AEC UPS ITALY
CRITICAL POWER

WWW.AECUPS.COM

AEC FROM 1968

WE ARE BEHIND THE POWER...

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ABOUT AEC

OUR VISION

The AEC group is an innovative multinational company and at the forefront of the infrastructure sector critical electrical and renewable energy and arises the aim is to improve the quality of the life of citizens and workers.

55
Years of experience

800
Employees

11
Offices

OUR MISSION

AEC constantly strives to provide solutions and increasingly advanced technological products e qualitatively above the market average.
An excellent balance to satisfy all of his customers, pursuing harmony, ethics and morals between employees, customers and companies.

AEC Italy, is part of the AEC group, Allis Electric Co. Ltd, headquartered in Taipei, Taiwan.
The Italian branch of AEC represents a model of Italian excellence within a global company.
AEC presents itself with a wide, structured offer to meet the growing demands of the market of energy. Thanks to a staff of nearly 800 employees, of which 130 electronic engineers dedicated to the design and implementation of new technologies, our company is able to guarantee maximum quality and speed in all our services and products, available in over 80 countries through the well-structured network of AEC offices.

TECHNOLOGY AND DESIGN SINCE 50 YEARS

In the AEC world, technology and design come together to create continuity systems that are increasingly avant-garde and in line with the elegant Italian style. Our company is one of the most respected manufacturers in the world of uninterruptible power supplies, batteries, PV inverters and EVs Charging stations: double conversion UPS, modular uninterruptible power supplies, solar storage inverters and direct current charging stations for electric vehicles are just some of the types of products designed, built and sold by AEC.

RESEARCH AND DEVELOPMENT

Our energies are used to maintain a constant improvement in the quality of ours products. For this reason, AEC has always systematically set aside and reinvested 6% of its annual revenue to devote to research and development to improve product quality e develop new ones.

QUALITY AND EFFICIENCY

AEC is committed to obtaining the most important standard certifications ISO 9001, ISO14001, ISO45001, proof of the continuous commitment to business improvement in terms of safety and health e always with the utmost respect for our planet.

With the AEC UPS brand, Allis Electric Co. is now recognized as one of the world leaders in the main markets for uninterruptible power supplies, renewable energy and storage systems with lead and lithium-ion technologies.

AEC produces all its products in full compliance of the environment, paying particular attention to follow guidelines that lead us to create groups of cutting-edge continuity, always in step with the times and above all in line with our principles: Harmony, Innovation, Responsibility.
In fact, AEC's mission has always been to find and offer green solutions respecting the environment by putting the customer and theirs are always at the center of attention specific needs.

AEC GROUP
OUR HISTORY

From 1968....

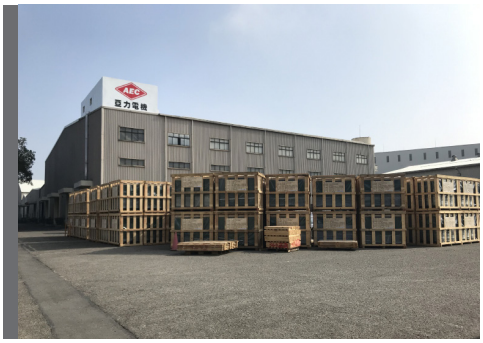
Founded in 1968, the AEC group, Allis Electric Co. Ltd, is a public company Listed on the Taipei Stock Exchange since 1994.
Global leader in the field of critical electrical infrastructures, digital and telecommunications, the AEC group has been specializing in the production of uninterruptible power supplies for the protection of the power supply of industrial installations.
Technology and design come together to create continuity systems cutting-edge, robust and efficient.

Allis Electric Corporation, better known as AEC, was founded on September 25, 1968, in the capital of Taiwan, Taipei.
The company started the business by producing low voltage switchboards, motor control centers, integrated high starter panels and low voltage, AC / DC industrial control equipment and transmission and distribution equipment. Its constant activity of expansion led to the development of independent departments which produce transformers, switching devices and subsequently various products in the electronics sector of power.
Through investments, joint ventures and the creation of offices abroad in Europe, the United States and China, AEC continues to develop alliances strategic business in order to pursue excellence such as multinational corporate group. With the confidence provided through over 55 years of solid performance and in-depth knowledge, AEC will continually work on his core competencies to be increasingly customer-oriented and to create values for its shareholders.

In 2023 the group, headquartered in Taipei, counts 4 official branches and 11 offices with service centers highly specialized and available 24/7.
Spare parts stocked in over 21 countries.

Products manufactured and marketed by us can be supported and assisted anywhere in the world, the our network of offices allows us to cover whatever time zone and almost all countries in the world.

In 1994, the AEC group, now a solid reality with over 30 years of experience, it is listed on the Taipei stock exchange through an offer public launch that was hugely successful.
Stock exchange listing and strategic alliances with partners Europeans have allowed it to continue its steady growth and to venture into the telecommunications and high-end sector technology, designing and developing products qualitatively without equal.
All products manufactured by AEC are guaranteed by certificates ISO 9001 quality, ensuring customers the utmost seriousness production and reliability over time.



The AEC group, Allis Electric Co., has been listed on the Taipei Stock Exchange since 1994. Our company has a capitalization of over 900 million dollars and a staff of 800 employees located in 4 main commercial and production sites located in Italy, Taiwan, USA, Japan and South Africa.

1998 | AEC UPS Italy is born...

The Italian branch, based in Lainate in province of Milan, founded in 1998 thanks to a partnership between Allis Electric Co. e the entrepreneur Doctor Bruno Carozzi, boasts over 30 years of history in the world of critical infrastructures and continuity systems. AEC UPS Italy specializes in the production, marketing and installation of UPS uninterruptible power supplies for protection of the power supply of industrial plants high-tech and telecommunications.
Our Italian team enjoys an experience multi-year in the electronics sector, and is mainly composed of engineers and specialized technicians located throughout the Italian peninsula.
The strategic position in central Europe of AEC Italy favors timely support technical-commercial and rapid deliveries in all over Europe, Africa and the Middle East.

Our presence in the world and breakdown of global markets by geographical area

Allis Electric supports the Asian and Oceanic market, PHD PowerHouse (AEC South Africa) is concentrated exclusively in the local market in the Republic of South Africa, Miami-based AEC USA is responsible for the market US, while AEC UPS Italy deals with the European markets, African, Middle Eastern and Central \ South Americans.
Thanks to the solidity and the very high quality standard of the AEC Group, the UPS always is very successfull and find local distributors in about 80 countries. In particular in Italy AEC opens several agencies in all regions and local technical assistance centers.

Design, development, construction and testing We do everything in our factory ...

AEC designs, develops and manufactures its products in its own factory, in order to have greater control over the quality and reliability of everyone the components, working closely together with the entire production cycle, pre / post sales and subsequent installations and maintenance. This radical strategy allows us to maintain a constant improvement process, carefully monitoring customer feedback and listening to it as valuable tips for applying optimizations and functions in a timely manner additional requests from the market.

FINANCIALS
AEC GROUP

Constancy, attention to detail and attention to the customer are just some of our pillars.
From 1968 to today ...

AEC was originally a supplier of OEM machinery to manufacturers Italians and Europeans who use their own brand, while today AEC promotes its brand as a leading manufacturer in the industry and for some years it has delocalized and diversified its production which it is not only Asian, but it is present with several factories in the States United and in Italy to meet the needs of different markets locals.

This continuous improvement process, as well as having an advantage direct and beneficial on sales and after-sales assistance sale, strengthen the reputation of AEC as of more and more a serious, dynamic company attentive to technological progress e qualitative, always in total harmony and respect for the environment.

$295 MILIONS

TURNOVER IN 2023

Critical Power: production and sale of UPS & CPSS continuity systems, and lead or lithium battery storage systems**.**
Renewable energies: among the first designers of photovoltaic inverters, AEC is today an important player in the world of solar, marketing string and storage PV inverters for residences and industries.
Electrical Mobility: to meet the looming need to transit from fossil fuel to electric vehicles, we are committed to offering a wide range of charging stations for electric vehicles.

