



BHARAT HEAVY ELECTRICALS LIMITED

RAMACHANDRAPURAM :: HYDERABAD-32
TOWNSHIP ADMINISTRATION

TENDER DOCUMENTS (PRICE BID)

**Electrical Works for installation of
500 LPM PVSA Oxygen Generation Plant at BHEL-HPEP Hospital.**

Tender Notice : HY/ TA/ E/ OT-04/ 2021-22, Dt. 21.12.2021 (N0AUX00387)

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1. Schedule - A : Schedule of rates and approximate quantities

NAME & ADDRESS OF TENDERER:

PHONE NO. : _____

E-mail : _____

BHARAT HEAVY ELECTRICALS LIMITED
RAMACHANDRAPURAM :: HYDERABAD - 32
TOWNSHIP ADMINISTRATION / ELECTRICAL DEPARTMENT

Tender No.: HY/ TA/ E/ OT-04/ 2021-22
Date : 21.12.2021
(N0AUX00387)

SCHEDULE - 'A'

Electrical Works for installation of 500 LPM PVSA Oxygen Generation Plant at BHEL-HPEP Hospital.

Sl. No.	SAC Code	Nature of work	Unit	Qty.	Rate	Amount (Rs.)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	995469	Laying of one number PVC insulated and PVC sheathed / XLPE, armoured power cable of 1.1 KV grade of size upto 95 sq. mm direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc as required. (3½-core, 70 sqmm cable will be supplied by BHEL)	Metre	85	313.93	26,684.05
2	995469	Laying of one number PVC insulated and PVC sheathed / XLPE, armoured power cable of 1.1 KV grade of size upto 95 sq. mm on wall surface as required with necessary clamps as required. (3½-core, 50 sqmm cable will be supplied by BHEL)	Metre	20	90.85	1,817.00
3		Supply and installation of following size hot dip GI perforated Cable Tray without cover along with Coupler plates, T's, Bends, Reducers, Anchor bolts, nuts, washers and slotted channels / Angle Iron Channels etc. as required for fixing of the tray on wall / steel structure; complete all as directed by Engr-in-charge.				-
(a)	995469	100mm x 25mm x 1.6mm thick	Metre	20	167.20	3,344.00
(b)	995469	75mm x 25mm x 1.6mm thick	Metre	66	149.60	9,873.60
4		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.				-
(a)	995469	3½ X 70 sq. mm	Each	1	322.51	322.51
(b)	995469	3½ X 50 sq. mm	Each	2	288.82	577.64
(c)	995469	4 X 10 sq. mm	Each	2	192.10	384.20
5	995469	Fabrication and supply of 200A MCCB power distribution panel of CRCA sheet, with ISMC channel base, MS angle stand, aluminium busbar, switchgears, metering unit, indication lamps, control & power wiring etc. and erection at site including cost of all materials, conveyance, painting and sundry expenses. Details and specifications given in the annexed drawing.	1 unit	1	54,800.00	54,800.00
6	995469	Earthing with copper earth plate 600 mm X 600 mm X 3 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required	Set	1	10,341.35	10,341.35
7	995469	Providing and laying earth connection from earth electrode with 4.00 mm dia copper wire in 15 mm dia G.I. pipe from earth electrode including connection with copper thimble and excavation, re-filling for GI pipe etc. as required.	Metre	30	225.66	6,769.80
8	995469	Supplying and fixing 4 way (4 + 12), Double door, horizontal type three pole and neutral, sheet steel, MCB distribution board, 415 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/ Isolator)	Each	1	2,690.13	2,690.13
9		Supplying and fixing 5 A to 32 A rating, 240/415 V, 10 kA, "C" curve, miniature circuit breaker (MCB) of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required.				-
(a)	995469	32A Triple pole and neutral MCB	Each	1	957.72	957.72
(b)	995469	10A Single pole MCB	Each	12	174.87	2,098.44

