

EVERY CRITICAL APPLICATION NEEDS A RELIABLE







1KVA/24-1B Internal batteries

1KVA/36V

EXTERNAL BATTERIES

E2 series ensures synchronization of the hardware, software, analytics and ongoing services to ensure its customers' vital applications run continuously, perform optimally as per the requirement. This series is based on High Frequency Double Conversion IGBT technology with static bypass which improves reliability and operates with configurable output voltage settings. The fixed output frequency can be synchronized with the input frequency.

FEATURES:

- Inbuilt over voltage cut off device.
- Isolation transformer (Optional)
- Generator Compatible
- Configurable output voltage settings
- Smart display for real time information
- EMI noise filter
- Advances PFC technology
- Robust design with enhanced reliability
- External charger up to 8 Amps (Optional for 36V DC system)
- Waveform (Battery Mode): Pure Sine wave



BENEFITS:

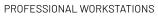
EFFICIENCY: AC mode-88%, Battery mode-83%

NOISE LEVEL: Less than 50dBA@ 1meter (with fan speed control)

SNMP (OPTIONAL): Power management from SNMP manager and web browser. Over heating indication and protection.









SMALL DATA CENTERS



SMALL COMPUTER LAB

MODEL	E ² 1 KVA 24V IB	E ² + 1 KVA 36V EB						
CAPACITY	1KVA/800W	1KVA/800W						
DC VOLTAGE SYSTEM	24VDC	36VDC						
INPUT	INPUT							
VOLTAGE RANGE	110VAC ± 5 % ~ 3	300VAC ± 5 %						
FREQUENCY RANGE	40Hz ~	70Hz						
PHASE	SINGLE PHASE V	VITH GROUND						
POWER FACTOR	≥0.99@FU	JLL LOAD						
OUTPUT								
OUTPUT VOLTAGE	200 / 208 / 220 /	/ 230 / 240VAC						
AC VOLTAGE REGULATION	±1	%						
FREQUENCY RANGE (BATTERY MODE)	50 Hz ± 0.1 Hz O	R 60Hz ± 0.1Hz						
CURRENT CREST RATIO	3::	1						
HARMONIC DISTORTION	≤3% THD (Linear Load) ; 69	% THD (N on-LinearL oad)						
OVERLOAD CAPABILITY	105%-110%: UPS SHUTS DOWN AFTER 10 MINUTES AT BATTERY MODE OR TRANSFER TO BYPASS WHEN THE UTILITY IS NORMAL. 110%-130%: UPS SHUTS DOWN AFTER 1 MINUTE AT BATTERY MODE OR TRANSFER TO BYPASS WHEN THE UTILITY IS NORMAL. >130%: UPS SHUTS DOWN AFTER 3 SECONDS AT BATTERY MODE OR TRANSFER TO BYPASS WHEN THE UTILITY IS NORMAL.							
TRANSFER TIME	AC MODE TO BATTERY MODE: 0 / INVERTER TO BYPASS: <4 ms (Typical 2.5ms)							
WAVEFORM (BATTERY MODE)	PURE SINEWAVE							
EFFICIENCY								
EFFICIENCY (AC MODE / BATT. MODE)	88% / 83%	89% / 85.5%						
BATTERY & CHARGER								
BATTERY TYPE / BATTERY NUMBERS	SMF 12V / 9AH X 2Nos. (In-Built Batteries)	SMF UPTO 65AH (External Batteries)						
CHARGING CURRENT	1A	1A/2A/4A/6A (default) Selectable via LCD settings						
PHYSICAL								
DIMENSION LXWXH(MM)	282 X 145 X 220	282 X 145 X 220						
NET WEIGHT(KGS.)	9.8KGS.	4.5 KGS.						
ENVIRONMENT								
OPERATING HUMIDITY / TEMP.	20-95% RH @ 0-40°C (N on-Condensing)							
NOISE LEVEL	LESS THAN 50 dBA @ 1 METER (WITH FAN SPEED CONTROL)							
STATUS INDICATIONS								
LED/LCD	LCD DISPLAY	INDICATIONS						
MANAGEMENT								
SNMP (OPTIONAL)	POWER MANAGEMENT FROM SNI	MP MANAGER AND WEB BROWSER						

^{*}Product specifications are subject to change without prior notice.



HIGH FREQUENCY HIGH PERFORMANCE ONLINE UPS

1KVA/2KVA/3KVA

INTERNAL BATTERIES

1KVA/2KVA/3KVA

EXTERNAL BATTERIES

Max+ series operates with programmable power management outlet along with the availability of hot standby feature and it's static bypass improves its reliability. The SNMP card is also available on demand as an option. This series is based on High Frequency Double Conversion IGBT technology with static bypass which improves reliability and consists of advanced PFC technology or battery management. The fixed output frequency can be synchronized with the input frequency.

FEATURES:

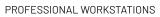
- Inbuilt charger of 9.5 Amps
- Smart display for real time information
- Inbuilt over voltage cut off device with surge protection
- Robust design with enhanced reliability
- Frequency convert mode (50Hz/60Hz)
- Generator Compatible
- External Charger: Capacity expansion to 8 Amps (Optional)
- EMI/RFI Noise Filter
- SNMP Card (Optional)
- Power Factor: 0.9
- Waveform (Battery Mode): Pure Sine wave



- · Efficient micro controller based
- Hot standby feature
- Programmable power management outlets
- Static bypass
- Over heating indication and protection.
- Noise Level: Less than 50dBA@ 1meter (with fan speed control)
- SNMP (Optional): Power management from SNMP manager and web browser.









SMALL DATA CENTERS



PROCESS AUTOMATION EQUIPMENTS

MODEL	NM36MX1KK11/IB MODEL	NM72MX2KK11/IB MODEL	NM72MX3KK11/IB MODEL	
CAPACITY	1KVA/900W	2KVA/1800W	3KVA/2700W	
INPUT				
VOLTAGE RANGE		110VAC±5% ~ 300VAC±5%		
FREQUENCY RANGE		40Hz~70Hz		
PHASE		Single Phase with Ground		
INPUT POWER FACTOR		≥0.99 @ Full Load		
OUTPUT				
VOLTAGE RANGE		200/208/220/230/240VAC		
AC VOLTAGE REGULATION		±1%(Battery Mode)		
FREQUENCY RANGE (Battery Mode)		50Hz±0.25Hz or 60Hz±0.3Hz		
CURRENT CREST RATIO		3:1		
HARMONIC DISTORTION	≤2%	6 THD(Linear Load); 4% THD(Non-Linear I	_oad)	
OVERLOAD CAPABILITY	110%~130% : UPS shuts down at	er 10 minutes at battery mode or transfer fter 1 minute at battery mode or transfer t 3 seconds at battery mode or transfer to l	o bypas when the utility is normal.	
TRANSFER TIME				
AC MODE TO BATTERY MODE		Zero		
INVERTER TO BYPASS		<4ms(Typical 2.5ms)		
WAVEFORM(BATTERY MODE)	Pure Sine Wave			
EFFICIENCY	85%~92%			
BATTERY				
DC VOLTAGE	36VDC/IB(3Battery 7AH inside)	72VDC/IB(6Battery 7AH inside)	72VDC/IB(6Battery 7AH inside)	
TYPE AND NUMBERS	SMF/Lead Acid/T	Tubular depending on the capacity of the E	xternal Batteries	
CHARGE CURRENT		1.5A~9.5A		
CHARGING CURRENT(Adjustable)	2.0A/4.0	A/6.0A/8.0A(Maximum) Selectable via LC	D setting	
PHYSICAL				
DIMENSIONS PRODUCT(LxWxH)	397x145x220(in mm)	421x190x318(in mm)	421x190x318(in mm)	
NET WEIGHT PRODUCT(KGS.)	7.8 Kgs./(IB-12.5Kgs.)	12.10 Kgs./(IB-25.8Kgs.)	12.52 Kgs./(IB-27.0Kgs.)	
ENVIRONMENT				
OPERATING HUMIDITY		20-95% RH@ 0-40°C(Non-Condensing)		
NOISE LEVEL	Less	than 50dBA@1Meter(With Fan Speed Cor	ntrol)	
LED/LCD INDICATION	LCD Indications			
MANAGEMENT				
SMART RS-232 OR USB	Supports Wind	lows® 2000/2003/XP/Vista/2008/7/8, Lir	nux, Unix, MAC	
OPTIONAL SNMP	Power Ma	anagement from SNMP Manager and Web	Browser	

 $[\]ensuremath{^{*}\text{Product}}$ specifications are subject to change without prior notice.



ONLINE **UPS**6KVA/10KVA

EXTERNAL BATTERIES

Max+ series operates with programmable power management outlet along with the availability of hot standby feature and it's static bypass improves its reliability. The SNMP card is also available on demand as an option. This series is based on High Frequency Double Conversion IGBT technology with static bypass which improves reliability and consists of advanced PFC technology or battery management. The fixed output frequency can be synchronized with the input frequency.