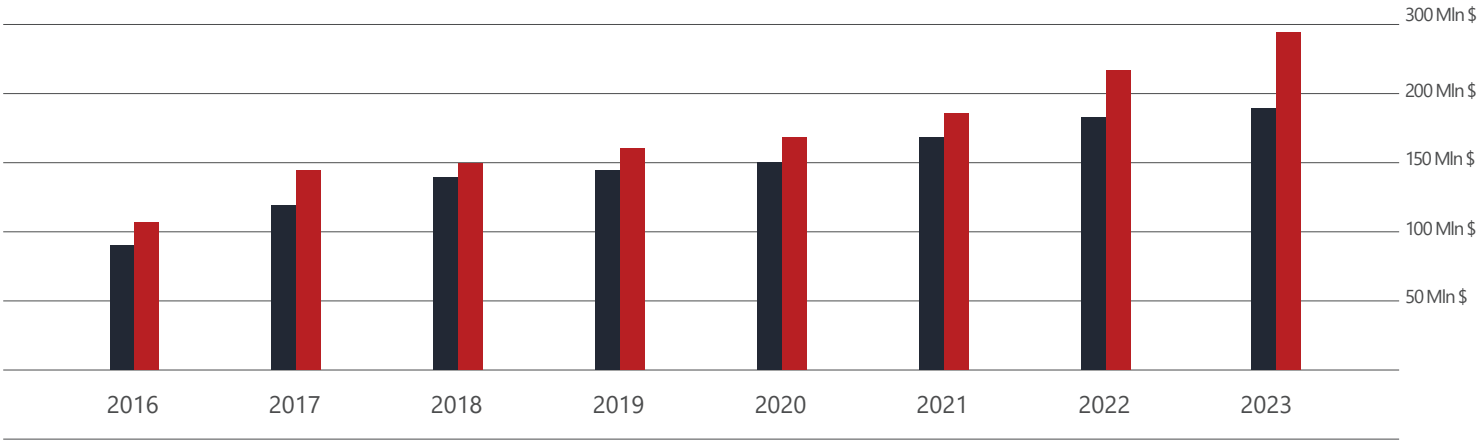
Become AEC PARTNER

Become part of the AEC family with the program PARTNERSHIP aimed at all customers of our group.

By joining the AEC PARTNERSHIP program, our partners will enjoy additional benefits and privileges.
AEC partners will have access to all calculation by our engineering team, maximum discounts for large retailers, incentive program on sales with annual bonuses and marketing program rewards to support our marketing expenses partner.

The AEC expansion program
Development and innovation ...

CONSTANT AND SOLID GROWTH OF THE AEC GROUP



800+
Total employees

$ 295.550.000
Total turnover

$ 950.000.000
Market Capitalization

+28%
Global Sales UPS

Uninterruptible Power Supply
OEM Productions in Europe

Despite all the difficulties due to the pandemic it has hit our planet, the AEC group managed to conclude one of the best years ever, reaching over 184 million dollars in global turnover.

+48%
Global Sales PV Inverter

Solar Inverter Photovoltaic
ON-OFF Grid System | PV Inverter

+ 42% UPS sales
+ 27% sales of PV solar inverters
+ 31% sales of 12V batteries
The AEC group continues its growth and increases sales of all 3 of its departments.

+12.5%
UPS Market share

Our passion, our core business...
Battery | Storage Systems

The main core business of AEC, the world of UPS is giving great satisfaction in terms of growth and our group persists in increasing its market share, especially in the Italian national market.

OUR SERVICES

Our team of dedicated experts is always available to evaluate and analyze the infrastructures on which the customer's reality operates. Our company offers a very varied and complete range of services, our specialized technicians are able to support our customers' projects in all their aspects, from design, to implementation and maintenance.

Design and engineering consultancy, installation of UPS and PV Inverter devices, maintenance of critical infrastructures, lead-acid battery changes and diesel generator tests, are just some of the services that AEC carries out daily for various customers throughout our peninsula.

CONSULTING

360 degree advice on any critical infrastructure and facilities for renewable energies. Our engineers they specialize in the study of feasibility and design of structures for data centers and photovoltaic systems from scratch or to be restored.

PRE-SALE SUPPORT

Our call center is available 24 hours per day also on WhatsApp or via our Live Chat on the aecups.com website. Our operators will reply to any of your doubts and they will be able to direct you to the products best suited to your needs.

AFTER SALES SUPPORT

Technicians located throughout the peninsula Italian are available for support after-sales interventions. In synergy with our call center, the our service of technicians will be able to provide quick assistance by telephone or through on-site intervention.

TECHINCAL ASSISTANCE WHATSAPP 24/7

Immediate technical support via WhatsApp or telephone, our call center for technical assistance is active 24 hours a day 7 days a week and is always available to support the resolution of any problems that may arise, even on non-working days and hours.

Do you have a technical or commercial question?
We reply on WhatsApp in less than 30 minutes...

INSTALLATIONS

Surveys and UPS installations for critical infrastructure. AEC technicians are highly qualified for installations of UPS and battery cabinets of various brands of UPS manufacturers. Commissioning and verification of all device values and parameters.

ASSISTANCE

Assistance is one of the flagships of the AEC group, which offers its customers a continuous service thanks to which it is always possible to find a technician and solve problems around the clock. AEC always aims to obtain the maximum customer satisfaction.

MAINTENANCE

Maintenance is very important of the electronic devices installed, for this AEC makes various available maintenance programs and contracts, with the ability to customize assistance according to the needs of the customer and user.

OUR
SOLUTIONS

Ad hoc customized solutions based on the specific requests of the user, meticulous design and feasibility study for all projects carried out by AEC. We are well aware that there is no longer a standard solution to all situations, and for this reason AEC has always been dedicated to the development of innovative solutions based on customer feedback.
Our team will follow you step by step in choosing the most advantageous solutions to your situation!

CRITICAL POWER
UPS AND BATTERIES 12V
UPS SYSTEMS

AEC has always focused on research and development of new technologies and, especially in recent years, has invested heavily in the development of modular UPS with innovative hot-swappable N + 1 technology. New powers also available in a single 1250kVA UPS solution with 10 125kW modules. UPS, uninterruptible power supplies, are the main business of AEC, which thanks to its significant investments has always managed to offer products of the highest quality and reliability. Among the most advanced technologies in the world of power electronics, AEC uses the 3-level IGBT topology with redundant components, guaranteeing maximum reliability also through an extended 3-year warranty, which can be extended by means of a maintenance contract at our service centers. authorized.

RENEWABLE ENERGIES
PV INVERTER & ENERGY STORAGE
SOLAR PHOTOVOLTAIC

While most fossil raw materials are being depleted, electricity and energy needs are increasing in all countries of the world. The scarcity of materials and the rising cost of electricity are more than ever global struggles for which our group is constantly working on innovative solutions with low environmental impact. Our aspiration is to incentivize and promote renewable and ecological energies in a significant and incisive way. For this reason we develop ever more efficient technologies and systems.
As a diversified industrial group with extensive engineering capabilities, AEC provides state-of-the-art products, services and solutions to meet the insatiable growing energy needs around the world.

ELECTRICAL MOBILITY
EV CHARGING STATION
ELECTRIC VEHICLES

With over 53 years of experience in the power electronics sector and more than 30 in the renewable energy sector, the AEC group has leveraged and put its expertise into play to develop and build a wide range of charging stations for electric vehicles. , available in both alternating current and super fast direct current modes. Our range of EV solutions is able to support the most varied needs in terms of power needed, installations in private or public environments, such as hospitality or healthcare facilities, shopping and recreation centers, companies, congress centers, public car parks and large supermarkets.

DATA CENTER, THE IMPORTANCE OF UPS FOR THE BUSINESS CONTINUITY ...

Thanks to the support of qualified and professional technicians, AEC is able to assist and guide its customers in choosing the most suitable solution for them.

Nowadays the use of data centers in the productive world is growing dramatically as they are of fundamental importance to support the continuous technological development of our planet. If until a few decades ago the interruption of the operation of a data center would not have caused great inconvenience, today we must always remain vigilant and ready to intervene in the event of system failure.

For this reason, UPS uninterruptible power supplies are an indispensable element for the correct and continuous operation of data centers and there are several factors to consider when evaluating the type of UPS to install.

CRITICAL POWER

UPS, CPSS & BATTERIES

Critical Power - UPS, CPSS & Batteries

Lithium Battery - Cabinets and Modules

Emergency System - CPSS EN50171

Lead-acid Batteries 12V VRLA

UPS SERIES IST 3

1:1 **Power from 1kVA to 10kVA**

THREE LEVEL 3 UPS

kW = kVA

96% Efficiency

UPS TOWER ONLINE DOUBLE CONVERSION

IST3 single-phase UPS (1-10kVA) are AEC's **double conversion online UPS** range and are **tower UPSs** with powers starting from 1kVA up to 10kVA. The UPS IST3 series adopts the most innovative IGBT technologies, ensuring efficiency up to 96% and a unitary output power factor.

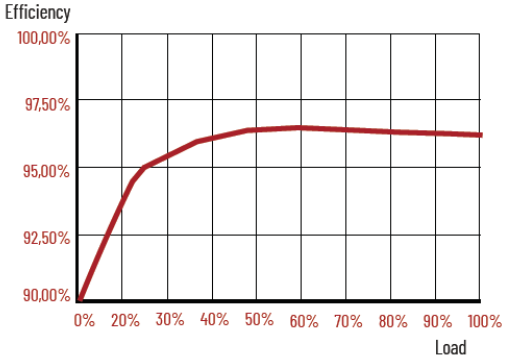
The UPS are available in models with **internal batteries** or combined with **external battery cabinets** for longer runtimes. The 6kVA and 10kVA UPSs include the manual bypass disconnector to allow correct maintenance without interrupting the output.
The **USB card** is included and the product range is covered by a 3-year warranty.
The UPS comply with the CEI 0-16 standard.

