



भारतीय विमानपत्तन प्राधिकरण Airports Authority of India

सं.सं.:भा.वि.प्रा/तिरु/अभि-वि/सिपि-03(2022-23)/2023-24/ 1180-1184

दिनांक: 12.04.2023

Ref No: AAI/TPT/ENGG(E)/CP-03(2022-23)/2023-24/1180-1184

Date: 12.04.2023

सेवा में / TO

मेसेर्स शांता इलेक्ट्रिकल्स एंड इंजीनीर्स प्राइवेट लिमिटेड/

M/s. Shantha Electricals and Engineers Pvt. Ltd.,

श्री प्रभा भवन / Sri Prabha Building,

विलोम एसएमएसपी कॉम्प्लेक्स / Opp. SMSP Complex,

उडुपी / Udupi-576101.

ई-मेल/E-Mail: info@shanthaelectricals.com

कार्य का नाम: तिरुपति हवाईअड्डे पर डीवीओआर भवन का निर्माण। **उप शीर्षक:** विद्युत कार्य।

Name of Work: Construction of DVOR Building at Tirupati Airport.

Sub Head: Electrical Works.

संदर्भ / Ref : आपके मूल्य बिड(ई-टेंडर आई.डी.2022_AAI_138833_1)सीपीपी पोर्टल द्वारा 16.01.2023 को खुला गया। Your Price Bid (e-Tender ID: 2022_AAI_138833_1) opened through CPP portal on 16.01.2023.

प्रिय महोदय / Dear Sir(s),

- 1) उक्त उल्लेखित कार्य के लिए आपके निविदा अध्यक्ष, भारतीय विमानपत्तन प्राधिकरण की ओर से स्वीकृत की गई, आपके द्वारा उद्धृत किया गया दर कुल ₹.33,58,505/- (रुपये तैंतीस लाख अठावन हजार पांच सौ और पांच मात्र) (जीएसटी को छोड़कर) जो 03.97% नीचे निविदा को प्रस्तुत किया गया अनुमानित ₹.34,97,405/- (जीएसटी को छोड़कर) के नीचे है।

Your e-tender for the work mentioned above is hereby accepted on behalf of the Chairman, Airports Authority of India, at the item rates quoted by you totaling to ₹.33,58,505/- (Rupees Thirty Three Lakhs Fifty Eight Thousand Five Hundred and Five Only) (Excluding GST), which is 03.97% below the estimated cost put to tender of ₹.34,97,405/- (Excluding GST).

- 2) संयुक्त महा प्रबंधक(अभि-वि),भा वि प्रा, तिरुपति हवाईअड्डा, रेणिगुंटा इस कार्य का अभियंता-प्रभारी रहेंगे। आप संविदा करार में हस्ताक्षर एवं पूरा करने हेतु 20.04.2023 तक संयुक्त महा प्रबंधक (अभि-वि), भा वि प्रा, तिरुपति हवाईअड्डा, रेणिगुंटा की कार्यालय हाज़िर होने के लिए अनुरोध किए जाते हैं। ठेका करार ₹.100/- मूल्य का न्ययिकेतर स्टांप कागजात में निष्पादित किया जाना है तथा स्टांप कागजात का मूल्य आपके द्वारा भुगतान किया जाएगा।

The Joint General Manager (Engg-E), AAI, Tirupati Airport, Renigunta shall be the Engineer-in-charge of the work. You are requested to attend the Office of Joint General Manager (Engg-E), AAI, Tirupati Airport, Renigunta by 20.04.2023 to sign and complete contract agreement. The contract agreement shall be executed on a non-judicial stamp paper of value ₹.100/- (Rupees One Hundred only) and the cost of the stamp paper shall be borne by you.