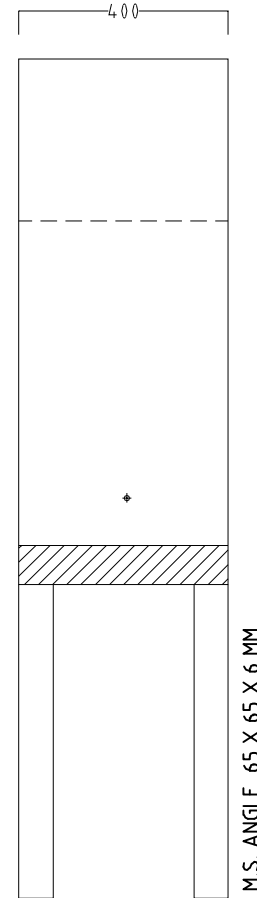
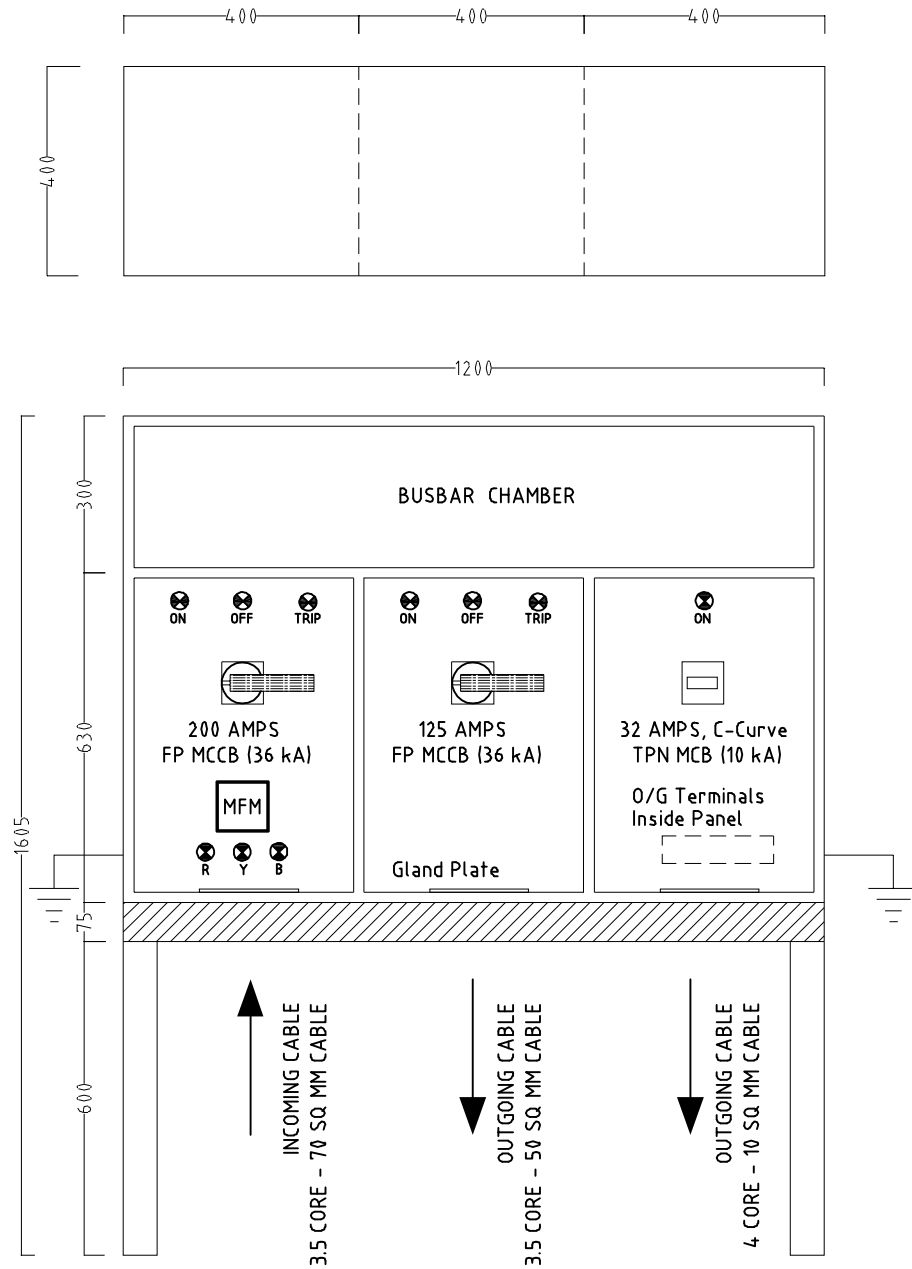
Sl. No.	SAC Code	Nature of work	Unit	Qty.	Rate	Amount (Rs.)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
10	995469	Supplying and fixing of 20mm medium class PVC conduit along with accessories in surface / on cable tray as required.	Metre	70	73.23	5,126.10
11	995469	Supplying and drawing 2 x 1.5 sq. mm of FRLS PVC insulated copper conductor, single core cable in the existing surface/recessed steel/ PVC conduit as required.	Metre	70	36.27	2,538.90
			TOTAL			1,28,325.44

Note:- The tenderers are required to quote their tender value on %age basis at **Excess / Less / on par** with estimated value.

