11.30KVA ONLINE UPS WITH 1 HOUR BACKUP WITH INSTALLATION

Sl.No.	Items	Specifications
1.	**Technology**	**True On line Double conversion IGBT based Rectifier and IGBT based Inverter.**
		Input & output EMI Filter to be provided
		Galvanic Isolation Transformers should be provided for both Bypass Supply and input supply independently.
2.	**Input**	
2.1	Rated voltage	400 VAC three-phase + N
2.2	Voltage Range	± 20%
2.3	Frequency Range	45 - 65 Hz
2.4	Power Factor	> 0.9
2.5	Harmonic Distortion	<5%
3.	**By Pass**	
3.1	Static Bypass switch	A Build in static transfer switch shall be provided as integral part of the UPS
3.2	Rated Voltage	400 VAC
3.3	Number of Phases	3 + N
3.4	Permitted voltage range	± 15% (selectable from ± 10% to ± 25% from front panel)
3.5	Rated Frequency	50Hz
3.6	Permitted Frequency Range	± 2% (selectable from ± 1% to ± 5% from front panel)
3.7	Transfer Time	0 ms
4.	**Batteries**	
4.1	Type	Sealed Maintenance Free VRLA
4.2	Backup Time	60 mins.
4.3	Battery Make	Exide Power Safe
4.4	DC Bus Voltage	384 V or more
4.5	Total VAH	**38000 VAH or more on each UPS**
4.6	Recharge Time	4-8 Hrs.
4.7	Temperature Control & Battery Charging	The system should compensate for any variations in temperature while recharging the batteries. The recharge voltage should be temperature depended
4.8	Automatic Battery Test	The UPS should carry out battery tests automatically.
5.	**Output**	
5.1	Active Power	Should be 24 KW (30 KVA)
5.2	Number of Phases	3 + N
5.3	Rated Voltage	380 – 400 – 415 (selectable)
5.4	Crest Factor (Ipeak/Irms)	3 : 1
5.5	Waveform	Sinewave
5.6	Static stability	± 1%
5.7	Dynamic Stability	± 5% in 5 ms
5.8	Frequency	50/60 Hz selectable
5.9	Overload	110% for 5 Hrs., 125% for 10 mins., 150% for 1 min.
6.	**Protection**	
6.1	Back Feed Protection	The back feed protection should be installed in series with bypass SCRs.
6.2	Normal Protection	Input, output, rectifier input, battery fuse, bypass fuse, short circuit etc. Thermal on system, rectifier, bypass and inverter. Protection against profound battery discharge
7.	**Environment**	
7.1	Dimension (HWD)	**Indicative UPS dimensions should be - 1500 mm x 700 mm x 900 mm**
7.2	Operating Temp.	0 – 40º C
7.3	Relative Humidity	<95% non condensing
7.4	Noise	<60dBA at 1 m
7.5	Protection Rating	IP 20

8.0	**Display and Software**	
8.1	List of the information output on the LCD Display	Input Voltage Input Frequency Input Power By-pass Voltage By-pass Frequency Output Voltage Output Frequency Output Power Output Peak Power Battery Voltage Battery Peak Pulse Current Battery discharge current Inverter Input Voltage Internal temperature (system / converter / Bypass/ Inverter/ magnetic Components) Inverter Operation Time By-pass operation time Battery Operation Time No. of battery interventions No. of complete discharges Date of first activation
8.2	Commands	Battery Test Display Contrast By-pass Off End discharge pre-alarm System Off
8.3	Customization	Output Voltage Output Voltage Compensation Batteries Line – interactive operating mode End discharge pre-alarm Auto off By-pass voltage tolerance By-pass frequency tolerance Modem
9.	**Efficiency**	
9.1	Inverter Efficiency	95% or better
9.2	AC/AC Efficiency	91% or better
10.	**Other Important Points**	
10.1	Reliability of the System	The total system (Charger & Inverter section) should be controlled by redundant microprocessor system. If a fault should occur to either of the microprocessors, the power supply to the protected load should not be interrupted
10.2	Self Diagnostics	Event log with minimum 125 messages, measurements & alarms should be available from the front LCD
10.3	Auto Restart Facility	The UPS should be configured to automatically restart after a mains supply failure or after the batteries have become fully discharged
10.4	Standards	The system should comply the following safety & International standards: EN 62040-1, EN 62040-2 & EN 62040-3 ISO-14001, EN 50091-2,EN,IEC 61000-3-2,IEC 61000-3-3.
10.5	Certification	**ISO 9001,ISO 14001**
10.6	Remote Management	SNMP card required for remote management.