SALIENT FEATURES:

- Unity Power Factor Output with 20-Battery Option
- High Efficiency up to 94%
- True Double-Conversion
- DSP technology guarantees High Performance
- Wide Input Voltage Range (110-300 VAC)
- Light Weight UPS
- Active Input Power Factor correction 0.99
- 50Hz/60Hz Frequency Converter mode
- Emergency Power Off function (EPO)

- ECO mode for Energy Saving
- SNMP/USB/RS-232 Communications
- Adjustable Battery Numbers
- Maintanence Bypass & Static Bypass Available
- Optional N+X Parallel Redundancy
- Inbuilt Surge Protection with OVCD Available
- Generator Compatible
- External Charger: Capacity expansion to 4 Amps (Optional)











SMALL DATA CENTERS



PROCESS AUTOMATION EQUIPMENTS

MODEL	MAX+6KVA	MAX+ 10KVA			
CAPACITY	6000VA/4800W**	10000VA/8000W**			
DC VOLTAGE	DEFAULT=192VDC, ADJUSTABLE=216VDC & 240VDC				
PHASE	1PHASE IN ~1PHASE OUT				
INPUT					
NOMINAL VOLTAGE	208/220/2	30/240 VAC			
VOLTAGE RANGE	110~300VAC ± 3% at 50% Load	/ 176~300VAC ± 3% at 100% load			
FREQUENCY RANGE	46~!	54 Hz			
POWER FACTOR	≥ 0.99 @1	00% Load			
TOTAL HARMONIC DISTORTION THD(i)	<4%@100% Load	d, <6%@50% Load			
OUTPUT					
OUTPUT POWER FACTOR	DEFAULT = 0.8, Optional = 0.9 Wi	th 18-Battery, 1 With 20-Battery**			
NOMINAL VOLTAGE	208*/220/2	230/240 VAC			
AC VOLTAGE REGULATION	,	ery Mode)			
FREQUENCY RANGE	-) / 50Hz ± 0.1 Hz (Battery Mode)			
CURRENT CREST RATIO	·	Max)			
HARMONIC DISTORTION		4% THD (Non-Linear Load)			
OVERLOAD CAPABILITY	AC Mode: 100%~110%: 10min ; 110%~130%: 1min ; >130% : 1sec Battery Mode: 100%~110%: 30sec ; 110%~130%: 10sec ; >130% : 1sec				
TRANSFER TIME					
AC MODE TO BATTERY MODE	Ze	ero			
INVERTER TO BYPASS	Ze	ero			
WAVEFORM (BATTERY MODE)		ne Wave			
EFFICIENCY	AC Mode: 94% / B	ATTERY Mode: 91%			
BATTERY					
BATTERY TYPE	VRLA	/SMF			
NUMBER OF BATTERIES	Default: 16 Nos. Adju	ustable: 18 & 20 Nos.			
CHARGING CURRENT (Max.)	4.	0A			
CHARGING VOLTAGE	(13.65VDC x Batt	ery Number) ± 1%			
PHYSICAL					
DIMENSIONS PRODUCT(LxWxH)	555x250x	830(in mm)			
NET WEIGHT PRODUCT(KGs.)	32.5 Kgs.	33.0 Kgs.			
ENVIRONMENT					
OPERATING HUMIDITY / TEMP.	20~90%RH and Non-	-Condersing / 0.40oC			
NOISE LEVEL	Less than 55dB @ 1 Meter	Less than 58dB @ 1 Meter			
LCD INDICATION	UPS Status, Load Level, Battery Level, Input/Output Volt	tage, Input/Output Freq. / Discharge Timer / Fault Status			
MANAGEMENT					
SMART RS-232 OR USB	Supports Windows® 2000/2003/	XP/Vista/2008/7/8, Linux and MAC			
OPTIONAL SNMP	Power Management from SN	MP Manager and Web Browser			

^{*}Derate capacity to 60% of capacity in CVCF mode and to 90% when the output voltage is adjusted to 208VAC or parallel system is operated.

**When Using 20 Pcs of Batteries. Output Power Factor will be Unity. With 18 Pcs of Battery Output Power Factor will be 0.9.

**If the UPS is installed or used in a place where the altitude is above than 1000m, the output power must be derated one percent per 100m.

*Product specifications are subject to change without prior notice.

MAX+_{SERIES}

HIGH FREQUENCY HIGH PERFORMANCE ONLINE UPS

1KVA / 2KVA / 3KVA iso tx

Online UPS Models With inbuilt Isolation Transformers

EXTERNAL BATTERIES

Max+ series operates with programmable power management outlet along with the availability of hot standby feature and it's static bypass improves its reliability. The SNMP card is also available on demand as an option. This series is based on High Frequency Double Conversion IGBT technology with static bypass which improves reliability and consists of advanced PFC technology or battery management. The fixed output frequency can be synchronized with the input frequency.

FFATURES:

- True double-conversion
- Microprocessor control optimizes reliability
- Input power factor correction
- Wide input voltage (110 V 300V)
- 50/60Hz Frequency Converter Mode
- ECO mode for energy saving
- Emergency power off (EPO) function
- Adjustable charging current via LCD panel
- SNMP/USB/RS-232 multiple communications (SNMP is Optional)
- 3-stage smart battery charger design to optimize battery performance
- Comprehensive display allows easy monitoring and access of UPS status
- Generator compatible
- Built in galvanic isolation transformer



- · Efficient micro controller based
- Hot standby feature
- Programmable power management outlets
- Static bypass
- Over heating indication and protection.
- Noise Level: Less than 50dBA@ 1meter (with fan speed control)
- SNMP (Optional): Power management from SNMP manager and web browser.









MEDICAL EQUIPMENTS



PROCESS AUTOMATION EQUIPMENTS

MODEL		MAX+ 1KVA ISO TX	MAX+ 2KVA ISO TX	MAX+ 3KVA ISO TX			
CAPACITY		1000VA / 900W	2000VA / 1800W	3000VA / 2700W			
Input		1000 11 11 1000 11	2000 (, (, 1000 (,	0000 (), () 2, 00 ()			
Nominal Voltage			200/208/220/230/240 VAC				
Norminal voltage		10	0 VAC / 140 VAC / 120 VAC / 110 VAC ±	z %/			
	Low Line Transfer	I .					
Voltage Range	Low Line Comeback	based on load percentage 100% - 80 % / 80 % - 70 % / 70 - 60 % / 60 % - 0 175 VAC / 155 VAC / 135 VAC / 125 VAC ± 3 %					
voltage Narige	High Line Transfer	17	300 VAC ± 3%	5 /6			
	High Line Comeback		290 VAC ± 3%				
Frequency Range			40Hz ~ 70Hz				
Phase			Single phase with ground				
Power Factor			≧ 0.99 @ full load				
		≤5	% @ 220-230VAC on Full Charged bat	terv			
THDi		I .	< 1.6% @ input and full linear load co	*			
OUTPUT		11120	11.0% @ Imparana ran inical load oo	narcion .			
			000/000/000/070/070/070				
Output Voltage	· · · · (D. · · · M. · · · ·)		200/208/220/230/240 VAC				
	ation (Batt. Mode)	5011	± 2%	0711-1			
	(Synchronized Range)	1 50Hz	system:47 ~ 53 Hz (60Hz system:57~	bohz)			
requency Range Current Crest Rati			50 Hz ± 0.1 Hz (60Hz ± 0.1 Hz)				
Jurrent Grest Rati	IU		3:1				
Harmonic Distorti	ion at output		≦3 % THD(Linear Load)				
iaimomo biotorti	on at output		\leq 6 % THD (Non-linear Load)				
	AC to DC		Zero				
Fransfer Time	Inverter to Bypass		4 ms (Typical)				
	ECO to Battery mode	8 ms (Typical), 10 ms(max)					
Waveform (Batt. Mode)		Pure Sinewave					
EFFICIENCY							
AC Mode		78% @ full charged battery	83% @ full charged battery	84% @ full charged battery			
ECO mode		84% @ full charged battery	90% @ full charged battery	90% @ full charged battery			
Battery Mode		75%	81%	81%			
BATTERY							
	Battery Type		SMFVRLA / LEAD-ACID				
	Numbers	12V x 3Pcs	12V x 6Pcs				
Long-run Model	Charging Current (max.)	1,	A/2A/4A/6A/8A (Selectable), default	BA			
	Charging Voltage	41.1VDC ± 1%	82.2VDC ± 1%				
INDICATORS							
Status on LCD		UPS status, Load level, Batte	ery level, Input/Output voltage/Frequ	ency, and Fault conditions Via LCD			
ALARM							
Battery Mode			Sounding every 5 seconds				
Low Battery			Sounding every 2 seconds				
Overload			Sounding every second				
Fault			Continously sounding				
PHYSICAL							
Dimension, D X W	XH(mm)		421 X 190 X 318				
Net Weight (kgs)		15.3	17.8	23.3			
Outlet types & Number			3-Pin 6Amp India type Sockets,				
Inlet type		IEC C14 10A Socket	IEC C20 16A Socket	3-Pin 50A Hard-Wire terminal			
ENVIRONMENT							
Humidity & Operating Temperature		20-	-95 % RH @ 0 - 40°C ** (non-condens	ing)			
Noise Level		Less than 55dBA @ 1 Meter with Fan speed control control					
Noise Level	Protection		ID 20				
Noise Level Degree of Ingress			IP-20				
		Our substitution of the	IP-20 000/2003/XP/Vista/2008, Windows	770/10 Linux and MAO			

^{*} Derate capacity to 80% of capacity in Frequency converter mode and to 80% when the output voltage is adjusted to 200VAC or 208VAC.

** Above 40'C, output power shall derate to 12% of nominal power capacity for every 5'C rise in temperature upto 50'C.

* Product specifications are subject to change without further notice



5.5KVA / 7.5KVA / 10KVA

16 / 18 BATTERY SYSTEM

iMaxx series is based on DSP technology with IGBT based inverter. It consists of built in maintenance bypass and static bypass switch along with the alarm for mute mode and SNMP card as optional addition. It is generator compatible and the required generator capacity required for the stand by source should be 2.5 times of the UPS capacity.

