



We are
behind the Power

UPS | Uninterruptible POWER SUPPLY

CATALOG

WWW.AECUPS.COM



COMPANY

AEC SINCE 1968

Founded 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 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 customer-oriented 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



PRODUCTS

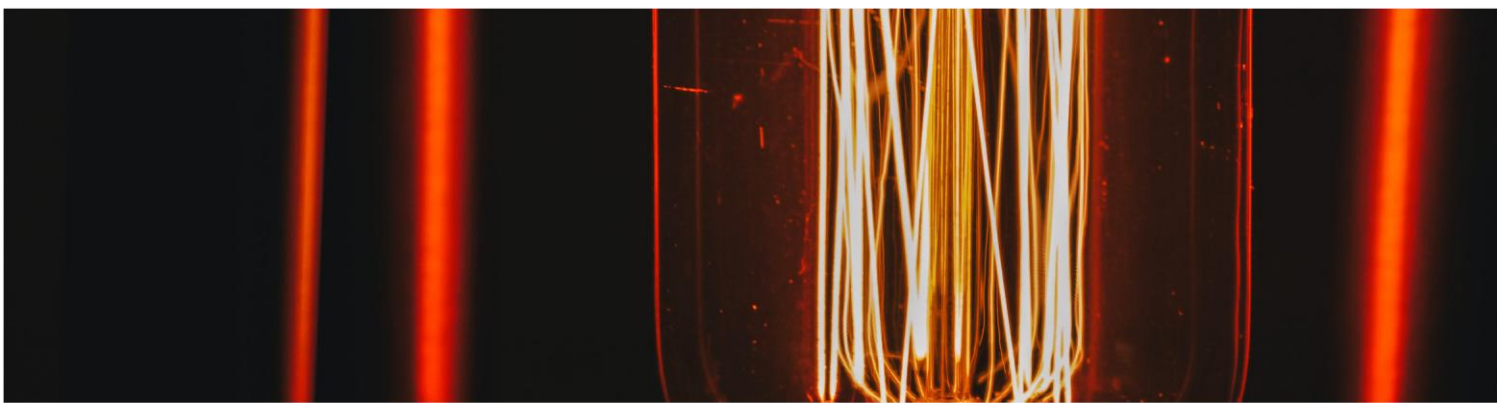
UNINTERRUPTIBLE POWER SUPPLY

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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UPS LINE INTERACTIVE



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1-10 kVA
UPS RACK
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PHASE

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IST 9
10-20 kVA
UPS TOWER
DOUBLE CONVERSION



1:1 3:1 3:3
PHASE PHASE PHASE

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IST 6
25-600 kVA
UPS MODULAR
DOUBLE CONVERSION



3:3
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IST 3
1-10 kVA
UPS TOWER
DOUBLE CONVERSION



1:1
PHASE

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IST 8
1-3 kVA
UPS ONLINE
DOUBLE CONVERSION



1:1
PHASE

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IST 7
10-200 kVA
UPS ONLINE
DOUBLE CONVERSION



3:3
PHASE

GO



SERIES - IST1

600 - 1500 VA

UPS LINE

INTERACTIVE



1:1
PHASE

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 product, exceptionally robust and 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



HOME/OFFICE



TRANSPORT



INDUSTRY



EMERGENCY



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.

TECHNICAL SPECIFICATIONS

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 ~ 54Hz
FREQUENCY BATTERY MODE	50 ± 0.5 Hz
OVERLOAD	Automatic protection > 150%
TRANSFER TIME	< 6ms

BATTERIES

TYPE	Sealed lead acid			
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 hours			

ALARMS

BATTERY MODE	Buzzer long
LOW BATTERY	Buzzer continuous
OVERLOAD	Buzzer short

DIMENSIONS and WEIGHT

WxDxH (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

ENVIRONMENT

TEMPERATURE	-5 ~ +40° C
HUMIDITY	< 90%
NOISE	<45dBA @ 1 mt

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

SERIES - IST3

1-10 kVA

UPS TOWER

DOUBLE CONVERSION



kW = kVA

95,5%
Efficiency



PF=
1.0



1:1
PHASE

APPLICATIONS



FINANCE



TELECOMMUNICATION



ENERGY



MEDICAL



GOVERNMENT

- 3 LEVEL IGBT TECHNOLOGY UPS
- 95,5% EFFICIENCY AC-AC
- OUTPUT POWER FACTOR UP TO 1
- COMPACT AND SMALLER DESIGN

DETAILS

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.



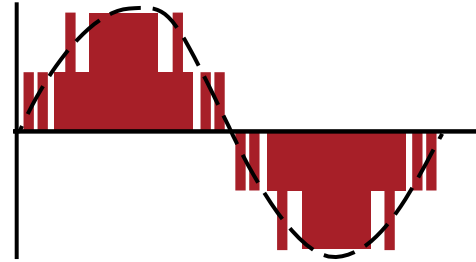
GREEN POWER



- 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.



