NOTICE INVITING TENDER

PROJECT: SITC of 15 KVA UPS at KSFDC Kairali/ Sree/Nila Theatre at ThampanoorTrivandrum 695001

Place of issue of tender Managing Director

 KSFDC, Vazhuthacaud

 TRIVANDRUM - 14

Tender No. : 1794/T1/20/KSFDC

LAST DATE OF RECEIPT OF TENDER : 03:00 PM on 05.01.2021

TIME OF SITC : 14 days

E.M.D : 2.5% of quoted rate

Security deposit & Performance guarantee:2.5 & 5 % the contract amount respectively

Tender Cost : 590/- (Inc GST)

ISSUED TO :

**OWNER**

**1. T E N D E R N O T I C E**

Sealed tenders are invited by The Managing director(here in after referred to as the `OWNER’) for SITC of Split UPS at KSFDC Kairali/ Sree / NilaTheatre at Thampanoor Trivandrum.

* 1. Tenders should be addressed to The Managing Director, (here in after referred to as the `OWNER’) for SITC of UPS at KSFDC Kairali/ Sree/ Nila Theatre at Thampanoor Trivandrumand sent so as to reach not later than 03:00 PM on 05.01.2021
	2. The Owner reserves the right to reject all or any of the tenders and to accept in whole or part of any of the tenders without assigning any reason for so doing.
1. **GENERAL TERMS AND CONDITIONS**
2. The tenderer shall be an original equipment manufacturer or their appointed dealer.
3. They should have done two works of SITC of 15 kVA UPSor above in the last 2 years.
4. Tenders of eligible tenderers only will be considered. Documents evidence for eligibility shall be enclosed.
5. The Bidder should be registered for GST and PAN no (Submit copy of Registration Certificate and PAN Card)
6. Bidder must have its own office in various locations of Kerala for the supply and maintenance services, along with adequate stores of reserve replacement equipment and spares. In addition it must have a network of service centers (of its own) so that it can provide installation support, & maintenance services all over Kerala.
7. Tenderer should quote base price and GST separately
8. Tenderer should send sealed quote by way of post/courier/by hand.
9. The quotations shall enclose EMD @ 2.5% of the quoted amount by way of DD favoring KSFDC Ltd payable at Thiruvananthapuram. Quotations without prescribed EMD will be rejected forthwith. The EMD deposit shall not attract any interest.
10. Tender Fee and EMD exempted for MSME ( Micro Small & Medium Enterprises ) and NSIC Units Subject to submission of valid MSME and NSIC certificate.
11. Tenders once submitted shall not allow being withdrawn. Any default after acceptance of bid shall be deemed to be noncompliance to the terms of contract. EMD shall be forfeited without prejudice to any other right or remedy.
12. A copy of Terms and conditions of quotation shall be enclosed/uploaded with the quote duly signed for acceptance of the terms.
13. The tenderer shall give details of complete specifications accessories along with the tender.
14. The Tenderer shall be amenable to techno commercial discussions & negotiations.
15. Loading and unloading will be under the scope of supplier.
16. The Tenderer shall provide preventive maintenance once in three months during the defect liability period.
17. In case of failure of the UPS systems for **more than one day**, the contractor is liable to provide a **standby system** in its place during the defect liability period.
18. Minimum Warranty period of three years for UPS shall be provided.
19. SITC shall be completed within 14 days of issue of work order
20. Payment will be after the satisfactory completion of the total work on production of GSTIN invoice and remarks from unit head/technician.Contractor shall submit the invoice to the unit head.
21. 2.5% of the total amount will be retained as security deposit until the expiry of defect liability period of 3 (three) years
22. Successful contractor will deposit Performance guarantee of 5% of the contract value before executing the agreement with KSFDC AND will be retained as security deposit until the expiry of defect liability period of 3 (three) years
23. Successful contractor will have to execute an agreement with KSFDC before commencing the work on stamp paper worth Rs 200/-
24. Defects liability period36 Months from the date of Commissioning
25. The firm period of tender90 days from the date of submission
26. Contractor must be willing to supply the UPS at any part of Kerala at the same price if more purchase orders are issued from KSFDC
27. Penalty 1% of contract value per week up to a maximum of 5% of PAC.
28. **TERMS OF PAYMENT:**
29. 70% of the quoted rate shall be paid for supply of items as per schedule of work at site against production of invoice.
30. 15% shall be paid after satisfactory installation.
31. Balance 12.5% on handing over the after successful commissioning against the reports, according to actual measurements.
32. Balance 2.5% after defect liability period of 36 months

An invoice in this respect has to be submitted incorporating the GSTIN of KSFDC and the contractor

**SPECIFICATION FOR SUPPLY OF 15 kVA UPS**

Specification

1. Power Rating kVA - 15
2. Power factor - 0.99
3. Input/Output - 3 phases input 1 phase output
4. Input Voltage - 390/415V
5. Input Frequency - 50 Hz (+/- 5%)
6. Output Voltage - 190/240 V
7. Output Frequency - 50 Hz (+/- 2%)
8. Power Factor - > 0.9
9. Overload - 125% for 10 minutes

 150% for 60 seconds

1. Waveform - Sinusoidal
2. Crest factor - 3:1
3. Voltage Distortion - 1% for Linear loads

 < 5% for Non-linear loads

1. Backup - 30 minutes
2. Isolation Transformer - Inbuilt
3. Harmonic filter - Inbuilt
4. Technology - On-line double conversion