FEATURES:

- Inbuilt over voltage cut off device with surge protection
- Smart display for real time information
- Constant voltage constant frequency operation without battery
- Conformal coated PCV assemblies to withstand harsh environment
- External charger capacity expansion to 4 amps (Optional)
- EMI/RFI Noise Filter
- Waveform (Battery Mode): Pure Sine wave

Online UPS Models With inbuilt Isolation Transformers



- Hot standby, Cold start and RS-232/USB port available
- Generator Compatible
- Display information (Load level, Battery level, AC mode, Battery mode, Bypass mode and Faults)
- Transfer time: Zero (AC to DC mode/ Inverter to Bypass mode)









BANK

PROCESS AUTOMATION EQUIPMENTS

BIG CORPORATE OFFICE

MODEL	i-MAXX TRANSFORMER BASED ONLINE UPS		
CAPACITY	5.5KVA 4.4KW	7.5KVA 6.0KW	10.0KVA 8.0KW
DC VOLTAGE SYSTEM	DEFAULT: 192VDC, ADJUSTABLE: 216VDC		
PHASE		SINGLE PHASE WITH GROUN	D
INPUT			
NOMINAL VOLTAGE		208VAC/220V AC/230VAC	
ACCEPTABLE VOLTAGE RANGE		165~285V AC	
FREQUENCY RANGE		40Hz ~ 55Hz @50 Hz System	
OUTPUT			
NOMINAL VOLTAGE		208V AC / 220V AC / 230V AC	
AC VOLTAGE REGULATION		±1% (Battery Mode)	
FREQUENCY RANGE	Mains Mode(Synchr	onized Range) : 45Hz ~ 55Hz / Battery N	Mode: 50Hz 0.1Hz
TRANSFER TIME			
AC TO DC MODE		Zero	
INVERTER TO BYPASS MODE		Zero	
BYPASS TO INVERTER MODE		<5ms	
WAVEFORM			
BATTERY MODE	Pure Sinewave		
EFFICIENCY			
AC MODE / BATTERY MODE	87% / 91%		
EXTERNAL BATTERY			
RECOMMENDED BATTERY TYPE		DEFAULT: VRLA / SMF Battery	
RECOMMENDED DATTERT THE	Tublar Battery: OK(\	Vith Charger Cut-Off Voltage adjustable	e from LCD Display)
BATTERY CHARGING AMP.		2/4 / 8 AMP. (D efault : 8 AMP.)	
NO. OF BATTERIES		16 / 18 Batteries	
INDICATORS			
LCD DISPLAY	LOAD LEVEL, BATTERY LEVE	., AC MODE, BATTERY MODE, BYPASS	MODE AND FAULT INDICATORS
ALARMS	Battery Mode: Sounding every 4 Seconds Overload: Sounding twice every second Fault: Continuously Sounding		
MANAGEMENT			
RS-232 / USB & OPTIONAL SNMP	Supports Windo	ws® 2000/2003/XP/Vista/2008/7/8, Lii	nux and MAC
PHYSICAL			
NET WEIGHT(Kgs.)	62.0 Kgs.	78.0 Kgs.	86.0 Kgs.
DIMENSIONS(LXWXH) mm		562 x 250 x 830	

^{*}Product specifications are subject to change without prior notice.



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10KVA / 15KVA / 20KVA

3 PHASE IN ~ 1 PHASE OUT

iMaxx series is based on DSP technology with IGBT based inverter. It consists of built in maintenance bypass and static bypass switch along with the alarm for mute mode and SNMP card as optional addition. It is generator compatible and the required generator capacity required for the stand by source should be 2.5 times of the UPS capacity.

Online UPS Models With inbuilt Isolation Transformers



FEATURES:

- Inbuilt over voltage cut off device with surge protection
- Smart display for real time information
- Constant voltage constant frequency operation without battery
- Conformal coated PCB assemblies to withstand harsh environment
- External charger capacity expansion to 4 amps (Optional in 192V Models)
- Built in maintenance bypass and static bypass switches
- Configurable Output voltage settings
- Waveform (Battery Mode): Pure Sine wave
- Immune to reverse phase sequence and neutral operation

- Hot standby, Cold start features available
- Inbuilt charger of 20 Amps., Parallel Redundancy & Battery Reverse Protection in all 360V Models
- Alarm for mute mode and SNMP card (Optional)
- RS-232, USB Port and RS-485 Port available in 360V models









DATA CENTER

INDUSTRIAL AUTOMATION EQUIPMENT

MEDICAL EQUIPMENTS

MODEL i-MAXX TRANSFORMER BASED ONLINE UPS				
CAPACITY	10KVA / 8KW 15KVA / 12KW 20KVA / 16K			
DC VOLTAGE SYSTEM	192VDC	DEFAULT: 360VDC, AD	JUSTABLE: 348~384VDC	
PHASE	3	PHASE IN ~ 1 PHASE OU	Т	
INPUT				
NOMINAL VOLTAGE	3 X 360V/380VAC 400VAC (3Ph+N+G)	3 X 380VAC/400V	/AC/415VAC (3P h+N+G)	
ACCEPTABLE VOLTAGE RANGE	286VAC ~ 493VAC	165VAC ~ 280VAC (Ph-	N) / 285VAC ~ 485VAC (P h-Ph)	
FREQUENCY RANGE	40Hz~55Hz	50Hz,	/60Hz±10%	
OUTPUT				
NOMINAL VOLTAGE	DEFAULT = 230	OVAC ± 1%, 208VAC / 220VAC / 230V	VAC (A djustable)	
WAVE FORM		PURE SINEWAVE		
FREQ. RANGE SYNCHRONIZED MAINS MODE	45Hz~55Hz	50	0Hz ± 1%	
FREQ. RANGE BATTERY MODE	50Hz ± 0.1Hz	50H	Hz ± 0.1Hz	
POWER FACTOR / CREST FACTOR		0.8 / 3:1		
TOTAL HARMONIC DISTORTION	≤3% (Linear Load); ≤5% (Non-Linear Load)		Linear Load); on-Linear Load)	
TRANSFER TIME (AC TO DC)		Oms		
TRANSFER TIME (INVERTER TO BYPASS)	Oms			
OVERLOAD CAPABILITY	110% FOR 30 MIN, 125% FOR 5 MIN & 150% FOR 1S ec 110% FOR 10 MIN; 150% FOR 60 S ec; >160% FOR 200			
STATIC BYPASS				
OVERLOAD / SHORT-CIRCUIT CAPABILITY	150% FOR 1 HOUR; 180% FOR 30 S ec; >200% FOR 200 ms			
CONNECTION TYPE / INPUT VOLTAGE RANGE	HARDWIRE 3-WIRE (1Ph+N+G) / 220VAC			
EFFICIENCY				
OVERALL EFFICIENCY (AC MODE)	83%	≧88%	≧88%	
EFFICIENCY (BATTERY MODE)	92%	90%	90%	
BATTERY & CHARGER				
BATTERY TYPE		LEAD ACID/TUBULAR/SMF		
BATTERY NUMBERS	16Nos.		table 29, 30, 31 & 32 N umbers)	
CHARGING CURRENT	DEFAULT 8A, 2A/4A/8A (ADJUSTABLE)		: 5A, MAXIMUM = % LOAD) / BATTERY VOLTAGE	
PHYSICAL				
DIMENSION LXWXH(MM)/NET WEIGHT(Kgs.)	562X300X830/115KGS.	656X405X817/120KGS.	656X405X817/145KGS.	
ENVIRONMENT				
OPERATING TEMP./HUMIDITY/NOISE LEVEL	TEMP.: 0~55°C / HUMID	DITY: 0~90% (N on-Condensing) / LES	SS THAN 60 dBA@1 METER	
MANAGEMENT				
USB AND MODBUS RS-232/RS485	SUPPORTS WINDOV	VS® 2000/2003/XP/VISTA/2008/7/	8/10, LINUX AND MAC	
DRY CONTACTS / SNMP (OPTIONAL)	10KVA MODEL: 5 SIGNALS: AC FAILURE, LOW BATTERY, UPS ALARM, BYPASS AND UPS FAULT/ POWER MANAGEMENT FROM SNMP MANAGER AND WEB BROWSER (O ptional) 15/20KVA MODELS: 6 OUTPUTS AND 2 INPUTS/POWER MANAGEMENT FROM SNMP MANAGER AND WEB BROWSER (O ptional)			

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INTELLIGENT PERFORMANCE LOW FREQUENCY ONLINE UPS

10KVA / 20KVA / 30KVA

3 PHASE IN ~ 3 PHASE OUT

iMaxx series is based on DSP technology with IGBT based inverter. It consists of built in maintenance bypass and static bypass switch along with the alarm for mute mode and SNMP card as optional addition. It is generator compatible and the required generator capacity required for the stand by source should be 2.5 times of the UPS capacity.

FEATURES:

- DSP Technology with IGBT based inverter.
- Smart LCD Display for Real-time information.
- CVCF (Constant Voltage Constant Frequency)
 Operational without Battery.
- Adjustable Battery Numbers (29,30,31 & 32 Numbers) in all 360V Models.
- Immune to Reverse Phase Sequence & no Neutral Operation.
- Built-In Maintenance Bypass & Static Bypass Switches.
- Configurable Output Voltage Settings.
- Input filter for Power Factor 0.9 (Optional) available.
- Conformal Coated PCB Assemblies to withstand harsh environment.
- Over Temperature Indication & Protection.
- Output Frequency fixed at 50Hz or can be synchronized with Input frequency.
- Generator Compatible. Generator Capacity required for Stand-By Source be 2.5 times of the UPS capacity.





