

UPS | Uninterruptible POWER SUPPLY





ounded on September 25, 1968, Allis Electric Co., Ltd. started by producing low-voltage switchgear, motor control centers, high/low-voltage integrated start-up panels, AC/DC industrial control equipment and transmission & distribution apparatus. Its steady operations led to the development of independent departments which produce transformers, switching devices and electronic products. A successful public offering in 1994 has allowed Allis Electric to continue its steady growth and to venture into the telecommunications and high-tech industries. AEC responds to the quality of work, life, and

society and share the success with our customers, employees.

Allis Electric with long history working in power quality and management solution with Uninterruptible Power Supply (UPS) products ranging from high-frequency model, parallel model and modular type. Through comprehensive before and after services from system design, installation and system maintenance performed by a professional sales and technical team comes together reliable and energy saving power management and back up mechanism.

AEC PHILOSOPHY Being competitive in the global market is how Allis does business. Through joint ventures and establishment of

Being competitive in the global market is how Allis does business. Through joint ventures and establishment of overseas offices in Europe, USA, and China, Allis Electric continues to develop strategic business alliance to strive for excellence as a multinational business group. With confidence delivered through more than 50 years of solid performance and in-depth knowledge, Allis will continuously work upon its core competencies to be ever more customeroriented and create values for its stakeholders.

RESPONSIBILITY

Allis Electric. Co., Ltd. is an expert Manufacturer of Switchgear, has been specializing in Transmission & Distribution Apparatus, UPS and Switching Mode Rectifier for 40 years. Our products are sold to many countries around the world. Besides, producing Uninterruptible Power Supply, Switchgear and Transformer according to customer's specification are available.

For product quality, we strive to maintain constant improvement; for production technology, we strive to achieve perfection. Allis Electric has

consistently set aside 6% of its annual revenues as research and development funding for improving product quality and developing new products, covering a variety of domains ranging from product selection, marketing survey, R&D assessment to budget allocation, all supported by a complete procedure with routine review meetings on R&D findings. Equally important is the area of engineering techniques



and management talent as a complete human resource straining program has been instilled for dispatching personnel to partake training at foreign affiliates or participate local management and technical seminars in acquiring new technology and management skills at home and abroad for improving the quality of products as well as over all productivity .

INNOVATION

HARMONY

AEC is committed to providing quality products and excellent service to satisfy all its customers and pursue harmony between its employees, customer and the society.

AEC keeps improving ideas, products, techniques, processes, management and services for continued growth.

AEC NUMBERS



FACTORIES 4



REVENUE \$ 154 MILLION



EMPLOYEES 673



SUPPORT CENTER 389

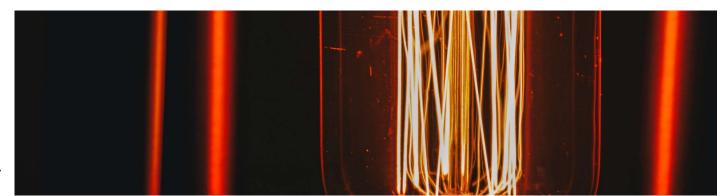


In today's world where power requirements are increasing, the quality and reliability of utility power grids are decreasing.

Every day we are constantly exposed to power problems, such as power outages, sags or surges. Any of these problems can lead to disastrous consequences if you are not prepared and protected.

Downtime caused by power problems cost to the industries billions of Euros over a year.

Industrial and commercial end users should be prepared for these problems and to solve them without consequences for their work activities.



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IST 3-J

1-10 kVA

UPS RACK

DOUBLE CONVERSION



IST 8

1-3 kVA

UPS ONLINE DOUBLE CONVERSION

PHASE



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IST 9

10-20 kVA

UPS TOWER

DOUBLE CONVERSION









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UPS ONLINE

DOUBLE CONVERSION

3:3 PHASE



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IST 6

25-600 kVA

UPS MODULAR

DOUBLE CONVERSION

3:3 PHASE



GO ____

SERIES - IST1

600 - 1500 VA **UPS LINE**

INTERACTIVE









The new IST1 UPS family available from this year has been developed in order to provide the best quality/price ratio in a market segment mostly dedicated to private users and/or small enterprises for computers protection.

The IST1 UPS is a simple user-friendly exceptionally product, robust dramatically competitive.

- LINE INTERACTIVE WITH RESPONSE TIME < 6 MSEC:
- WIDE INPUT VOLTAGE TOLERANCE;
- MANUAL START BY BATTERIES;
- **DIGITAL CONTROL OF THE BATTERIES;**
- **SMD BOARDS TECHNOLOGY;**
- LIGHTNING AND HF INTERFERENCE;
- SHORT-CIRCUIT PROTECTION;
- PROTECTED ELECTRONICS;
- ACOUSTIC ALARM.

APPLICATIONS











GUARANTEED PROTECTION

The IST1 UPS adopts the digital on-line technology, with the load normally fed by the mains, controlled and stabilised by the internal AVR; when mains fail, the Inverter comes up and guarantees uninterrupted energy to the load protected.

	TECHNICA	L SPECIFICATIO	NS				
MODELS	IST1060	IST1080	IST1100	IST1150			
NOMINAL POWER	600VA/400W	800VA/510W	1000VA/600W	1500VA/900W			
		INPUT					
VOLTAGE		from 165 to	275 Vac				
FREQUENCY		40 ~ 70Hz					
		OUTPUT					
VOLTAGE		220VAC±15% ±3	% battery mode				
MAX RANGE VOLTAGE		15,00)%				
FREQUENCY		46 ~ 5	4Hz				
FREQUENCY BATTERY MODE		50 ± 0.					
OVERLOAD		Automatic prote					
TRANSFER TIME		< 6n	ns				
	В.	ATTERIES					
ТҮРЕ		Sealed le		l .			
NUMBER OF BATTERIES	1x12V 7Ah	1x12V 9Ah	2x12V 7Ah	2x12V 9Ah			
BACK UP TIME	5 min	5 min	5 min	5 min			
RECHARGING TIME UP TO 90 %		< 10 ho	ours				
	,	ALARMS					
BATTERY MODE		Buzzer	long				
LOW BATTERY		Buzzer con	tinuous				
OVERLOAD		Buzzer	short				
	DIMENSI	ONS and WEIGH	Γ				
W×D×H (MM)	100 x 287 x 142	100 x 287 x 142	146 x 397 x 205	146 x 397 x 205			
NET WITH BATTERIES (KG)	4,5	5	8	11			
	EN\	/IRONMENT					
TEMPERATURE		-5 ~ +4	0° C				
HUMIDITY		< 90'	%				
NOISE		<45dBA @	0 1 mt				

ALL INFORMATIONS CONTAINED IN THIS BROCHURE ARE PURELY INDICATIVE AND CANNOT BE USED TO FORM ANY CONTRACTUAL OBLIGATIONS. SPECIFICATIONS OR DESIGNS CAN BE CHANGED AT ANYTIME WITHOUT NOTICE.