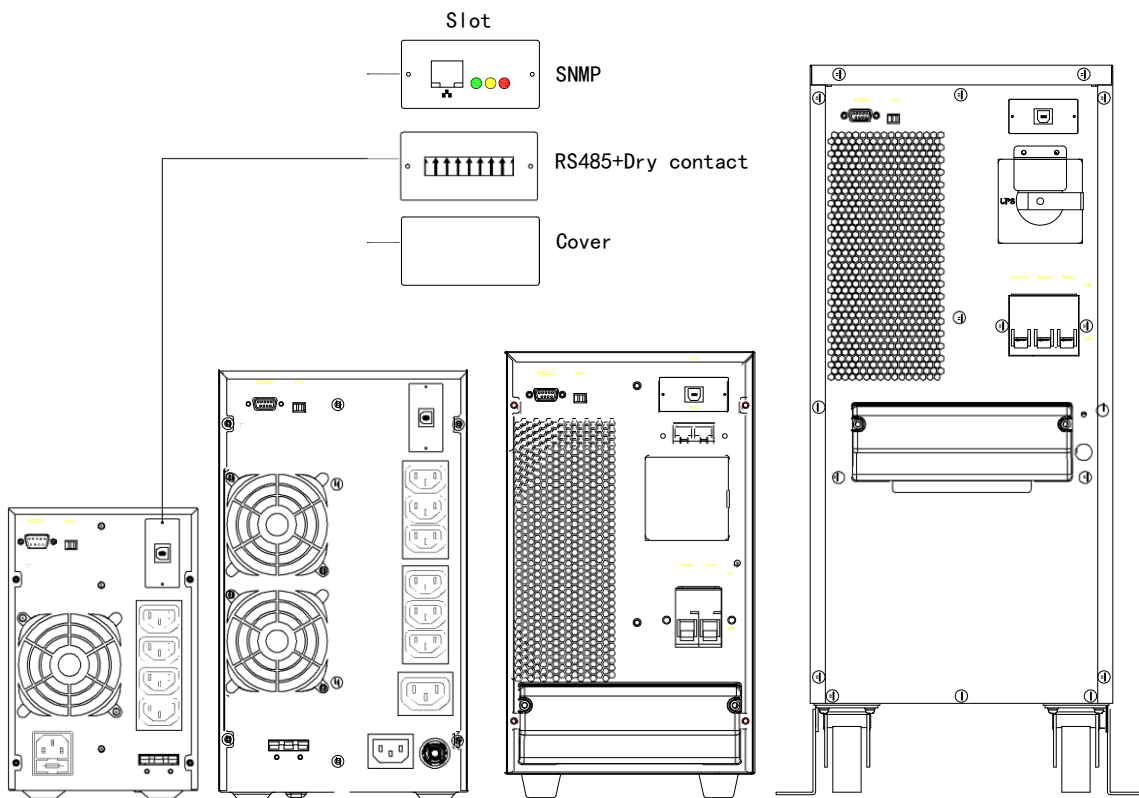
TWO LEVEL OUTPUT
VOLTAGE WAVEFORM



THREE LEVEL OUTPUT
VOLTAGE WAVEFORM

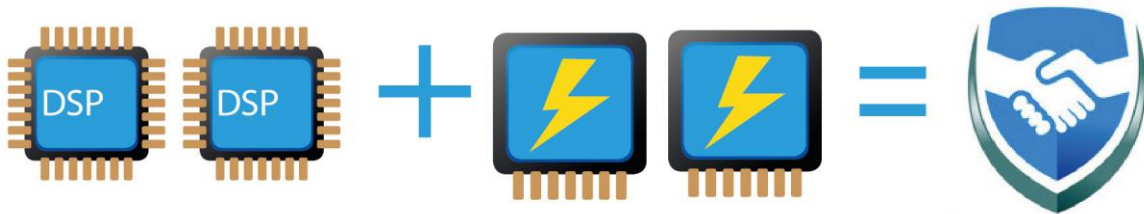
OUTSTANDING PROFITABILITY

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



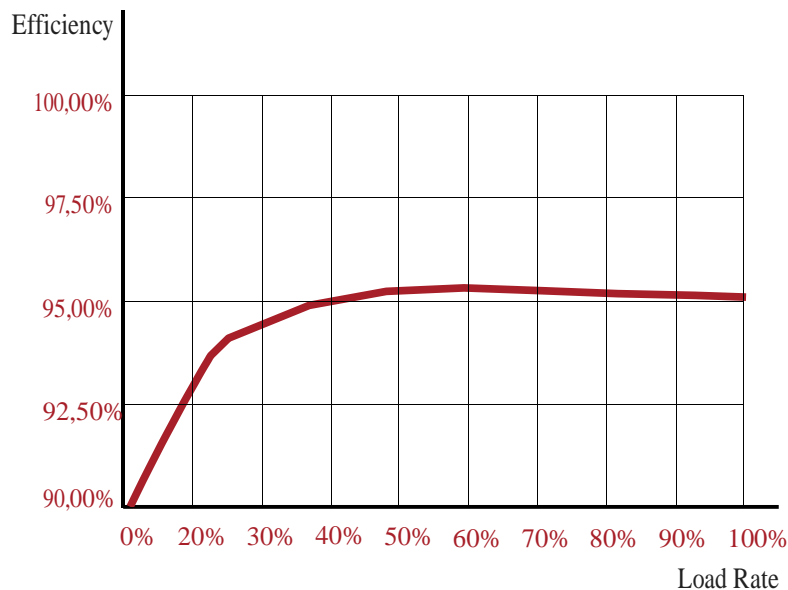
FULL DIGITAL CONTROL TECHNOLOGY

- 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 SPECIFICATIONS

MODELS	IST30100 IST3010-L	IST30200 IST3020-L	IST30300 IST3030-L	IST30600 IST3060-L	IST3100 IST3100-L
INPUT					
VOLTAGE (VAC)	120~295			80~275	
FREQUENCY (HZ)	50/60± 10% (50/60Hz auto-sensing)				
POWER FACTOR	≥0.99				
THDi	<3%				
OUTPUT					
CAPACITY (VA)	1000	2000	3000	6000	10000
MAX. AC/AC EFFICIENCY	92,00%	93,00%	94,00%	95,5%	
POWER FACTOR	0.9 (1.0 optional)				
VOLTAGE (VAC)	208/220/230/240±1% (selectable on display panel)				
FREQUENCY (HZ)	50/60±0.2% (battery mode)				
THD	THD < 2% (linear load); THD < 5% (nonlinear load)			THD < 1% (linear load); THD < 4% (nonlinear load)	
TRANSFER TIME (MS)	0				
BATTERIES					
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 (adjustable)	
OTHERS					
COMMUNICATION INTERFACE	RS232, EPO, USB (slot) (SNMP, RS485+dry contact are optional in slot)				
LCD DISPLAY	AC input & output voltage, frequency, Load level, battery level, temperature; AC mode, battery mode, bypass mode, and fault				
ALARM	Low battery, abnormal AC input, UPS failure, etc.				
PROTECTION	Low battery, overload, short-circuit and over temperature, etc.				
NOISE (DB)	<50				<55
WORKING TEMPERATURE (°C)	-5~40				
RELATIVE HUMIDITY	0 ~ 95%, no condensation				
DIMENSION (W×D×H) MM	145×360×225	190×400×330		230×502×553/190×422×337	
WEIGHT (KG)	9.2 or 11.6/4.5	17.7 or 22.4/8.5	22.9 or 27.6/9.2	54.5/10.9	56.2/12.5

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SERIES - IST3-J

1-10 kVA
UPS RACK
DOUBLE CONVERSION



kW = kVA

95,5%
Efficiency



PF= 1.0



1:1
PHASE

DETAILS

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



FINANCE



TELECOMMUNICATION



ENERGY



MEDICAL



GOVERNMENT

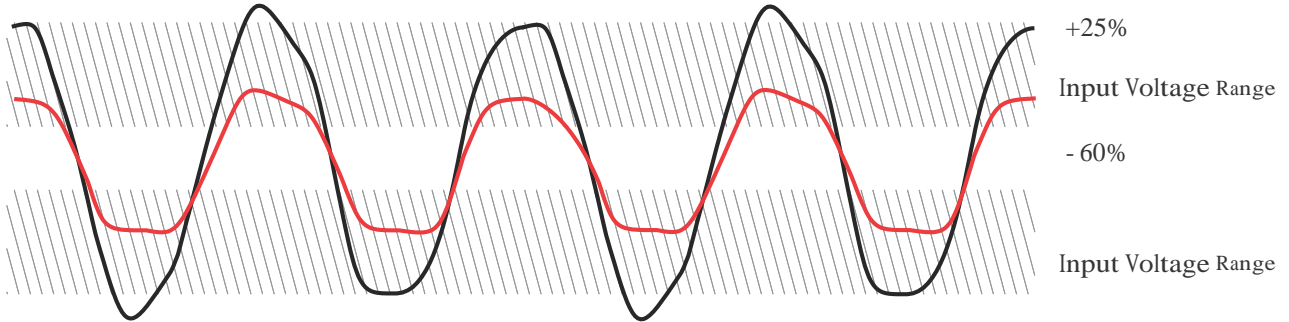
- **3 LEVEL IGBT TECHNOLOGY UPS;**
- **95,5% EFFICIENCY AC-AC;**
- **OUTPUT POWER FACTOR UP TO 1;**
- **COMPACT AND SMALLER DESIGN (6-10KW ONLY 2U);**
- **HOT SWAPPABLE BATTERY PACK;**
- **RACK-TOWER.**



GREEN POWER



- 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.