- Hot standby, Cold start features available
- Inbuilt charger of 20 Amps., Parallel Redundancy & Battery Reverse Protection in all 360V Models.
- Alarm for mute mode and SNMP card (Optional)
- RS-232, USB Port and RS-485 Port available. in 360V models









INDUSTRIAL AUTOMATION EQUIPMENT



MEDICAL EQUIPMENTS

MODEL	i-MAXX TRANSFORMER BASED ONLINE UPS				
CAPACITY	10KVA / 8KW 20KVA / 16KW 30KVA / 24KW				
DC VOLTAGE SYSTEM	DEFAULT:	360VDC, ADJUSTABLE: 348~	384VDC		
PHASE		3 PHASE IN ~ 3 PHASE OUT			
INPUT					
NOMINAL VOLTAGE		3 X 380VAC/400VAC(3Ph+N)			
ACCEPTABLE VOLTAGE RANGE		285VAC ~ 485VAC(Ph-Ph)			
FREQUENCY RANGE		50Hz/60Hz ±10%			
OUTPUT					
NOMINAL VOLTAGE	3 X 380V	'AC/400VAC ±1%(3P h+N), 415VAC(ADJU	STABLE)		
WAVE FORM		PURE SINEWAVE			
FREQ. RANGE SYNCHRONIZED MAINS MODE		50Hz ± 1%			
FREQ. RANGE BATTERY MODE		50Hz ± 0.1HZ			
POWER FACTOR / CREST FACTOR		0.8/3:1			
TOTAL HARMONIC DISTORTION		≤2% (Linear Load); ≤5% (Non-Linear Load)			
TRANSFER TIME (AC TO DC)		Oms			
TRANSFER TIME (INVERTER TO BYPASS)		Oms			
OVERLOAD CAPABILITY	110% FOR 10MIN; 150% FOR 60SEC; >160% FOR 200 ms				
STATIC BYPASS					
OVERLOAD / SHORT-CIRCUIT CAPABILITY	150% FOR 1HOUR; 180% FOR 30SEC; >200% FOR 200 ms				
CONNECTION TYPE / INPUT VOLTAGE RANGE	SOLID STATE / 3X380VAC/400AC(3P h+N)				
EFFICIENCY					
OVERALL EFFICIENCY (AC MODE)	90%	91%	91%		
EFFICIENCY (BATTERY MODE)	89%	91%	93%		
BATTERY & CHARGER					
BATTERY TYPE	LEAD ACID/TUBULA	R/SMF / DEFAULT: 30N os.(Adjustable 29	P, 30, 31 & 32 N umbers)		
CHARGING CURRENT		LT: 5A, MAXIMUM = 1-% Load) / BATTERY VOLTAGE	DEFAULT: 5A, MAX. = 20A		
PHYSICAL					
DIMENSION LXWXH(MM) / NET WEIGHT(Kgs.)	656X405X817 / 118Kgs.	656X405X941/179Kgs.	821X432X1159 / 241Kgs.		
ENVIRONMENT					
OPERATING TEMP/HUMIDITY/NOISE LEVEL	TEMP.: 0~55°C / HUM	IIDITY: 0~90% (N on-Condensing) / LESS 1	ΓΗΑΝ 60 dBA@1 METER		
MANAGEMENT					
USB AND MODBUS RS-232/RS485	SUPPORTS WIND	OWS® 2000/2003/XP/VISTA/2008/7/8/1	.0, LINUX AND MAC		
DRY CONTACTS / SNMP (OPTIONAL)		S AND 2 INPUTS / POWER MANAGEI MANAGER AND WEB BROWSER (Op			

 $[\]ensuremath{^{*}\text{Product}}$ specifications are subject to change without prior notice.

Super MAX+_{SERIES}

SUPER PERFORMANCE HIGH FREQUENCY ONLINE UPS

20KVA / 30KVA / 40KVA

3 PHASE IN ~ 3 PHASE OUT

Super Max+ series works on the principle on the principle of 3-level IGBT technology which maximizes the efficiency and the 3-stage extendable charging design optimizes the battery performance. This series is generator compatible and parallel operation up to 3 units is possible. The communication over SNMP, USM and RS-232 is available

FEATURES:

- Unity Output Power Factor
- DSP Technology with IGBT based PFC & Inverter section
- 3-Level IGBT Inverter design Maximizes Efficiency
- Active Power Factor Correction in all 3-Phases
- 50Hz/60Hz Frequency Converter mode
- ECO mode operation for Energy Saving (ECO)
- Backfeed Energy Absorption Box (OPTIONAL), if Need to Operate Motor type Loads on UPS
- Generator Compatible
- USB+RS-232 Multiple Communications available, SNMP (Optional)
- 3-Stage extendable Charging Design for Optimized Battery Performance
- Adjustable Battery Numbers (from 32 to 40-Batteries in pairs of 2)
- Built-In Maintenance Bypass & Static Bypass Switches
- Parallel Operation upto 3 Units (Optional). (with Common Battery Bank)
- Isolation Transformer (Optional)



- Smart 4.3" Touch Panel LCD Display for Real-time information for measurement & adjustment of maximum parameters
- EMI Protection (C3-Level) available at Input & Output
- Surge Protection available at Input across R/S/T - N & R/S/T/N - G









DATA CENTRE

BANKING SECTOR

MODEL	SUPER MAX+ 30K	/A & 40KVA HIGH FREQUENCY ONLINE UPS				
CAPACITY	20KVA/20KW	30KVA/30KW 40KVA/40KW				
DC VOLTAGE	DEFAULT: ± 192VDC (32-Battery), ADJUSTABLE: ± 240VDC (40-Battery)					
PHASE		3 PHASE IN ~ 3 PHASE OUT				
INPUT						
NOMINAL VOLTAGE		3 x 400 VAC (3Ph+N)				
ACCEPTABLE VOLTAGE RANGE	190-520 VAC (3-Pi	nase) @ 50% Load / 305-478 VAC (3-Phase) @ 100% Load				
FREQUENCYRANGE		46~54 Hz or 56~64Hz				
POWER FACTOR		≧ 0.99 @ 100% load				
INPUT CURRENT HARMONIC DISTORTION THD(i)	_	00% R-Load, <5% @ 100% RCD Load at 230VAC 1% R-Load, < 12% @ 50% RCD Load at 230VAC				
О U ТР U Т						
NOMINAL VOLTAGE		3 x 360*/380/400/415 VAC (3Ph+N)				
AC VOLTAGE REGULATION		±1%(Battery Mode)				
FREQUENCY RANGE		~54Hz or 56~64Hz (Synchronized Range)				
	50 H	z ± 0.1 Hz or 60 Hz ± 0.1 Hz (Battery Mode)				
CURRENT CREST RATIO	/ C C / T	3:1 (Max)				
HARMONIC DISTORTION		HD (Linear Load) ; ≦ 5% THD (Non-Linear Load)				
OVERLOAD CAPABILITY		min, 110-125% for 10 min, 125%~150% 1min, >150% immediately 60 min, 110-125% for 10 min, 125%~150% 1min, >150% immediately				
TRANSFER TIME						
AC MODE TO BATTERY MODE		Zero				
INVERTER TO BYPASS	Zero					
WAVEFORM(BATTERY MODE)		Pure Sine Wave				
EFFICIENCY	AC Mode: 95.5% / ECO Mode: 98.5% / BATTERY Mode: 94.5%					
BATTERY						
BATTERY TYPE	VRLA / LEAD-ACID Type					
NUMBER OF BATTERIES	Default:32 Nos. Adjustable: 40 Nos. (NOTE: Double Bank in Series of (16~20) + (16~20) Battery with Centre-Tapped Configuration)					
CHARGE CURRENT (Max.)	12A Maximum, Adjustable = 1	A/2A/3A/4A/5A/6A/7A/8A/9A/10A/11A/12A, Factory Setting = 4A				
CHARGING VOLTAGE		+/-13.65V*N (N = 16~20)				
INDICATORS						
LCD PANEL	UPS Status, Load Percentage, Load Amperes on each Phase, Output VA & Output Wattage per Phase, Battery level (Charging Ampere & Discharging Ampere), Input/Output Voltage (Phase to Neutral & Phase to Phase Voltage information), Input/Output Frequency, Input Line Current per Phase, Input VA & Input Wattage Per Phase, Temperature information and Data Log Events.					
PHYSICAL						
DIMENSIONS PRODUCT(LxWxH)	630x250x750(in mm)	815x300x1000(in mm)				
NET WEIGHT PRODUCT(KGS.)	43 Kgs.	60 Kgs. 61 Kgs.				
ENVIRONMENT						
OPERATING HUMIDITY / TEMP.		<95% and Non-Condersing / 0-40°C				
NOISE LEVEL		Less than 65dB @ 1 Meter				
INGRESS PROTECTION (IP Rating)		IP-20				
M AN AGEMENT						
SMART RS-232 OR USB	Supports Wind	ows® 2000/2003/XP/Vista/2008/7/8, Linux and MAC	•			
OPTIONALSNMP	Power Management from SNMP Manager and Web Browser					

60KVA / 80KVA / 100KVA / 120KVA

3 PHASE IN ~ 3 PHASE OUT

Super Max+ series works on the principle of 3-level Inverter technology which maximizes the efficiency by reducing conversion heat-loss and the 3-stage extendable charging design optimizes the battery performance. This series is generator compatible and parallel operation up to 4 units is possible. The communication feature over SNMP, USB and RS-232 is available.