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तिरुपति हवाईअड्डा, रेनिगुंटा-517520, आ,प्र; फोन:0877-2275131; फ़ैक्स:0877-2275353;

Tirupati Airport, Renigunta-517520, A.P; T: 0877 2275131; Fax:0877 2275353;



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- 3) निविदा के साथ भुगतान की गई ₹.69,950/- (रुपये उनहत्तर हजार नौ सौ पचास मात्र) की बयाना राशि सुरक्षा जमा की प्राप्ति के बाद वापस कर दी जाएगी। कृपया ₹.3,35,851/- (रुपये तीन लाख पैंतीस हजार आठ सौ इक्यावन मात्र) सुरक्षा जमा के रूप में जमा करें, ऐसा न करने पर जीसीसी पृष्ठ संख्या जीसीसी-17 के खंड 1ए के अनुसार आपके चालू बिलों से कटौती की जाएगी। निविदा दस्तावेज की।

The earnest money amount of ₹.69,950/- (Rupees Sixty Nine Thousand Nine Hundred and Fifty Only) paid along with tender shall be refunded after the receipt of Security Deposit. Please deposit ₹.3,35,851/- (Rupees Three Lakhs Thirty Five Thousand Eight Hundred and Fifty One Only) towards Security Deposit, failing which the same will be deducted from your running bills as per Clause 1A of GCC Page No. GCC-17 of Tender Document.

- 4) निविदा दस्तावेज का जी सी सी धारा 19 तथा केन्द्रीय तथा राज्य सरकार के नियम में जैसे निर्दिष्ट किया था ठेका श्रम का प्रावधान (विनियम तथा उत्पादन) अधिनियम 1970, ठेका श्रम (विनियम तथा उत्पादन) केन्द्रीय नियम 1971, बाल श्रम (निषेध तथा विनियम) अधिनियम 1986, निर्माण श्रमिक (रोजगार और सेवा की शर्त का विनियमन) अधिनियम 1996, भवन और अन्य निर्माण श्रमिक कल्याण उपकर अधिनियम 1996 को अनुपालन करने हेतु आपसे अनुरोध किए जाते हैं।

You are requested to comply with the provision of Contract Labour (Regulation and Abolition) Act 1970, Contract Labour (Regulation and Abolition) Central Rules 1971, Child Labour (Prohibition & Regulation) Act 1986, Construction Workers (Regulation of Employment and Condition of Service) Act 1996, Building and other constructions Workers Welfare Cess Act 1996 as specified in Clause No. 19 on page No. GCC-50 of tender and rules thereof central and State Government.

- 5) सहायक महा प्रबंधक (अभि-वि), भा वि प्रा, तिरुपति हवाईअड्डा, रेणिगुंटा को संपर्क करें कि , तत्काल प्रभाव से कौन आपको साइट सौंपने का व्यवस्था करेगा।

You are also directed to contact Assistant General Manager (Engg-Elect), AAI, Tirupati Airport, Renigunta immediately who will arrange to hand over the site to you.

- 6) कृपया नोट कीजिए कि कार्य का प्रारंभ के लिए दिया गया समय **04 (चार) महीने** होगा तथा कार्य आदेश जारी करने के 10 वें दिन (i.e. 21.04.2023) से वही गिना जाएगा।

Please note that the time allowed for carrying out the work shall be **04 (FOUR) Months** and same shall be reckoned from 10th day of issue of work order (i.e. 21.04.2023).

- 7) भारतीय विमानपत्तन प्राधिकरण ने व्यापार प्राप्य इलेक्ट्रॉनिक डिस्काउंटिंग सिस्टम (TReDS) के तहत एक खरीदार के रूप में पंजीकरण किया है और और आप भारत सरकार की पहल TReDS का लाभ उठा सकते हैं और चालान जमा करने के 30 दिनों के भीतर एमएसएमई विक्रेताओं को भुगतान जारी कर दिया जाएगा।

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Airports Authority of India has registered as a buyer under Trade Receivable Electronic Discounting System (TReDS) and you may avail the benefits of TReDS, a Govt. of India initiative and payment shall be released to MSME vendors within 30 days after submission of invoices.

8) इस ठेका के संबंधित आगे कोई पत्राचार सामान्यतः अभियंता-प्रभारी को संबोधित किया जाना है।

Any further correspondence in connection with the contract should normally be addressed to the Engineer-in-charge.

9) कृपया पावती भेजें और अधोहस्ताक्षर को स्वीकृति के रूप में संलग्न किया गया इस पत्र की प्रति लिपि में हस्ताक्षर करने के बाद वापस भेजा जाए।

Please acknowledge the receipt and return the duplicate copy of this letter enclosed herewith after signing it to the undersigned as a token of acceptance.

अनुलग्नक/Encl:- मात्रा की अनुसूची / Schedule of Quantities.