- 1. Input;
- 2. Output;
- 3. Fan;
- 4. Power button;
- 5. Warning lights.



SERIES - IST3

1-10 kVA **UPS TOWER**

DOUBLE CONVERSION

















Single Phase Online UPS (1-10kVA).

The IST3 smart high frequency online UPS uses full digital control technology and the latest high frequency converter technology and has high efficiency, high power factor and other advantages. It has significant energy savings and greatly reduces operation costs. It has integrated functions such as AC regulation, backup power supply, surge protection, and other functions to provide protection to equipment in harsh power grid environments and provide clean, safe, and stable power to loads.

APPLICATIONS











3 LEVEL IGBT TECHNOLOGY UPS

- 95,5% EFFICIENCY AC-AC
- **OUTPUT POWER FACTOR UP TO 1**
- **COMPACT AND SMALLER DESIGN**

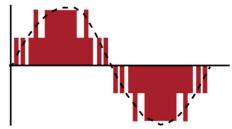


GREEN POWER



- Input power factor up to 0.996 and low THDi (< 3%) decrease pollution to city power;
- AC/AC efficiency up to 95,5%, energy saving and low carbon emission;
- Compliance with RoHS standard, innocuous and environmental friendly;
- Design in accordance to International EMC and Safety standard.



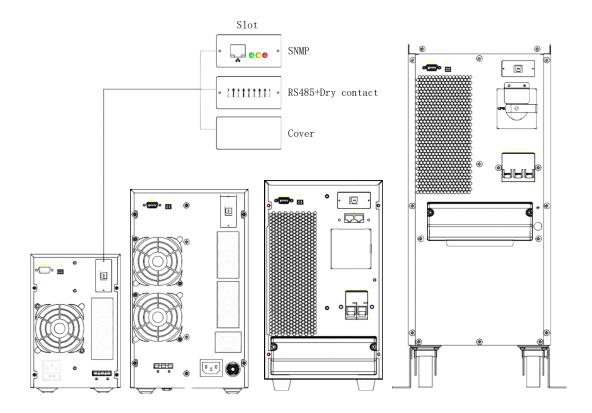


TWO LEVEL OUTPUT VOLTAGE WAVEFORM

THREE LEVEL OUTPUT VOLTAGE WAVEFORM

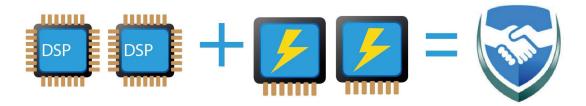
OUTSTANDING PROFITABILITY

- Minimum 0.05m footprint, save delivery cost and easy for installation;
- At least 10% more output power for your loads.



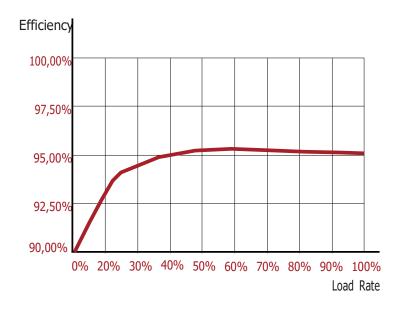
FULL DIGITAL CONTROL TECHNOLOGY

- Utilizes advanced DSP control technology, precision and fast data processing and has fast fault self-diagnosis and processing capabilities, as well as complete self-protection functions with high reliability;
- Improved circuit integration, optimized circuit designs, improved anti-interference capabilities, and stabler performance.



EXCELLENT PERFORMANCE

- Industry's leading overall system efficiency; overall full load system efficiency of up to 95% and half load efficiency of up to 90%; huge energy savings and greatly reduce client's operation costs;
- Output power factor can reach as high as 1; industry leading performance, better loading capacity for the same power; cost effective and low system investment costs;
- High power density, optimized structural design, smaller and more convenient, and reduces space usage;
- Flexible battery configurations, supports 16-20 batteries configured in any way, improves the life cycle of old batteries and improves maintenance efficiency (6KVA models and above).



WIDE FLEXIBILITY



- Ultra wide input voltage range, adaptable to different usage environments; use in harsh power environments with ease;
- Self adaptive to input frequency (50/60Hz), constant monitoring of power grid frequency; smart setup-free operation;
- Mains power grid is prioritized to prevent frequent switching between mains and battery to extend battery life.

COMPATIBLE GENERATOR



Generators are suitable for AC power input; poor quality electricity produced by the generator is effectively isolated to prevent grid pollution to provide clean, safe, and stable power to loads.

WARNING AND PROTECTION FUNCTIONS

- Automatic self-detection upon startup which discovers hidden faults in a timely manner to ensure equipment safety and avoid unnecessary loss;
- Complete protection and warning function sets off a sound and light alarm immediately to prevent hazards;
- Supports input neutral/live wire detection to prevent fire hazard from incorrect neutral and live wire connection and to ensure personnel and asset safety.

ECO FRIENDLY



- Reliable electromagnetic compatibility characteristics, certified by authoritative organizations, suitable for professional high frequency communication, and audio and video broadcasting applications
- Input power factor > 0.99, input harmonics < 3%; improved energy utilization and effectively avoids additional energy loss; eliminates power grid pollution and reduces energy costs. Smart Fan, High Efficiency Cooling.
- Multiple modes to control fan speed, extend the life of the fan and further improve efficiency and reduce power consumption.

LARGE HD SCREEN

- Well-proportioned visual effects, graphical interface, streamlined display, improved user experience;
- Supports host temperature display, making it more easier to monitor temperature changes; more manageable device safety.



DRY CONTACT SIGNAL

Variety of dry contact signals and communication functions:

- Standard communication: RS232, supports USB, SNMP, dry contact, EPO, etc;
- Smart monitoring of computers and the uninterruptible power supply can be implemented by a variety of communication methods to satisfy user's remote management needs. Complete communication management functions allows easy monitoring of device status.