FEATURES:

- True double-conversion
- DSP technology guarantees high performance
- Output power factor 1
- Active power factor correction in all phases at Input
- 50Hz/60Hz frequency converter mode
- ECO mode operation for energy saving (ECO)
- Emergency power off function (EPO)
- Generator compatible
- SNMP+USB+RS-232 multiple communications
- 3-stage extendable charging design for optimized battery performance
- Adjustable battery numbers 32-40 battery
- Maintenance bypass available
- Parallel can be done with either individual battery bank on each UPS, or with Common Battery Bank
 (But Parallel & Share current cables are Optional, need to Order separately for Parallel)
- Optional External backfeed Absorb box, for Regenerative type loads like Elevators\Lifts, some CNC Machines etc. The indication of such type of loads on UPS is, it will trip its output detecting UPS internal bus voltage high error\fault.



- Smart 5" touch Panel LCD display in 60\80KVA & 7" in 100\120 KVA for Real-time information for measurement & adjustment of maximum parameters.
- EMI Protection (C3-Level) available at Input & Output.
- ± 6KVA Surge Protection available at Input across R/S/T - N & R/S/T/N - G
- Swappable Power Modules in 100KVA & 120KVA, with 2 x 50KW Power modules in 100KVA & 2x 60KW Power Modules in 120KVA, with Common Control Boards, for ease of service\ maintenance.
- Dual-Input design for ease of connecting 2 UPS in hot-standby or to provide other secondary source on the bypass input.



OPTIONAL SNMP







IT COMPANIES

PHARMA COMPANIES

AIRPORTS

TECHNICAL SPECIFICATIONS

MODEL		SUPERMAX+ 3P/3P 60K~120KVA ONLINE UPS				
CAPACIT	ΓΥ	60KL 80KL 100KL 120				
PHASE		3-Phase in / 3-Phase out				
CAPACIT	ΓΥ	60KVA/60KW	60KVA/60KW 80KVA/80KW 100KVA/100KW 120KVA/120			
INPUT						
NOMINAL V	/OLTAGE		3 x 400	VAC (3Ph+N)		
VOLTAGE R	RANGE			3-phase) @ 50% load -phase) @ 100% load		
FREQUENC	Y RANGE		<u> </u>	Iz or 56~64Hz		
POWER FA				0 100% load		
HARMONIC	S DISTORTION (THDi)		< 4% at fu	II Linear Load		
OUTPUT						
OUTPUT V	OLTAGE		3 x 360**/380/40	00/415 VAC (3Ph+N)		
AC VOLTAGE	REGULATION (BATT. MODE	Ε)		± 1%		
FREQUENC (SYNCHRO	CY RANGE NIZED RANGE)		46~54H:	z or 56~64Hz		
FREQUENC	CY RANGE (BATT, MODE)	50 Hz ± 0.1 H	z or 60 Hz ± 0.1 Hz		
CURRENT	CREST RATIO		3:1	(max.)		
HARMONIC AT OUTPUT	DISTORTION (THDv)			(Linear Load) Non-linear Load)		
TRANSFER	AC MODE TO BATTERY MODE			Zero		
TIME	INVERTER TO BYPASS	.		Zero		
\\\\\\\EEQB\	M (BATT. MODE)			SINE WAVE		
VVAVEFORI		100 1109/ 4		nin, 126%-150% for 1 min, >1	E00/ for 400ma	
OVERLOAD	AC MODE BATTERY MODE		· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·		
		100-110% for 60 min, 110-125% for 10 min, 126%-150% for 1 min, >150% for 400ms up to 4 units in parallel with Either Common battery bank or Separate battery bank				
PARALLEL		up to 4 un	its in parallel with Either Con	nmon battery bank or Separate	e battery bank	
	Y (peak efficiency)					
AC MODE		95.5%				
ECO MODE				98.5%		
BATTERY M	1ODE		(94.5%		
BATTERY						
BATTERY T	YPE		SMF (VRLA) / LE	AD-ACID BATTERIES		
NUMBERS			32~40 pc	(Adjustable)		
CHARGING	CURRENT (MAX.)	2A~18A (Adjustable)	2A~32A (Adjustable)	2A - 24A (Adjustable)	2A - 36A (Adjustable)	
CHARGING	VOLTAGE		+/-13.65V*	N (N = 16~20)		
INDICATOR	RS					
	UCH SCREEN LCD 7-INCH IN 100-120KVA)	Battery level (Charge to phase information), In	ing ampere & discharging am put / output Frequency, Input	n phase at output, Output VA & pere), Input/Output voltage (P Line Current per phase, Input ents (max 500-events) and Fa	hase to Neutral & phase VA/ Wattage/ PF per phase	
ALARM						
BATTERY M	ODE		Sounding e	very 4 seconds		
LOW BATTE	RY		Sounding	every second		
OVERLOAD)		Sounding twi	ce every second		
FAULT			Continuo	usly sounding		
PHYSICAL						
DIMENSION	N, D X W X H (MM)	815 x 300 x 100	00 790 >	360 x 1010	974 x 600 x 1600	
NET WEIGH	IT (KGS)	74		113	250	
ENVIRONM	ENT					
OPERATION	N TEMPERTURE		0-40	0°C		
OPERATION	N HUMIDITY		<95% and	non-condersing		
NOISE LEVI	EL	Less than 70d	BA @ 1-meter	Less then	75dBA @ 1-meter	
M AN AGEN	MENT					
SMART RS-	232/USB	Supports	Windows® 2000/2003/XP/V	ista/2008, Windows® 7/8, Lin	ux and MAC	
POTHENTIA (DRY-CONT	AL-FREE CONTACT ACT) PORT		8-Input & 6-Output E	ry-Contact port available		

Power management from SNMP manager and web browser

Super MAX+_{SERIES}

SUPER PERFORMANCE HIGH FREQUENCY ONLINE UPS

60KVA / 80KVA / 100KVA / 120KVA

3 PHASE IN ~ 3 PHASE OUT

Super Max+ series works on the principle of 3-level Inverter technology which maximizes the efficiency by reducing conversion heat-loss and the 3-stage extendable charging design optimizes the battery performance. This series is generator compatible and parallel operation up to 4 units is possible. The communication feature over SNMP, USB and RS-232 is available.

FEATURES:

- True double-conversion
- DSP technology guarantees high performance
- Output power factor 1
- Active power factor correction in all phases at Input
- 50Hz/60Hz frequency converter mode
- ECO mode operation for energy saving (ECO)
- Emergency power off function (EPO)
- Generator compatible
- SNMP+USB+RS-232 multiple communications
- 3-stage extendable charging design for optimized battery performance
- Adjustable battery numbers 32-40 battery
- Maintenance bypass available
- Parallel can be done with either individual battery bank on each UPS, or with Common Battery Bank
 (But Parallel & Share current cables are Optional, need to Order separately for Parallel)
- Optional External backfeed Absorb box, for Regenerative type loads like Elevators\Lifts, some CNC Machines etc. The indication of such type of loads on UPS is, it will trip its output detecting UPS internal bus voltage high error\fault.



- Smart 5" touch Panel LCD display in 60\80KVA & 7" in 100\120 KVA for Real-time information for measurement & adjustment of maximum parameters.
- EMI Protection (C3-Level) available at Input & Output.
- ± 6KVA Surge Protection available at Input across R/S/T - N & R/S/T/N - G
- Swappable Power Modules in 100KVA & 120KVA, with 2 x 50KW Power modules in 100KVA & 2x 60KW Power Modules in 120KVA, with Common Control Boards, for ease of service\ maintenance.
- Dual-Input design for ease of connecting 2 UPS in hot-standby or to provide other secondary source on the bypass input.









