



UNITED INDIA INSURANCE COMPANY LIMITED
INFORMATION & TECHNOLOGY DEPARTMENT
REGIONAL OFFICE, JAIPUR

Corrigendum -2

Date: 20.03.2020

Re: Amendments / Modifications in Annexure VII - Technical Specification for UPS of Tender Document for "Supply of 11 Nos. Of Online Uninterrupted Power Supply (UPS) Systems without batteries"

This is further reference to our tender for "**Supply of 11 Nos. Of Online Uninterrupted Power Supply (UPS) Systems without batteries**".

All bidders are advised to bid as per modified Annexure VII.

Annexure VII – Technical Specification for all UPS are attached below:

MINIMUM TECHNICAL SPECIFICATIONS FOR 1KVA ON-LINE UPS

DESCRIPTION	REQUIREMENT
Capacity	1 KVA online UPS with inbuilt isolation Transformer and 2 KVA Servo Stabilizer (UPS OEM Make only) to be supplies at UPS input with voltage range of 150V-280V +- 2%. Min. VAH required for Backup : 2300.
Technology	PWM IGBT
Switching Frequency	12 KHz or more
A. AC INPUT	
1. Voltage	160V - 260 V AC, 1 Phase
2. Frequency	(50 +/- 6%) Hz
3. Power Factor	Greater than 0.8
B. AC OUTPUT	
1. Voltage	230 V(single phase)
2. Regulation	+ / -1% nominal for any of the following conditions a) No load to full load b) 0.8 lag or higher c) Minimum to maximum DC input voltage
3. Frequency	50 Hz + /- 3Hz in mains synchronized mode 50 Hz + /- 1% in battery mode
4. Current	As per the UPS system's rating at 0.7 p.f. load
5. Load Power Factor	0.8 lag
6. Waveform	Sine Wave
7. Total Harmonic distortion	Less than 5% (For non-linear loads)
8. Audible noise	Less than 60 Db
9. Transient response	less than 20 m sec
10. Transient recovery	Up to + / -1% of nominal voltage within 60 m. sec.
11. Over load	150% of rated load for 10 sec. 110% of rated load for 10 minutes
12. Efficiency with Active power factor correction	Inverter – 90% and more Charger – 90% and more Overall – 80% and more
13. Ripple on DC	Less than 2%
14. Compatible with High Crest Factor Loads	03:01
C. BYPASS	
1. Manual	Yes
2. Static Switch	Static bypass
D. PROTECTION & CONTROL	
A. Rectifier	D.C. over/under voltage trip Input under/over voltage trip
B. Inverter	High speed DC over current Output under/over voltage trip Output Overload Output Short Circuit
E. ALARMS	
	With reset push button for Mains failure Battery low UPS trip Inverter overload

F. LIST OF SWITCHES/CONTROLS	Inverter push button with reset
	Mains MCB / Resettable Breaker
	Static Switch push button reset (Load transfer on Inverter)
G. METERING	One digital meter/ LCD Display showing the following through a selection mode controller push button
	Input Voltage
	Input Frequency
	Output Voltage
	Output Frequency
	DC Voltage
H. INDICATIONS	
	Mains ON
	Mains Over voltage
	Mains Under voltage
	Battery Low
	Inverter ON
	Inverter Fault
	Load on By-pass
	Inverter Overload
I. ENVIRONMENT	Ambient Temperature – 0 to 45 degree centigrade
	Operating 10 deg. C to 50 deg. C
	Storage 20 deg. C to 70 deg. C
	Humidity up to 95% (RH non-condensing)
J. BATTERY	UPS should be compatible 12 V with 42 AH AND 65 AH AND 100AH SMF Batteries.
	A suitable battery cabinet matching the VAH and Battery Make quoted to be provided.
K. COMPUTER INTERFACE	RS 232 Port with Auto save software for WINDOWS 95/98/2000/XP and WINDOWS NT/Windows 2003 Server Platforms.

Note :

1. Guarantee period: 3 years for UPS from the date of installation
2. Battery Charger Capacity as mentioned below
12 V 42 AH - 3 AMP to 4.2 AMP
12 V 65 AH - 5 AMP to 6.5 AMP
12 V 100 AH - 7.5 AMP to 10 AMP

MINIMUM TECHNICAL SPECIFICATIONS FOR 3KVA ON-LINE UPS

DESCRIPTION	REQUIREMENT
Capacity	3 KVA online UPS with inbuilt isolation Transformer and 5 KVA Servo Stabilizer (UPS OEM Make only) to be supplied at UPS input with voltage range of 150V-280V +/- 2%. Min. VAH required for Backup : 6000.
Technology	PWM IGBT
Switching Frequency	12 Khz or more
A. AC INPUT	
1. Voltage	160V - 260 V AC, 1 Phase
2. Frequency	(50 +/- 6%) Hz
3. Power Factor	Greater than 0.85 lag
B. AC OUTPUT	
1. Voltage	230 V(single phase)
2. Regulation	+ / -1% nominal for any of the following conditions a) No load to full load b) 0.8 lag c) Minimum to maximum DC input voltage
3. Frequency	50 Hz +/- 1%
4. Current	As per the UPS system's rating at 0.8 p.f. load
5. Load Power Factor	0.8 lag
6. Waveform	Sine Wave
7. Total Harmonic distortion	Less than 5% (For non-linear mode)
8. Audible noise	Less than 60 Db
9. Transient response	less than 20 m sec
10. Transient recovery	Up to + / -1% of nominal voltage within 20 m. sec.
11. Over load	150% of rated load for 60 sec. 125% of rated load for 15 minutes 110% of rated load continuous (Rating to be maintained during battery operation also)
12. Efficiency with Active power factor correction	Inverter – 90% and more Charger – 90% and more Overall – 80% and more
13. Ripple on DC	Less than 2%
14. Compatible with High Crest Factor Loads	Not less than 3