3 YEARS WARRANTY UPS

		TECHNICAL SI	PECIFICATIONS				
MODELS	IST30100 IST3010-L	IST30200 IST3020-L	IST30300 IST3030-L	IST30600 IST3060-L	IST3100 IST3100-L		
		IN	PUT				
VOLTAGE (VAC)		120~295		80~27	5		
FREQUENCY (HZ)	50/60± 10% (50/60Hz auto-sensing)						
POWER FACTOR	≥0.99						
THDi			<3%				
		OU	ΓΡUΤ				
CAPACITY (VA)	1000	2000	3000	6000	10000		
MAX. AC/AC EFFI- CIENCY	92,00%	93,00%	94,00%	95,59	%		
POWER FACTOR			0.9 (1.0 optional)				
VOLTAGE (VAC)		208/220/230	/240±1% (selectable on d	isplay panel)			
FREQUENCY (HZ)		5	0/60±0.2% (battery mode	1			
THD	THD < 2% (I	inear load); THD < 5%	(nonlinear load)	THD < 1% (lin THD < 4% (non			
TRANSFER TIME (MS)			0				
		BATT	ERIES	1			
VOLTAGE (VDC)	24 or 36/36	48 or 72/72	72 or 96/96	192/192~	240		
BATT. TYPE	2×9Ah 12V / External	4×9Ah 12V / External	6×9Ah 12V / External	16×9Ah 12V/ External (16~20 units settable)	16×9Ah 12V/ External (16~20 units settable)		
CHARGER CURRENT (A) MAX.	1-4	1-4	1-4	1~8 (adjus	table)		
		OTH	HERS				
COMMUNICATION INTERFACE		(SNMP, RS	RS232, EPO, USB (slot) 485+dry contact are optio	nal in slot)			
LCD DISPLAY	AC		e, frequency, Load level, b pattery mode, bypass mode	, , ,			
ALARM		Low battery	, abnormal AC input, UPS	failure, etc.			
PROTECTION	Low battery, overload, short-circuit and over temperature, etc.						
11012011	<50 <55						
NOISE (DB)	<50		<5!	5			
	<50	,,	<5! -5~40	5			
NOISE (DB) WORKING	<50	,					
NOISE (DB) WORKING TEMPERATURE (°C)	<50 145×360×225		-5~40		/190×422×337		



SERIES - IST3-J

1-10 kVA **UPS RACK**

DOUBLE CONVERSION

















Single Phase Online UPS (Rack Type) (1-10kVA)

The IST3-J smart high frequency online UPS uses full digital control technology and the latest high frequency converter technology and has high efficiency, high power factor and other advantages. It has significant energy savings and greatly reduces operation costs. It has integrated functions such as AC regulation, backup power supply, surge protection, and other functions to provide protection to equipment in harsh power grid environments and provide clean, safe, and stable power to loads.

APPLICATIONS











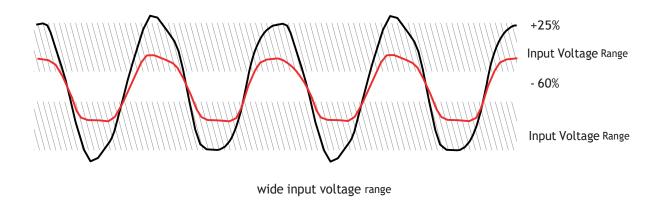
- 3 LEVEL IGBT TECHNOLOGY UPS;
- 95,5% EFFICIENCY AC-AC;
- OUTPUT POWER FACTOR UP TO 1;
- COMPACT AND SMALLER DESIGN (6-10KW ONLY 2U);
- **HOT SWAPPABLE BATTERY PACK;**
- RACK-TOWER.







- AC/AC efficiency up to 95.5%, less operation cost and more energy saving;
- Output power factor up to 1.0 (optional), more powerful to connect more critical loads;
- Fully digital control technology;
- Advanced 3-level IGBT inverter technology;
- High input power factor up to ≥0.996;
- Input PF > 0.996 and THDi < 3%, less power pollution and lower TCO.



LCD DISPLAY

User-friendly and Easy-shift LCD Display:

- The digital display can be easily shifted through LCD setting to suit for vertical/horizontal installation;
- Output voltage 208/220/230/240Vac, 50/60Hz, ECO mode all can be settable on site;
- Alarm information and operation process can be checked on the LCD.



HORIZONTAL DISPLAY



VERTICAL DISPLAY

BATTERY DESIGN

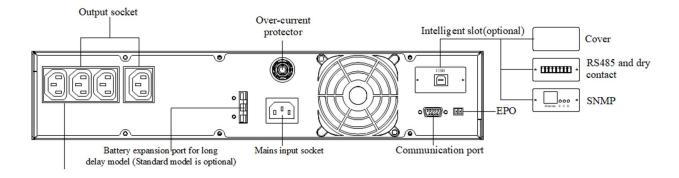
Hot-swappable Battery Design:

- · External battery pack is optional
- Easy for online battery replacement.

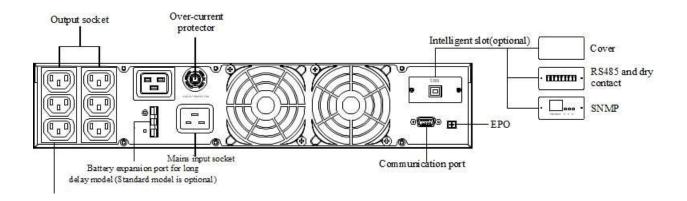
Flexible Rear Panel Configuration:

- Dry contact kits and SNMP are optional;
- Intelligent RS232+USB+EPO;
- ECO function;
- External battery pack port available.

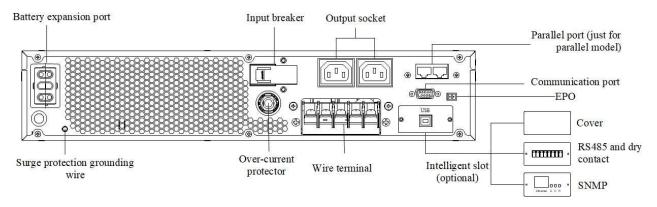
IST3-J 1KVA



IST3-J 2-3 KVA



IST3-J 6-10KVA



	Т	ECHNICAL SF	PECIFICATIONS	5				
MODELS	IST30100-J IST3010L-J	IST30200-J IST3020L-J	IST30300-J IST3030L-J	IST30600-J IST3060L-J	IST3100-J IST3100-J			
		INF	PUT					
VOLTAGE (VAC)		120~295 80~275						
FREQUENCY (HZ)	50/60± 10% (50/60Hz auto-sensing)							
POWER FACTOR	≥0.99							
THDI			<3%					
		OUT	PUT					
CAPACITY (VA)	1000	2000	3000	6000	10000			
AC/AC EFFICIENCY MAX.	92,00%	92.5%	93.3%	95.	5%			
POWER FACTOR			0.9 (1.0 optional)					
VOLTAGE (VAC)		208/220/230	0/240±1% (settable on	display panel)				
FREQUENCY (HZ)		5	0/60±0.2% (battery mo	de)				
THDV	THD <2% (linear load), THD < 5% (nonlinear load) THD <1% (linear load) < 4% (nonlinear							
TRANSFER TIME (MS)			0	1				
		BATTI	ERIES					
VOLTAGE (VDC)	24/36	48/72	72/96	192~240				
BATT TYPE	2× 9AH 12V/External	4× 9AH 12V/External	6× 9AH 12V/External	16× 9AH 12 (16~20 uni	•			
CHARGER CURRENT (A) MAX.	1-4	1-4	1-4	1/1~8 (cor	figurabile)			
		ОТН	ERS					
COMMUNICATION INTERFACE		(SNMP, RS	RS232+EPO+USB (slot) 485+ Dry contact are op					
LCD DISPLAY	AC	AC input & output voltage, Frequency, Load level, Battery level, Temperature; AC mode, Battery mode, Bypass mode, and Fault						
ALARM		Low battery	, Abnormal AC input, U	PS failure, etc.				
PROTECTION		Low battery, overlo	oad, short-circuit and o	ver temperature, etc.				
NOISE (DB)	<	50		< 55				
WORKING TEMPERATURE (°C)			-5~40					
RELATIVE HUMIDITY			0 ~ 95%, no condensati	on				
DIMENSION (W×D×H) (MM STANDARD/ LONG BACKUP	438×413×2U		38×413×2U (Batt. pack) ×2U (UPS)	438×500×2U (UPS)+ 43	8×500×3U (Batt. pack)			



SERIES - IST8 LITHIUM

1-3 kVA **UPS ONLINE**

DOUBLE CONVERSION









IST8 Li Series, online transformer-less UPS with internal Lithium-ion Battery. As the development of battery technology going on, Lithium-ion Battery, with its high-power density and longer service life, becomes more popular in nowadays applications.