UPS ONLINE TOWER

PRINCIPALS FEATURES

EXCELLENT PERFORMANCE

- Output power factor equal to 1 for a better load capacity at the same power with lower and more convenient initial investment costs;
- Efficiency AC\AC up to 96%;



- Small size and dustproof front design with LCD display;
- Wide input tolerance, compatible with diesel generators;
- In compliance with the CEI-016 standard, the Charge reserve function allows the batteries to maintain an energy reserve to always guarantee the rearming of the coil and the restoration of full functionality of the cabin;
- Advanced DSP digital control technology for precise and speed data processing;
- Detection and warning of faults to ensure the safety of the device, also monitoring the internal temperature of the UPS;
- Intelligent fans with high efficiency cooling, multiple modes to control their speed, extend their life and improve their efficiency.

Automatic fan control

STANDARD AND COMMUNICATIONS

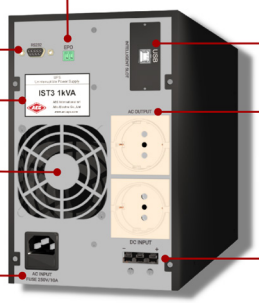
- Large HD screen with graphic interface and simplified display, for an improved and user-friendly user experience;

- Output 208/220/230/240 Vac, 50 / 60Hz voltage, configurable from on-site display;
- ECO mode configurable from on-site display;
- Maintenance bypass switch (6-10kVA);
- 16 \ 17 \ 18 \ 19 \ 20 battery configuration via RS232 port (6-10kVA);
- RS232 and USB communication ports; the UPS is equipped with a user manual, cable and CD for software;
- SNMP network card for remote control and monitoring (optional);
- NC \ NO dry contact card for alarms (optional).

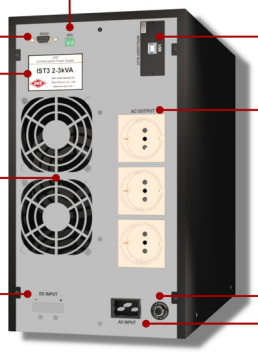
WARRANTY 3 YEARS WARRANTY

ASSISTANCE 24hr/7 SUPPORT

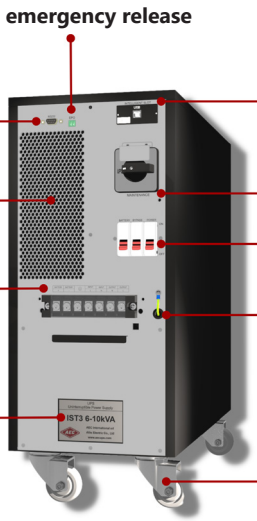
IST3 1 KVA



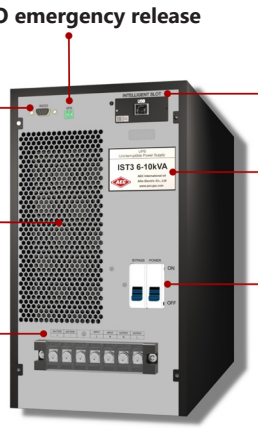
IST3 2-3 KVA



IST3 6-10 KVA



IST3-L 6-10 KVA



TECHNICAL SPECIFICATIONS					
MODELS	**IST3-1-2X9 IST3-1-L**	**IST3-2-4X9 IST3-2-L**	**IST3-3-6X9 IST3-3-L**	**IST3-6-16X9 IST3-6-L**	**IST3-10-16X9 IST3-10-L**
INPUT					
VOLTAGE (VAC)	120~295			80~275	
FREQUENCY (HZ)	50/60± 10% (50/60Hz automatic regulation)				
POWER FACTOR	≥0.99				
THDi	<5%				
OUTPUT					
POWER (WATT)	1000	2000	3000	6000	10000
MAX. AC/AC EFFICIENCY	92,00%	93,00%	94,00%	96%	
POWER FACTOR	1				
VOLTAGE (VAC)	208/220/230/240±1% (configurable from display)				
FREQUENCY (HZ)	50/60±0.2% (battery mode)				
THDi	THD < 2% (linear loads) THD < 5% (non-linear loads)			THD < 1% (linear loads) THD < 4% (non-linear loads)	
SWITCHING TIME (MS)	0				
BATTERIES					
VOLTAGE (VDC)	24 or 36	48 or 72	72 or 96	192~240	
STANDARD BATTERIES CONFIGURATIONS	2×9Ah 12V	4×9Ah 12V	6×9Ah 12V	16×9Ah 12V	16×9Ah 12V
MAX. CHARGING CURRENT (A)	1-4	1-4	1-4	1~8	
OTHER SPECIFICATIONS					
COMMUNICATIONS	RS232, EPO, USB (slot) (SNMP, RS485+ Optional dry contact Card)				
OUTPUT SOCKET	2x Schuko plugs	3x Schuko plugs		Screw wire terminal	
ALLARMS	Low batteries, Abnormal Input, Overload, Block/Fault, ecc.				
PROTECTIONS	Low batteries, Overload, Short-circuit, Over-temperature, ecc.				
NOISE (DB)	<50	<55			
TEMPERATURE (°C)	-5~40				
HUMIDITY	0 ~ 95%				
DIMENSIONS (L×W×H) MM	145×360×225	190×400×330		230×502×553 / 190×422×337 (L)	
WEIGHT (KG)	11.6/4.5	22.4/8.5	27.6/9.2	54.5/10.9	56.2/12.5
STANDARDS AND CERTIFICATIONS	CE (Reference standards: Safety IEC EN 62040-1; EMC IEC EN 62040-2; Classification IEC EN 62040-3)				

UPS SERIES IST 3-J

1:1 **Power from 1kVA to 10kVA**

THREE LEVEL 3 UPS

kW = kVA

96% Efficiency

UPS RACK 19" ONLINE DOUBLE CONVERSION

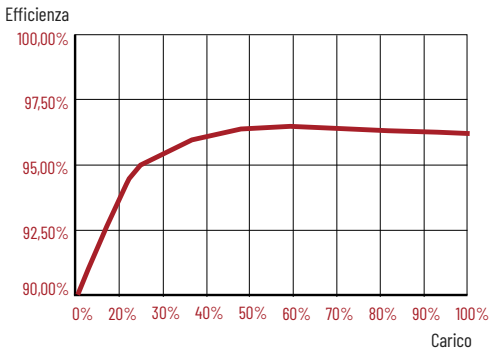
The IST3-J single-phase UPS (1-10kVA) are AEC's **double conversion online UPS** range and are **rack UPS** with powers from 1kVA up to 10kVA. The UPS IST3-J series adopts the most innovative **IGBT technologies**, ensuring efficiency up to 96% and a unitary output power factor.

The UPS are available in models with **internal batteries** or combined with external battery rack cabinets for longer autonomy. Our 1kVA, 2kVA and 3kVA models have the **hot-swappable battery pack** which facilitates quick replacement. The 6kVA and 10kVA models have the advantage of occupying only 2U. The **USB card** is included and the UPS are covered by a 3 year warranty.

PRINCIPALS FEATURES

EXCELLENT PERFORMANCE

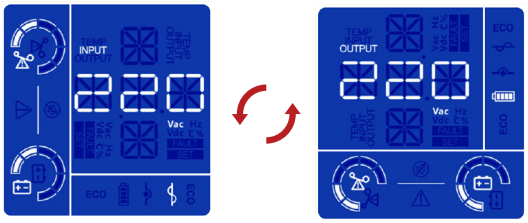
- Output power factor equal to 1 for a better load capacity at the same power with lower and more convenient initial investment costs;
- Efficiency AC\AC up to 96%;



- Small size and dustproof front design with LCD display;
- Wide input tolerance, compatible with diesel generators;
- Small footprint of only 2U even for 6 and 10kVA models;
- Possibility of installation in 19-inch rack or tower;
- Advanced DSP digital control technology for precise and rapid data processing;
- Detection and warning of faults to ensure the safety of the device, also monitoring the internal temperature of the UPS;
- Intelligent fans with high efficiency cooling, multiple modes to control their speed, extend their life and improve their efficiency.

Automatic fan control

STANDARD E COMMUNICATIONS



- Large rotary HD LCD screen, graphic interface and simplified display for an improved and user-friendly user experience;
- Output 208/220/230/240 Vac, 50 / 60Hz voltage, configurable from on-site display;
- ECO mode configurable from on-site display;
- 16 \ 17 \ 18 \ 19 \ 20 battery configuration via RS232 port (6-10kVA);
- RS232 and USB communication ports equipped with user manual, cable and CD for software;
- Maintenance bypass rack module (optional);
- SNMP network card for remote control and monitoring (optional);
- NC \ NO dry contact card for alarms (optional).