C. BYPASS	
1. Manual	Yes
2. Static Switch	Inbuilt Static bypass
D. PROTECTION & CONTROL	
A. Rectifier	D.C. over/under voltage trip Input under/over voltage trip
B. Inverter	High speed DC over current Output under/over voltage trip Output Overload Output Short Circuit
E. ALARMS	With reset push button for Mains failure Battery low UPS trip Inverter overload
F. LIST OF SWITCHES/CONTROLS	Inverter push button with reset Mains MCB / Resettable Breaker Static Switch push button reset
G. METERING	One digital meter /LCD Display showing the following through a selection mode controller push button Input Voltage Input Frequency Output Voltage Output Frequency DC Voltage
H. INDICATIONS	Mains ON Mains Over voltage Mains Under voltage Battery Low Inverter ON Inverter Fault Load on By-pass Inverter Overload
I. ENVIRONMENT	Ambient Temperature – 0 to 50 degree centigrade Operating 10 deg. C to 50 deg. C Storage 20 deg. C to 70 deg. C Humidity up to 95% (non-condensing)
J. COOLING	Forced Air Cooling
K. ENCLOSURE	Free-standing floor mounted design removable side and back panels. Steel enclosure, Caster wheels mounting
L. BATTERY	UPS should be compatible 12 V with 42AH AND 65 AH AND 100AH SMF Batteries. A suitable battery cabinet matching the VAH and Battery Make quoted to be provided.
M. COMPUTER INTERFACE	RS 232 Port with Auto save software for WINDOWS 95/98/2000/XP and WINDOWS NT/Windows 2003 Server Platforms.

Note :

1. Guarantee period: 3 years for UPS from the date of installation

2. Battery Charger Capacity as mentioned below

12 V 42 AH - 3 AMP to 4.2 AMP

12 V 65 AH - 5 AMP to 6.5 AMP

12 V 100 AH - 7.5 AMP to 10 AMP

MINIMUM TECHNICAL SPECIFICATIONS FOR 5 KVA ON-LINE UPS

DESCRIPTION	REQUIREMENT
Capacity	5 KVA online UPS with inbuilt isolation Transformer and 7.5 KVA (K13 rated) Servo Stabilizer (UPS OEM Make only) to be supplied at UPS input with voltage range of 150V-280V +/- 2%. Min. VAH required for Backup : 15000.
Technology	PWM IGBT
Switching Frequency	10 KHz or above
A. AC INPUT	
1. Voltage	160V - 260 V single phase AC
2. Frequency	(50 +/- 3%) Hz
3. Power Factor	Greater than 0.8 lag
B. AC OUTPUT	
1. Voltage	230 V(single phase)
2. Regulation	+ / -1% nominal for any of the following conditions a) No load to full load b) Minimum of 0.8 lag c) Minimum to maximum DC input voltage
3. Frequency	50 Hz + /- 3Hz in mains synchronized mode 50 Hz + /- 1% in battery mode
4. Current	As per the UPS system's rating at 0.8 p.f. load
5. Load Power Factor	Minimum of 0.8 lag
6. Waveform	Sine Wave
7. Total Harmonic distortion	2% Maximum (Linear Load)
8. Audible noise	Less than 60 Db
9. Transient response	+/- 5% for 100% Load Variation, correction in less than 20 m sec
10. Transient recovery	Up to + / -1% of nominal voltage within 60 m. sec.
11. Over load	150% of rated load for 10 sec. 110% of rated load for 10 minutes
12. Efficiency with Active power factor correction	Inverter – 90% and more Charger – 90% and more Overall – 80% and more
13. Ripple on DC	Less than 2%
14. Compatible with High Crest Factor Loads	03:01