APPLICATIONS













HOME/OFFICE TRANSPORT

- LITHIUM-ION UPS;
- **UP TO 60° WITH NO HARM** TO BATTERIES;
- 10-12 LIFE-TIME BATTERIES;
- **WEIGHT AND DIMENSIONS REDUCED** BY 60%;
- 95,5% EFFICIENCY AC-AC;
- **OUTPUT POWER FACTOR UP TO 1;**
- HOT SWAPPABLE BATTERY PACK;
- RACK-TOWER.



LITHIUM-ION BATTERY



SUPER-LONG BACKUP TIME:

- 13 minutes backup time by internal battery;
- Wide temperature range;
- Tolerant for up to 60°C with no harm to the internal Lithium-ion battery;
- Light and compact;
- Less weight by 60% compared to VRLA Battery;
- Long service life;
- Up to 10 years of service life;
- More circles for charge and recharge;
- Up to than 1000 times of charge/recharge;
- Environment-friendly;
- Lithium-ion battery is more environment-friendly.

LCD DISPLAY

• The LCD display easily rotates for horizontal and vertical application.



HORIZONTAL DISPLAY



VERTICAL DISPLAY

GREEN POWER

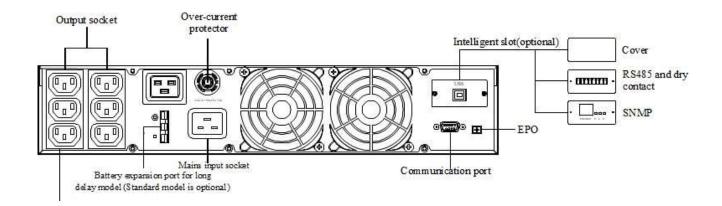


- AC/AC efficiency up to 95.5%, less operation cost and more energy saving;
- Output power factor up to 1.0, more powerful to connect more critical loads.

COMPACT DIMENSION

- Space-saving, easy for installation;
- 10 years UPS maintenance-free
- Less weight, more power
- Rack 19" and tower design

IST8 1-2-3 KVA







3 YEARS WARRANTY UPS

	TECH	NICAL SPECIFICA	TIONS				
MODELS	IST81000-LI	IST82000-LI	IST82200-LI	IST83000-LI			
		INPUT					
VOLTAGE (VAC)		60-148					
FREQUENCY (HZ)	50/60± 10% (50/60Hz)						
POWER FACTOR		≥0.99					
THDI			:5%				
		OUTPUT					
CAPACITY (W/VA)	1000/1000	2000/2000	2200/2200	3000/3000			
AC/AC EFFICIENCY	91.7%	92.5%	95.5%	95,5%			
POWER FACTOR		u	p to 1				
VOLTAGE (VAC)		110/	120±1%				
FREQUENCY (HZ)		50/60±0.1	(battery mode)				
THDV		<	3%				
TRANSFER TIME(MS)			0				
ECO MODE		•	Yes				
OVERLOAD	101		33% for 1 s, above 134% fo	r 200ms			
	LIT	HIUM-ION BATTE	RY				
VOLTAGE (VDC)	24	48	72	72			
BACKUP TIME (MINS)	11	11	22	11			
CHARGING CURRENT (A) MAX.			4				
		OTHERS					
COMMUNICATION INTERFACE			SNMP (slot) act is optional in slot)				
OUTPUT OUTLET	(8) 5-15R	(6) 5-20R	(6) 5-20R	(4) 5-20R + (1) L5-30R			
DISPLAY		LCD displays the I	running status of UPS				
PROTECTION		Battery under-voltage protection, overload protection, short-circuit protection, over-temperature protection, input over-voltage protection					
NOISE (DB)			< 55				
WORKING TEMPERATURE	(Best oper	The operating temperature is 0°C~60°C (Best operating temperature is 0~40°C, output power derated from 40°C~60°C)					
RELATIVE HUMIDITY		0 /	~ 95%				
DIMENSION (W×D×H) (MM)	438×420×87	438×570×87	438×615×87	438×570×87			
WEIGHT (KG)	8.9	13.6	17.1	19.1			



SERIES - IST9

10-20 kVA **UPS TOWER-RACK**

DOUBLE CONVERSION













Online UPS Rack/Tower Type (10-20kVA). The IST9 series is the best solution for protecting data centers, IT networks, telecommunications systems, automation control systems and promised afford stable and reliable power supply for the critical load. The IST9 series is available 10-15-20 kVA models with three phase\ single phase input and three phase \single phases output. **APPLICATIONS**





DATA CENTER HOME/OFFICE TRANSPORT











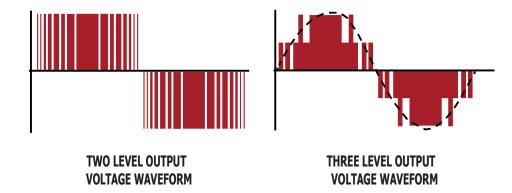
• 3 LEVEL IGBT TECHNOLOGY UPS;

- FLEXIBLE CONFIGURATION ON SITE 1:1 3:1 3:3;
- 96% EFFICIENCY;
- OUTPUT POWER FACTOR UP TO 1;
- PARALLELABLE UP TO 4 UNITS;
- **RACK-TOWER.**



ADVANCED TECHNOLOGY

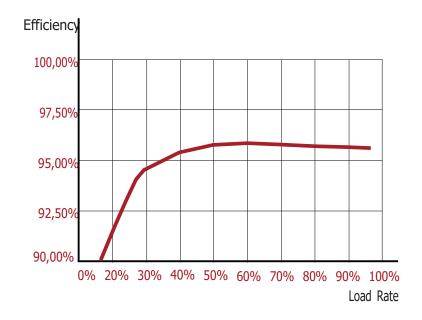
- Adjustable 33/31/11 input & output configuration;
- Online Double Conversion;
- Fully digital control technology;
- High input power factor up to ≥0.996;
- High output power factor up to 0.9 (1.0 Optional).