wide input voltage range

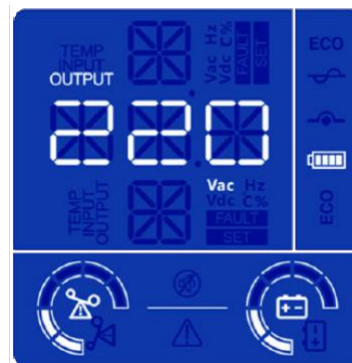
LCD DISPLAY

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

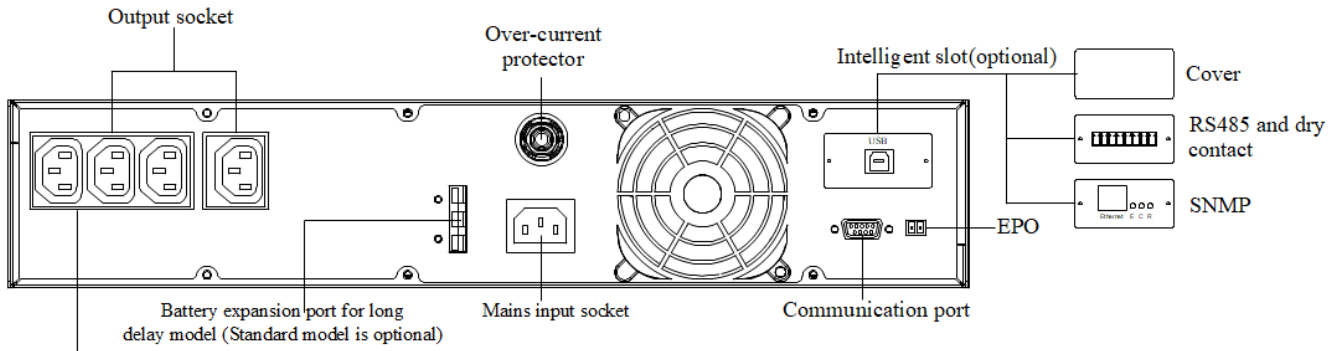
Hot-swappable Battery Design:

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

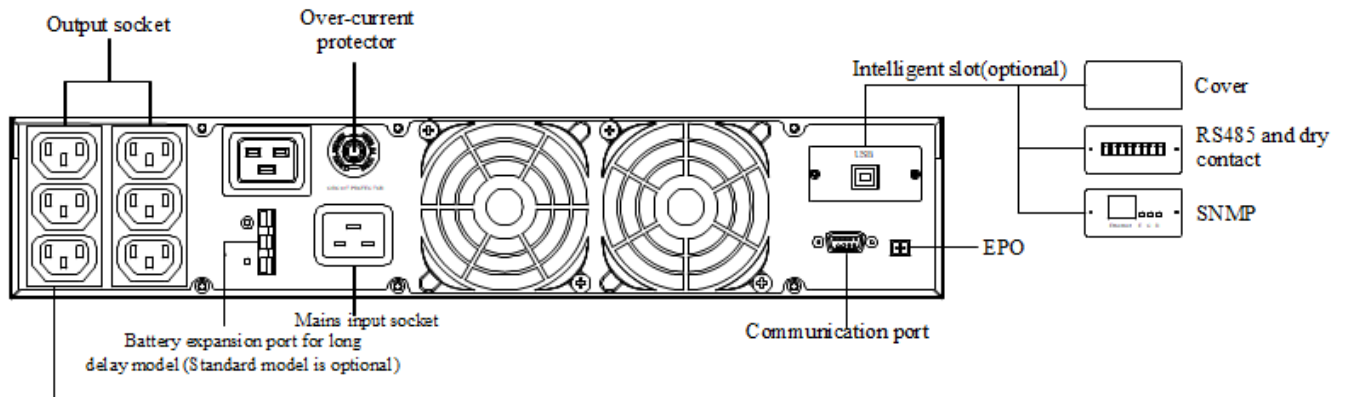
Flexible Rear Panel Configuration:

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

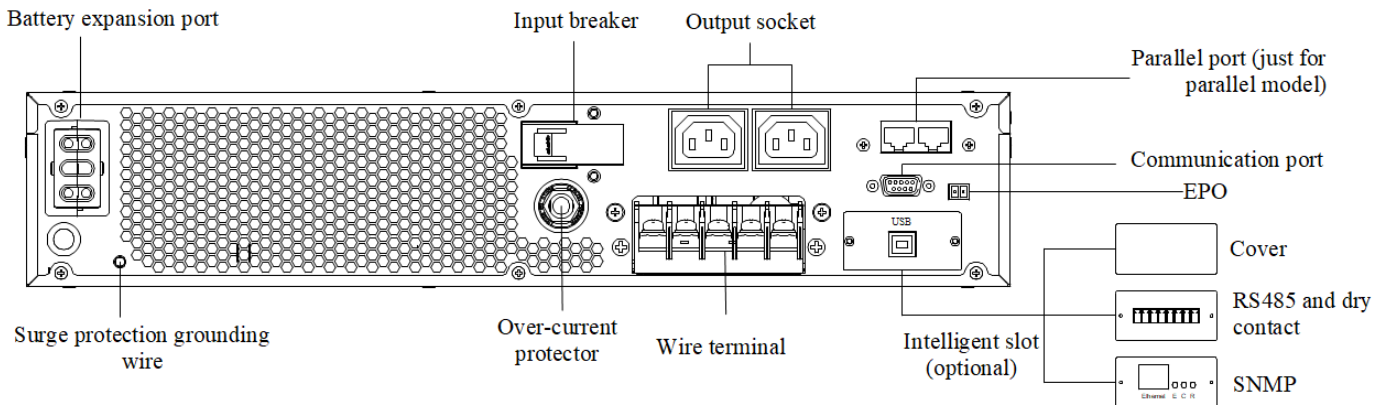
IST3-J 1KVA



IST3-J 2-3 KVA



IST3-J 6-10KVA



TECHNICAL SPECIFICATIONS

INPUT

VOLTAGE (VAC)	120~295	80~275
FREQUENCY (HZ)	50/60± 10% (50/60Hz auto-sensing)	
POWER FACTOR	≥0.99	
THDI	<3%	

OUTPUT

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)	208/220/230/240±1% (settable on display panel)				
FREQUENCY (HZ)	50/60±0.2% (battery mode)				
THDV	THD <2% (linear load), THD < 5% (nonlinear load)			THD <1% (linear load), THD < 4% (nonlinear load)	
TRANSFER TIME (MS)	0				

BATTERIES

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 12V/External (16~20 units settable)
CHARGER CURRENT (A) MAX.	1-4	1-4	1-4	1/1~8 (configurable)

OTHERS

COMMUNICATION INTERFACE	RS232+EPO+USB (slot) (SNMP, RS485+ Dry contact are optional in slot)				
LCD DISPLAY	AC input & output voltage, Frequency, Load level, Battery level, Temperature; AC mode, Battery mode, Bypass mode, and Fault				
ALARM	Low battery, Abnormal AC input, UPS failure, etc.				
PROTECTION	Low battery, overload, short-circuit and over temperature, etc.				
NOISE (DB)	< 50		< 55		
WORKING TEMPERATURE (°C)	-5~40				
RELATIVE HUMIDITY	0 ~ 95%, no condensation				
DIMENSION (W×D×H) (MM STANDARD/ LONG BACKUP)	438×413×2U	438×413×2U (UPS)+ 438×413×2U (Batt. pack) /438×413×2U (UPS)		438×500×2U (UPS)+ 438×500×3U (Batt. pack)	
WEIGHT (KG)	11/5.8	7.2+13/8	7.2+17.5/8	10.6+45/10.6	12.2+45/12.2

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SERIES - IST8 LITHIUM

1-3 kVA

UPS ONLINE

DOUBLE CONVERSION



kW = kVA

95,5%
Efficiency



PF=
1.0



1:1
PHASE

Online Double Conversion Lithium Battery UPS (1-3kVA).

