

SREE SANKARACHARYA UNIVERSITY OF SANSKRIT, KALADY

No. 12001/ Est3/SSUS/2018
14.02.2019

Date:

TENDER NOTICE

Sealed competitive quotations are invited by the undersigned for the supply & installation of 10 KVA UPS (4 Nos.), 2 KVA UPS (5 Nos.) (under buy back system), 48 batteries to the University with the specifications as detailed below:-

1. 10 KVA UPS - Quantity Required - 4 Nos.

Sl.	SPECIFICATIONS	
1	Capacity	10KVA
2	UPS BRAND PREFERRED	NUMERIC/LEGRAND/APC/EMMERSON/Etc.
3	General	
	Technology	True On-line IGBT based Double conversion UPS (IGBT at both inverter and rectifier) with DSP (Digital Signal Processing) Technology.
	Noise Level	Less than 50 dB
	Operating Temperature	0 - 45 degrees centigrade
	Humidity	10 to 90% non-condensing
	Input current Harmonic Distortio (THD I)	<5% <5% for 100% non-linear load
	Crest Factor	Minimum 3:1 at full load
	Output Wave Form	Sinusoidal
	Cold Start feature	Should be provided
	Active input PF correction	> 0.99
4	INPUT	
	Input	Three phase 415 Volts
	Input Voltage Range	320 V 480 V
	Input Frequency Range	47 to 53 Hz
	Input power at full load (At minimum rated power factor)	Required > .99
5	OUTPUT	
	Output Voltage	230 VAC Single Phase, +/- 1.5% at full load
	Output Frequency	50Hz +/- 0.5%(free running)
6	EFFICIENCY	
	Overall Efficiency	92% or better
	Inverter Efficiency	95% or better
7	STATIC SWITCH (Bi-directional) for all ratings.	Should be provided and should take care of 100% load transfer without break.
8	LOAD POWER FACTOR	Should not be less than 0.9 lagging
9	OVERLOAD CAPACITY	150% overload for 60 seconds in mains 125% overload for 10 Minutes in mains

10	UPS SHUT DOWN	
	UPS should shut down with an alarm and indication on	
	Output over voltage	250 VAC Adjustable
	Output under voltage	200 VAC Adjustable
	Battery low	1.75 V (per cell) for 1 minute
	Inverter over load	130 % for 1 minute
	Over temperature	Should be Provided
	Output short	Should be Provided
11	ISOLATION	
	Isolation of power	Both input & output should have MCBs. Also Battery connection to have MCB/MCCB/ switch.
	Isolation Transformer	At input as built in
	Galvanic Isolation	Should be Provided
	Manual Service Bypass	Should be Provided
12	PROTECTION	
	Short Circuit Protection	MCB/MCCB Should Trip or UPS should shut down without blowing any fuses.
	Input over and under voltage	MCB with Alarm. UPS should be absolutely safe in the case of High Voltage/ High Current/High Spike/High Surges etc at input to the UPS.
	Output over & under voltage	MCB with Alarm. The safety of the load connected to the UPS should be protected under any circumstance.
13	INDICATORS	
	Over Temperature	Provided
	Load on Battery	Provided
	Battery on Charge	Provided
	Input over/under voltage	
	Battery Low (warning and prior Half an hour warning stating Battery is going low)	Provided
	Inverter On	provided
	Inverter tripped	Provided
	Output Over voltage	Provided
	Output low	Provided
	Charger on	Provided
	UPS on Bypass	Provided
14	METERING	
	DC voltage	Provided
	DC Current charge	provided
	Output voltage	Provided
	Output current	provided
	Input voltage	Provided
	Digital Three and Half Digit Frequency Meter	
15	Battery Voltage	288vdc
16	Audible Alarm for Following Conditions:	
	Battery low	provided
	Mains failure	Provided
	Input over/under voltage	provided
	Inverter under voltage	Provided
	Inverter over voltage	provided
	Over temperature	Provided
	Inverter overload	provided
17	Warranty	5 years

2. 2 KVA UPS - Quantity Required - 5 Nos.

Sl.	SPECIFICATIONS	
1	Capacity	2KVA
2	General	
	Noise Level	Less than 50 dB
	Input current Harmonic Distortio (THD I)	<5%
		<5% for 100% non-linear load
3	OUTPUT	
	Output Voltage	230 VAC Single Phase, +/- 1.5% at full load
	Output Frequency	50Hz +/- 0.5%(free running)
4	EFFICIENCY	
	Overall Efficiency	92% or better
	Inverter Efficiency	95% or better
5	Battery Voltage preferred	24 V
6	Warranty	5 Years

Estimate and Specification for Battery

Item	Quantity
12v, 40 Ah, EL Tubular C10 Rated battery. Including battery rack and installation. 5 Years onsite warranty	48 Nos

The last date for the receipt of the tender is 28.02.2019 at 2.00 p.m and will be opened at 3 p.m on the same day presence of tenderer or their authorized representative presented at the time. The cover containing the tender shall be superscribed with "Quotation for supply and installation of 10 KVA and 2KVA UPS" and tender notice number and date. An amount equivalent to 1% of the total quoted value should be deposited as Earnest Money Deposit by DD drawn in favour of Finance Officer, Sree Sankaracharya University of Sanskrit and payable at Kalady.

The interested tenders can visit the University during working days in working hours to inspect and ascertain the value of old 10KVS UPS (4 Nos.) and 2KVA UPS (5 nos.) to be taken back under buyback scheme.

University reserves the right to accept or reject any or all the tenders without assigning any reason whatsoever.

Sd/-
Dr.T.P.Raveendran
Registrar

To

System Administrator - for uploading in the University Website.

Copy to

Notice Board/SF/FC