-Sd/-

संयुक्त महा प्रबंधक (अभि-वि) /Joint General Manager (Engg-E)
भा वि प्रा,तिरुपति हवाई अड्डा /AAI, Tirupati Airport
अध्यक्ष कृते एवं की ओर से/For & On Behalf of The Chairman
भारतीय विमानपत्तन प्राधिकरण /Airports Authority of India

(ठेकेदार का हस्ताक्षर सहित मुहर / Signature of the Contractor with seal)

प्रतिलिपि/COPY TO:

आंतरिक /INTERNAL:

- 1) विमानपत्तन निदेशक / Airport Director - कृपया सूचनार्थ / For Information Please.
- 2) सहायक महा प्रबंधक (अभि-वि) / Assistant General Manager (Engg-E).
- 3) प्रबंधक (वित्त)/ Manager [F&A] - vide noting page No. 5-6, टिप्पण पृष्ठ सं. 5-6 दिनांक / Dtd. 23.01.2023 देखें।
- 4) प्रबंधक (अभि-वि)/ Manager (Engg-Elect).

संयुक्त महाप्रबंधक (अभि-वि) /Joint General Manager (Engg-E)
भा वि प्रा, तिरुपति हवाईअड्डा / AAI, Tirupati Airport.



SCHEDULE OF QUANTITIES

NAME OF WORK: CONSTRUCTION OF DVOR BUILDING AT TIRUPATI AIRPORT.

SUB HEAD: ELECTRICAL WORKS.

SL. No	Description of Work	Qty	Unit	Rate	Amount
1	Supply of 3.5 X 35 Sq mm XLPE insulated and PVC Sheathed, armoured, Aluminium conductor power cable of 1.1 KV grade as per IS 7098-1988 (Part 1) with upto date amendments etc complete as required.	100	Meter	280.00	28,000.00
2	Supply of 4C X 16.0 Sq mm XLPE insulated, PVC Sheathed, unarmoured, Copper conductor power cable of 1.1 KV grade as per IS 7098-1988 (Part 1) with upto date amendments etc complete as required.	50	Meter	700.00	35,000.00
3	Supply of 4C X 4.0 Sq mm XLPE insulated, PVC Sheathed, armoured, Copper conductor power cable of 1.1 KV grade as per IS 7098-1988 (Part 1) with upto date amendments etc complete as required.	160	Meter	240.00	38,400.00
4	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade Upto 35 sq. mm size in the existing RCC/ HUME/ METAL/HDPE pipe/duct as required.	160	Meter	70.00	11,200.00
5	Laying and fixing of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade Upto 35 sq. mm in the existing masonry open duct as required.	50	Meter	60.00	3,000.00
6	Laying and fixing of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade Upto 35 sq. mm (clamped with 1mm thick saddle) size on wall surface as required.	100	Meter	90.00	9,000.00
7	Supplying and making end termination with brass compression gland and aluminium lugs for 3.5 X 35 sq. mm (28mm) size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.	6	Set	500.00	3,000.00
8	Laying of 110 mm HDPE pipe along with all accessories like socket, bend, couplers etc. complete with fitting and cutting, jointing with adhesive etc. direct in ground (75 cm below ground level and 35 mm width for each pipe) including excavation and refilling the trench but excluding sand cushioning and protective covering etc., complete as required.	110	Meter	140.00	15,400.00
9	SITC of Indoor type End Termination Junction Box of bolted type/Box type made of 2mm thick CRCA Sheet Steel Enclosure having IP 42 Protection, consisting of Aluminium busbars of rating 200 Amps mounting on supports insulators made of FRP/SMC/ DMC material with suitable clearance for termination of 03 Nos. of L. T cables of sizes upto 3.5 C X 400 Sq.mm	3	Each	13,500.00	40,500.00
10	Supply of CPRI certified Electrical insulating mats confirming to IS 15652:2006 with minimum width of 1 meter and thickness of 2.0mm +/- 10% , dielectric strength 30 KV, Class-A, ISI marked, anti skid and fire retardant properties duly fixed with suitable adhesive/ resin materials etc., complete as required.	55	Sq.Mtr	1,100.00	60,500.00