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



DATA CENTER



HOME/OFFICE



TRANSPORT



INDUSTRY



EMEI

- LITHIUM-ION UPS;
- UP TO 60° WITH NO HARM TO BATTERIES;
- 10-12 LIFE-TIME BATTERIES;
- WEIGHT AND DIMENSIONS REDUCED BY 60%;

DETAILS



LITHIUM-ION BATTERY

Lithium Battery

SUPER-LONG BACKUP TIME:

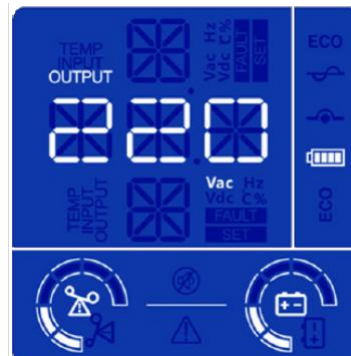
- 13 minutes backup time by internal battery;
- Wide temperature range;
- Tolerant for up to 60°C with no harm to the internal Lithium-ion battery;
- Light and compact;
- Less weight by 60% compared to VRLA Battery;
- Long service life;
- Up to 10 years of service life;
- More circles for charge and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

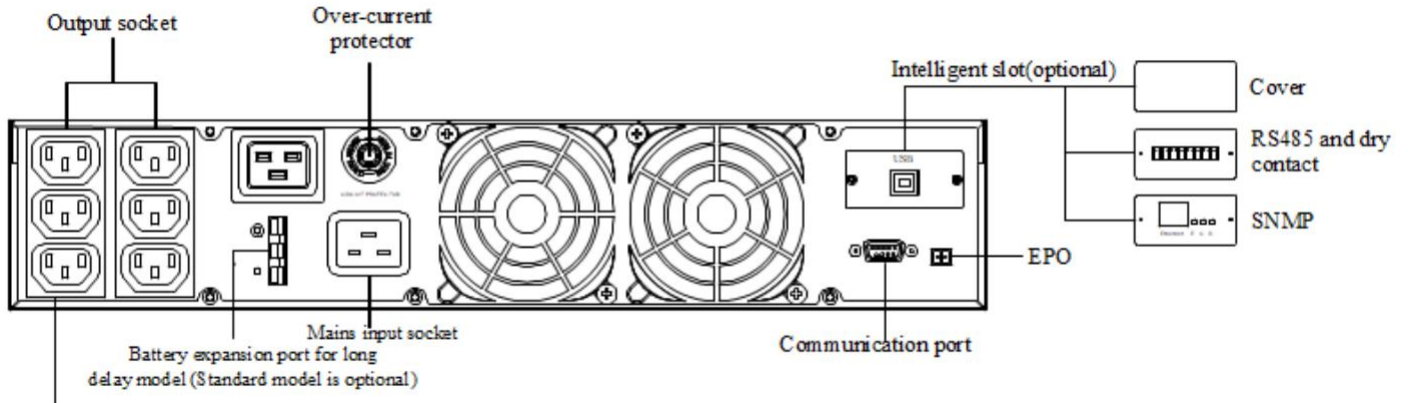
Green Power

- 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

TECHNICAL SPECIFICATIONS

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	up 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%~115% for 1 min, 116%~133% for 1 s, above 134% for 200ms			

LITHIUM-ION BATTERY

VOLTAGE (VDC)	24	48	72	72
BACKUP TIME (MINS)	11	11	22	11
CHARGING CURRENT (A) MAX.	4			

OTHERS

COMMUNICATION INTERFACE	USB and SNMP (slot) (RS232+dry contact 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 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	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

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SERIES - IST9

10-20 kVA

UPS TOWER-RACK

DOUBLE CONVERSION



kW = kVA

96%
Efficiency

1:1	3:1	3:3
PHASE	PHASE	PHASE

DETAILS

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



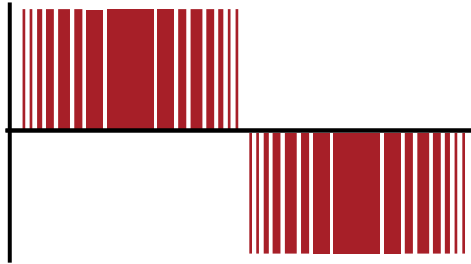
DATA CENTER HOME/OFFICE TRANSPORT INDUSTRY EMERGENCY

- 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.

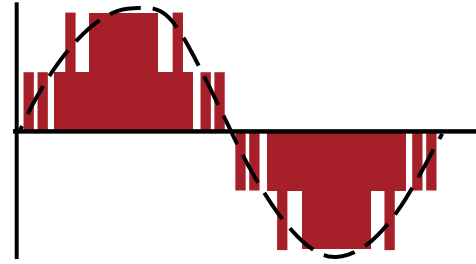


ADVANCED TECHNOLOGY

- 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).