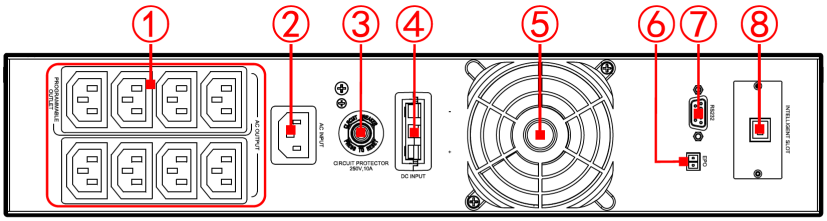
WARRANTY

WARRANTY 3 YEARS WARRANTY

ASSISTANCE

24hr/7 SUPPORT

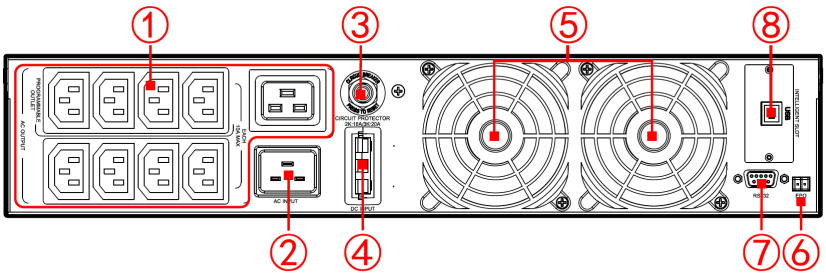
IST3-J 1 KVA



UPS

1. OUTPUT SOCKET;
2. MAINS INPUT SOCKET;
3. OVER-CURRENT PROTECTOR;
4. EXTERNAL BATTERY PORT;
5. COOLING FAN;
6. EPO CONNECTOR;
7. RS232 COMMUNICATION PORT;
8. INTELLIGENT SLOT;

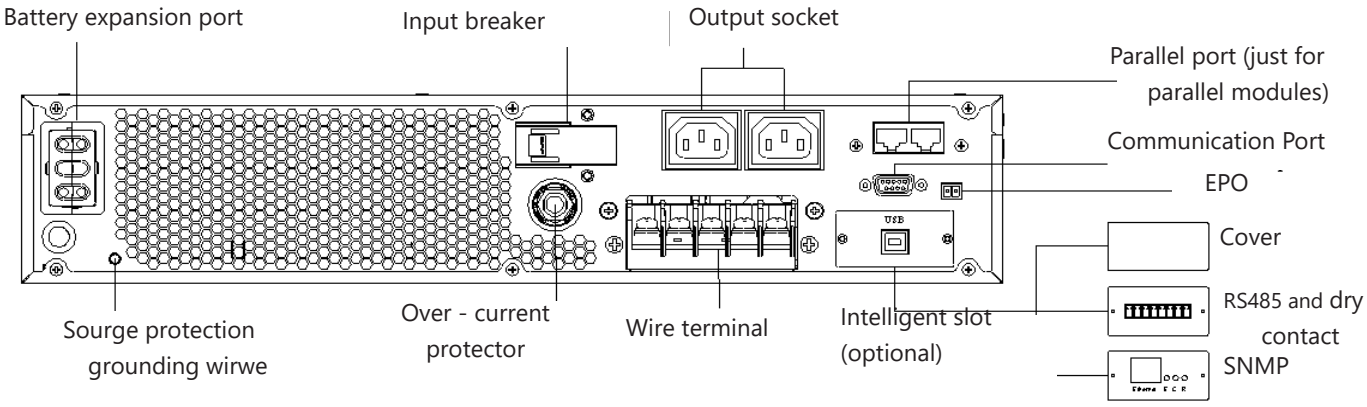
IST3-J 2-3 KVA



UPS

1. OUTPUT SOCKET;
2. MAINS INPUT SOCKET;
3. OVER-CURRENT PROTECTOR;
4. EXTERNAL BATTERY PORT;
5. COOLING FAN;
6. EPO CONNECTOR;
7. RS232 COMMUNICATION PORT;
8. INTELLIGENT SLOT;

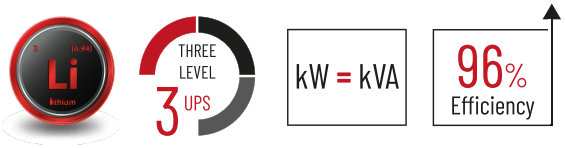
IST3-J 6-10 KVA



TECHNICAL SPECIFICATIONS					
MODELS	**IST3J-1-3X9 IST3J-1**	**IST3J-2-4X9 IST3J-2**	**IST3J-3-6X9 IST3J-3**	**IST3J-6-16X9 IST3J-6**	**IST3J-10-16X9 IST3J-10**
INPUT					
VOLTAGE (VAC)	120~295			80~275	
FREQUENCY (HZ)	50/60± 10% (50/60Hz Automatic regulation)				
POWER FACTOR	≥0.99				
THDi	<5%				
OUTPUT					
POWER (WATT)	1000	2000	3000	6000	10000
MAX. AC/AC EFFICIENCY	92,00%	92.5%	93.3%	96%	
POWER FACTOR	1				
VOLTAGE (VAC)	208/220/230/240±1% (configurable from Display)				
FREQUENCY (HZ)	50/60±0.2% (battery mode)				
THD	THD <2% (linear loads) THD < 5% (non-linear loads)			THD <1% (linear loads) THD < 4% (non-linear loads)	
SWITCHING TIME (MS)	0				
BATTERIES					
VOLTAGE (VDC)	36	48	72	192~240	
QUANTITY	3× 9AH 12V	4× 9AH 12V	6× 9AH 12V	16× 9AH 12V (16~20 configurable)	
MAX. CHARGING CURRENT (A)	1-4	1-4	1-4	1/1~8 (configurable)	
OTHER SPECIFICATIONS					
COMMUNICATIONS	RS232+EPO+USB (slot) (SNMP, RS485+ optional dry contact card)				
OUTPUT SOCKET	8×IEC320 C13	8×IEC320 C13 + 1×IEC320 C19		Screw wire terminal	
ALARMS	Low batteries, Abnormal Input, Overload, Block/Fault, ecc.				
PROTECTION	Low batteries, Overload, Short-circuit, Over-temperature, ecc.				
NOISE (DB)	< 50		< 55		
TEMPERATURE (°C)	-5~40				
HUMIDITY	0 ~ 95%				
DIMENSIONS (L×W×H)	438×413×2U	438×570×2U		438×500×2U (UPS)+ 438×500×3U (Batt. pack)	
WEIGHT (KG)	11	19.8	24.8	10.6+45/10.6	12.2+45/12.2
STANDARDS AND CERTIFICATIONS	CE (Reference standards: Safety IEC EN 62040-1; EMC IEC EN 62040-2; Classification IEC EN 62040-3)				

UPS SERIES IST 8

1:1 **Power from 1kVA up to 3kVA**



UPS ONLINE WITH LITHIUM BATTRIES

The IST8 single-phase lithium UPS (1-3kVA) are the range of rack UPS with lithium-ion batteries produced by AEC, in powers starting from 1kVA up to 3kVA. The UPS IST8 series adopts the most **innovative lithium-ion battery** technologies, guaranteeing a lifespan of the UPS up to **10 years**.

The lithium UPS units are available in models with internal batteries or combined with external battery cabinets for longer runtimes. The IST8 UPS is capable of withstanding temperatures up to 50 ° without risking damage to the batteries.
5-years battery warranty.

LITHIUM ION UPS

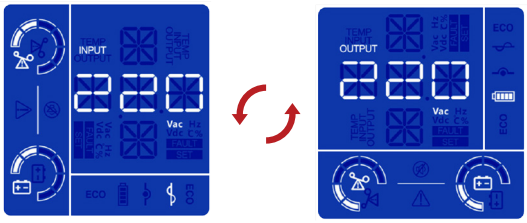
PRINCIPAL FEATURES

LITHIUM ION BATTERIES

- Output power factor equal to 1 for a better load capacity at the same power with lower and more convenient initial investment costs;
- Integrated lithium-ion batteries, weight reduction up to 40% compared to traditional lead-acid VRLA batteries, maximum discharge capacity up to 80% and an expected life of 15 years and over 1500 charging cycles;

- Small size and dustproof front design with LCD display;
- Wide input tolerance, compatible with diesel generators;
- In addition to being much lighter and less bulky, lithium-ion batteries are also much more versatile and advantageous thanks to their ability to operate in extremely cold temperatures.
  Maximum operation at -20 ° C and up to + 50 ° C, without any risk of damage o downgrading of performance;
- Possibility of installation in 19-inch rack or tower;
- Advanced DSP digital control technology for precise and rapid data processing;
- Detection and warning of faults to ensure the safety of the device, also monitoring the temperature of the UPS;
- Intelligent fans with high efficiency cooling, multiple modes to control their speed, extend their life and improve their efficiency.

STANDARD AND COMMUNICATIONS



- Large rotary HD LCD screen, graphic interface and simplified display for an improved and user-friendly user experience;
- Output 208/220/230/240 Vac, 50 / 60Hz voltage, configurable from on-site display;
- ECO mode configurable from on-site display;
- RS232 and USB communication ports equipped with user manual, cable and CD for software;
- Maintenance bypass rack module (optional);
- SNMP network card for remote control and monitoring (optional);
- NC \ NO dry contact card for alarms (optional).