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SL. No	Description of Work	Qty	Unit	Rate	Amount
11	Earthing with copper earth plate 600 mm X 600 mm X 3.00 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.	13	Set	15,000.00	1,95,000.00
12	Supplying and laying 25 mm X 5 mm copper strip below ground as strip earth electrode, including connection/ terminating with nut, bolt, spring, washer etc. as required. (Jointing shall be done by overlapping and with 2 sets of brass nut bolt & spring washer spaced at 50 mm)	100	Meter	880.00	88,000.00
13	Providing and fixing 25 mm X 5 mm copper strip in 40 mm dia G.I. pipe from earth electrode including connection with brass nut, bolt, spring, washer excavation and re-filling etc. as required.	200	Meter	1,400.00	2,80,000.00
14	Providing and fixing 25 mm X 5 mm copper strip on surface or in recess for connections etc. as required.	200	Meter	830.00	1,66,000.00
15	Providing and fixing of lightning conductor finial, made of 25 mm dia 2 mtr long copper tube, having single prong at top, with 85 mm dia 6 mm thick copper base plate including holes etc. complete as required.	4	Nos	10,500.00	42,000.00
16	Supplying and fixing of Medium class G.I. pipe of 50 mm dia. (nominal) 10 metres length along the pole for Lightning arrester installation including base plate , nut bolts, washer etc. complete as required.	4	Nos	7,500.00	30,000.00
17	Providing joints by using brazing technique on 25 mm X 3 mm copper strip on surface or in recess for connections to another copper earth strip for interconnection to all earth's of Lightening Arrestors, counterpoise , Equipment and Electrical power supply earthing etc. as required.	200	Nos	720.00	1,44,000.00
18	SITC of Three Phase neutral Surge Protection Device (SPD), type 2 , 4 module, 3P+ N having Maximum discharge current 100kA (10/350 us), impulse current 8KA with protection level of 0 - 1.5 KV including all accessories, conforming to IEC 61643-11. (Make : L & T, Cat No. AUSB123PN100 or equivalent as per AAI approved make list).	2	Each	10,800.00	21,600.00
19	SITC of Single Phase neutral Surge Protection Device (SPD), type 2 , 2 module, 1P+ N having Maximum discharge current 100kA (10/350 us), impulse current 8KA with protection level of 0 - 1.5 KV including all accessories, conforming to IEC 61643-11. (Make : L & T, Cat No. AUSB121PN100 or equivalent as per AAI approved make list).	1	Each	5,700.00	5,700.00

SCHEDULE OF QUANTITIES

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SUB HEAD: ELECTRICAL WORKS.

SL. No	Description of Work	Qty	Unit	Rate	Amount
20	SITC of Single Phase neutral Surge Protection Device (SPD), type 3, 2 module, 1P+ N having Maximum discharge current 40kA (10/350 us),with protection level of 0 - 1.5 KV including all accessories, conforming to IEC 61643-11. (Make : L & T, Cat No. AUSP121PN100 or equivalent as per AAI approved make list).	8	Each	5,700.00	45,600.00
21	SITC of 125 A , 415V, 50Hz, 4 Pole TPN Automatic Transfer Switch(ATS) with double break contact system offering high short-time withstand, having protections against Under voltage, Over voltage, single phasing, frequency and provided with terminal shrouds, phase barriers & source separator in a suitable enclosure suitable for aluminium terminations complete etc. as required. (Make: L & T, model : CK90164BSOO or equivalent approved make)	1	Each	70,000.00	70,000.00
22	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLSH PVC insulated copper conductor single core cable in surface / recessed steel conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc as required. a) Group C	20	Point	650.00	13,000.00
23	Wiring for group controlled (looped) light point/ fan point/ exhaust fan point/ call bell point (without independent switch etc.) with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable in surface / recessed steel conduit and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc as required. a) Group C	20	Point	500.00	10,000.00
24	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLSH PVC insulated copper conductor, single core cable in surface/ recessed steel conduit as required. a) 2 x 1.5 Sq.mm + 1 x 1.5 Sq.mm Earth Wire	300	Meter	100.00	30,000.00
25	Wiring for light/ power plug with 2X4 sq. mm FRLS PVC insulated copper conductor single core cable in surface/ recessed steel conduit alongwith 1 No 4 sq. mm FRLSH PVC insulated copper conductor single core cable for loop earthing as required.	400	Meter	140.00	56,000.00

SCHEDULE OF QUANTITIES

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SUB HEAD: ELECTRICAL WORKS.