TWO LEVEL OUTPUT
VOLTAGE WAVEFORM

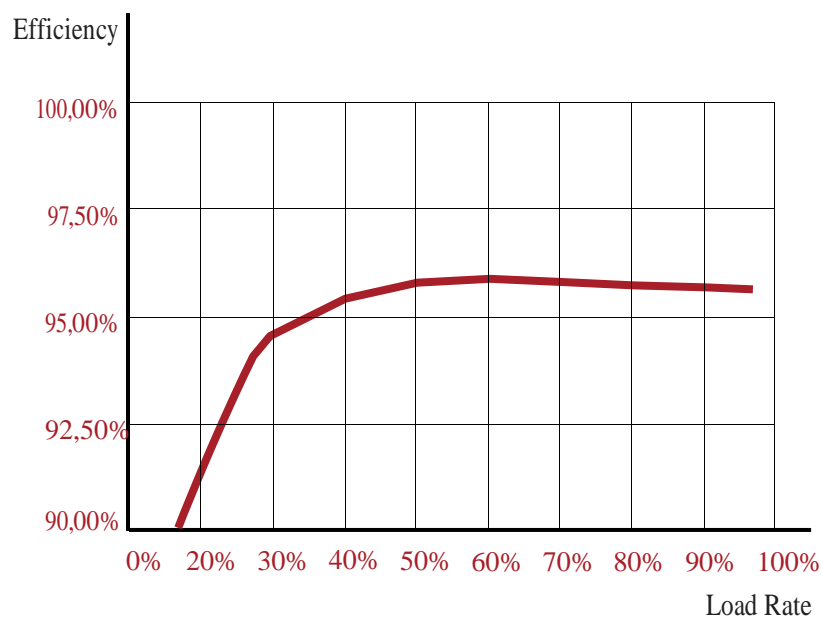


THREE LEVEL OUTPUT
VOLTAGE WAVEFORM

GREEN POWER



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



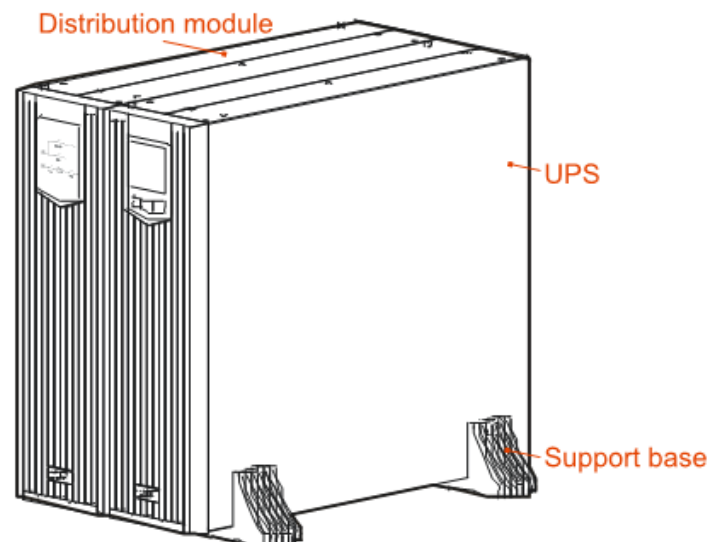
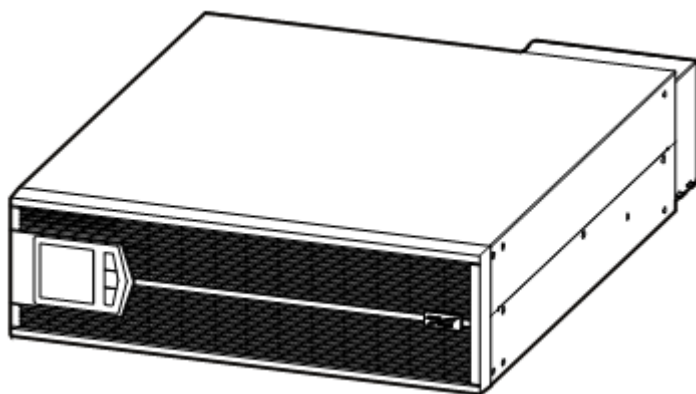
EXCELLENT FLEXIBILITY

- 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.



TECHNICAL SPECIFICATIONS

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)		
VOLTAGE (VAC)	220/230/240±1% (L-N) or 380/400/415±1% (L-L) (settable)		
FREQUENCY (HZ)	50/60±0.1 (battery mode)		
THDV	THD <2% (linear load), THD < 4% (nonlinear load)		
TRANSFER TIME (MS)	0		
ECO MODE	Yes		
OVERLOAD	115%~130% load for 15mins, 130%~150% load for 1min, above 150% load for 200ms		

BATTERIES

VOLTAGE (VDC)	±192 (±144~±240 adjustable)
CHARGING CURRENT (A)	4 (1-10 settable)

OTHERS

COMMUNICATION INTERFACE	RS485+EPO (RS232+Dry contact, SNMP are optional in slot)	
DISPLAY	Blue screen LCD	
ALARM	Low battery, abnormal AC input, UPS failure, etc.	
PROTECTION	Low battery, overload, short-circuit and over temperature, etc.	
NOISE (DB)	< 55	
WORKING TEMPERATURE (°C)	-5~40	
RELATIVE HUMIDITY	0 ~ 95%	
DIMENSIONS (W×D×H) MM	UPS	438×500×130(3U)
	Distribution Box	438×500×130(3U)
WEIGHT (KG)	UPS	20
	Distribution Box	8

SERIES - IST7

10-200 kVA
UPS ONLINE
DOUBLE CONVERSION



kW = kVA

96%
Efficiency



PF=
1.0



3:3
PHASE

DETAILS

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

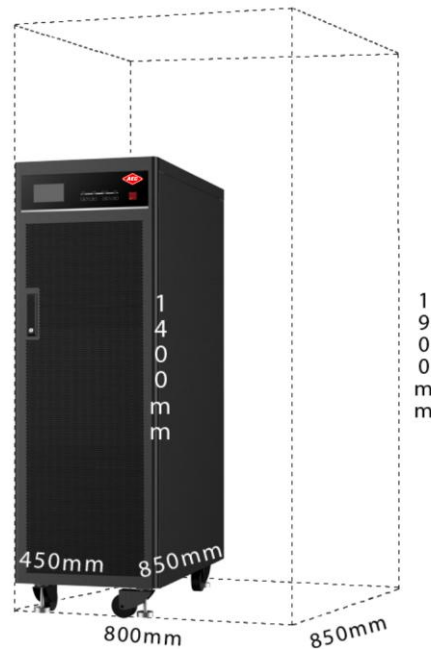


- 3 LEVEL IGBT TECHNOLOGY UPS;
- MODULAR DESIGN;
- UPGRADABLE ON SITE (50-200KVA);
- 96% EFFICIENCY;
- OUTPUT POWER FACTOR 1;
- FULLY SETTABLE FROM DISPLAY ON SITE;
- SELF-CLEANING FUNCTION;
- CAPTURE WAVE-FORM GRAPHICS ON DISPLAY (BLACK BOX);
- HOT-SWAPPABLE BATTERY PACKS.



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%.

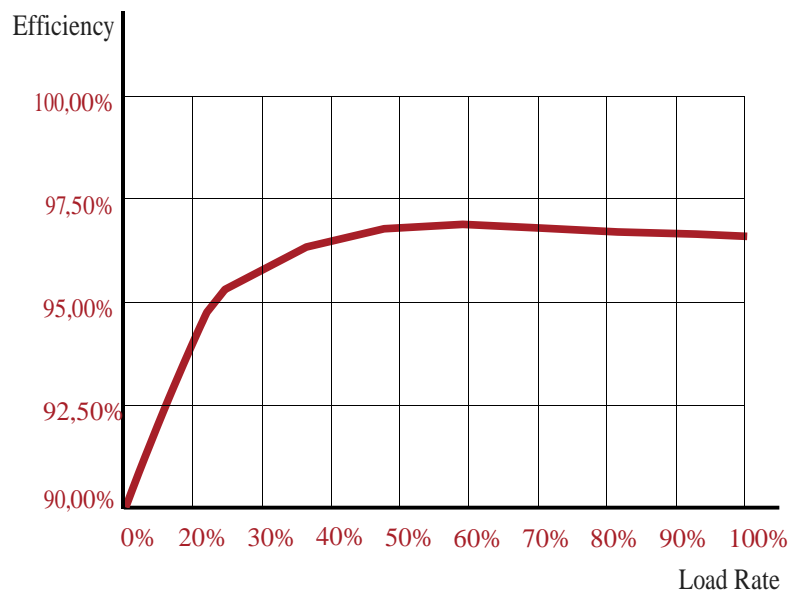


Compare to normal size in the market

MAXIMUM POWER

 Full Power

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

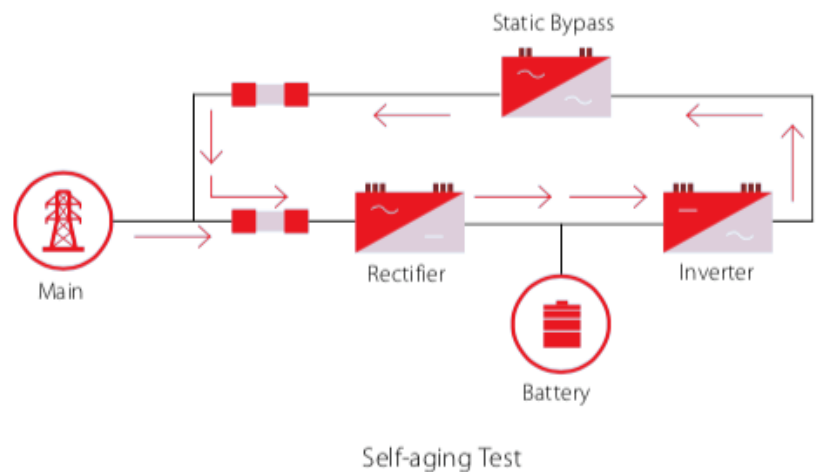
- 120kVA/120kW Full load running one day (24h) compare with industrial efficiency 92%;
- Day saving energy: $(120\text{kVA} \times 1.0 \times 96\% - 120\text{kVA} \times 0.8 \times 92\%) \times 24\text{h} = 645.12 \text{ kWh}$;
- Day saving money: $645.12 \times 0,1 \text{ Euro/kWh} = 64.512 \text{ Euro}$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



€ 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.