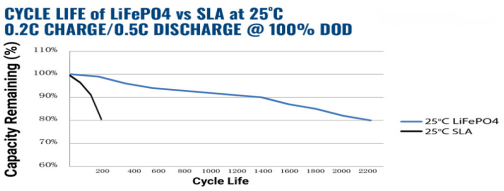
WARRANTY

ASSISTANCE

BUILT-IN LITHIUM-ION BATTERIES

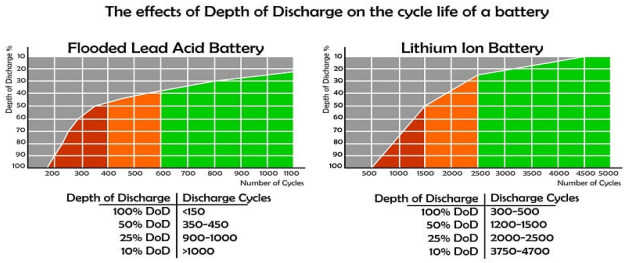
EXCELLENT PERFORMANCE

- **Higher energy density:** Li-ion batteries lithium have a higher energy density than to lead-acid batteries, which means they can store more energy in a smaller space.
- **Lighter**: Li-ion batteries are lighter compared to lead-acid batteries, which makes them easier to transport and install.
- **Longer life**: lithium-ion batteries have longer life than lead-acid batteries e can be used for longer periods without the need to replace them.
- **Higher efficiency**: Lithium-ion batteries have higher efficiency than lead-acid batteries, which means they can provide more energy for each unit of weight.

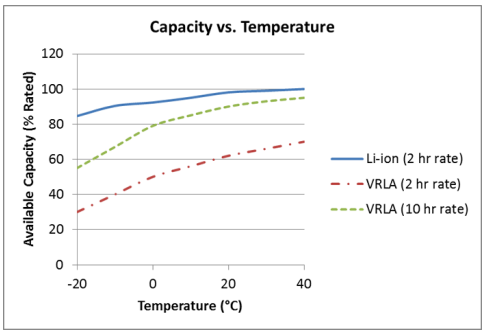


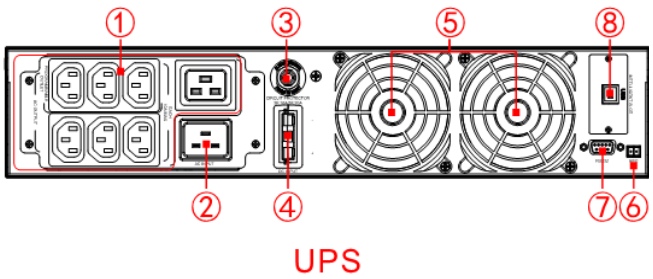
- **Greater flexibility:** lithium-ion batteries can be used in a wide range of applications and in different types of devices, while the lead acid batteries are mainly used in specific applications.

- **Life cycles**: Li-ion batteries have a cycle longer life than lead-acid batteries, i.e can be downloaded and reloaded for a greater number of times before losing their capacity.



- **Self-discharge**: Li-ion batteries have a self-discharge lower than lead-acid batteries, which meaning they lose less energy when not in use.
- **Working voltage**: Li-ion batteries have a higher working voltage than al batteries lead, which means they can deliver more energy for each unit of volume.
- **Working temperature**: lithium ion batteries they can work in a wider range of temperatures compared to lead-acid batteries.





UPS

1. OUTPUT SOCKET;
2. MAINS INPUT SOCKET;
3. OVER-CURRENT PROTECTOR;
4. EXTERNAL BATTERY PORT;
5. COOLING FAN;
6. EPO CONNECTOR;
7. RS232 COMMUNICATION PORT;
8. INTELLIGENT SLOT;

TECHNICAL SPECIFICATIONS			
MODELS	**IST8-1-LI**	**IST8-2-LI**	**IST8-3-LI**
INPUT			
VOLTAGE (VAC)	120-295		
FREQUENCY (HZ)	50/60± 10% (50/60Hz)		
POWER FACTOR	≥0.99		
THDI	<5%		
OUTPUT			
POWER (WATT)	1000	2000	3000
MAX. AC/AC EFFICIENCY	92.7%	93.5%	96%
POWER FACTOR	1		
VOLTAGE (VAC)	208/220/230/240±1%		
FREQUENCY (HZ)	50/60±0.1		
THD	<3%		
SWITCHING TIME (MS)	0		
ECO MODE	Yes		
OVERLOAD	101%~115% for 1 min, 116%~133% for 1 s, < 134% for 200ms		
LITHIUM BATTERIES			
VOLTAGE (VDC)	24	48	72
BACKUP TIME (MIN)	12	12	12
MAX. CHARGING CURRENT (A)	4		
OTHER SPECIFICATION			
COMMUNICATIONS	USB and SNMP (slot) (RS232+ Optional dry contact card)		
OUTPUT SOCKETS	(1)IEC C19 + (6)IEC C13		
DISPLAY	LCD		
PROTECTIONS	Low batteries, Overload, Short-circuit, Over-temperature, ecc.		
NOISE (DB)	< 55		
TEMPERATURE	0°C~50°C		
HUMIDITY	0 ~ 95%		
DIMENSIONS (L×W×H) (MM)	438×420×87	438×570×87	438×570×87
WEIGHT (KG)	8.9	13.6	19.6
STANDARDS AND CERTIFICATIONS	CE (Reference standards: Safety IEC EN 62040-1; EMC IEC EN 62040-2; Classification IEC EN 62040-3)		

ALL-IN-ONE LITHIUM UPS

1:1 3:1 3:3 **Power from 10kVA up to 20kVA**

kW = kVA

97% Efficiency

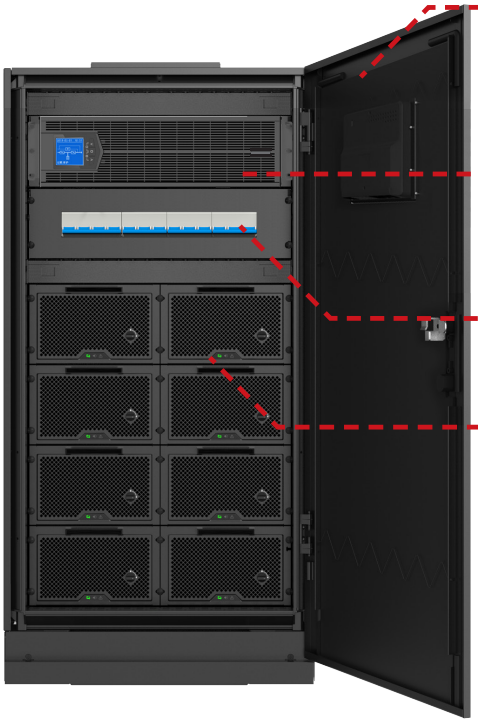
ALL-IN-ONE UPS WITH HOT-SWAPPABLE LITHIUM BATTERY
UPS ONLINE THREE-PHASE OR SINGLE PHASE

The **ALL-IN-ONE UPS + LITHIUM BATTERY MODULES** (10-20KVA) are AEC's revolutionary UPS System with powers starting from 10kVA up to 20kVA. The integrated UPS adopts the most innovative **3-level IGBT** technologies, ensuring efficiency up to 97% and a unitary output power factor.

All-In-One can be configured in **1\1 or 3\1 or 3\3** input\output mode directly from the display. The All-In-One Cabinet is on wheels and it includes an online UPS upto 20kW, a **distribution module** with manual maintenance bypass and **up to 8 slots for Hot-swappable Lithium battery modules 50Ah.**

UPS RACK 19" THREE-PHASE

UPS + LITHIUM BATTERIES | ALL-IN-ONE SOLUTION



Touch-screen display

UPS 10-20kW
1:1 or 3:1 or 3:3

Power distribution switch - MBB

Lithium 50Ah battery pack
Redundant and Hot-swappable

Module-level expansion with fine granularity

UPS CONFIGURATIONS

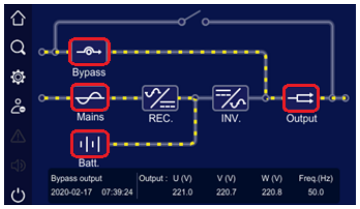
- UPS Online double-conversion 10kVA or 20kVA;
- UPS input and output configurable from display in single-phase and \ or three-phase (1:1, 3:1, 3:3);
- ECO-Mode mode configurable from on-site display;
- Two Displayes: 1 LCD and 1 computerized Touch-Screen;
- Configuration for input, output, bypass, batteries, communications, language and operating modes via display from UPS or TOUCH-SCREEN;
- Output power factor equal to 1;
- AC \ AC efficiency up to 97%;
- Innovative three-level IGBT technology integrated in the inverter section;
- Maintenance Bypass integrated.

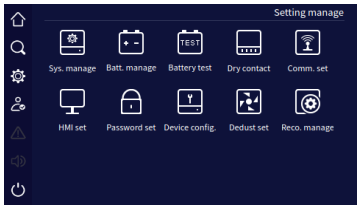
HOT-SWAPPABLE LITHIUM MODULES

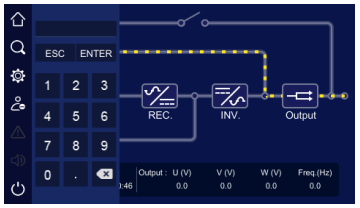
- Maximum 8 x Lithium-Ion Hot-swappable 50Ah ;
  200 Minutes autonomy on 6kW
  120 Minutes autonomy on 10kW
- 15 Years lifespan and over 3000 cycles DoD 50%;
- Electrical and physical double isolation;
- From 0% charge to 100% charge in 2 Hours;
- Module fire protection;
- Modular parallel design, 100% hot-swappable independent and redundant modules;
- Preventive Failure alarm and module exit automatically;
- Advanced BMC communication to allow mixing old and new Lithium-Ion Modules.