**IEC 61000-3-2 OR EQUIVALENT IS SPECIFICATION**

1. **TECHNICAL SPECIFICATION**

**1.1 Type Static**

1.2 Power rating at load PF 0.99 lagging or above 15000VA/13500W

1.3 Application For Induction/SMPS loads

1.4 Quantity Refer Power distribution scheme/BOQ

1.5 Method of energy storage Electrical – battery back-up

1.6 Designation Static Bypass

1.7Whether transfer switch requiredfor secondary Back-upRequired(Static switches for uninterruptedtransfer of loads from inverter toregulated supply)

1.8 Installation Indoor

**2.0 Enclosure**

2.1 Material Cold rolled sheet steel

2.2 Sheet thickness (mm) 2

2.3 Degree of protection as per IS-2417 IP-31

2.5 Cable entry Top

2.6 Acoustic noise level<= 50db

**3.0 UPS system**

3.1 Input- Supply voltage V433V, 3ph, 4w, 50hz AC effectivelyearthed

**3.2 Output**

3.2.1 Output voltage 240V, 1ph, 2w, 50hz AC.

3.2.2AC voltage accuracy (steady state) over entire load

3.2.3 Transient voltage regulation % 0.8 at 100% load step

3.2.4 Transient recoveryReturn to steady state condition within50ms after disturbance

3.2.5 Voltage wave form Sinusoidal

3.2.6Range of adjustment of ac outputvoltage% 0.5 at rated load

3.2.7 AC harmonic content % 5 total, 3 for any single harmonic

3.2.8 Phase displacement

3.2.9 Nominal frequency Hz 50

3.2.10 Frequency regulation % 0.5

**4.0 DC link (battery) (Available at site)**

4.1 No. of 100% capacity batteries

4.2 Type of battery cell - SMF

4.3 Battery support time–(Visit & confirm at site)

**5.0 Battery charger (Rectifier unit)**

5.1 No. of units one

5.2 Rectifier unitSilicon rectifier, single phase full wave /three phase full wave

5.3 Type Float cum boost charger

5.4 Recharge time on boost charge Hrs 8

5.5 In rush current

Maximum 25% of full load current

(energizing rectifier transformer with

inverter at no load)

**6.0 Inverter**

6.1 No. of 100% inverters in system one

6.2 Type of power switching device Thyristers / power transistors

6.3 Current capacity As per system requirement

6.3.1 Overload % 125 for 10 min. & 150 for 10 secs.

6.3.2 Short time withstand % 500 for 5 milli seconds.

6.3.3 Over current setting range %100 to 300 of load current, fieldadjustable

6.3.4Synchronizing Between inverters andStandby supplyNot required.

6.4Master / follower synchronizingsystemNot required.

**7.0 Static switch**

7.1 Type Static

7.2 No. of switches one

7.3 RatingEqual to UPS output kVA rating at 0.99pf

7.4 Nominal frequency Hz 50

7.5 PurposeStatic interrupter / static load transfer tostandby regulated supply

7.6 Maximum transfer time Maximum of ¼ cycle

7.7 Short time rating for one sec. % 750

7.8 Whether make before break Yes

**8.0 Circuit breaker**

8.1 For use in ac system

8.1.1 Type MCCB/ MCB / RCBO

8.1.2 Application V/Ph 433, 3ph + N

8.1.3 Quantity Refer Single line diagram

8.1.4Rating – current short time ratingfor one sec.kA

8.1.5 Protection setting range50% to 200 % overload,200% to 800% short circuit release

8.1.6 Operation Manual

8.2 For use in DC system

8.2.1 Type Air break

8.2.2 Application Battery

8.2.3 Quantity 2

8.2.4 Rating (Tenderer to state)

8.2.5 Protection, setting range50% to 200% overload,200% to 800% short circuit releaseA.

**9. Installation Operation Manual shall be furnished and shall include as a minimum the following:**

**1. Safety instructions**

**2. System description, specifications and control**

**3. Installation planning**

**4. Installation and start-up**

**5. Operational guide**

**6. Control panel reference**

**7. Warranty and service information**

**10. Order of preference:**

**10.1 GE,UNICORN ,APC,EPI,SOCOMEC,DELTA,NUMERIC, TECHSER**

 **( 40-42 Ah SMF Battery Make: Exide, Amaron )**

**10.2 Warranty Period :Minimum 3 years for UPS , 2 years for Battery**

# SUPPLY OF UPS

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sl.No** | **Description** | **Qty** | **Rate (Without GST)** | **Amount (Inclusive of GST)** |
| 1. 2. | SUPPLY OF 15 KVA, 0.99 PF,input voltage 390/415V, input frequency 50Hz (+/- 5%), single phase output, output voltage 190/240V in each ph , output frequency 50Hz (+/- 2%), overload 125% for 10 minutes and 150% for 60 seconds UPS with 3ph in 1ph out goings with Isolation transformer, IGBT rectifier & IGBT inverterfor 30 minutes backup (40-42AH SMF batteries ) with stand and interconnecting cables.Buy back of one number 15kVA Supra Make UPS and 16 nos 26 AH SMF batteries | 1 1 |  |  |

(Rupees………………………………………………………………………………………………………………………………….……….. Only)

Date: (SIGNATURE OF THE TENDERER)