

Technical Specifications for NEW N 6kVA UPS System

Sr.No	Specifications	6KVA
1	Capacity (in kVA / kW)	6kVA/6kW 1-Phase Input / 1-Phase Output
2	Technology and Capability	
2.1	Online Double Conversion	True Online configuration with double conversion UPS & Zero transfer time.
2.2	DSP Based System	DSP based control with advanced technology.
2.3	Wide Input voltage Range	Wide Input voltage range from (100 ~ 280VAC)
2.4	Auto Restart & Battery Independent	Auto restart capability with the Independent battery bank operation of the UPS.
2.5	Designed Power Factor 1	UPS should be designed at Rated PF of 1 6kVA/6kW UPS rating.
2.6	Generator & Cold start compatibility	Generator compatibility with cold start and AC start features.
2.7	Fully Rated Power (kVA=kW)	Fully rated power (kVA=kW) for maximum power availability.
2.8	N+X Upto 4 Systems	Possibility of enhancing UPS capacity / redundancy by operating UPS in N+X Parallel.Redundant Configuration upto 4 units.
2.9	PFC & Inverter Based Technology	UPS should have topology for both PFC (power factor correction) & inverter based technology.
3	Model Name & Number	
3.1	6kVA /6kW	Make / Model / Part No to be specified by the vendor
4	Input	
4.1	Input facility -Phases / Wires	Single-Phase / 2-Wire & Gnd (1Phase & Neutral + Ground)
4.2	Nominal Voltage	200/208/220/230/240 VAC
4.3	Nominal Voltage Range	200/208 (de-rating to 90%) : 100VAC~280 VAC 220/230/240 : 100Vac~280 VAC
4.4	Nominal Input Frequency	50/60Hz ± 10Hz (Auto Selectable)
4.5	Input Frequency Range	40 to 70 Hz
4.6	Input Power Factor	> 0.99(full load)
4.7	Generator Compatibility	Compatibility to genset supply required
4.8	Input Protection	Should be provided at the input of the UPS suitable for the full rated capacity of the UPS.
5	Output	
5.1	Nominal Output voltage	200/208/220/230/240 VAC
5.2	Output Voltage Regulation	± 1% for linear load
5.3	Nominal Output Frequency	50/60Hz ±0.05 Hz
5.4	Output Frequency Regulation	± 0.1Hz
5.5	Output Frequency Slew Rate	< 1Hz/sec
5.6	Output Wave Form	Pure sine wave

5.7	Output Voltage Distortion (THDu)	< 3% for linear load.
5.8	Crest Factor	3:1 On Full Load (Minimum)
5.9	Output Short circuit Protection	Electronic Protection
6	Transfer Time	
6.1	Transfer Time (Mode of operation)	Zero ms from Mains mode to Battery Mode Zero ms from Battery Mode to Mains mode
6.2	Transfer Time (Inverter to Bypass / Bypass to Inverter)	2~4ms
6.3	Automatic Bypass switch	UPS should be capable of automatic change.
7	Efficiency (At Nominal Voltage & Resistive Load up to kW rating of UPS)	
7.1	Overall Efficiency (AC to AC) - Online (Double Conversion)	Upto 95%(on 100% load)
7.2	ECO Mode Efficiency	98%
8	Overload	
8.1	Inverter Overload capacity	<105%for Continuous,<105~<125for 2Min,<125~<150for 30Sec

9	Display Panel (In-build LC Display & LED)	
9.1	Measurements (On LCD)	Input: Voltage & Frequency, Bypass: Voltage & Frequency, Output: Voltage, frequency, Kilowatt & kVA, Battery: Remaining time & Battery Level Indicator, Load Percentage & Load Level Indicator, Ambient temperature.
9.2	Fault Indication (On LCD)	Abnormal I/P, I/P Fuse blown, Rectifier Abnormal, BUS start abnormal, Battery start abnormal, BUS start abnormal in battery mode, +BUS voltage too high & low, -BUS voltage too high & low, Inverter O/P voltage abnormal, Overload shutdown, Charge voltage too high, Damaged Batteries, Battery missing, Battery voltage too low & Over temperature Protection.
9.3	Indications (LED)	Green & Red (For output & Fault)
9.4	Setable data through (LCD)	Inverter Voltage, Inverter Frequency, Frequency converter, ECO Mode, Overload alarm, Buzzer, Charging current, Battery Capacity, Battery String & Parallel ID
10	Alarms	
10.1	Audible Alarms	Replace Battery, Overload warning & shutdown, High Temp, Low Battery, High Temp warning & shutdown
11	Battery Backup / Battery Bank & Charger	
11.1	Backup Required	Depends on the capacity of internal battery.
11.2	Battery Bank Voltage	192 - 264VDC (adjustable)
11.3	Batteries Type	Sealed Maintenance Free (SMF) - 12V Cells, VRLA, GEL
11.4	Battery Makes	Amara Raja / Exide
11.5	Number of Battery Banks	Single Bank system.
11.10	Battery Housing (Vendor to provide the GA drawings of the offered Battery Rack)	Should be compact and space saving MS steel open racks complete with interconnectors
12	Restart / Testing Capability	
12.1	Cold Start	UPS should start up On AC Supply (Mains) without DC Supply (Batteries) On DC Supply (Batteries) without AC Supply (Mains)
12.2	Automatic Restart	UPS should start up automatically on mains resumption after battery low shutdown
12.3	Self Diagnosis	UPS should be capable to carry out self test of Rectifier / Charger / Battery & Inverter module during start-up

