required.4 core 16 sq mm		/metre		
2.3.3	2.00	set	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.4 X 16 sq. mm		/set		
2.3.4	2.00	NO'S	Supplying and providing earth clip for siemens/tropodur type cable glands of suitable length and other dimensions noted along with each size of glands for the following sizes of cables as required (4 Sqmm - 16 Sqmm with 12 mm wide *1 mm thick clip).		/NO'S		
2.3.5	60.00	metre	Supply and drawing bare earthing conductors of the following sizes along with wiring/ cables and giving connection as required 2.65 mm copper conductor (12 SWG)		/metre		
2.3.6	6.00	NO'S	Supply of superior quality copper earth socket for the following size of earth conductor including crimping etc. as required.2.65 mm (12 SWG)		/NO'S		
2.3.7	8.00	NO'S	Supply and providing brass bolt and nut 12*3 mm		/NO'S		
2.3.8	8.00	NO'S	Supply and providing brass bolt and nut 25*6 mm		/NO'S		
			<b>SUB TOTAL</b>				

Item No	Quantity	Unit	Details of work	Rate in figures	Unit	Rate in words	Amount
<b>3</b>			<b>STORE ROOM</b>				
3.1			<b>CABLE, AND DWC,</b>				
3.1.1	35.00	metre	Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed armoured aluminium power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages , colour washing etc. as required.4 core 16 sq mm with factory made clamp		/metre		
3.1.2	35.00	metre	Supply & laying of one number PVC insulated and PVC sheathed armoured aluminium power cable of 1.1KV grade of the following sizes in the existing RCC/ HUME / STONE WARE/ GI/ DWC pipe as required.4 core 16 sq mm		/metre		
3.1.3	2.00	set	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.4 X 16 sq. mm		/set		
3.1.4	2.00	NO'S	Supplying and providing earth clip for siemens/tropodur type cable glands of suitable length and other dimensions noted along with each size of glands for the following sizes of cables as required (4 Sqmm - 16 Sqmm with 12 mm wide *1 mm thick clip).		/NO'S		
3.1.5	40.00	metre	Supply and drawing bare earthing conductors of the following sizes along with wiring/ cables and giving connection as required 2.65 mm copper conductor (12 SWG)		/metre		
3.1.6	6.00	NO'S	Supply of superior quality copper earth socket for the following size of earth conductor including crimping etc. as required.2.65 mm (12 SWG)		/NO'S		
3.1.7	8.00	NO'S	Supply and providing brass bolt and nut 12*3 mm		/NO'S		
3.1.7	8.00	NO'S	Supply and providing brass bolt and nut 25*6 mm		/NO'S		

Item No	Quantity	Unit	Details of work	Rate in figures	Unit	Rate in words	Amount
3.2.1	6.00	each	Supply & installation of light fittings on TW round block. Supply, conveyance installation testing and commissioning the light fittings of following types made of CRCA with 0.5mm thickness complete with all accessories and lamps etc. directly on wall or ceiling with PVC round block neatly painted to suit the fitting and giving connection with required length of 16/0.20mm 3 core copper conductor flex wire conforming to relevant ISS and giving connections as required. 1200 mm <b>1X20W LED Lamp</b> with box type fixture( <b>store room</b> )		/each		
			<b>SUB TOTAL</b>				
4			<b>OFFICE BLOCK</b>				
4.1	15.00	point	Supply and wiring points according to IS 732-1989 through the existing conduit with 1.00 sq mm FRLS PVC insulated stranded single core copper conductor cable 650V grade, including providing switch board main and continuous earthing with No.14 SWG bare copper, required quantity of copper earth socket, brass bolt and nut crimping/ soldering etc complete with suitable size modular type metal switch boxes, modular type front plates (white) etc. up to and including 6A modular type SP switches and making good the surface of wall, colour washing etc. complete. All the terminations in the switch boards and DB's shall be tinned and the wires shall be drawn and fixed along the periphery of the box using suitable ties, tie mounts etc as required. (Group B/ RoHS compliant modular accessories). Single Control light point with 6A, plate - Short point( <b>WIRING</b> )		/point		

Item No	Quantity	Unit	Details of work	Rate in figures	Unit	Rate in words	Amount
4.1.1	2.00	each	Supply and wiring points according to IS 732-1989 through the existing conduit with 1.00 sq mm FRLS PVC insulated stranded single core copper conductor cable 650V grade, including providing switch board main and continuous earthing with No.14 SWG bare copper,required quantity of copper earth socket, brass bolt and nut crimping/ soldering etc complete with suitable size modular type metal switch boxes, modular type front plates (white) etc. up to and including 6A modular type SP switches and making good the surface of wall, colour washing etc. complete. All the terminations in the switch boards and DB's shall be tinned and the wires shall be drawn and fixed along the periphery of the box using suitable ties, tie mounts etc as required. (Group B/ RoHS compliant modular accessories). <b>Combined plug</b> point with 6 A, 5 pin plug socket controlled by 6 A switch in the same switch board as that of light points.		/each		
+60:60.1.	2.00	each	Supply and wiring points according to IS 732-1989 through the existing conduit with 1.00 sq mm FRLS PVC insulated stranded single core copper conductor cable 650V grade, including providing switch board main and continuous earthing with No.14 SWG bare copper,required quantity of copper earth socket, brass bolt and nut crimping/ soldering etc complete with suitable size modular type metal switch boxes, modular type front plates (white) etc. up to and including 6A modular type SP switches and making good the surface of wall, colour washing etc. complete. All the terminations in the switch boards and DB's shall be tinned and the wires shall be drawn and fixed along the periphery of the box using suitable ties, tie mounts etc as required. (Group B/ RoHS compliant modular accessories). <b>Independent plug</b> - Short point(wall fan)		/each		
4.1.3	2.00	NO'S	Supplying and fixing the following size/modules,modular base and cover plate for modulars switches in recess etc as required 12 Module		/NO'S		
4.1.3	2.00	NO'S	Supplying and fixing the following size/modules,modular base and cover plate for modulars switches in recess etc as required 6Module		/NO'S		