- Low THDi: <3%;
- High AC/AC efficiency up to 96%;
- Compact dimensions;
- · Light weight.



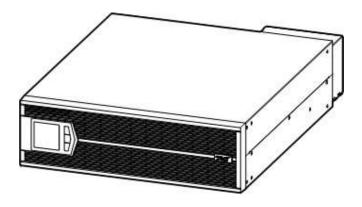
EXCELLENT FLEXIBILITY

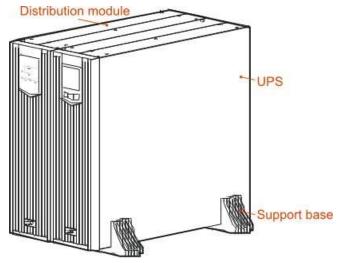
- · 4 units parallel supported;
- Tower and rack compatible design;
- 24-40 batteries adjustable;
- Max. 10A Charging Current;
- Intelligent RS485+EPO;
- ECO function.



USER FRIENDLY

- Tower and rack compatible design;
- Adjustable battery numbers and charge current;
- Power Distribution Box for easy management.





	TECHNICA	L SPECIFICATIONS				
MODELS	IST9100 IST9150 IST9					
		INPUT				
VOLTAGE (VAC)		80-280 (L-N) or 138-485 (L-L)				
FREQUENCY (HZ)	40-70					
POWER FACTOR		≥0.99				
THDI		<3%				
	(OUTPUT				
CAPACITY (KVA)	10	15	20			
MAX. AC/AC EFFICIENCY		96,00%				
POWER FACTOR		0.9 (1.0 optional)				
/OLTAGE (VAC)	220/230/	/240±1% (L-N) or 380/400/415±1%	(L-L) (settable)			
REQUENCY (HZ)		50/60±0.1 (battery mode)				
THDV	THO	O <2% (linear load), THD < 4% (nonli	near load)			
TRANSFER TIME (MS)		0				
CO MODE		Yes				
OVERLOAD	115%~130% load for 15mins, 130%~150% load for 1min, above 150% load for 200ms					
	Вл	ATTERIES				
/OLTAGE (VDC)		±192 (±144~±240 adjustable)				
CHARGING CURRENT (A)		4 (1-10 settable)				
	(OTHERS				
COMMUNICATION		RS485+EPO				
INTERFACE	(F	RS232+Dry contact, SNMP are option	al in slot			
DISPLAY		Blue screen LCD				
ALARM	Lov	w battery, abnormal AC input, UPS fa	ailure, etc.			
PROTECTION	Low batte	ry, overload, short-circuit and over t	emperature, etc.			
IOISE (DB)		< 55				
VORKING TEMPERATU- E (°C)	-5~40					
RELATIVE HUMIDITY		0 ~ 95%				
DIMENSIONS (W×D×H) MM	UPS	438×5	500×130(3U)			
PTILIFIATIONS (MVDVII) IIIII	Distribution Box	438×5	500×130(3U)			
WEIGHT (KG)	UPS		20			
METALL (VA)	Distribution Box		8			



SERIES - IST7

10-200 kVA **UPS ONLINE**

DOUBLE CONVERSION

















3 Phase Online UPS (10-200kVA).

The IST7 series 3-Phase in, 3-Phase out UPS uses advanced 3 level inverter technology and digital technology for full interconnection and has advantages such high efficiency, high power density and occupies only a small amount of floor space. It provides safe, stable, clean, and environmentally friendly power to loads and can provide safe and reliable comprehensive protection to data centers, IT server rooms, precision instruments and others.

APPLICATIONS











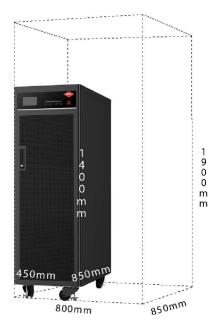


- **3 LEVEL IGBT TECHNOLOGY UPS:**
- **MODULAR DESIGN;**
- **UPGRADABLE ON SITE (50-200KVA);**
- 96% EFFICIENCY;
- **OUTPUT POWER FACTOR 1;**
- **FULLY SETTABLE FROM DISPLAY** ON SITE;
- **SELF-CLEANING FUNCTION:**
- **CAPTURE WAVE-FORM GRAPHICS** ON DISPLAY (BLACK BOX);
- HOT-SWAPPABLE BATTERY PACKS.



ECO-ENERGY SPACE SAVER

High power density, 200kVA and occupies only 0.54 square meters of area; saves a lot of surface space in the client's server room while having an environmentally friendly design. It uses the latest 3 level IGBT rectifying technology and its input power factor approaches unit power factor and improves energy efficiency to up to 96%.

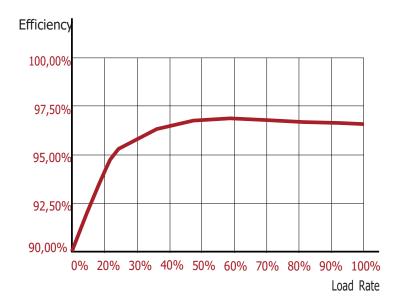


Compare to normal size in the market





The IST7 Series allow 100% three phase unbalanced load. With a power factor equal to 1, significant savings are made on energy consumption and equipment investments costs so cost effectiveness increases.



LOWER TOTAL COST

The system has a touch screen with powerful functions, dual button on/off switching, user-friendly interface, easy to operate protection functions and warning alarms. It also has complete input over voltage, input under voltage, over load, short circuit, and component failure warning to reduce client operation and maintenance costs and has smart waveform record for failure that can record key simulations and digital signals a few cycles before and after a fault occurs to make it much easier for equipment maintenance and troubleshooting. This effectively improves system maintenance time efficiency. The 4D fan design further improves overall system efficiency and makes operation and maintenance management more convenient and improves overall operation reliability.

SAVINGS CHEAP

- 120kVA/120kW Full load running one day (24h) compare with industrial efficiency 92%;
- Day saving energy: $(120kVA \times 1.0 \times 96\% 120kVA \times 0.8 \times 92\%) \times 24h = 645.12 kWh;$
- Day saving money: 645.12 x 0,1 Euro/kWh = 64.512 Euro (hypothesis 0.1 Euro/kWh);
- Each year saving energy: $645.12 \times 365 = 235468.8 \text{ kWh}$;
- Each year saving money: $0.1 \times 235468.8 = 23546.88$ Euro.



€ 23.546,88 **PER YEAR**

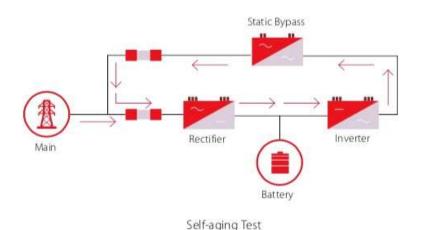
SMARTER OPERATION

Smarter Operation and Maintenance Management Modular design allow operations of maintenance and reparations to be quicker and safer.