Tender %	In Words	In Figures
Excess		
Less		
Estimate rate only		


Conditions :

1	Taxes & Duties: The rate quoted by the contractor shall be exclusive of GST. All the terms & conditions of the contract with respect to Taxes & Duties are subject to the new taxation laws introduced from time to time (e.g., GST). The terms & conditions will be modified in accordance with the provisions of new laws (e.g., GST).
2	Contract Period & Maintenance Period: Period of contract : Two (2) months from the date of commencement Maintenance period : One (1) year from the date of completion
3	Penalty: Penalty amount determined as per penalty clause (as mentioned in pg. 5 of NIT) of the contract along with GST if applicable thereon shall be recovered



FABRICATION DETAILS	1) Main Frame / Doors : 14 Gauge CRCA Sheet 2) Partitions / Covers : 16 Gauge CRCA Sheet 3) Gland Plates : 10 Gauge Removable Type 4) Base Frame : MS Channel ISMC 75 x 40 x 5 mm 5) Mounting Stand : MS Angle ISA 65 x 65 x 5 mm 6) Installation : Indoor 7) Cable Entry : Bottom Entry 8) Degree of Protection : IP-54 (dust & vermin proof) 9) Gasket : Good quality gasket for all doors & covers 10) Design of panel : Non-draw out type (fixed) 11) Front & rear side access cover for busbar & cable chambers. 12) Panel locks for all doors
PAINTING DETAILS	Panel : Siemens Gray Powder Coated Base : Black
BUS-BAR DETAILS	Hard drawn high conductivity Electrolytic grade Aluminium Busbar (current density 0.8A/sq.mm) Phase : 30 x 6 mm ; Neutral : 25 x 5 mm Busbar insulation : PVC Heat shrinkable sleeves with R,Y,B & N colour coding
EARTHING DETAILS	Panel Earthing : 25 x 5 mm GI Flat Door Earthing : 2.5 sq. mm flexible 1-core copper wire
PANEL RATING	440V \pm 10%, 3ph, 4Wire, 50 Hz \pm 5%
MAIN INCOMING	200A, 36 kA, FP MCCB with thermal magnetic release, auxiliary and trip switch, spreader links & extended rotary handle mechanism
OUTGOING FEEDERS	(1) 125A, 36 kA, FP MCCB with thermal magnetic release, auxiliary and trip switch, spreader links & extended rotary handle mechanism (2) 32A, TPN MCB, 10kA, C-curve
INDICATIONS	R-Y-B Phase Indication (LED) Lamps for incoming LED indication lamps for ON-OFF-TRIP on all feeders
METERING	Digital Multi Function Meter with multiline illuminated LCD display with V, A, F, PF, kW, kVA, kVAR, kWh, kVAh, kVARh, Max. Demand parameters
CURRENT TRANSFORMER	300/5A,CL-1,15VA
CONTROL WIRING	1.5 Sq.mm PVC, multistranded flexible copper wire
CT WIRING	2.5 Sq.mm PVC, multistranded flexible copper wire

MAKE OF ITEMS	
SWITCHGEARS	HAVELLS / L & T / SCHNEIDER / SIEMENS / C&S
INDICATING LAMPS	EXBEE / TEKNIC / VAISHNO
CURRENT TRANSFORMER	ALTRAN / SREESTAA
MULTI-FUNCTION METER	L&T / C&S / SECURE / ELMEASURE

		BHARAT HEAVY ELECTRICALS LIMITED RAMACHANDRAPURAM :: HYDERABAD - 32.			
SCALE	N T S	TITLE: PCC PANEL FOR OXYGEN PLANT (GENERAL ARRANGEMENT)			
DRAWN	S K	CHECKED	APPROVED	DRG.No.	TA-EL/2021/PCC-1
DATE	02.12.2021			SHEET No. 1	REV. No.