INDUSTRIAL APPLICATION

PROCESS AUTOMATION

CNC MACHINE

MODEL		SUPERMAX+ 3P/3P 60K~120K ONLINE UPS WITH ISO TX AT OUTPUT			
CAPACITY		60KL	80KL	100KL	120KL
PHASE	-				
	T\/	Isolation Trx Inbuilt	Isolation Trx Inbuilt	External Isolation T	ransformer Optional
CAPACITY		60KVA/60KW	80KVA/80KW	100KVA/100KW	120KVA/120KW
INPUT					
NOMINAL \	/OLTAGE		3 x 400 VA	C (3Ph+N)	
VOLTAGE F	RANGE		190-520 VAC (3-pl 305-478 VAC (3-pl		
FREQUENC	Y RANGE		46~54 Hz c	, -	
POWER FA			≥ 0.99 @ 1		
OUTPUT					
OUTPUT V	OLTAGE		3 x 360**/380/400/	415 VAC (3Ph+N)	
AC VOLTAGE	REGULATION (BATT. MODE)		± 1	%	
FREQUENC (SYNCHRO	CY RANGE NIZED RANGE)		46~54Hz o	r 56~64Hz	
FREQUENC	Y RANGE (BATT. MODE)		50 Hz ± 0.1 Hz o	r 60 Hz ± 0.1 Hz	
CURRENT	CREST RATIO	2.6:1	(max.)	3:1 (max.)
HARMONIC	DISTORTION	≤ 2 % THD (I ≤ 10 % THD (N	Linear Load) on-linear Load)		(Linear Load) Non-linear Load)
TRANSFER	AC MODE TO BATTERY MODE		Ze	ro	
TIME	INVERTER TO BYPASS	3	Ze	ro	
WAVEFORM	M (BATT. MODE)		PURE SIN	IE WAVE	
	AC MODE	100-110% for 6	60 min, 110-125% for 10 min	, 126%-150% for 1 min, >15	0% for 400ms
OVERLOAD	BATTERY MODE	100-110% for 6	60 min. 110-125% for 10 min	. 126%-150% for 1 min. >15	0% for 400ms
PARALLEL		100-110% for 60 min, 110-125% for 10 min, 126%-150% for 1 min, >150% for 400ms Max upto 4-Units, with either Individual battery bank OR Common battery bank			
EFFICIENC		Max apto 1	Offics, With Citater Individual	battery barne on common be	accery bank
AC MODE	•	97	E0/	07	7.5%
		87.5%			
ECO MODE		93.5%			3.5%
BATTERY M	IODE	86.5%		0.5%	
BATTERY	VDE	Departing on the cone	aits of automal battarias	CME (VDLA) / LEA	D ACID BATTERIES
BATTERY T	YPE	Depending on the capacity of external batteries SMF (VRLA) / LEAD-ACID BATTERIES 32~40 pcs (Adjustable)			D-ACID BATTERIES
NUMBERS	CURRENT (MAY)	00.400.(0.45			04 004 (4 454-14-1
CHARGING	CURRENT (MAX.)	2A~18A (Adjustable)	2A~32A (Adjustable) +/-13.65V*N	2A - 24A (Adjustable)	2A - 36A (Adjustable)
			+/-13.03V N	(14 - 16~20)	
INDICATOR	လ	LIDO 4 4			NA (1)
LCD PANEL (5-INCH TO	UCH SCREEN LCD)	Battery level (Charging to phase information), Input	ntages & amperes on each p ampere & discharging ampe / output Frequency, Input Lir information, Data Log Event	re), Input/Output voltage (Ph ne Current per phase, Input \	iase to Neutral & phase VA/ Wattage/ PF per phase,
ALARM					
BATTERY M	1ODE		Sounding eve	ry 4 seconds	
LOW BATTE			Sounding even	ery second	
OVERLOAD)		Sounding twice		
FAULT			Continuously	/ sounding	
PHYSICAL					
DIMENSION, D X W X H (MM)			'20 x 1060	974 x 600 x 1600	
NET WEIGH	· ,	440	475	250	
ENVIRONM					
	N TEMPERTURE		0-40°C		
	N HUMIDITY		<95% and no		TD 0.41)
NOISE LEV		Less than 75	dB @ 1 Meter	Less than 75d	B @ 1 Meter
MANAGEM		_			
SMART RS-			indows® 2000/2003/XP/Vist		
OPTIONAL	SNMP	Po	ower management from SNM	IP manager and web browse	er

MAX LiFe SERIES

ONLINE UPS FOR LITHIUM-ION BATTERY APPLICATIONS FOR LONGER BACKUP

1KVA / 2KVA / 3KVA / 5KVA

Online UPS Models For Lithium-ion Battery Applications

FEATURES (1KVA & 2KVA):

- Microprocessor Control optimizes Reliability
- Comprehensive Display allows easy monitoring and access of UPS status
- Emergency Power Off (EPO) function
- ECO mode and High Efficiency Power Conversion for Energy Saving
- Advanced Battery Management (ABM)
- High Power Factor charger upto 1000W capacity with very Low Ripple Current when Charging Battery
- Lithium-ion Battery Compatible
- Low Input THDi (5%) to reduce power system pollution

FEATURES (3KVA & 5KVA):

- Sine-wave Output
- Unity Power Factor
- Configurable Charging Current via LCD Settings
- Cold Start Capability
- Very Powerful AC Charger at 60A
- Optional Parallel Operation up to 9 units for Single Phase and Three Phase Applications
- Common 48V DC Battery Pack for the Parallel System
- Full Bridge inverter design to support half-wave load and unbalanced load



- True double-conversion
- Generator Compatible
- Wide Input Range
- Overload & Short-circuit Protection











TOLL PLAZA

TECHNICAL SPECIFICATIONS

MODEL		MAX Life ONLINE UPS 1KVA	MAX Life ONLINE UPS 2KVA	MAX Life ONLINE UPS 3KVA	MAX Life ONLINE UPS 5KV	
INPUT						
CAPACITY		1000VA / 900W	2000VA / 1800W	3000VA / 3000W	5000VA / 5000W	
VOLTAGE RANG	E		110-280 VAC@50%Load;	176-280 VAC @100% Load		
PHASE			Single Phase	with Ground		
FREQUENCY RA	ANGE	40Hz -	- 70Hz	46Hz ~ 54Hz	56Hz ~ 64Hz	
POWER FACTOR	?	≧ 0.	.99	2 0.98 @ Nominal \	oltage (100% Load)	
INPUT CURRENT DISTORTION TH		2 5% @ 205	i-245VAC	2	8%	
OUTPUT						
NOMINAL VOLTA	AGE	200*/208*/220	/230/240 VAC	220/230	/240 VAC	
AC VOLTAGE RE	EGULATION		±1% (Bati	tery Mode)		
EDEOUENOV D./	NOT	Synchronized Range: 50Hz System:	47~53Hz / 60Hz System: 57~63Hz	Synchronized Mode: 46	Hz ~ 54Hz or 56Hz ~ 64Hz	
FREQUENCY RA	ANGE	Battery Mode: 50Hz:	±0.1% or 60 Hz±0.1%	Battery Mode: 50Hz	±0.1Hz or 60Hz±0.1Hz	
CURRENT CRES	ST RATIO		3:1(1	Max)		
HARMONIC DIST	TORTION	\leq 2% THD(Linear Load); \leq	4% THD (Non-Linear Load)	\leq 3% THD(Linear Load); \leq 5% THD(Non-Linear Load)		
TRANSFER AC to	DC		Zer	0		
FINATE	er to Bypass		4ms(Ty	vpical)		
WAVE FORM (Ba	ttery Mode)	Pure Sin	e Wave	Pure Sine Wave on AC Input Mode and 54 VDC on Battery Mode		
EFFICIENCY						
ON FULL CHARG	ED BATTERY	ECO Mode: ≧96% / AC Mode: ≧89%	ECO Mode:≧96% / AC Mode:≧90%	LINE Mode: 95% / ECO Mode: 99.5% / BATTERY Mode: 92.0%		
BATTERY						
BATT. VOLTAGE	:		48	3V		
CHARGING CUR	RENT	20A max, Current Sett (Adjustable: 2/4/8		60 A (Configurable 10A / 20A / 30A / 40A / 50A / 60A from LCD)		
(MAX.) INDICATORS		(Adjustable: 2/4/6	710712714716720A)	(Configurable IOA / ZOA / SOA	7 40A 7 50A 7 60A ITOIII ECD)	
LCD PANEL		Load Love	el, Battery Level, AC Mode, Battery M	lada Pynasa Mada and Fault Indicat	or Via LCD	
PHYSICAL		Load Leve	er, Battery Lever, AC Mode, Battery M	lode, bypass flode and Fault Indicat	or via EGD	
DIMENSIONS PROI	UIICT(DVWVL)	397x145x220(in mm)	530x145x220(in mm)	465x190x3	18(in mm)	
NET WEIGHT PRO		6.4Kgs.	8.6Kgs.	15.51		
ENVIRONMEN		5y5.	5.5.\y5.	10.51	·	
OPERATING HUMI		20-95% RH and Non-	Condersing / 0-45°C	0 to 95% Relative Humidity (Non-Condersing) / N-50°C	
S. LINALING HOLL	/ ILIII ·	25 55 /5 /11/ 4/13 /40//		o to oo a Relative Hamilarty (Jonacromy, 7 0 00 0	
MANAGEMEN	т					

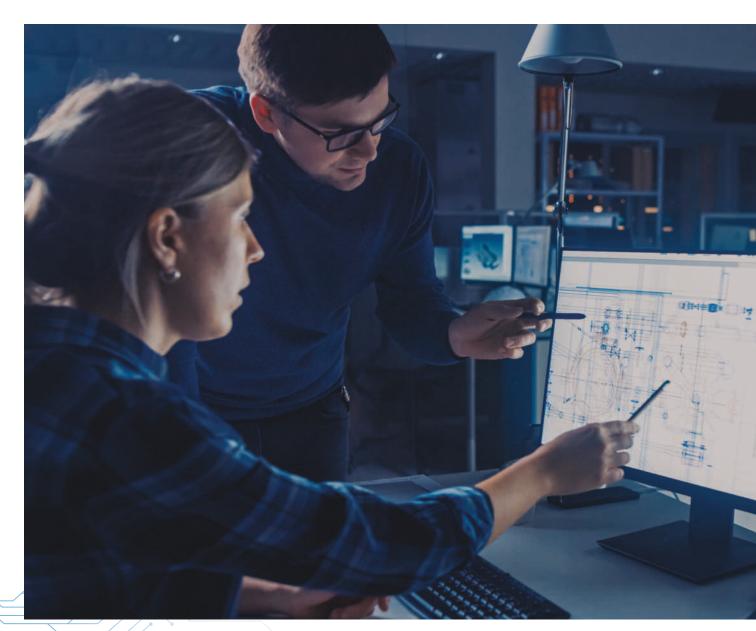
^{*}Derate capacity to 80% when the output voltage is adjusted to 200VAC/208VAC.

*Product specifications are subject to change without prior notice.

*By Default, This Product is Compatible with Lithium-Ion Battery. Need to Update Firmware if in case Usage is with Lead-Acid Battery Application.