Replacing Power Module of UPS IST7 has never been so easy and fast,in fact the average time to replace faulty component is less than 30 minutes, reducing all costs of reparations by 50%.

Full digital interconnection, advanced dual DSP control technology, fast fault self-diagnosis, full redundancy coverage, no more single point of failure, and good system compatibility ensures reliable power supply to the load from an ultra-wide range of input from the power grid, while the smart generator control enables flexible adaptation to various complex power grid environments.





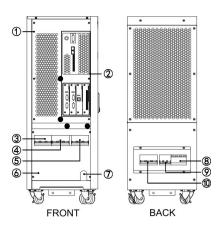
SELF-CLEANING FUNCTION



The new self de-dusting mode periodically blows all the dust out of the power module in order to reduce the risk of PCB failure due to dust corrosion by more than 30%.

Self de-dusting mode can be set daily, weekly or periodically at user's convenience.

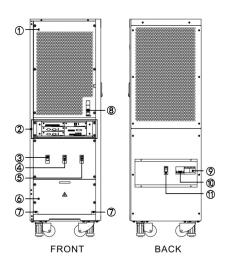
IST7 10-40KVA



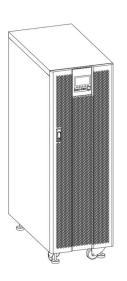
- 1. TOP COVER PLATE;
- 2. CONTROL UNIT;
- POWER BREAKER;
- 4. BYPASS BREAKER;
- 5. OUTPUT BREAKER;
- 6. WIRING COVER PLATE;
- 7. WIRING HOLES OF COMMUNICATION WIRES;
- 8. SURGE PROTECTION DEVICE (OPTIONAL);
- 9. SURGE PROTECTION BREAKER (OPTIONAL);
- 10. MAINTENANCE BUPASS BREAKER.



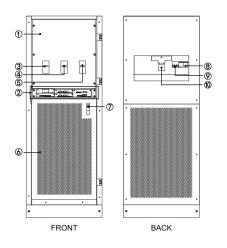
IST7 50-120KVA



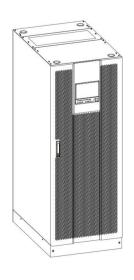
- 1. TOP COVER PLATE;
- 2. CONTROL UNIT;
- POWER BREAKER;
- 4. BYPASS BREAKER;
- 5. OUTPUT BREAKER;6. WIRING COVER PLATE;
- 7. WIRING HOLES OF COMMUNICATION WIRES;
- 8. BATTERY SLOW START BOTTON;
- SURGE PROTECTION DEVICE (OPTIONAL);
- 10. SURGE PROTECTION BREAKER (OPTIONAL);
- 11. MAINTENANCE BUPASS BREAKER.



IST7 160-200KVA

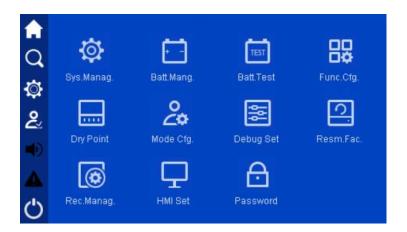


- . WIRING COVER PLATE;
- CONTROL UNIT;
- 3. POWER BREAKER;
- 4. BYPASS BREAKER;
- 5. OUTPUT BREAKER;
- 6. BOTTOM COVER PLATE;
- BOTTOM START BUTTON;
- 8. SURGE PROTECTION DEVICE (OPTIONAL);
- 9. SURGE PROTECTION BREAKER (OPTIONAL);
- 10. MAINTENANCE BUPASS BREAKER.





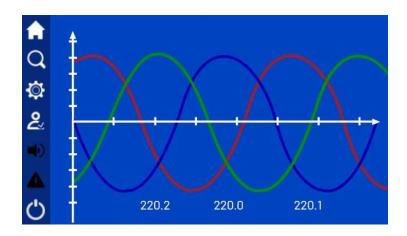
UPS 100% Fully settable from dispaly on site Thank to advanced computerized display, IST7 Series UPS is completely configurable from display directly on site without the need of PC or specialized software.



BLACK BOX Capture wave-form graphics on display (black box)

The operating system incorporated in the computerized display is able to analyze and record waveforms of each individual components of the UPS.

Through the computerized colored display it is possible to show waveforms of each phase, thus simplifying the localized identification of problems or distortions of any kind inside or outside the apparatus.





3 YEARS WARRANTY UPS



BEST PRODUCT
3PHASE UPS 2019

TECHNICAL SPECIFICATIONS							
MODELS	IST7010 IST7010-L	IST7020 IST7020-L	IST7030 IST7030-L	IST7040 IST7040-L			
		INPUT					
VOLTAGE (VAC)	380/400/415 (138~485 L-L)						
FREQUENCY (HZ)		40~70					
BYPASS VOLTAGE (VAC)		380/400/415: -20%~+15%					
POWER FACTOR		≥0	.99				
THDI		≤3	3%				
PHASE		3	W+PE				
		OUTPUT					
CAPACITY (KVA)	10	20	30	40			
POWER FACTOR			1				
VOLTAGE (VAC)		L-N: 220/230/240±1%	L-L: 380/400/415±1%				
FREQUENCY (HZ)		50/60±0.1 (b	pattery mode)				
PHASE		3	W+PE				
UNBALANCE 3-PHASE VOLTAGE STABILIZATION WITH FULL LOAD		≤2	2%				
WAVEFORM		Pure sine wave, 7	ΓHD<1% at linear				
EFFICIENCY		up to	96%				
OVERLOAD		131%~150% load for 1min	116%~130% load for 10mir n; >150% load for 200ms	ns;			
		BATTERY					
BATTERY VOLTAGE (VDC)	±192/±21	.6 (±180/±204/±216/±228)	/±240 settable for long back	rup type)			
BATT TYPE	32×9AH 12V / External	36×9AH 12V / External	72×9AH 12V / External	72×9AH 12V / External			
CHARGING CURRENT (A)		1-	10				
		OTHERS					
COMMUNICATION INTERFACE	(RS	•	IS, dry contacts ntact card are optional in sl	ot)			
DISPLAY		Touch sc	reen+LED				
ALARM		AC input abnormal, low	battery, overload, failure				
PROTECTION	Output short-circuit, o	verload, over temperature	e, battery low voltage, outp	ut over/low voltage			
NOISE (DB)		<	65				
WORKIN TEMPERATURE (°C)		0~	40				
RELATIVE HUMIDITY		0~95%, no	condensation				
DIMENSION (W×D×H)(MM)	320×840×1030 /	320×840×867	320×840×1400	/ 320×840×867			
WEIGHT (KG)	240 / 120	250 / 120	350 /	120			