C. BYPASS	
1. Manual	Yes
2. Static Switch	Inbuilt Static bypass
D. PROTECTION & CONTROL	
A. Rectifier	D.C. over/under voltage trip
	Input under/over voltage trip
B. Inverter	High speed DC over current
	Output under/over voltage trip
	Output Overload
	Output Short Circuit
E. ALARMS	With reset push button for
	Mains failure
	Battery low
	UPS trip
	Inverter overload
F. LIST OF SWITCHES/CONTROLS	Inverter push button with reset
	Mains MCB / Resettable Breaker
	Static Switch push button reset (Load transfer on Inverter)
G. METERING	One digital meter / LCD Display showing the following through a selection mode controller push button
	Input Voltage
	Input Frequency
	Output Voltage
	Output Frequency
	DC Voltage
H. INDICATIONS	
	Mains ON
	Mains Over voltage
	Mains Under voltage
	Battery Low
	Inverter ON
	Inverter Fault
	Load on By-pass
	Inverter Overload
I. ENVIRONMENT	Ambient Temperature – 0 to 50 degree centigrade
	Operating 10 deg. C to 50 deg. C
	Storage 20 deg. C to 70 deg. C
	Humidity up to 95% (non-condensing)
J. COOLING	Forced Air Cooling
K. ENCLOSURE	Free-standing floor mounted design
	removable side and back panels.
L. BATTERY	UPS should be compatible 12 V with 65 AH AND 100AH SMF Batteries
	A suitable battery cabinet matching the VAH and Battery Make quoted to be provided.
M. COMPUTER INTERFACE	RS 232 Port with Auto save software for WINDOWS 95/98/2000/XP and WINDOWS NT/Windows 2003 Server Platforms.

Note :

1. Guarantee period: 3 years for UPS from the date of installation
2. Battery Charger Capacity as mentioned below
12 V 42 AH - 3 AMP to 4.2 AMP
12 V 65 AH - 5 AMP to 6.5 AMP
12 V 100 AH - 7.5 AMP to 10 AMP

MINIMUM TECHNICAL SPECIFICATIONS FOR 10 KVA ON-LINE UPS

DESCRIPTION	REQUIREMENT
1. Capacity	10 KVA online UPS with inbuilt isolation Transformer and 15 KVA (K13 rated) Servo Stabilizer (UPS OEM Make only) to be supplied at UPS input with voltage range of 320V-500V +/- 2%. Min. VAH required for Backup : 30000.
2. Technology	PWM IGBT
Switching Frequency	12 KHz. Or more
3. A. AC INPUT	
1. Voltage	320 V AC to 470 V AC, 3 phase, 4 wire
2. Frequency	47 to 52 Hz
3. Power Factor	Greater than 0.85
B. AC OUTPUT	
1. Voltage	230 V(single phase)
2. Regulation	+ / -1% nominal for any of the following conditions
	a) No load to full load
	b) 0.8 lag
	c) Minimum to maximum DC input voltage
3. Frequency	47 Hz to 52 Hz +/- 1% mains synchronized
4. Current	As per the UPS system's rating at 0.8 p.f. load
5. Load Power Factor	0.8 lag
6. Waveform	Sine Wave
7. Total Harmonic distortion	Less than 5% (For non-linear loads)
8. Audible noise	Less than 60 Db
9. Transient response	Less than 50 m. sec
10. Transient recovery	Up to + / -1% of nominal voltage within 20 m. sec.
11. Over load	150% of rated load for 20 sec.
	125% of rated load for 1 minutes
	110% of rated load continuous (Rating to be maintained during battery operation also)

12. Efficiency with Active power factor correction	Inverter – 92% and more
	Charger – 92% and more
	Overall – 84% and more
13. Ripple on DC	Less than 2%
14. Compatible with High Crest Factor Loads	Not less than 3
C. BYPASS	
1. Manual	Yes
2. Static Switch	Inbuilt Static Bypass Inbuilt Static Bypass
D. PROTECTION & CONTROL	
A. Rectifier	D.C. over/under voltage trip
	Input under/over voltage trip
B. Inverter	High speed DC over current
	Output under/over voltage trip
	Output Overload
	Output Short Circuit
E. ALARMS	With reset push button for
	Mains failure
	Battery low
	UPS trip
	Inverter overload
F. LIST OF SWITCHES/CONTROLS	Inverter push button with reset
	Mains MCB / Resettable Breaker
	Static Switch push button reset

G. METERING	One digital meter showing the following through a selection mode controller push button
	Input Voltage
	Input Frequency
	Output Voltage
	Output Frequency
	DC Voltage
H. INDICATIONS	Mains ON
	Mains Over voltage
	Mains Under voltage
	Battery Low
	Inverter ON
	Inverter Fault
	Load on Battery
	Load on By-pass
	Inverter Overload
I. ENVIRONMENT	Ambient Temperature – 0 to 50 degree centigrade for the UPS
	Operating 10 deg. C to 50 deg. C
	Storage 20 deg. C to 70 deg. C
	Humidity up to 95% (RH non-condensing)
J. COOLING	Forced Air Cooling
K. ENCLOSURE	Free-standing floor mounted design
	removable side and back panels
L. BATTERY	Only any of the below combinations with 12V 65 AH AND 100AH of SMF Batteries.
	A suitable battery rack matching the VAH and Battery Make quoted to be provided.
M. COMPUTER INTERFACE	RS 232 Port with Auto save software for DOS/WINDOWS 98/WINDOWS NT Platforms

Note :

1. Guarantee period: 3 years for UPS from the date of installation
2. Battery Charger Capacity as mentioned below
 - 12 V 42 AH - 3 AMP to 4.2 AMP
 - 12 V 65 AH - 5 AMP to 6.5 AMP
 - 12 V 100 AH - 7.5 AMP to 10 AMP