Sr No	TATA Memorial Centre		
	ACTREC		
	30KVA 3-PHASE ONLINE HI-PULSE UPS		
	TECHNICAL SPECIFICATIONS	**Quantity**	**Compliance**
	30 KVA UPS System: complete as per below mentioned configuration and specifications:-	01 No	
	Equipment should be designed with state-of-the art technology. It should be designed for totally reliable and unattended operation.		
	It should be a vertical (Tower) model having compact footprint with robust design, unmatched high performance in regulating output voltage, current and frequency. At the same time it should be easy to operate and maintain.		
	Equipment should be suitable for Analytical equipment load.		
	Equipment should be forced air-cooled with cooling fans.		
	Equipment supplied should be "ready to use". Complete system should be supplied including main equipment, essential accessories, adequate numbers of SMF batteries, stand for batteries, input-output connecting cables, etc.		
	Equipment should have safety stop-motions, self-diagnostic features and alarms for safe and interactive operation.		
	Mounted on castors.		
	Input and Output requirements:		
	UPS system should be " True on-line double conversion UPS system".		
	It should have three phase input and three phase output with neutral.		
	30000 VA/27000 Watt or better		
	UPS should be DG Set compatible.		
	Input voltage range : 350 - 450 volt-3 phase, 4 wire		
	Input frequency range should be from 45 Hz to 55 Hz.		
	Output voltage should be: 350 - 450 volt, 3-phase, 4 wire with neutral		
	Output voltage regulation error should be +/-1.0% .		
	Output frequency should be 50Hz +/-0.1% or better. It should be constant irrespective of input supply /frequency conditions.		
	Total harmonic voltage distortion: 2 % or less for linear load.		
	Input Power factor should be at least 0.90 or better.		
	Output efficiency- online mode: 95 % or better		
	Overload capacity should be at least 150% of full load for 1 min.		
	Desirable crest factor (tolerance) should be 3:1.		
	UPS desirable make: APC/Vertiv(Emerson), Model- Liebert Hi-Pulse-U or equivelent model		
	BATTERIES: 12V, 64AH SMF for 1 hrs backup and these battery should be competible with the above UPS	**34 Nos**	
	All battery should be with suitbale copper interlinks for interconnection with proper lugging, colour coding, ferrualing etc		
	Battery desirable make: Exide/Amron/AmaraRaja/		
	MS Stand: for all Batteried and UPS housing and MS angle stand should be pre-coated and this stand to be fabricated as per acutal site space availabe at site.	**01 No**	
	Electronics:		
	UPS should incorporate "state of the art" technology for switching and control.		
	It should incorporate "IGBT PWM" inverter with high switching frequency.		
	UPS should be RS-485 connectivity		
	Noise level should be less than 40 dB (at 1 Meter distance).		

UPS should be absolutely quiet in operation. No audible high frequency noise should be generated from UPS while in operation.(at no load as well as at full load)		
Output voltage should be clearly displayed on front panel using bright LCD display. It should also display UPS status like mains ON/OFF, Inverter ON/OFF, Malfunction indication, etc. Keys/keypad for parameter selection.		
Batteries should be charged in float/boost mode. CC/CV charging desirable.		
Charger output voltage should be regulated and should be uninfluenced by changes in output load.		
Isolation and bypass:		
Inbuilt " Galvanic Isolation transformer "should be incorporated at the output side in the system. Provide confirmatory literature in the technical bid.		
Requirement for built-in static bypass and maintenance bypass.		
Back-up time and batteries:		
System should provide backup of 60 minutes at full load of 30 KVA. External battery bank should be supplied.		
Batteries used should be Sealed Maintenance Free (SMF) type of reputed make with rating of 12V 65AH with suitable Ampere-hour rating for 60 minutes backup at full load . Adequate number of batteries catering to 60 minutes backup at full load should be supplied.		
Batteries should be mounted on separate stand. Separate tower type MS Battery rack should be supplied. Battery rack should have 3-4 shelves for placement of batteries in 3 to 4 rows. Insulating sheets should be provided below the batteries.		
Battery stand should be sturdy to withstand load of batteries. Stand should not bend after batteries are installed.		
Wiring and links required for battery Interconnections should be supplied along with batteries.		
Battery stand should have a provision to fix ground wire.		
Provide details of battery make, number of batteries, rating of batteries offered in the technical bid. Provide calculation for basis of battery rating selection		
After Sales Service Support:		
Manufacturer should have its authorised service provider's office located in Mumbai /Navi Mumbai /Thane area. Service provider should have adequare strength of service personnel trained on servicing and maintenance of the quoted model. Bidder should provide address of the authorized service centre and details of number of personnel with training credentials.		
Installation, Commissioning, testing and Training:		
Supply, Instaaltion, Testing & Commissioning of 30KVA Online Hi-pulse UPSU with 12V, 65AH Batteries (34Nos.) includes supply of suitable power cable from nearby power supply to UPS incomming supply, UPS outgoing supply to nearby load power DB, copper inerlinks for all battery interconnection, battery stand of MS angle with pre-coated for UPS and 34 Nos. Battery (MS stabd to be fabricated as per acutal site space), all necessary acceessaries required for this system should be supplied by supplier/vender only, unpacking and Shifting the consignment to the installation site is to be included in the scope of suppier/vender. Bidder/manufacturer/authorized service provider should take responsibility to lift/shift the consignment from unloading site to the installation site . Unloading site shall be "Stores Department, KS Building, ACTREC Campus". If needed, Bidder has to arrange for the laborers at no charge to ACTREC. (Before submitting the quotation, bidders may visit ACTREC to know unloading site and installation site)		
Installation,Commissioning and Training is included in the scope of supply. Bidder, Manufacturer and/or its authorized representative should undertake installation and commissioning of the equipment. Complete system should be installed, tested for its performance as per manufacturer's SOP/guidelines and demonstrated to the Institute's Users. In depth training should be provided to the Institute's users for maintenance,usage and applications.		
Warranty: 2 years comprehensive-on site- Factory warranty-(incl. of parts and labour) for entire equipment, Electronic Controller. All third party major items, accessories/attachment etc. integrated with the system should also cover 2 years -factory warranty from respective manufacturers. Batteries should be covered 2 years of warranty		
Preventive maintenance visits as per manufacturer's recommendations should be undertaken by the bidder, manufacturer or by Authorized service provider during the warranty period, in addition to the breakdown / service calls.		
Quote for the following items:		
CMC cost for the period of 5 years-post warranty.		