TECHNICAL SPECIFICATIONS							
MODELS	IST7050	IST7080	IST7100	IST7120	IST7160	IST720	
		IN	IPUT				
OLTAGE (VAC)			380/400/415 (1	38~485 L-L)			
REQUENCY (HZ)			40~7	70			
YPASS VOLTAGE (VAC)			380/400/415: -	20%~+15%			
OWER FACTOR			≥0.9	9			
HDI			≤3%	6			
PHASE			3	+PE			
		OU	TPUT				
CAPACITY (KVA)	50	80	100	120	160	200	
OWER FACTOR			1				
OLTAGE (VAC)		L-N:	220/230/240±1% L	-L: 380/400/415∃	:1%		
REQUENCY (HZ)			50/60±0.1 (ba	ttery mode)			
PHASE	3 φ 4W+PE						
JNBALANCE 3-PHASE /OLTAGE STABILIZATION NITH FULL LOAD	≤2%						
WAVEFORM	Pure sine wave, THD<1% at linear						
FFICIENCY			up to 9	6%			
OVERLOAD		131%	% load for 60mins; 1 ~150% load for 1min;				
		BAT	TERIES				
BATTERY VOLTAGE (VDC)		±192/±216 (±180)/±204/±216/±228/±	240 settable for lor	ng backup type)		
BATT TYPE	External						
CHARGING CURRENT (A)		1-30			1-40		
		ОТ	HERS				
COMMUNICATION INTERFACE	RS485, MODBUS, dry contacts (RS232, SNMP, expend dry contact card are optional in slot)						
DISPLAY	Touch screen+LED						
ALARM	AC input abnormal, low battery, overload, failure						
PROTECTION	Output s	hort-circuit, overload	l, over temperature,	battery low voltag	e, output over/low	voltage	
NOISE (DB)			<65	5			
NORKIN TEMPERATURE (°C)			0~4	0			
RELATIVE HUMIDITY			0~95%, no co	ndensation			
DIMENSION (W×D×H)(MM)		450×840)×1400		600×90	0×1600	
WEIGHT (KG)	180	210	24	12	320	350	



25-600 kVA **UPS MODULAR**

DOUBLE CONVERSION

Online Modular UPS (50-600kVA)

The IST6 series modularized 3-Phase in, 3-Phase out UPS utilizes advanced 3 level inverter technology, a more reliable redundancy design from the entire system down to the components, and digital technology interconnection. It has the advantages of high efficiency, high power density, easy scaling, scaling on demand, and occupies only a small amount of floor area and provides safe, reliable, and clear environmentally friendly power to loads.

SERIES - IST6

















- MODULAR UPS;
- **OUTPUT POWER FACTOR 1;**
- ALL HOT-SWAPPABLE DESIGN SYSTEM;
- FULLY SETTABLE FROM DISPLAY ON SITE.

APPLICATIONS













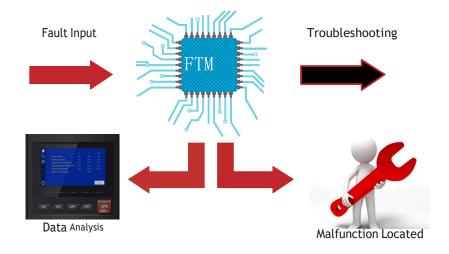




Full Digital Connection, Flexible Online Scaling:

FULL DIGITAL CONNECTION

- Advanced dual DSP control technology; accurate and fast data processing; optimized circuit design; fast fault self-diagnosis and repair capabilities; higher reliability;
- Online capacity scaling available without the need for additional attachments to implement N+X parallel connection. The system has the parallel redundancy and parallel capacity scaling modes making application much more flexible and compatible with more parallel connections;
- Safe and reliable digitalized digital parallel uniform stream technology; more balanced parallel loads ensures quality power is delivered to high demanding IT equipment and ensures safe operation of user equipment.



Synchronized and Unhindered, Guaranteed Safety:

- Has BSC output to solve the problem of unsynchronized power input;
- Pure digital technology; powerful anti-interference capabilities provides quality power to loads.

High Power Density, Optimized Structural Configuration

SAFETY SYNCHRONIZED

- Large 320kVA capacity for a single cabinet; occupies only 0.5 square meters of floor space, optimized structure design greatly reduces floor space usage and land investment costs;
- Has cable entry on the top of the cabinet to satisfy different scenarios;
- Host and battery equipped with protective mechanisms for reliable double layered protection;
- Module terminal uses carefully selected high strength material to ensure module reliability and hot swapping.

GRID ADAPTABILITY

Great Power Grid Adaptability:

- Prevents frequent switching between power grid and battery power and extends battery life;
- Smart generator control gives a better generator configuration and control solution for better compatibility.



Environmentally Friendly Energy Saving Design:

ENERGY SAVING DESIGN

- Uses the latest IGBT rectifying technology with ultra-low input harmonics; eliminates power grid pollution, reduces power factor compensation and harmonic control costs and reduces wire attenuation. Protects the load as well as the power grid at the same time;
- Input power factor is close to power factor; improved energy utilization and reduced UPS front-end power distribution costs and client investment costs.



TWO LEVEL OUTPUT VOLTAGE WAVEFORM



THREE LEVEL OUTPUT VOLTAGE WAVEFORM

PROTECTIVE FUNCTIONS

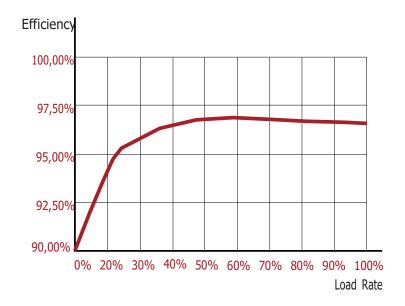
Complete Protective Functions and Failure Warning:

- Component failure pre-warning function, nips the problem of system failure and associated risks at the bud;
- Smart battery disconnection detection and battery circuit, abnormality warnings reduce operation and maintenance costs and risks.

OUTSTANDING METRICS

Outstanding Metrics, Improved Efficiency:

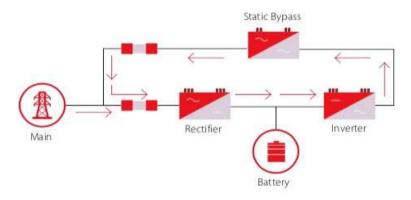
- Overall system efficiency of up to 96% with great energy savings (heat from the UPS and cooling energy consumption), reduced operation costs;
- Default power factor of 1.0; greater power output for the same price; better cost effectiveness and complies with the developing trend of increasing power factor for IT products;
- When the power quality from the mains grid is high, ECO mode can be used to provide power to the load. Overall system efficiency can reach up to 99% resulting in significant energy savings.



ROTATING MODULE

Highly Efficiency Rotating Module Sleeping:

- Module sleep technology improves operation efficiency and reduces operation costs;
- Maintenance cycle effectively extends battery life and improves overall system efficiency.