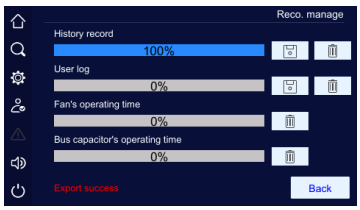
DISPLAY | TOUCH-SCREEN COMPUTERIZED

Display 4.9" Inches









Safe and reliable

Electrical and physical double isolation

• Port zero voltage, no risk of short circuit shock

Two-level fire linkage

• Module fire protection

• Can quickly, accurately and effectively detect and extinguish the fire source will extinguish the fire in the initial stage.

Failure module exit automatically

• Modular parallel design, failure module exit automatically, will not affect the system. Other modules can work normally.

Smart and Intelligent technology

Module design, plug and play

• 5mins maintenance, reduce the OPEX cost

Flexible for expansion

• Module design, can expand the capacity of modules or cabinets.

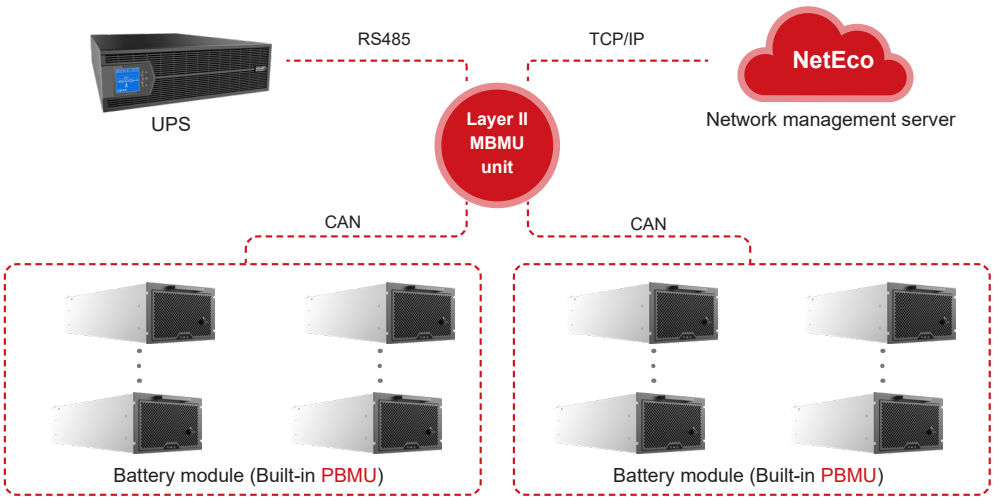
• Reduce the CAPEX cost

Smart battery test

• Parallel design, the battery can test the capacity separately. No need to cut off the power supply, improve the reliability

Featured Two-layer BMS Architecture

The adopted two-layer BMS architecture (PBMU/MBMU) ensures the reliability of lithium-ion battery system from cell, module and system layers.



ACCURATE MONITORING FROM DISPLAY

Easy and simple to operate

Intelligent current equalization

• Can be used with new and old batteries

• Can be used with lithium-ion batteries from different suppliers

Intelligent voltage equalization

• Intelligent voltage equalization module, no barrel effect

• Prolong the backup time, improve battery utilization

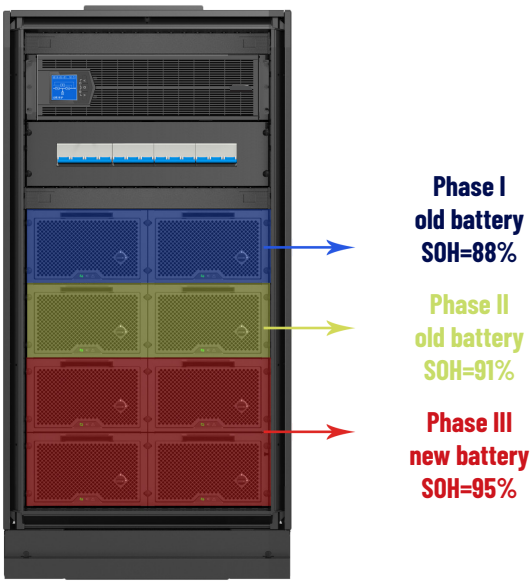
Fault recording, early warning

• Fault recording, early warning, accurate and quick fault location, reduce the OPEX cost

Adaptive SOC management

• Intelligent charge and discharge management, avoid over charge and over discharge

• Detects the battery internal temperature. Improve the safety and reduce the OPEX cost



More flexible mixing of old and new batteries

Multi-Password management

• Access to the menu via different password levels (User, Technician and Manufacturer);

• Large memory up to 10,000 events downloadable via the USB port integrated in the UPS;

Communications and alarms

• Alarms from dry contact card 5 or 12 Input\Output available alarms (optional);

• SNMP Network Card for remote monitoring and controling (optional).

Excellence performance Lithium-Ion

- **Higher energy density:** Li-ion batteries lithium have a higher energy density than to lead-acid batteries, which means they can store more energy in a smaller space.
- **Lighter**: Li-ion batteries are lighter compared to lead-acid batteries, which makes them easier to transport and install.
- **Longer life**: lithium-ion batteries have longer life than lead-acid batteries e can be used for longer periods without the need to replace them.
- **Higher efficiency**: Lithium-ion batteries have higher efficiency than lead-acid batteries, which means they can provide more energy for each unit of weight.
- **Life cycles**: Li-ion batteries have a cycle longer life than lead-acid batteries, i.e can be downloaded and reloaded for a greater number of times before losing their capacity.

LITHIUM VS LEAD ACID COMPARISON TABLE

1. Example **UPS = 20kVA** **Load = 20kW** **Autonomy = 60 Minutes**

	LEAD ACID VRLA SOLUTION: UPS IST7 20kVA - 20kW BB7 + 32 Batteries x 12V 80Ah	LITHIUM SOLUTION: ALL-IN-ONE 20kW with 8 x Lithium 50Ah
1. Total Weight	50 Kg + 650 Kg	400 Kg
2. Total piece to install	2 Units = UPS + Battery Cabinet	1 Unit
3. Dimensions	260x780x900 cm + 800x800x1400 cm	600x860x1200 cm
4. Cycles discharge	300 Cycles DoD 30%	3000 Cycles DoD 50%
5. Life-span of batteries	10 Years	15 Years
6. Time to recharge 100%	8 Hours	2 Hours
7. Working temperature	20-25°	0-50°
8. Warranty	2 Years	5 Years
9. Time to install full system	2 People 2-4 Hours	1 Person 30-60 Minutes
10. Battery replacements needed in 15 years	2-3 Times x 600Kg of batteries	0
12. Estimated Total Cost in 15 Years	65.000 Euro	40.000 Euro
Physical Appereances		

BATTERY AUTONOMY CONFIGURATION TABLE

50Ah battery module | 15 Years life span

Battery module (mins) / UPS capacity (kW)	1	2	3	4	5	6	7	8
6	25	50	75	100	125	150	175	200
10	15	30	45	60	75	90	105	120
20	/	15	22	30	37	45	52	60

TECHNICAL SPECIFICATIONS			
MODELS	**ALL-IN-ONE**		
UPS INPUT			
CONFIGURATION	1:1 3:1 3:3 INPUT - OUTPUT		
VOLTAGE (VAC)	80-280 (L-N) or 138-485 (L-L)		
FREQUENCY (HZ)	40-70		
POWER FACTOR	≥0.99		
THDI	<3%		
UPS OUTPUT			
POWER (kW)	10	15	20
MAX. AC/AC EFFICIENCY	97,00%		
POWER FACTOR	1		
VOLTAGE (VAC)	220/230/240±1% (L-N) or 380/400/415±1% (L-L) (configurable)		
FREQUENCY (HZ)	50/60±0.1		
THD	THD <2% (linear loads), THD < 4% (non-linear loads)		
SWITCHING TIME (MS)	0		
ECO MODE	Yes		
OVERLOAD	115%~130% Overload for 15mins, 130%~150% Overload for 1min, more than 150% Overload for 200ms		
LITHIUM-ION BATTERY MODULES			
BATTERY TYPE	LITHIUM-ION MODULES L6-50-4C-240-X		
	HOT-SWAPPABLE MODULES		
BATTERY NUMBER	Maximum 8 LITHIUM MODULES		
BATTERY RATED VOLTAGE (V)	57.6		
BATTERY CAPACITY (AH)	50		
MAX. ENERGY (KWH)	2.8		
DC/DC RATED OUTPUT POWER (KW)	10		
RATED OUTPUT VOLTAGE (V)	240/±240/480		
SOC ACCURACY	≥95%		
HUMIDITY	0 ~ 95%		
DIMENSIONS (L X W X H)	UPS	438×500×130(3U)	
	Distribution Box	438×500×130(3U)	
	Lithium Battery Module	223×665×153	
	FULL UPS SYSTEM	600×860×1200	
WEIGHT (KG)	UPS	20	
	Distribution Box	8	
	Lithium Battery Module	38±2	
	FULL UPS SYSTEM	120 *Without built-in UPS and batteries.	
CERTIFICATIONS			
STANDARDS	CE (Reference standards: Safety IEC EN 62040-1; EMC IEC EN 62040-2; Classification IEC EN 62040-3)		