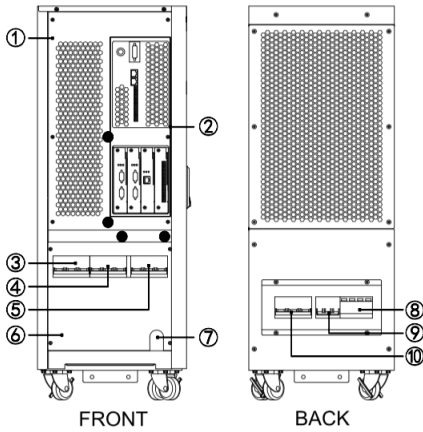


SELF-CLEANING FUNCTION

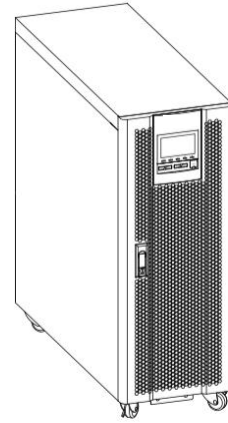
The new self de-dusting mode periodically blows all the dust out of the power module in order to reduce the risk of PCB failure due to dust corrosion by more than 30%.
 Self de-dusting mode can be set daily, weekly or periodically at user's convenience.



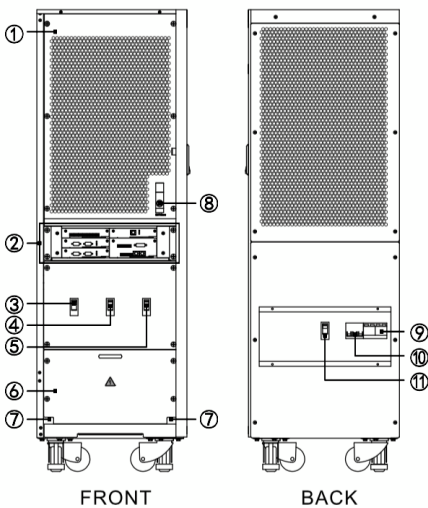
IST7 10-40KVA



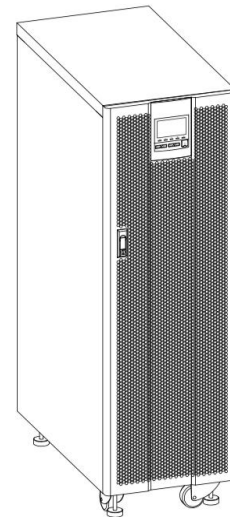
1. TOP COVER PLATE;
2. CONTROL UNIT;
3. POWER BREAKER;
4. BYPASS BREAKER;
5. OUTPUT BREAKER;
6. WIRING COVER PLATE;
7. WIRING HOLES OF COMMUNICATION WIRES;
8. SURGE PROTECTION DEVICE (OPTIONAL);
9. SURGE PROTECTION BREAKER (OPTIONAL);
10. MAINTENANCE BUPASS BREAKER.



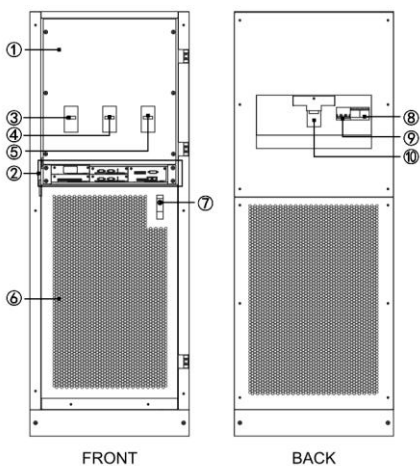
IST7 50-120KVA



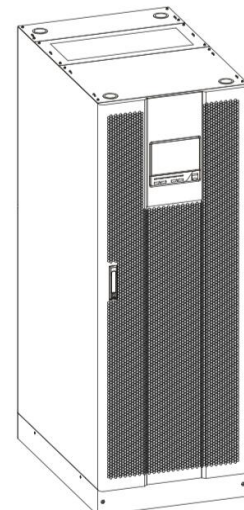
1. TOP COVER PLATE;
2. CONTROL UNIT;
3. POWER BREAKER;
4. BYPASS BREAKER;
5. OUTPUT BREAKER;
6. WIRING COVER PLATE;
7. WIRING HOLES OF COMMUNICATION WIRES;
8. BATTERY SLOW START BOTTON;
9. SURGE PROTECTION DEVICE (OPTIONAL);
10. SURGE PROTECTION BREAKER (OPTIONAL);
11. MAINTENANCE BUPASS BREAKER.



IST7 160-200KVA

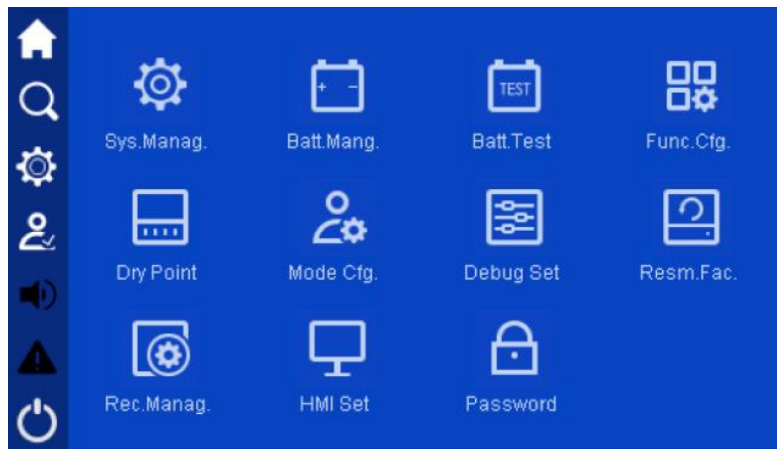


1. WIRING COVER PLATE;
2. CONTROL UNIT;
3. POWER BREAKER;
4. BYPASS BREAKER;
5. OUTPUT BREAKER;
6. BOTTOM COVER PLATE;
7. BOTTOM START BUTTON;
8. SURGE PROTECTION DEVICE (OPTIONAL);
9. SURGE PROTECTION BREAKER (OPTIONAL);
10. MAINTENANCE BUPASS BREAKER.