SL. No	Description of Work	Qty	Unit	Rate	Amount
26	Supplying and fixing of 2 + 8 Way Per Phase Isolation DB (I/C +O/G = 8+6+24), Double door, horizontal type three pole and neutral, sheet steel, MCB distribution board, 415 volts, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing and fixing of required cable entry /end box for accomodating extra cable/wires etc. as required. (But without MCB/RCCB/Isolator)	2	Each	5,600.00	11,200.00
27	Supplying and fixing of 16 way, Single pole and neutral (SPN), Metalica 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)	4	Each	2,400.00	9,600.00
28	Supplying and fixing 63 amps rating, 415 volts, "D" curve, Triple Pole and Neutral miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required.	2	Each	2,500.00	5,000.00
29	Supplying and fixing 32A rating, 240/415 V, DP RCBO (Residual Current Circuit Breaker With Overload & Short Circuit Protection) having sensitivy of 100 mA in the existing MCB DB complete with connections, testing and commissioning etc. as required.	3	Each	3,900.00	11,700.00
30	Supplying and fixing 63 A rating, Double pole, 240/415 volts, 10 kA, "C" curve, miniature circuit breaker suitable for inductive loads in the existing MCB DB complete with connections, testing and commissioning etc. as required.	4	Each	1,100.00	4,400.00
31	Supplying and fixing 20 Amps rating, 240 Volts, "B" curve, Single pole miniature circuit breaker suitable for lighting load in the existing MCB DB complete with connections, testing and commissioning etc. as required.	18	Each	220.00	3,960.00
32	Supplying and fixing 20 Amps rating, 240 Volts, "C" curve, Single pole miniature circuit breaker suitable for inductive load in the existing MCB DB complete with connections, testing and commissioning etc. as required.	36	Each	220.00	7,920.00
33	Supplying and fixing 6 Module size G.I box alongwith modular base & cover plate for modular switches & Sockets on surface/recess etc. as required.	30	Each	135.00	4,050.00
34	Supplying and fixing 15/16 amps modular switch on the existing modular plate & switch box including connections but excluding modular plate etc. as required.	60	Each	500.00	30,000.00

SCHEDULE OF QUANTITIES

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SUB HEAD: ELECTRICAL WORKS.

SL. No	Description of Work	Qty	Unit	Rate	Amount
35	Supplying and fixing 6 pin 15/16 amps modular socket (with shutter), ISI marked, on the existing modular plate & switch box including connections but excluding modular plate etc. as required.	60	Each	200.00	12,000.00
36	Supply of 4ft X 1ft Recess mounted LED luminaries having minimum 3500 lumen output complete with electronic driver, made out of powder coated CRCA/Aluminium housing with opal/acrylic diffuser suitable to operate on 230V, 50Hz single phase AC supply etc, complete as per specifications.	10	Each	4,500.00	45,000.00
37	Supply of 4ft X 1ft Surface mounted LED luminaries having minimum 3500 lumen output complete with electronic driver, made out of powder coated CRCA/Aluminium housing with opal/acrylic diffuser suitable to operate on 230V, 50Hz single phase AC supply etc, complete as per specifications.	10	Each	4,800.00	48,000.00
38	Supply of LED Street Light Luminaire with secondary lens optics/ polycarbonate diffuser lens made out of high pressure die cast aluminium/ standard alloy housing (IP 65 or higher) having minimum 3600 lumen output and suitable to operate on 230V, 50Hz, single phase AC supply with electronic driver and having surge protection etc, complete as required.	6	Each	3,300.00	19,800.00
39	Installation, testing and commissioning of surface mounted LED fittings of all types, complete with all accessories directly on ceiling / surface, including connection with 1.5 sq. mm FRLS PVC insulated, copper conductor, single core cable and earthing etc. complete as required as per actual site requirements.	10	Each	275.00	2,750.00
40	Installation, testing and commissioning of recessed type LED fittings of all types complete with all accessories like GI chain etc. including modification/cutting/finishing of existing cutouts of gypsum false ceiling to install the new fittings, connection with 1.5 sq. mm FRLS PVC insulated, copper conductor, single core cable and earthing etc. complete as required as per actual site requirements.	10	Each	300.00	3,000.00
41	Installation, testing and commissioning of LED street light luminaires including providing and fixing suitable dia GI brackets of 1.2 mtr. length and all accessories to be installed on pole/wall including connections with 1.5 sq. mm FRLS PVC insulated, copper conductor, single core cable and earthing etc. as required.	6	Each	400.00	2,400.00
42	Supply of BLDC ceiling Fan of 1200 mm sweep, BEE 5 star rated, having 3 blades, 30 cm long down rod, 02 nos. canopies, shackle kit, air delivery minimum of 215 m ³ /min, alongwith other all accessories as required, suitable for operation on 230 volt, 50 Hz, single phase AC supply, etc. complete as required.	5	Each	3,300.00	16,500.00