Item No	Quantity	Unit	Details of work	Rate in figures	Unit	Rate in words	Amount
4.1.4	8.00	NO'S	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.5/6 amps switch		/NO'S		
4.1.5	5.00	NO'S	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.15/16 amp switch		/NO'S		
4.1.6	2.00	NO'S	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.3 pin 5/6 amp socket outlet		/NO'S		
4.1.7	2.00	NO'S	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.6 pin 15/16 amp socket outlet		/NO'S		
4.2.1	10.00	NO'S	Supply and fixing LED Bulk Head fitting 12W wall / ceiling including connection with required length of 16/0.20mm pvc insulated pvc sheathed 3 core round copper conductor flex wire conforming relevant ISS or extending the original wiring and making good the surface as required		/NO'S		
4.3.1	10.00	each	Supply & installation of light fittings on TW round block. Supply, conveyance installation testing and commissioning the light fittings of following types made of CRCA with 0.5mm thickness complete with all accessories and lamps etc. directly on wall or ceiling with PVC round block neatly painted to suit the fitting and giving connection with required length of 16/0.20mm 3 core copper conductor flex wire conforming to relevant ISS and giving connections as required.1200 mm 1X20W LED Lamp with box type fixture		/each		
4.4.1	2.00	NO'S	Supply, installation of 400mm 16" sweep 2200 rpm high speed motor wall fan in plastic body with specially designed arctic leaf working on 230V single phase AC		/NO'S		
			<b>SUB TOTAL</b>				
<b>5</b>			<b>EXISTING GENERAL LIGHTING REQUIREMENTS</b>				

Item No	Quantity	Unit	Details of work	Rate in figures	Unit	Rate in words	Amount
5.1.1	3.00	NO'S	Supply Conveyance, installation, testing and commissioning of 36/40W LED street light output greater than 105lumen/W 4000-6000 K with IP 66 protection LED Chip make Cree/Lumilled/Nichea with power factor greater than 0.95 at full load, internal surge protection up to 8 KV, and Aluminium pressure die-cast Powder coated housing, acrylic cover complete with THD less than 10%, power factor greater than 0.98, RoHS compliant, duly wired up for use on 230 V AC supply. Driver compartment should be separately accessible for maintenance (LM 79&80 certificates from NABL accredited Third party lab to be produced mentioning chip manufacturer)		/NO'S		
<b>5.2</b>			<b>LDB, VDB, MCB, RCCB, ISOLATOR</b>				
5.2.1	1.00	each	Supplying and fixing following way, single pole and neutral, sheet steel, MCB distribution board, 240 V, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator 12 way, Double door)		/each		
5.2.2	1.00	each	Supply and installation of sheet steel, phosphatised and painted, dust and vermin proof enclosure of MCB DB including copper /brass bus bar, neutral link, earth bus and DIN rail suitable for fixing MCB/ isolator etc. fixed on wall using suitable anchor bolts or fixed in recess including cutting hole on the wall, making good the damages, colour washing etc. as required 6 way (8+18) - double cover TPN vertical DB with provision for fixing 4P MCB / Isolator/ RCCB/ RCBO as incoming and SP/ TP MCB as outgoing (IP 42/43)		/each		
5.2.3	17.00	each	Supplying and fixing 5 amps to 32 amps rating, 240/415 volts, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required. <b>Single pole</b>		/each		
5.2.4	3.00	each	Supplying and fixing 5 amps to 32 amps rating, 240/415 volts, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required. <b>Triple pole (VDB)</b>		/each		

Item No	Quantity	Unit	Details of work	Rate in figures	Unit	Rate in words	Amount
5.2.5	1.00	each	Supplying and fixing following rating, <b>four pole</b> , 415 volts, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required.63 amps( <b>VDB</b> )		/each		
5.2.6	1.00	each	Supplying and fixing following rating, <b>four pole</b> , 415 volts, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required.100 amps		/each		
5.2.7	1.00	each	Supplying and fixing following rating, double pole, (single phase and neutral), 240 V, residual current circuit breaker (RCCB), having a sensitivity current 30 mA in the existing MCB DB complete with connections, testing and commissioning etc. as required.40 amps( <b>LDB</b> )		/each		
5.2.8	1.00	each	Supplying and fixing following rating, <b>four pole</b> , (three phase and neutral), 415 volts, residual current circuit breaker (RCCB), having a sensitivity current 300 mA in the existing MCB DB complete with connections, testing and commissioning etc. as required .63 amps( <b>VDB</b> )		/each		
5.2.9	1.00	NO'S	Charge for Dismantling the old existing <b>PANEL</b>		/NO'S		
			<b>SUB TOTAL</b>				
			<b>CONSOLIDATED ABSTRACT</b>				
		1	MV PANEL (OFFICE/ PAVILION BUILDING)				
		2	MINI MAST (IN FRONT OF THE OFFICE)				
		3	STORE ROOM				
		4	OFFICE BLOCK				
		5	LDB, VDB, MCB, RCCB, ISOLATOR				
			Total				
			Add GST @ 18 %			<b>Rs.</b>	
			GRAND TOTAL			<b>Rs.</b>	

Item No	Quantity	Unit	Details of work	Rate in figures	Unit	Rate in words	Amount
---------	----------	------	-----------------	-----------------	------	---------------	--------

**Rounded to Rs.**

Rupees in words :

Place:

Date:

Signature of Contractor:

Name and address: