

Technical Data Sheet of 125/150KVA hot-swappable modular UPS (N+1 Redundancy) with 2string of battery banks for 15 mins backup.

S.No	Description	Specifications	Compliance Statement
1	Topology	Ture ON-Line, Double Conversion, Hot-Swappable Modular UPS (N+1 redundancy)	
	Make		
	Model		
2	Modular System		
	Frame Size	125/150kVA	
	Populated	60kVA (N+1 Redundancy)	
	Each Module Rating(N)	20KVA or 25KVA or 30KVA	
	Hot-Swappable Facility	Module should be On-Line Hot-Swappable without transferring the loads to By-Pass arrangement	
	Maintenance Bypass	Should be Inbuilt arrangement	
	Controller	Each Module shall have individual controller	
	Quoted UPS Model	Please mention (need to submit the catalog)	
3	INPUT		
	Rectifier	3-phase, IGBT Based system	
	Input Voltage Range (Ph-Ph)	400 V AC, \pm 15%	
	Input Frequency Range	50 Hz, \pm 10%	
	Input Current Harmonics (THDi)	< 3 % at rated load (without using additional Filters)	
	Input Power Factor	> 0.99 from 50% to 100% of nominal load	
4	OUTPUT		
	Inverter	3 Level IGBT Technology	

	Nominal Voltage	415 3Ph+N+PE	
	Output Voltage Variation (Static)	+/- 1%	
	Frequency	Synchronized with input frequency or + 1% free run	
	Output Power kVA/KW	60 KVA/KW	
	Output Power Factor of UPS	Unity	
	Over load capacity	125% of rated load for 10 min 150% for 60 Sec with no bypass intervention	
	Total Harmonic Distortion (Voltage)	Less than 0.5% for linear load Less than 1% for non-linear load	
	Current Crest Factor	3:1 accordingly with IEC EN62040-3	
	Wave form	Pure sine Wave	
5	Bypass		
	Inbuilt Automatic Static Bypass	Required as built-in	
	Maintenance/Manual Bypass facility	Required as built-in	
	Switches Required	UPS should have Switches for Input, Output and Bypass	
6	EFFICIENCY		
	Overall Efficiency	96% or More	
7	Display	User friendly 10 inch Touch Screen Display required	
	Measurements	The following Parameters shall be measured from the Display	
	Input		
	Current:	RMS value, Peak value, Peak Factor	
	Voltage:	Ph-N RMS value, Ph-Ph RMS value, Bypass Line Voltage	
	Power:	Nominal (VA), Active (W), Power factor, Frequency	

	Output		
	Current:	RMS value, Peak value, Peak Factor	
	Voltage:	Ph-N RMS value, Ph-Ph RMS value, Bypass Line Voltage	
	Power:	Nominal (VA), Active (W), Power factor, Frequency	
	Batteries	Battery Voltage, Charging Current, Discharging Current, Residual Capacity, Battery Operation time	
	DATA LOG	Number of bypass interventions, Thermal protection interventions with date and time, Overloads, Number of Battery commutations, Number of total discharges, Overall time of Battery operation and mains operation	
8	BATTERY	2 Battery banks (one redundancy) connected to UPS shall be designed to provide at least 15 minutes back-up at full load. The UPS module should be automatically disconnected when the battery reaches the set minimum discharge voltage level or when signaled by other control functions. The tenderer shall provide detailed calculation sheets in support of the battery selection.	
	Backup required	15 min Backup for 60 kVA full load	
	Battery Bank Capacity in VAH	Plz specify	
	No of Batteries strings & batteries	2 string (1 redundancy) & No.s	
	Batteries Make & Model	Amaron Quanta	
	Battery Housing	Suitable Rack for batteries for the UPS frame size in order to increase the battery capacity in future	
	Cold Start Push Button	UPS must be able to be start up without the input mains, just using batteries	
9	Communication interface		

	Simple Network Management Protocol (SNMP)	Required for Remote management / monitoring of the UPS/Email alert provision	
10	Environmental		
	Operating Temperature	0 - 40 Deg C	
	Humidity	20 - 95% (non-condensing)	
	Ingress Protection Code / rating	IP-20	
11	Approved UPS Makes	Eaton / Vertiv /Legrand	
12	Certifications & Standards		
	Safety	EN 62040-1	
	EMC/EMI	EN 62040-2	
	Performance	IEC 62040-3	
	UPS Dimension (l x b x h) in mm	Please fill the details of the offered product	
	Battery Dimension (l x b x h) in mm	Please fill the details of the offered product	
	Weight of UPS in Kg	Please fill the details of the offered product	
	UPS Manufacturer's own Service center	Should be available locally	
13	Warranty for UPS & Batteries	5 years comprehensive warranty for the UPS and 2 years warranty(min) for the battery from the date of installation	
14	Factory Pre Dispatch Test	Mandatory. All arrangements are to be arranged by the supplier for IISER officials.	