UPS SERIES IST 9

1:1 3:1 3:3 **Power from 10kVA up to 20kVA**

THREE LEVEL 3 UPS

kW = kVA

97% Efficiency

UPS RACK 19" ONLINE THREE-PHASE OR SINGLE PHASE

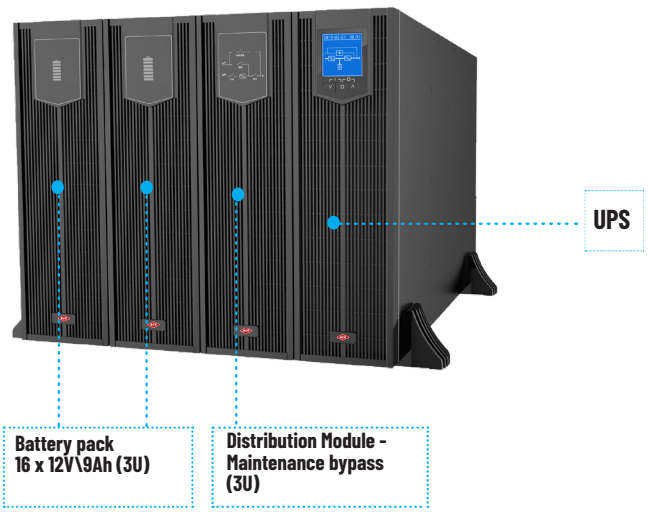
The **IST9 Rack UPS** (10-20KVA) are AEC's range of single-phase and three-phase online rack UPS, with powers starting from 10kVA up to 20kVA. The UPS IST9 series adopts the most innovative **3-level IGBT** technologies, ensuring efficiency up to 97% and a unitary output power factor.

IST9 can be configured in **1 \ 1 or 3 \ 1 or 3 \ 3** input \ output mode directly from the display. 19 "rack UPS compact in size, only 3U in rack cabinet height. The UPS includes a **distribution module** and a manual **bypass disconnector** to facilitate maintenance.

PRINCIPAL FEATURES

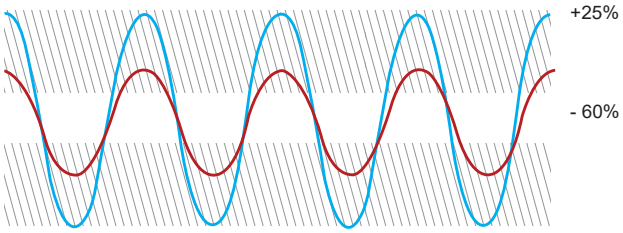
EFFICIENCY AND FLEXIBILITY

- Output power factor equal to 1 for a better load capacity at the same power with lower and more convenient initial investment costs;
- Very high AC \ AC efficiency up to 97%;
- Innovative three-level IGBT technology integrated in the inverter section;
- Continuous overload up to 115%;
- Ultra-wide range of batteries, from 12 up to 20 monoblocks;



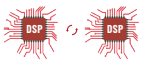
MULTIPLE CONFIGURATIONS

- Large rotary HD screen, graphic interface and simplified display, for an improved and user-friendly user experience;
- UPS input and output configurable from display in single-phase and \ or three-phase (1: 1,3: 1,3: 3);
- ECO, Normal or Parallel N + 1 mode configurable from on-site display;
- Configuration for input, output, bypass, batteries, communications, language and operating modes via display;
- Extremely flexible input adaptable to all needs, tolerance range -60% ~ + 25%;

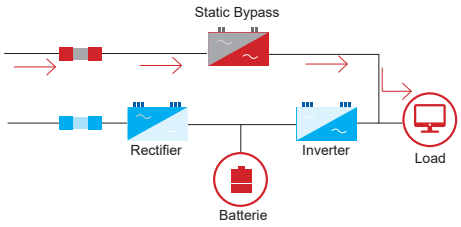


Single-phase and three-phase power range

- Small footprint with small size only 3U;
- Advanced control with double redundant DSP;



- Fully tropicalized electronic cards;
- Charging current for batteries from 1 to 10 A, configurable from the display;
- Shared batteries for parallel systems, a single battery pack for two N + 1 UPSs;
- ECO mode with efficiency up to 99%, configurable from the display;



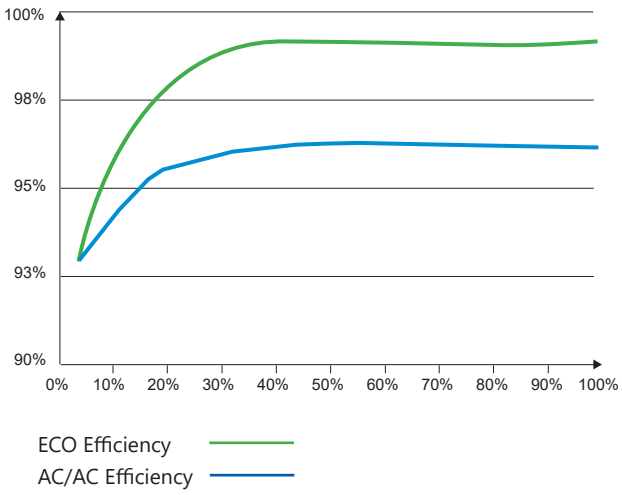
ECO Mode

- Battery configurations minimum 24 up to 40 per series (± 144 ~ ± 240Vdc) via display;
- Possibility of parallel installation (redundant or power) up to 4 units;
- Display available in 7 languages.

EXCELLENT PERFORMANCE

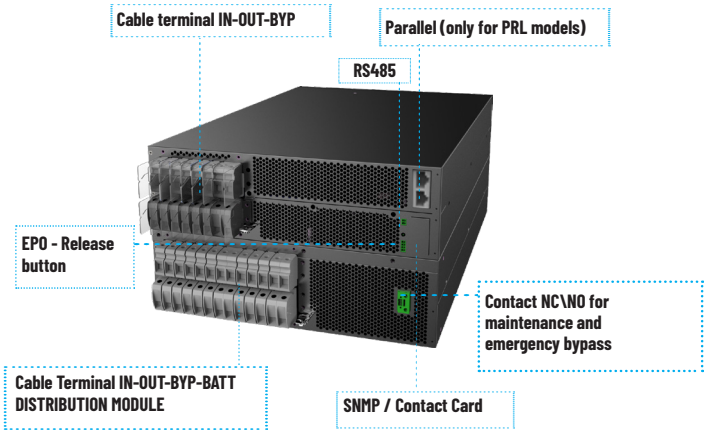
- Efficiency higher than 93% even at low loads;
- Maximum output tolerance, ability to operate with 100% unbalanced loads;
- Maximum power density, 20kW of capacity take up only 3U of size;
- Access to the menu via different password levels, input-output-battery configuration directly from display;
- Intelligent fans with high efficiency cooling, multiple modes to control their speed, extend their life and improve their efficiency.

Automatic fan control



STANDARD AND COMMUNICATIONS

- Rack module for electrical distribution with switches for Input, Static Bypass, Output and Maintenance Bypass;
- RS485 communication port with integrated Modbus;
- EPO, emergency release button;
- Kit for 1: 1 and/or 3: 1 installation (optional);



- Support for installation in tower \ floor version;
- USB communication port equipped with user manual, cable and CD for software;
- SNMP network card for remote control and monitoring (optional);
- NC \ NO dry contact card for alarms (optional).

