

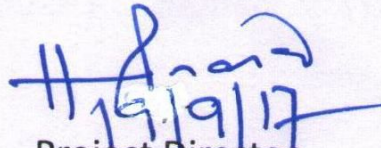
DEPARTMENT OF SCIENCE AND TECHNOLOGY
BIHAR COUNCIL ON SCIENCE & TECHNOLOGY
INDIRA GANDHI SCIENCE COMPLEX-PLANETARIUM, PATNA-800001
Website:-<http://dst.bih.nic.in> / www.bcst.org.in

CORRIGENDUM

Ref :-PR No:-6477(Science & Tech) 2017-18

All the interested bidders are hereby informed that vide PR-No:-6477(Science & Tech) 2017-18, Project Director, Bihar Council On Science and Technology, Department of Science And Technology, Govt. of Bihar invited tender for supply and installation of 60KVA online UPS at Indira Gandhi Science Complex-Planetarium, Patna ,Bihar. In view of suggestions received some clarification/corrigendum has been made in the specification of battery item No-02(1.4) (Battery Unit) has been omitted.

Concerned clarification/corrigendum can be viewed on the website- <http://dst.bih.nic.in> or www.bcst.org.in. All the interested bidders are requested to visit the above site for any further information. Due to unavoidable reasons the last date of submission of bid document has been extended from **20.09.2017 to 04.10.2017**. Rest terms and conditions shall remain same.


Project Director
BCST, PATNA

बिहार सरकार विज्ञान एवं प्रावैधिकी विभाग
इंदिरा गॉधी विज्ञान परिसर-तारामंडल
बेलीरोड, पटना-800001
अल्पकालीन निविदा आमंत्रण सूचना

विषय:- इंदिरा गॉधी विज्ञान परिसर-तारामंडल, पटना के लिए 60 के0बी0ए0 ऑनलाईन यू0पी0एस0 आपूर्ति करने के संबंध मे।

इंदिरा गॉधी विज्ञान परिसर-तारामंडल में शो संचालन हेतु अबाधय रूप से विद्युत आपूर्ति के लिए 60 के0वी0ए0 का S M F बैट्री के साथ निम्न गुणवत्ता वाले आनलाईन यू0पी0एस0 प्रतिष्ठित संस्थानों से आपूर्ति हेतु निविदा आमंत्रित किया जाता है।

Technical Specification of 60 KVA On-line UPS System

SL.NO	DESCRIPTION	SPECIFICATION
01.	UPS capacity	60 KVA
1.1	Backup time	One hour
1.2	Technology	IGBT on the input and output with Digital Signal Processor controlled Microprocessor based for the following a. Rectifier/Charger b. Battery management. c. Inverter d. Static Switch
1.3	UPS type and configuration	True On-Line, Double conversion With IGBT design at Input & output side UPS should have isolation Transformer Either built-in or external in a cubicle.
1.4	Rated output	60KVA/ 48 KW
1.5	Power factor at full load	>0.99
1.6	Input factor at 50% load	>0.98
1.7	Input current THDI at full load	</=4%
1.8	Input current THDI at 50% load	</=6%
1.9	Input	
1.10	Voltage	390/400/415 VAC 3 Phase N
1.11	Voltage tolerance	± 20%
1.12	Frequency	50/60 Hz
1.13	Frequency tolerance	± 10%
1.14	Input Current at full load	76A per phase at 400V nominal.
1.15	Input Power Factor	>0.85
1.16	Back-feed protection	Available.
1.17	Rectifier/Charger	
1.18	Type of rectifier used	IGBT based DSP controlled Rectifier
1.19	Duration in which totally	8-10hrs

		discharged batteries are to be recharged	
1.20		DC Current	According to UPS Vendor design.
1.21		Nominal Dc Voltage	
		(i) Minimum DC Voltage.	1.75 per cell
		(ii) Maximum DC Voltage	2.25 per cell
1.22		Ripple voltage at full load	< 1%
1.23		Efficiency of rectifier	>/=98%
1.24		Battery charger features	
		(i) Type of charging circuit.	Constant Voltage Constant Current.
		(ii) Battery status monitoring facility	LCD display at front panel.
		(iii) Battery protection circuits.	Battery MCCB provided.
1.25		Inverter	
1.26		Technology of inversion	IGBT based PWM design with DSP controlled.
1.27		Output	
1.28		Voltage	400 VAC, 3phase, 4 wire Settable.
1.29		Output voltage regulation	
		(i) Balanced load	+1% (Static)
		(ii) Unbalanced load	+3% for 4wire system (Dynamic)
1.30		Output Frequency	50/60 HZ selectable
1.31		Output Frequency range	± 0.5Hz
1.32		OutPut Frequency synchronising range With Bypass	±2HZ
1.33		Transient voltage regulation for	±5%
1.34		0 to 100% and vice versa	
1.35		Recovery time	<20m.sec
1.36		Wave form	Sinusoidal
1.37		Crest Factor	3:1
1.38		Harmonics:	
		(i) Total harmonic distortion at 100% linear load	<1%
		(ii) Total harmonic distortion at 100% Non linear load	<3%
1.39		Phase displacement:	
		(i) Balanced load	120+- 1 deg. Electrical
		(ii) 100% Unbalanced load	120+- 2 deg. Electrical
1.40		Overload	150% for 1min 125% for 10mins 110% for 60 mins
		Power loss at 100% load	3.6 KW

		Neutral current & conductor size	1.5 times of Phase current.
	1.41	Manual Bypass:	
		(i) Optional/Standard	Standard.
		(ii) Transfer time	0 m sec.
	1.42	Efficiency	Without transformer loss.
		(i) At Full load	>/=92.5%
		(ii) At 75% load	>/=93.0%
		(iii) At 50% load	>/=93.0%
		(iv) At 25% load	>/=90.0%
	1.43	Environmental conditions	
		(i) Temperature (design ambient)	0-40 deg C
		(ii) Relative humidity	95% RH
		(iii) Acoustic Noise measured at 1	<60Dba
	1.44	Mt distance	
	1.45	UPS Status display- LCD Screen	Available.
	1.46	Event logging	Available.
	1.47	Network Communication through SNMP Card Required	SNMP Card Required
	1.48	Protection	
	1.49	Overload	Available.
	1.50	Short circuit	Available.
	1.51	Input low voltage	Available.
	1.52	Output over voltage	Available.
	1.53	Battery over charging	Available.
	1.54	Battery over discharging	Available.
	1.55	Physical	
	1.56	Construction	Compact and modular design
	1.57	Ventilation	Forced Air cooling
	1.58	Reliability	>99.5%
	1.59	MTBF	2,50,000 hrs
	1.60	Warranty	2 Years.
02		BATTERY	
	1.1	Battery VAH	144000
	1.2	Battery make	(i) Exide
			(ii) Amoron
			(iii) Tata Green
	1.3	Battery Type	Maintenance Free
	1.4	Charge Voltage	540 V DC
	1.5	Deep Discharge Voltage	420 V DC
	1.6	Battery Charge Time	8 hrs to 90% capacity after discharge.
	1.7	Warranty	2 Years.