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SUB HEAD: ELECTRICAL WORKS.

SL. No	Description of Work	Qty	Unit	Rate	Amount
43	Installation, testing and commissioning of ceiling fan, including wiring the down rods of standard length (upto 30 cm) with 1.5 Sq.mm FRLSH PVC insulated, copper conductor, single core cable etc. as required.	5	Each	275.00	1,375.00
44	Supply and Installation of Weather proof thermoplastic enclosure IP 65 Cable junction box on surface along with din rail and 32 Amp DP MCB for connection complete etc as required.	2	Each	3,800.00	7,600.00
45	Supply of 4Watt Rechargeable LED Linear Emergency Light having 2 feet length, minimum 300 lumen output with Auto ON feature during power failure, Over charge and Deep discharge protection, Charging indicator, minimum backup time of 5 hours on high brightness mode etc suitable to operate on 230V, 50 Hz single phase AC supply, complete as required. (Make: Philips, Model: White Rechargeable LED Linear Emergency Light 4Watt Slim Ray (48009/31/86) or equivalent)	4	Nos	2,400.00	9,600.00
46	Supply and Installation of Astro Mini time switch suitable for single phase 240V AC for lighting control based on sunrise/sunset timings by latitude/longitude settings.	1	Nos	4,200.00	4,200.00
47	SITC of Aviation dome obstruction LED Luminaire comprising of aluminium housing with polycarbonate enclosure (Single dome) with non-flashing type meeting as per ICAO standards suitable for operation on 230 V, 50 Hz, AC supply etc. complete as required.	3	Nos	8,500.00	25,500.00
48	Supplying and fixing 20 amps, 240 volts, SPN industrial type, socket outlet, with 2 pole and earth, metal enclosed plug top alongwith 20 amps "C" curve, SP, MCB, in sheet steel enclosure, on surface or in recess, with chained metal cover for the socket out let and complete with connections, testing and commissioning etc. as required.	6	Nos	2,250.00	13,500.00
49	Supply of 1.5TR Inverter type Split Air-Conditioner of BEE 5 Star rating Hi-wall split 1.5 Ton non ductible fan coil unit (Indoor Unit), Copper Condensing unit (Outdoor Unit) with fan and High Energy Efficiency Ratio Rotary compressor, with cord less remote controller and works with eco-friendly refrigerant (R410A/R32/R 134A gas etc.), suitable for operation on 1 Phase, 230 +/- 10%V, 50Hz AC supply etc. complete as required. The supply of unit shall include the copper pipings, Interconnecting Power cables between the Indoor and Outdoor Unit as per the standard manufacturer design (i.e. Copper pipings of not less than 3 Mtrs) including drain pipe and initial charge of gas etc. complete as required.	6	Nos	48,000.00	2,88,000.00

SCHEDULE OF QUANTITIES

NAME OF WORK: CONSTRUCTION OF DVOR BUILDING AT TIRUPATI AIRPORT.

SUB HEAD: ELECTRICAL WORKS.