*Product specifications are subject to change without prior notice.

TECHNOLOGY THAT PREVENTS THE SUDDEN SHUTDOWN





Microtek has a wide range of Line Interactive UPS from 650VA to 2000VA that provides battery back up and surge protection for Desktop computers, Workstations, Networking devices, Home entertainment systems and various other similar applications. Microtek is the only brand that has made in India Line Interactive UPS.



LEGENDE UPS 650



TOTAL PROTECTION FOR YOUR COMPUTERS

Legend 650 is a micro processor based Line Interactive UPS that gives Optimum Reliability. It has Boost and Buck AVR for ultimate voltage stabilization which ensures protection against overload, discharge and overcharge.

FEATURES

- Auto restart while AC is recovering
- Generator Compatibility Option
- Longer Battery Life
- Top Grade Micro Processor based Line Interactive UPS - Optimum Reliability
- Boost and Buck AVR Ultimate Voltage Stabilization
- Protection against Overload, Discharge/ Overcharge
- Wide INPUT Range 140V~300V AC
- Auto Restart while AC is recovering
- Generator Compatibility Option
- Much Longer Battery Life



Easy off-mode charging

Cold start function









PROFESSIONAL WORK STATIONS



SMALL ROUTERS

MODEL	UPS LEGEND 650			
CAPACITY	650VA / 360W			
INDUT	Voltage Range	140V~300V AC		
INPUT	Frequency	50Hz ± 10%		
	Voltage (Batt. Mode)	230V AC Nominal		
	Frequency (Batt. Mode)	50Hz ± 1Hz		
OUTPUT	Waveform (Batt. Mode)	Modified Sinewave		
	Transfer Time	Typical 4~8ms		
	Rating	650VA (Max.)		
	Battery Type	SMF (Sealed Maintenance Free)		
BATTERY	DC V / AH / Nos.	12V / 7AH x 1 Battery		
DATTENT	Recharge Time (Typical)	6 Hrs to 90% capacity after complete discharge		
ENVIRONMENT		& RH Non-Condensing Level <40dB		
PHYSICAL	Dimensions (mm)	281(L) x 100(W) x 143(H)		
	Weight (Kgs.)	Net: 4.16Kgs. Gross: 4.46Kgs.		
TECHNICAL FEATURES	Auto Switch Off in Battery Low is In-Built. Off mode Charging & Overload Protection are In-Built.			

^{*} Specications are subject to change without notice.



LINE INTERACTIVE UPS

Legend



UNIQUE MODEL -FOR LONG BACKUP TO MICRO LOADS

Like Security & Surveillance CCTV, Broadcast Studio, Medical Equipments, Wi-Fi Modems etc...

Legend 750M is based on micro processor load sensing system to sense micro power consumption devices and provides back up for Micro Load. It is also suitable for computer and other IT loads with normal back up.









Medical & Surveillance Equipments

WIFI Modems

FEATURES

- Input range: 142V~282 V AC
- Auto re start while AC is recovering
- Micro Processor based Load Sensing System, to sense Micro Power Consumption Devices
- Also suitable for Computer & other IT loads with normal Backup
- Wide INPUT Range 142V~282V AC
- Auto Restart while AC is recovering
- Specially made Heavy Duty UPS for Indian **Power Conditions**
- Generator / Inverter Compatible



BENEFITS:

• Specially designed for Micro Loads









SECURITY AND SURVEILLANCE

BROADCAST STUDIO

WIFI MODEMS

MODEL	UPS LEGEND 750M			
CAPACITY	650VA / 360W			
INDUT	Voltage Range	142V~282V AC		
INPUT	Frequency	50Hz ± 10%		
	Voltage (Batt. Mode)	230V AC Nominal		
	Frequency (Batt. Mode)	50Hz ± 1Hz		
OUTPUT	Waveform (Batt. Mode)	Modified Sinewave		
	Transfer Time	Typical 4~8ms		
	Rating	650VA(Max.)		
	Battery Type	SMF (Sealed Maintenance Free)		
BATTERY	DCV/AH/Nos.	12V / 7AH x 1 Battery		
DATIENT	Recharge Time (Typ.) 6 Hrs to 90% after complete discharge			
ENVIRONMENT:	0°~40°C, 0~90% RH Non-Condensing Noise Level <40dB			
PHYSICAL	Dimensions (mm)	281(L) x 100(W) x 143(H)		
	Weight (Kgs.)	Net: 4.16Kgs. Gross: 4.46Kgs.		
TECHNICAL FEATURES	Auto Switch Off in Battery Low is In-Built. Off mode Charging & Overload Protection are In-Built.			

 $[\]ensuremath{^*}$ Specifications are subject to change without notice.



LINE INTERACTIVE UPS

LEGEND 1000



TOTAL PROTECTION FOR YOUR COMPUTERS

Legend 1000 is a micro processor based Line Interactive UPS that gives Optimum Reliability. It has Boost and Buck AVR for ultimate voltage stabilization which ensures protection against overload, discharge and overcharge.

FEATURES

- Wide Input Range: 140~300 V AC
- Auto restart while Ac is recovering
- Generator compatibility option
- Top Grade Micro Processor based Line Interactive UPS - Optimum Reliability
- Boost and Buck AVR Ultimate Voltage Stabilization
- Protection against Overload, Discharge/ Overcharge
- Wide INPUT Range 140V~300V AC
- Auto Restart while AC is recovering
- Generator Compatibility Option



- Much Longer Battery Life
- Easy off-Mode Charging
- Cold Start Function









DESKTOP

SECURITY AND SURVEILLANCE

BROADCAST STUDIO

MODEL	UPS LEGEND 1000			
CAPACITY	1000VA / 600W			
IN DUT	Voltage Range	140V~300V AC		
INPUT	Frequency	50Hz ± 10%		
	Voltage (Batt. Mode)	230V AC Nominal		
	Frequency (Batt. Mode)	50Hz ± 1Hz		
OUTPUT	Waveform (Batt. Mode)	Modified Sinewave		
	Transfer Time	Typical 4~8ms		
	Rating	1000VA (Max.)		
	Battery Type	SMF (Sealed Maintenance Free)		
BATTERY	DCV/AH/Nos.	12V / 7AH x 2 Batteries		
DATIENT	Recharge Time (Typ.)	6 Hrs to 90% after complete discharge		
ENVIRONMENT:	0°~40°C, 0~90% RH Non-Condensing Noise Level <40dB			
PHYSICAL	Dimensions (mm)	315(L) × 130(W) × 183(H)		
	Weight (Kgs.)	Net: 8.02Kgs. Gross: 8.60Kgs.		
TECHNICAL FEATURES	Auto Switch Off in Battery Low is In-Built. Off Mode Charging & Overload Protection are In-Built.			

^{*} Above specifications are measured under computer load.
* Specifications are subject to change without notice.



LEGENDE UPS



TOTAL PROTECTION FOR YOUR COMPUTERS

Legend 1600 is a top grade micro processor based Line Interactive UPS that gives Optimum Reliability. It has Boost and Buck AVR for ultimate voltage stabilization which ensures protection against overload, discharge and overcharge.

FEATURES

- Wide Input Range: 140V~300 V AC
- Auto restart while AC is recovering
- Generator Compatibility Option
- In-built 12V/9AH x 2 Batteries
- Top Grade Micro Processor based Line Interactive UPS - Optimum Reliability.
- Boost and Buck AVR Ultimate Voltage Stabilization.
- Protection against Overload, Discharge/ Overcharge.
- Wide INPUT Range 140V~300V AC.
- Auto Restart while AC is recovering.
- Generator Compatibility Option



- Much Longer Battery Life
- Easy off mode charging
- Cold start function









EXAMINATION CENTER



GAMING MACHINES

MODEL	UPS LEGEND 1600			
CAPACITY	1600VA / 960W			
INDUT	Voltage Range	140V~300V AC		
INPUT	Frequency	50Hz ± 10%		
	Voltage (Batt. Mode)	230V AC Nominal		
	Frequency (Batt. Mode)	50Hz ± 1Hz		
OUTPUT	Waveform (Batt. Mode)	Modified Sinewave		
	Transfer Time	Typical 4~8ms		
	Rating	1600VA(Max.)		
	Battery Type	SMF (Sealed Maintenance Free)		
BATTERY	DCV/AH/Nos.	12V / 9AH x 2 Batteries		
DATIERT	Recharge Time (Typ.)	6 Hrs to 90% after complete discharge		
ENVIRONMENT:	0°~40°C, 0~90% RH Non-Condensing Noise Level <45dB			
PHYSICAL	Dimensions (mm)	315(L) x 130(W) x 183(H)		
	Weight (Kgs.)	Net: 10.25Kgs. Gross: 10.81Kgs.		
TECHNICAL FEATURES	Auto Switch Off in Battery Low is In-Built. Off Mode Charging & Overload Protection are In-Built.			

^{*} Above specifications are measured under computer load. * Specifications are subject to change without notice.





1000 VA / 2000 VA

LONG BACKUP EXTERNAL BATTERY UPS

Desire Pro+ consists of an excellent microprocessor control that guarantees High Reliability, Boost and Buck AVR for voltage stabilization with selectable charging current.

