



Indian Institute of Technology Kanpur  
STUDENTS' PLACEMENT OFFICE



Enquiry No: SPO/2017/UPS/02

Enquiry Date: 2<sup>nd</sup> February 2017

Closing Date: 16<sup>th</sup> February 2017 (Latest by 4:00PM)

Delivery Date: 28<sup>th</sup> February 2017

Sub: Quotation invited for the 10KVA UPS.

SI No	10 KVA UPS	
	Parameter	Required Parameter
1	UPS Ratings KVA / KW	10 KVA /9 kw
2	Back-up	One Hour Backup time
3	Battery Type /Make	VRLA SMF of Amara Raja/Rocket/ Exide or eqv.
4	UPS Model No. Offered	to be mentioned by vendor
5	Input/Output Phases	Three Phase with ground/ Single Phase + N
6	Technology	True on line UPS with Double Conversion, VFI Technology
7	Paralleling	Parallelable upto 4 units (Required for future expansion of load)
8	<b>Rectifier Section</b>	
9	Technology	Fully DSP Based Active Front End IGBT Rectifier.
10	Input voltage	110V~276V
11	Input Power Factor	0.99 @ full restive load
12	Input frequency	45-55 Hz
13	Input Current THDI	<=5% with R full Load
14	DG Set Requirement	Should not be more than 1.25 times
15	<b>Inverter Section</b>	
16	Technology	Microprocessor / DSP based PWM - IGBT based Technology
17	UPS output Power factor	10 KVA/9KW
18	Output voltage rating	208/220/230/240 V - Selectable



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19	Output voltage regulation	$\pm 1\%$ - 100% linear load condition
20	Output Frequency	$\pm 0.5$ hz or better (free running mode)
21	Overload Capacity	$\leq 100$ -110% for 5 minutes $\leq 110$ -130% for 1 min
22	Output harmonic distortion (Ph/N)	2% THD maximum for a 100% linear load.
23		5% THD maximum for 100% non linear load.
24	Crest Factor	3:1 minimum
25	<b>Battery</b>	
26	Type /Make	VRLA SMF of Amara Raja/Rocket/ Exide or eqv.
27	Battery Placement	Suitable Battery Rack and Accessories provided for battery interconnections and UPS to Battery connections etc
28	Battery AH rating & Quantity	12V*24Nos.
29	End of Battery discharge Voltage for battery calculation	1.7 to 1.75 V / cell
30	<b>Bypass</b>	
31	Automatic integral bypass	The integral bypass performs an automatic transfer of the critical load from the inverter to the bypass, in the events of overload, over temperature, or inverter failure conditions with zero transfer time.
32	<b>General</b>	
33	Acoustical Noise @ 1 Meter	Less than 55 dB @ 1 metre
34	Output wave form	Pure sine wave
35	Display and control	
36	Metered parameters	Input AC voltage
37		Input AC Current
38		Input AC frequency
39		Output AC voltage
40		Output AC current
41		Output frequency / voltage



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42	Audible Alarms	Required
43	ECO Mode / High Efficiency Mode	Required for improving Efficiency to upto 98%
44	Efficiency (Normal Mode)	upto 94% @ full load and battery fully charged.
45	Monitoring ON LAN	SNMP card to monitor UPS over LAN / WAN is required. Environmental Monitor Probe kit is required alongwith Web/SNMP Card to monitor Temperature of UPS Room through SNMP Software.
46	Warranty	As per OEM
47	Standard Ports required in UPS	Communication Ports (1) RS-232, (1) USB, (1) EPO - Emergency Power off contact required in UPS to switch off UPS remotely in event of emergency.
48	Other Communication Options	MODBUS Card , RELAY CARD
49	Certifications	RoHS EMC Compliance : IEC 62040-1 Quality: ISO 9001: 2000 and ISO 14001:1996

**Terms & Condition:**

1. Quotation must be valid for 3 months.
2. Payment shall be made after delivery and satisfactory report from the user.
3. The rates and taxes, if any should be clearly specified.
4. Warranty & servicing should be properly mentioned in the quotation.
5. The indenter reserves the right to withhold the work order and change the specification without any notice.
6. The quotation should reach to Chair SPC, 109 Outreach building, IIT Kanpur ~ 208016 by 4PM on 16<sup>th</sup> February 2017.
7. The authorization certificate should be attached.

Sincerely Yours,

(Dr. Syam Nair)  
Chair, SPC