SL. No	Description of Work	Qty	Unit	Rate	Amount
50	Installation, Testing and commissioning of 1.5 TR wall mounted/Hi-wall type Split Air-Conditioner by providing of suitable size MS bracket/ stand /PCC work as per site requirement including balancing of Liquid & Gas, Gas charging the system with eco-friendly refrigerent (i.e., R410A/R32/R 134A gas etc.) if any extra gas required due to increase in length of Copper piping, etc., complete as required.	6	Nos	5,200.00	31,200.00
51	Providing, fixing and connecting of OEM recommended extra copper refrigerant Pipings (discharge and suction lines) with Nitrile Rubber insulation of thickness not less than 13mm and with all other accessories suitable for 2/1.5TR split AC of 1 phase, along with covering the Copper piping with suitable size casing capping/PVC pipe etc. complete as required (Length of Liquid and gas line will be measured as single measurement).	45	Meter	1,900.00	85,500.00
52	Supplying and fixing one number 24 hour analogue type time switch, 20A SP C series MCB & 25 A single pole contactor (1NO) in suitable size weather proof thermoplastic enclosure including supply and fixing the weather proof thermoplastic enclosure with IP 65 protection on surface, providing electrical connections etc. as required.	6	Nos	4,900.00	29,400.00
53	Supply, installation, testing and commissioning of wall mounting type, 5 KVA Capacity, single phase, automatic line voltage stabilizer, suitable for operation on 170 volts to 270 volts, 50Hz AC input power supply with built in time delay, having high voltage cut off, low voltage cut off, input/output/trip indications and providing 200 volts to 240 volts AC output, and suitable for application of 1.5 TR/2.0 TR Air conditioning unit etc. as required	6	Nos	4,500.00	27,000.00
54	Providing and fixing of ISI marked 20mm dia. CPVC pipe with required bends / connectors on surface from drain pipe of indoor unit to nearest drain point for draining out the water etc. complete as required.	30	Meter	95.00	2,850.00
55	SITC of IP based Addressable type Fire Alarm control panel of minimum 2 loops (each Loop card having capacity to accommodate minimum 99 detectors and 99 modules)with the following facilities like 80 character display unit, power supply unit, built in battery charger, including 24 Volts sealed maintenance free lead acid batteries for 02 hours backup, Auto dialer facility with 20 nos. dialer, web server PCB for IP connectivity etc. complete as required.	1	Each	2,48,000.00	2,48,000.00
56	SITC of Analogue addressable Optical photo electric type smoke detector complete with all fixing accessories like base, base box, etc. to be installed under the ceiling complete as required.	8	Each	2,600.00	20,800.00

SCHEDULE OF QUANTITIES

NAME OF WORK: CONSTRUCTION OF DVOR BUILDING AT TIRUPATI AIRPORT.

SUB HEAD: ELECTRICAL WORKS.

SL. No	Description of Work	Qty	Unit	Rate	Amount
57	SITC of Analogue addressable Manual call point (break glass type) complete with push button, enclosed in box with provision for cable or conduit coupling.	3	Each	4,200.00	12,600.00
58	SITC of flasher type Outdoor Horn-strobe unit.	3	Each	3,600.00	10,800.00
59	SITC of AEROSOL based automatic fire extinguishing system of ROHS compliant human safe fire suppression media, Discharge time: 58 Sec., Total weight: 46 kg along with its integration with fire alarm control panel.	2	Set	2,85,000.00	5,70,000.00
60	SITC of AEROSOL based automatic fire extinguishing system of ROHS compliant human safe fire suppression media, Discharge time: 47 Sec., Total weight: 12.5 kg, along with its integration with fire alarm control panel.	1	Set	1,97,000.00	1,97,000.00
61	SITC of Manual abort pull type station.	2	Each	5,600.00	11,200.00
62	SITC of Manual release type pull station.	2	Each	5,600.00	11,200.00
63	Supply and fixing of 4.5kg capacity Carbondioxide (CO2) type fire extinguishers confirming to IS 15683-2006 and cylinders fully charged including providing wall mounting bracket etc complete as required.	6	Each	10,500.00	63,000.00
64	Supply & Laying of 2 core X 1.5 sq. mm, Fire Survival armoured copper conductor cable of 600/1100V grade, insulated with specially formulated PVC, coated with special fire resistance materials and overall sheathed with special PVC, with special properties as Zero Halogen Low Smoke insulation . Basic construction as per BS 7846-2009.	100	Meter	100.00	10,000.00
Total (Excluding GST) Rs.					33,58,505.00

(Rupees Thirty Three Lakhs Fifty Eight Thousand Five Hundred and Five Only)

Note: Applicable GST shall be paid on submission of taxable invoice.


12/04/2023

Joint General Manager (Engg-E)
AAI, Tirupati Airport, Renigunta.