Self-aging Test

TECHNICAL SPECIFICATIONS						
MOI	DELS	IST6125	IST6200	IST6300		
POWER	MODULE	IST625-J	IST	550-J		
		INPUT				
RATED VOLTAGE (VAC	C)	380/400/415				
VOLTAGE RANGE (VA	C)	L:L 138~485				
INPUT FREQUENCY (I	HZ)		40-70			
BYPASS VOLTAGE RA	-	-15% (-20%/-30	% optional) ~+15%(+10% /+2	20% optional)		
POWER FACTOR		·	≥0.99			
THDI			<5% (nolinear, full load)			
PHASE			3			
BATTERY VOLTAGE (\	/DC)	±192 (±180~ ±2	276 settable)	±240 (±180~ ±276 settable		
CHARGING CURRENT	(A)	N×10 Maxin	num (N: the number of power n	nodules)		
		OUTPUT				
CAPACITY (KVA)		125	200	300		
POWER FACTOR			1			
PHASE		3 Ф 4W+PE				
WAVEFORM		sine wave				
VOLTAGE (VAC)		L-L:380,400,415 ±1%				
FREQUENCY (HZ)		50/60± 0.2% (battery mode)				
THREE PHASE DIFFE	RENCE		≤2 degrees			
THDV		≤1% (linear lo	ad, full load), ≤4% (nolinear loa	d, full load)		
MAX. SYSTEM EFFICI	ENCY		96%			
PARALLEL MODE		Advanced no-mast	er-slave parallel technology, N	+1 redundancy		
OVERLOAD CAPACITY	,		.16%-130% load for 10mins, 133 150% load transfer to bypass	1%-150% load for 1 min,		
		OTHERS				
OPERATING TEMPERA	ATURE (°C)		0~40			
RELATIVE HUMIDITY			0%~95%, no condensing			
COMMUNICATION FUI	NCTION	<u>, </u>	RS232, dry contact (SNMP option	,		
NOISE (DB)		< 65		70		
POWER MODULE (KV/		25	5	50		
"POWER MODULE DIM (W×D×H) MM"	MENSION		500x700x130			
POWER MODULE WEI	GHT (KG)	32 33				
DIMENSION (W×D×H)	(MM)	600×900×1400	600×86	50×2000		
	UPS	162	224	236		
WEIGHT (VC)	Bypass Module	20	23	27		
WEIGHT (KG)	Power Module	32	3	33		
	Total	347	379	461		

		TECHNICAL SPECI	FICATIONS		
MODELS		IST6400	IST6500	IST6600	
POWER	R MODULE		IST650-J		
		INPUT			
RATED VOLTAGE (V	AC)		380/400/415		
VOLTAGE RANGE (V	AC)		L:L 138~485		
INPUT FREQUEN	CY (HZ)		40-70		
BYPASS VOLTAGE R		-15% (-20%/-	30% optional) ~+15%(+10% /+20	0% optional)	
POWER FACTOR			≥0.99		
THDI			<5% (nolinear, full load)		
PHASE			3		
BATTERY VOLTAGE	(VDC)		±240 (±180~ ±276 settable)		
CHARGING CURREN	T (A)	N×10 Ma	ximum (N: the number of power m	nodules)	
		OUTPUT			
CAPACITY (KVA)		400	500	600	
POWER FACTOR			1		
PHASE			3		
WAVEFORM			sine wave		
VOLTAGE (VAC)			L-L:380,400,415 ±1%		
FREQUENCY (HZ)			50/60± 0.2% (battery mode)		
THREE PHASE DIFFE	ERENCE		≤2 degrees		
THDV		≤1% (linear	load, full load), ≤4% (nolinear load	d, full load)	
MAX. SYSTEM EFFIC	CIENCY		96%		
PARALLEL MODE		Advanced no-ma	ster-slave parallel technology, N+	1 redundancy	
OVERLOAD CAPACIT	ГҮ	0'	s, 116%-130% load for 10mins, 131 ver 150% load transfer to bypass		
		OTHERS			
OPERATING TEMPER	` '		0~40		
RELATIVE HUMIDIT			0%~95%, no condensing	D.	
COMMUNICATION FU	UNCITON	KS48	5, RS232, dry contact (SNMP optio	inai)	
NOISE (DB) POWER MODULE	: (KVA)		<70 50		
"POWER MODULE DI					
(W×D×H) MM"			500x700x130		
POWER MODULE WE	EIGHT (KG)		33		
DIMENSION (W×D×H	f) (MM)		1200×860×2000		
	UPS		427		
WEIGHT (VC)	Bypass Module	27 31 31			
WEIGHT (KG)	Power Module	33			
	Total	718	788	873	

EXCELLENT SERVICE SINCE 1968









3 YEARS WARRANTY UPS



24/7 LIVE ASSISTANCE FOR INSTALLATIONS AND REPARATIONS



BATTERIES

Utilising the latest advance design Oxygen Recombination Technology, AEC have applied its 50 years experience in the lead acid battery field to produce the optimum design of Sealed Lead Acid batteries SPECIFICALLY for UPS applications.



THE BATTERIES WE ARE OFFERING HAS BEEN SPECIALLY DESIGNED TO FEED UPS OR EMERGENCY SYSTEMS AND CARRY THE FOLLOWING TECHNICAL CHARACTERISTICS:

- Totally sealed and no hydrogen gas emissions in operation; no water topping during the battery life. In fact water addition is not allowed;
- No risk of electrolyte leakage because the electrolyte (diluted sulphuric acid) is absorbed in a glass-matt separator-AGM;
- Plates are robust as they are molded with special alloys having different components that guarantee to the grids high mechanical resistance;
- Container and lid are made of ABS (Acrilonitryle Butadiene Styrene);
- Conformity to international standards such as JIS, UL, VDE, IATA;
- High discharge intensity;
- DESIGN LIFE 10-12 or more than 12 years in according to Eurobat guide;
- Case: UL-94 HB or UL94-V0 Flame retardant.







SAFETY

Each element is supplied with a pressure relief valve that allows the emission of gases in presence of abnormal overpressure, that can show up due to casual overcharge.

DRY CONTACT

The dry contact card allows to have a series of normally open or normally closed dry contacts (voltage free) to indicate the following operations of the UPS:

- Bypass mode;
- · Absence of the mains;
- · Inverter mode;
- Problems to the batteries;
- Presence of a generic alarm.

It is also possible to perform a manual or automatic remote shutdown of the UPS



SNMP NET AGENT

Simple Network Management Protocol (SNMP) was created to address the problem of wide area network management. SNMP is a standard protocol that is part of the Transmission Control Protocol/Internet Protocol (TCP/IP) suite which allows all network devices to transmit management variables across enterprise wide networks.

SNMP is vendor and platform-independent and establishes guidelines for what information will be collected, how it will be structured and how the messages are formed from the network device to the manager and back. Network devices then gather information into a management information base (MIB).

A user's operating system software uses SNMP management software to collect and display the MIB data in an easily understood format.