FEATURES

- Excellent Microprocessor Control Guarantees High Reliability
- Boost and Buck AVR for Voltage Stabilization
- 20Amp Charger
- Selectable Charging Current
- Auto Restart while AC is recovering
- Simulated Sine wave
- Off-mode Charging
- Cold Start function











CYBER CAFÉ TOLL PLAZA EXAMINATION CENTERS

CAPACITY	1000VA / 600W	2000VA / 1200W		
Voltage	220V AC / 230V AC			
Voltage Range		140 ~ 300V AC		
Frequency Range		50Hz		
AC Voltage Regulation (Battery Mode)		220/230VAC ±10%		
Frequency Range (Battery Mode)		50 Hz ±1 Hz		
Transfer Time		Typical 4-8 ms		
Waveform (Battery Mode)		Simulated Sine Wave		
Battery Voltage	12V DC	24V DC		
Floating Charge Voltage	13.7V DC ± 2%	27.4V DC ± 2%		
Max. Charge Current	DEFAULT: 10A, (5A/10A/15A/20A Adjustable with Jumper Settings)			
AC Mode		Croon Lighting		
Battery Mode		Green Lighting Yellow Flashing		
Fault				
rauit	Red Lighting			
Low Battery	Sounding every Second			
Overload		Sounding every 0.5 Second		
Battery Replacement Alarm		Sounding every 2 Seconds		
Fault	Continuously sounding			
Full Protection	Overload, Discharge and Overcharge Protection			
Dimension Dy Wy II (mm)		705 v 1/5 v 220		
Dimension, D x W x H (mm)	395 x 145 x 220			
Humidity / Noise Level	0-90 % RH @ 0- 40°C (non-condensing) / Less than 40dB			

^{*} Product specifications are subject to change without prior notice.

LAN Cables

Complete Networking Solution

MICROTEK Networking Cables allow devices to access high-speed networks / Internet data. The Cables are verified to the performance requirements of ISO/IEC 11801, TIA/EIA 568C.2. Unshielded twisted pair (UTP) cable is used in many homes and business-based Ethernet networks. It has four pairs of wires that are housed inside the Lining of the cable. Microtek LAN Cables are designed to pass Fluke Test for Ethernet Cables. Each pair is twisted to prevent interference from other devices on the network.

FEATURES

- Exceptional material properties and cable design
- High ACR values-providing low BER (Bit Error-Rate) Exceeds cat 6 Best transmission performance.
- Extremely high pair-balance-providing excellent EMC (Electromagnetic compatibility)
- Maximum noise immunity. ISO/IEC 11801 Class E. UL-94V0 rated Plastics.
- Longer Cable segment Length. High speed data access
- Total end-to-end horizontal cabling solution
- Backwards compatible with Microtek Category 6 systems ensuring support for legacy applications
- Unshielded Twisted Cable
- Cable supports frequencies up to 250 MHZ.
- Cable supports data transfer speeds up to 1000Mbps-Gigabit
- Available in 100Mtr coil/305Mtr Box packaging.

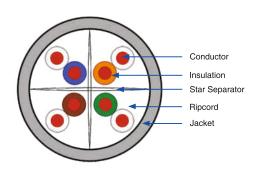
Colour Code

Pair 1 - White-Blue and Blue

Pair 2 - White-Orange and Orange

Pair 3 - White-Green and Green

Pair 4 - White-Brown and Brown



Electrical characteristics			
Characteristic Impedance	100±15 :@ 1-250MHz		
DC Resistance	72:/km (max)		
Voltage Rating	72 Vdc max		
Dielectric Strength	1500V/1minute min MHz		
Insulation Resistance	500M:/km (min)@500Vdc		
Nominal Velocity of Propagation (%)	69%		
Conductor Resistance	93.8ohm/1000mtr@20°C		
Mutual Capacitance	5.6nF/100m nominal		
Resistance Unbalance	5% Max		
Capacitance Unbalance	330pF/100m		
Delay Skew	< 45nS/100m		
Bending Radius	< 4 X Cable Diameter at -20°C ± 1°C		
Operating Voltage	72V		
Dielectric Strength	1.0KV dc or 0.75KV ac for 1min.		

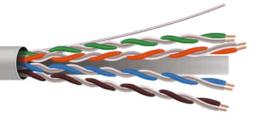
Construction	
Conductor Metal	24 AWG Solid Bare Copper
Insulation	High Density Polyethylene
Pairs	2 Insulated conductors twisted together
Sheath	PVC
Cable Diameter	5.60 ± 0.3mm
Printing	Each meter printed with sequential Length Counter
Standard Colour	Grey

Mechanical and Thermal Properties			
Outer Diameter	Nominal Diameter 5.60 ± 0.3 mm 4 twisted pair		
Pulling Force 11.5 kg			
Operating Tem. Ran.	-20°C to + 60°C		
Storage Tem. Ran.	0°C to + 60°C		

Cross Section View

ROTEK

MICROTEK











CYBER CAFÉ

PROFESSIONAL WORKSTATIONS

EXAMINATION CENTERS

CAT 6 LAN Cable

Transmission Parameter as per 100 Mtr.						
Frequency	Insertion Loss (DB/100M)	NEXT (DB)	PSNEXT (DB)	ACRF (DB@100M)min.	PS.ACRF (DB@100M)min.	Return Loss (DB/100M)
1	2.1	65.0	62.0	63.3	60.3	19.0
4	4.0	63.0	60.5	51.2	48.2	19.0
8	5.7	58.2	55.6	45.2	42.2	19.0
10	6.3	56.6	54.0	43.3	40.3	19.0
16	8.0	53.2	50.6	39.2	36.2	18.0
20	9.0	51.6	49.0	37.2	34.2	17.5
25	10.1	50.0	47.3	35.3	32.3	17.0
31.25	11.4	48.4	45.7	33.4	30.4	16.5
62.50	16.5	43.4	40.6	27.3	24.3	14.0
100	21.3	39.9	37.1	23.3	20.3	12.0
200	31.5	34.8	31.9	17.2	14.2	9.0
250	35.9	33.1	30.2	15.3	12.3	8.0



CCTV Cables

MICROTEK CCTV Cables are offered in two types namely 4+1 CCTV Cable and 3+1 CCTV Cable. Coaxial cables form the carrier for video signal and the other '3 cores' or '4 cores' form the carriers for power. Co-Axial cables are designed to transmit the complete video frequency range with minimum distortion or attenuation, making them an excellent choice for CCTV.

Microtek CCTV cables are designed to optimize the quality of video signals, which are transmitted through the Coaxial cable in the CCTV.

The Coaxial cable consists of solid annealed copper conductor of electrolytic grade which is insulated with foamed dielectric, aluminium foil taped, jelly flooded, braided with Alloy and then jacketed with PVC.

Top most quality of construction of coaxial cable in Microtek CCTV cables ensures distortion free video signals. Thus, providing a clear picture over complete low frequency bandwidth of transmission in such applications.

The impedance of coaxial cable is 75, which matches the CCTV equipment. This matching ensures adequate signal strength, no reflection, and best picture quality.

Available both in 90Mtr and 305Mtr.







CYBER CAFÉ



TOLL PLAZA



S.NO.	Particular	3+1 CCTV	4+1 CCTV
	Coaxial cable		
1.	Conductor		
	Material	Annealed Bare Copper	Annealed Bare Copper
	Dia. of Wire (mm)/No. of Wire	0.1 / 14 + 0.52 / 1	0.1 / 14 + 0.52 / 1
2.	Primary Insulation		
	Material	HDPE	HDPE
	Thickness of Insulation	0.4 mm	0.4 mm
	Dia. of Insulation	1.35 mm	1.35 mm
3.	Shielded		
	Material of Drain Wire	Aluminum alloy wire	Aluminum alloy wire
	Material (Shielding)	Aluminum Foil - 100%	Aluminum Foil - 100%
	Outer Sheath		
	Sheathing Co-axial Material	PVC -ST-1	PVC -ST-1
	Dia over Sheath	5 mm	5.5 mm
	Thickness of Sheath (Nom.)	0.7 mm	0.7 mm

Spike Guard

Microtek spike guard is a product designed to protect electrical and electronic devices from voltage spikes. It comes with auto resettable overload protection, voltage surge protection and a cable length of 2.0 meter.

AVAILABLE MODELS

- 4 UNIVERSAL SHUTTERED SOCKETS + 1 SWITCH WITH INDICATOR
- 4 UNIVERSAL SHUTTERED SOCKETS +
 4 INDIVIDUAL SWITCHES WITH INDICATORS
- 4 UNIVERSAL SHUTTERED SOCKETS + 1 SWITCH WITH INDICATOR + 2 USB CHARGERS + 1 TYPE 'C' CHARGER
- 4 UNIVERSAL SHUTTERED SOCKETS +
 4 INDIVIDUAL SWITCHES WITH INDICATORS +
 2 USB CHARGERS + 1 TYPE 'C' CHARGER



High Power MOV for Surge Protection

MICROTEK

FEATURES

















2 USB OUTPUT 2.4A, 5VDC





4 UNIVERSAL SHUTTERED SOCKETS



LED INDICATOR FOR POWER SUPPLY STATUS



ON/OFF INDIVIDUAL PUSH SWITCHES



HIGH POWER MOV FOR SURGE PROTECTION



RESETTABLE CIRCUIT BREAKER FOR OVERLOAD PROTECTION



TYPE 'C' CHARGER





Multi Plug Adaptor

Microtek Multi-Plug Adaptor is made of high quality polycarbonate that makes it robust. An amazing power output makes the adaptor an amazing source of power for all your devices and appliances





Universal Socket



Fire Retardent Poycarbonate Material



LED Indicator



6A (Max) 240V AC, 50Hz



Nickle Plated Brass Pins



Elegant & Compact Design





Microtek International Pvt. Ltd.

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