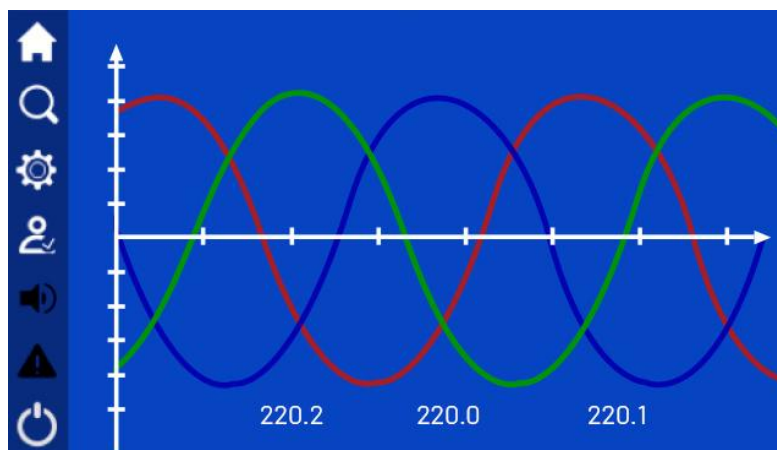
DISPLAY SETTABLE

UPS 100% Fully settable from display 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%			
PHASE	3φ 4W+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 (battery mode)			
PHASE	3φ 4W+PE			
UNBALANCE 3-PHASE VOLTAGE STABILIZATION WITH FULL LOAD	≤2%			
WAVEFORM	Pure sine wave, THD<1% at linear			
EFFICIENCY	up to 96%			
OVERLOAD	105%~115% load for 60mins; 116%~130% load for 10mins; 131%~150% load for 1min; >150% load for 200ms			
BATTERY				
BATTERY VOLTAGE (VDC)	±192/±216 (±180/±204/±216/±228/±240 settable for long backup 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	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 short-circuit, overload, over temperature, battery low voltage, output 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	

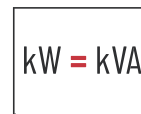
TECHNICAL SPECIFICATIONS

MODELS	IST7050	IST7080	IST7100	IST7120	IST7160	IST7200
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%					
PHASE	3φ 4W+PE					
OUTPUT						
CAPACITY (KVA)	50	80	100	120	160	200
POWER FACTOR	1					
VOLTAGE (VAC)	L – N: 220/230/240±1% L – L: 380/400/415±1%					
FREQUENCY (HZ)	50/60±0.1 (battery mode)					
PHASE	3φ 4W+PE					
UNBALANCE 3-PHASE VOLTAGE STABILIZATION WITH FULL LOAD	≤2%					
WAVEFORM	Pure sine wave, THD<1% at linear					
EFFICIENCY	up to 96%					
OVERLOAD	105%~115% load for 60mins; 116%~130% load for 10mins; 131%~150% load for 1min; >150% load for 200ms					
BATTERIES						
BATTERY VOLTAGE (VDC)	±192/±216 (±180/±204/±216/±228/±240 settable for long backup type)					
BATT TYPE	External					
CHARGING CURRENT (A)	1-30			1-40		
OTHERS						
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 short-circuit, overload, over temperature, battery low voltage, output over/low voltage					
NOISE (DB)	<65					
WORKIN TEMPERATURE (°C)	0~40					
RELATIVE HUMIDITY	0~95%, no condensation					
DIMENSION (W×D×H)(MM)	450×840×1400			600×900×1600		
WEIGHT (KG)	180	210	242	320	350	

SERIES - IST6

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.



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

DETAILS

APPLICATIONS



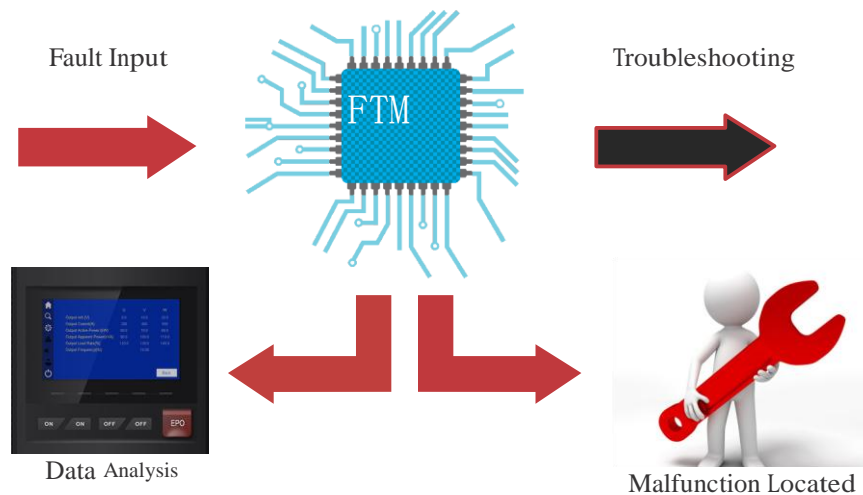
DATA CENTER HOME/OFFICE TRANSPORT INDUSTRY EMERGENCY



FULL DIGITAL CONNECTION

Full Digital Connection, Flexible Online Scaling:

- 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

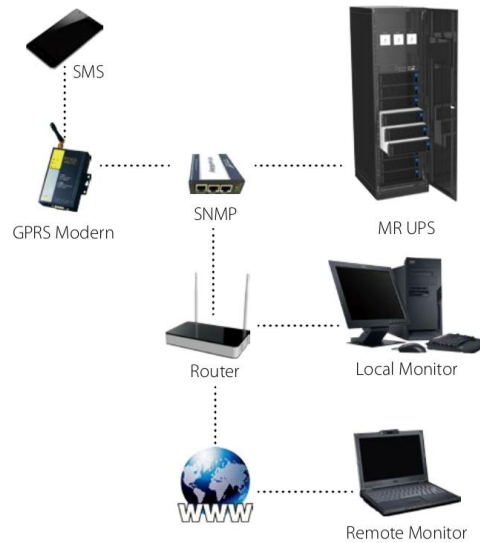
- Large 320kVA capacity for a single cabinet; occupies only 0.5 square meters of floor space, optimized structure design greatly reduces floor space usage and land investment costs;
- Has cable entry on the top of the cabinet to satisfy different scenarios;
- Host and battery equipped with protective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

SAFETY SYNCHRONIZED

GRID ADAPTABILITY

Great Power Grid Adaptability:

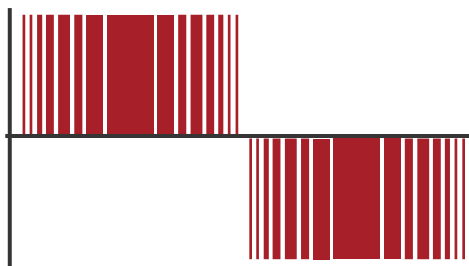
- Prevents frequent switching between power grid and battery power and extends battery life;
- Smart generator control gives a better generator configuration and control solution for better compatibility.



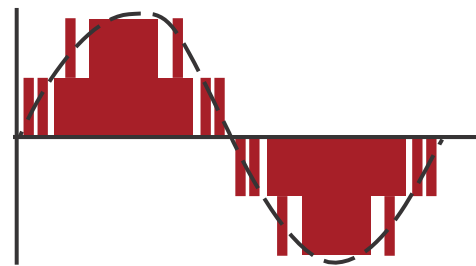
ENERGY SAVING DESIGN

Environmentally Friendly 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

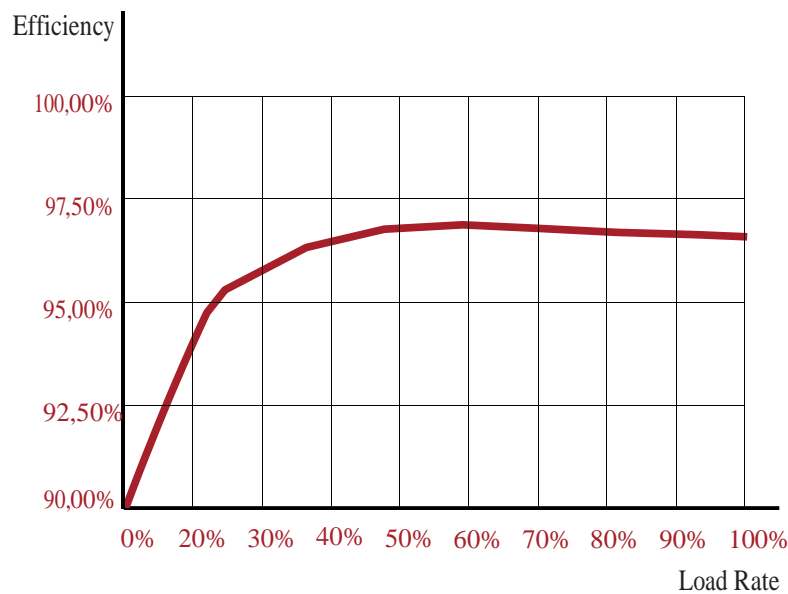
Complete Protective Functions and Failure Warning:

- 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:

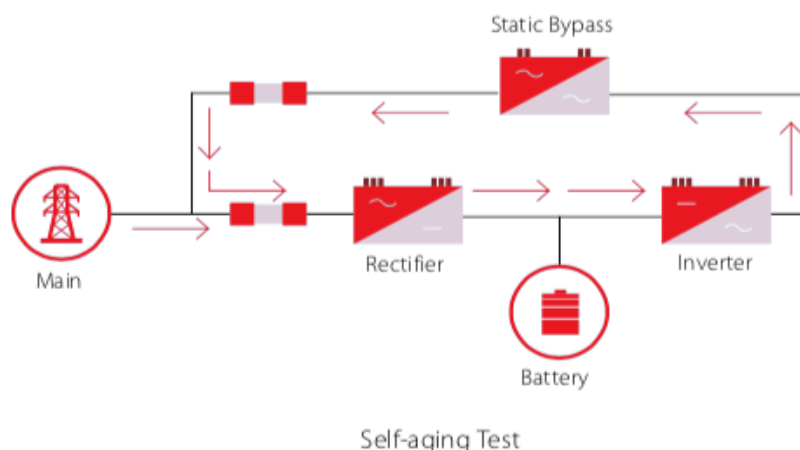
- Overall system efficiency of up to 96% with great energy savings (heat from the UPS and cooling energy consumption), reduced operation costs;
- Default power factor of 1.0; greater power output for the same price; better cost effectiveness and complies with the developing trend of increasing power 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.



TECHNICAL SPECIFICATIONS

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INPUT

RATED VOLTAGE (VAC)	380/400/415		
VOLTAGE RANGE (VAC)	L:L 138~485		
INPUT FREQUENCY (HZ)	40-70		
BYPASS VOLTAGE RANGE (VAC)	-15% (-20%/-30% optional) ~+15%(+10% /+20% optional)		
POWER FACTOR	≥0.99		
THDI	<5% (nonlinear, full load)		
PHASE	3Φ 4W+PE		
BATTERY VOLTAGE (VDC)	±192 (±180~ ±276 settable)	±240 (±180~ ±276 settable)	
CHARGING CURRENT (A)	N×10 Maximum (N: the number of power modules)		

OUTPUT

CAPACITY (KVA)	125	200	300
POWER FACTOR	1		
PHASE	3Φ 4W+PE		
WAVEFORM	sine wave		
VOLTAGE (VAC)	L-L:380,400,415 ±1%		
FREQUENCY (HZ)	50/60± 0.2% (battery mode)		
THREE PHASE DIFFERENCE	≤2 degrees		
THDV	≤1% (linear load, full load), ≤4% (nonlinear load, full load)		
MAX. SYSTEM EFFICIENCY	96%		
PARALLEL MODE	Advanced no-master-slave parallel technology, N+1 redundancy		
OVERLOAD CAPACITY	105-115% load for 60mins, 116%-130% load for 10mins, 131%-150% load for 1 min, over 150% load transfer to bypass		

OTHERS

OPERATING TEMPERATURE (°C)	0~40			
RELATIVE HUMIDITY	0%~95%, no condensing			
COMMUNICATION FUNCTION	RS485, RS232, dry contact (SNMP optional)			
NOISE (DB)	< 65	<70		
POWER MODULE (KVA)	25	50		
“ POWER MODULE DIMENSION (W×D×H) MM”	500x700x130			
POWER MODULE WEIGHT (KG)	32	33		
DIMENSION (W×D×H) (MM)	600×900×1400	600×860×2000		
WEIGHT (KG)	UPS	162	224	236
	Bypass Module	20	23	27
	Power Module	32	33	
	Total	347	379	461

TECHNICAL SPECIFICATIONS

MODEL POWER MODULE

E17400

E17500

E17600

E17600

INPUT

RATED VOLTAGE (VAC)	380/400/415
VOLTAGE RANGE (VAC)	L:L 138~485
INPUT FREQUENCY (HZ)	40-70
BYPASS VOLTAGE RANGE (VAC)	-15% (-20%/-30% optional) ~+15%(+10% /+20% optional)
POWER FACTOR	≥0.99
THDI	<5% (nonlinear, full load)
PHASE	3Φ 4W+PE
BATTERY VOLTAGE (VDC) settable)	±240 (±180~ ±276
CHARGING CURRENT (A)	N×10 Maximum (N: the number of power modules)

OUTPUT

CAPACITY (KVA)	400	500	600
POWER FACTOR		1	
PHASE		3Φ 4W+PE	
WAVEFORM		sine wave	
VOLTAGE (VAC) ±1%		L-L:380,400,415	
FREQUENCY (HZ)		50/60± 0.2% (battery mode)	
THREE PHASE DIFFERENCE		≤2 degrees	
THDV		≤1% (linear load, full load), ≤4% (nonlinear load, full load)	
MAX. SYSTEM EFFICIENCY		96%	
PARALLEL MODE		Advanced no-master-slave parallel technology, N+1 redundancy	
OVERLOAD CAPACITY		105-115% load for 60mins, 116%-130% load for 10mins, 131%-150% load for 1 min, over 150% load transfer to bypass	

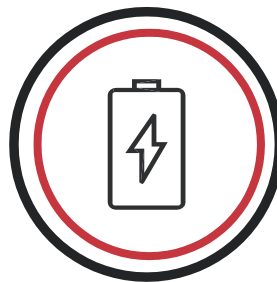
DIMENS

OPERATING TEMPERATURE (°C)	0~40
RELATIVE HUMIDITY	0%~95%, no condensing
COMMUNICATION FUNCTION optional) NOISE (DB)	RS485, RS232, dry contact (SNMP <70
POWER MODULE (KVA)	50
“ POWER MODULE DIMENSION (W×D×H) MM”	500x700x130
POWER MODULE WEIGHT (KG)	33
DIMENSION (W×D×H) (MM)	1200×860×2000
	UPS 427
WEIGHT (KG)	Bypass Module 27
	Power Module 31
	33
	Total 718
	788
	873

EXCELLENT SERVICE SINCE 1968



HIGH EFFICIENCY UP TO 97%



HOT SWAPPABLE BATTERY



3 LEVEL IGBT INVERTER



SELF DE-DUSTING MODE



3 LEVEL IGBT RECTIFIER



SELF LOAD-TEST



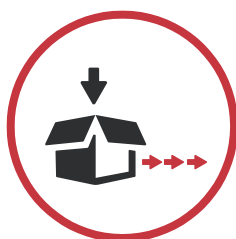
HOT SWAPPABLE
MAINTENANCE



3 YEARS WARRANTY UPS



24/7 LIVE ASSISTANCE
FOR INSTALLATIONS
AND REPARATIONS



SPARE PARTS
AVAILABLE IN 24H

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 (Acrylonitrile 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



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 NET AGENT

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.





OPERATIONAL OFFICES

ITALY

AEC INTERNATIONAL SRL
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AEC REFERENCES

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List of references available in each country. AEC, a Public Company listed from 1994 in Taiwan Stock Exchange (Stock code 1514:TT).



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