TECHNICAL SPECIFICATIONS			
MODELS	**IST9-10**	**IST9-15**	**IST9-20**
INPUT			
VOLTAGE (VAC)	80-280 (L-N) o 138-485 (L-L)		
FREQUENCY (HZ)	40-70		
POWER FACTOR	≥0.99		
THDI	<3%		
OUTPUT			
POWER (kW)	10	15	20
MAX. AC/AC EFFICIENCY	97,00%		
POWER FACTOR	1		
VOLTAGE (VAC)	220/230/240±1% (L-N) o 380/400/415±1% (L-L) (configurable)		
FREQUENCY (HZ)	50/60±0.1		
THD	THD <2% (linear loads), THD < 4% (non-linear loads)		
SWITCHING TIME (MS)	0		
ECO MODE	Yes		
OVERLOAD	115%~130% Overload for 15mins, 130%~150% Overload for 1min, more than 150% Overload for 200ms		
BATTERIES			
VOLTAGE (VDC)	±192 (±144~±240 configurable)		
MAX. CHARGING CURRENT (A)	4 (1-10 configurable)		
OTHER SPECIFICATIONS			
COMMUNICATIONS	RS485+EPO (RS232+ Clean contact card, SNMP optional)		
DISPLAY	LCD		
ALARMS	Low batteries, Anormal input, Overload, Block/Fault ecc.		
PROTECTION	Low batteries, Overload, Short-circuit, Over-temperature ecc.		
NOISE (DB)	< 55		
TEMPERATURE (°C)	-5~40		
HUMIDITY	0 ~ 95%		
DIMENSIONS (L×W×H) MM	UPS	438×500×130(3U)	
	Distribution Box	438×500×130(3U)	
WEIGHT (KG)	UPS	20	
	Distribution Box	8	
CERTIFICATIONS			
STANDARDS	CE (Reference standards: Safety IEC EN 62040-1; EMC IEC EN 62040-2; Classification IEC EN 62040-3)		

UPS SERIES IST 7

3:1 3:3 **Power from 10kVA to 40kVA**

THREE LEVEL 3 UPS

kW = kVA

97% Efficiency

UPS ONLINE THREE-PHASE | SINGLE PHASE

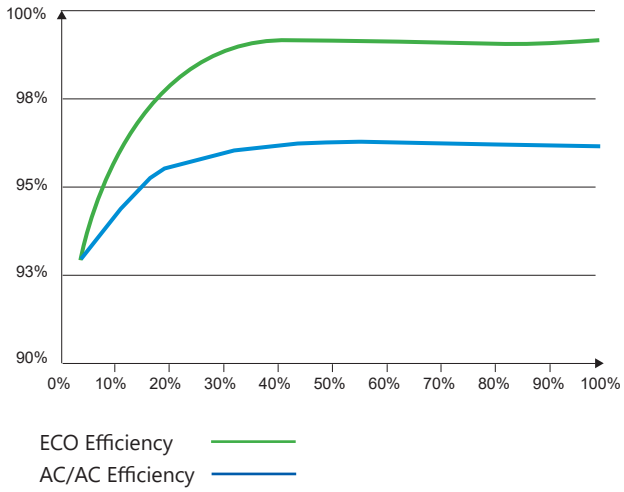
The IST7 three-phase UPS (10-40kVA) are AEC's three-phase online UPS range, double conversion tower UPS in powers starting from 10kVA up to 40kVA. The UPS IST7 series adopts the most innovative **3-level IGBT** technologies, ensuring efficiency up to 97% and a unitary output power factor.

IST7 **10kVA and 20kVA** can be configured in **1 \ 1 or 3 \ 1 or 3 \ 3** input \ output mode directly from the display, while the **30kVA and 40kVA** models can be configured **3 \ 1 or 3 \ 3.** The three-phase UPS are available in version with **internal batteries** or **external battery cabinet**. The UPS includes the free contact card for alarms and a manual bypass disconnector to facilitate maintenance.

PRINCIPALS FEATURES

EFFICIENCY E FLEXIBILITY

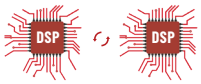
- Output power factor equal to 1;
- AC \ AC efficiency up to 97%;



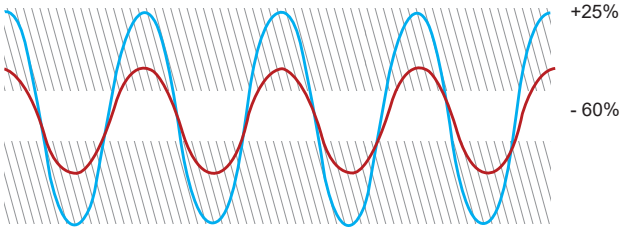
- Innovative three-level IGBT technology integrated in the inverter section;
- Modifiable input and output:
  - 1:1, 3:1, 3:3 (10-20kVA)
  - 3:1, 3:3 (30-40kVA);
- Maximum capacity of built-in batteries:
  - from 16 up to 40 12V 9Ah monoblocks (10-20kVA);
  - from 48 up to 80 12V 9Ah monoblocks (30-40kVA);

MULTIPLE CONFIGURATIONS

- TOUCH-SCREEN computerized screen with Linux operating system and color graphic interface;
- 10kVA and 20kVA versions with input and output configurable from display in single-phase and \ or three-phase (1: 1,3: 1,3: 3);
- 30kVA and 40kVA versions with configurable output from display in single-phase or three-phase (3: 1,3: 3);
- Display available in 7 languages;
- Advanced control with double redundant DSP;

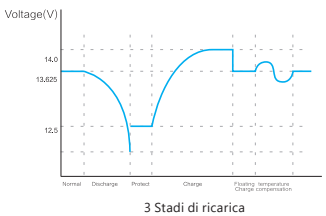


- ECO mode with efficiency up to 99%, configurable from the display;
- Maximum output tolerance, ability to operate with 100% unbalanced loads;
- Fully tropicalized electronic cards;
- Double input with wide tolerance, compatible with diesel generators;



Single-phase and three-phase power range

- Ultra Wide Battery Range:
  - 10kVA version minimum 16 up to 40 for monoblocks series (± 96 ~ ± 240Vdc)
  - 20-30-40kVA version minimum 24 up to 40 for monoblocks series (± 144 ~ ± 240Vdc);
- ECO mode with efficiency up to 99%, configurable from the display;
- Advanced 3-stage battery charging and maintenance system;



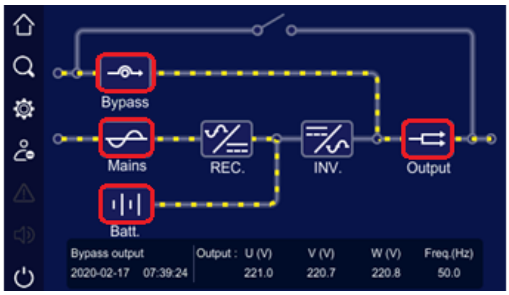
3 Stadi di ricarica

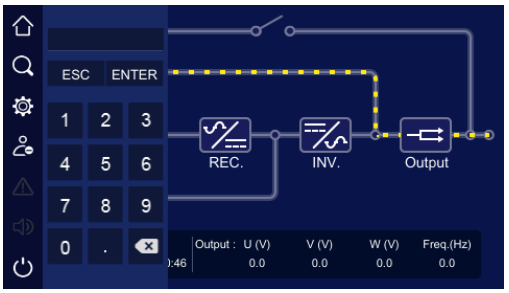
- Shared batteries for parallel systems, a single battery pack for two N + 1 UPSs;
- Possibility of parallel installation N + 1 (redundant or power) up to 10 units.

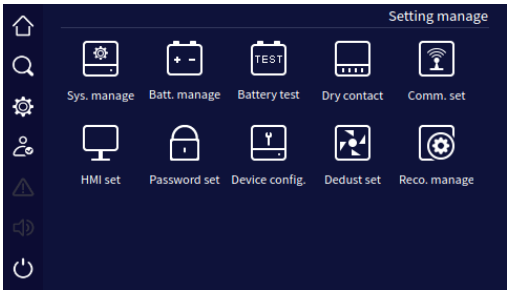
SETTINGS FROM DISPLAY

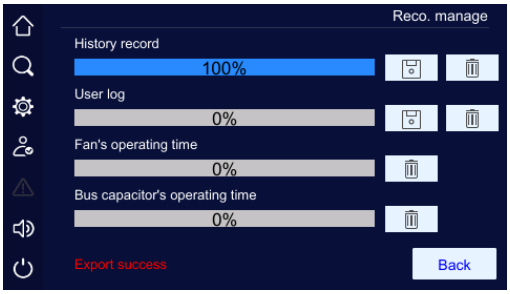
- Access to the menu via different password levels (User, Technician and Manufacturer);
- Configuration for input, output, bypass, batteries, communications, language and operating modes;
- Periodic self-cleaning function, to expel impurities and reduce the risk of failure;
- Large memory up to 10,000 events downloadable via the USB port integrated in the UPS;
- Advanced communication for installation and operation with diesel generators;
- Alarms from clean contact card, configurable from display;

Display 4.9" Inches









STANDARD AND COMMUNICATIONS

- Clean contact card with 5 alarms;
- Maintenance bypass switch;
- EPO emergency release button on the front, remote clean contact on the back;
- Battery start-up by means of a specific button;
- Kit for 1: 1 and \ or 3: 1 installation (optional);
- Integrated external battery connector;
- Integrated RS485 and Modbus communication port;
- Wiring arrangement for internal batteries:
  - from 16 up to 40 12V 9Ah monoblocks (10-20kVA)
  - from 48 up to 80 12V 9Ah monoblocks (30-40kVA);
- Protection against reverse polarity of the batteries;
- SNMP network card for remote control and monitoring (optional);
- NC \ NO dry contact card for further 12 alarms (optional).

TECHNICAL SPECIFICATIONS				
MODELS	**IST7-10-32X9 IST7-10**	**IST7-20-36X9 IST7-20**	**IST7-30-72X9 IST7-30**	**IST7-40-72X9 IST7-40**
INPUT				
VOLTAGE (VAC)	80-280 (L-N) / 138-485 (L-L)			
FREQUENCY (HZ)	40~70			
VOLTAGE BYPASS (VAC)	380/400/415: -20%~+15%			
POWER FACTOR	≥0.99			
THDI	≤3%			
PHASES	3:3 / 3:1 / 1 : 1		3:3 / 3:1	
OUTPUT				
POWER (kW)	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			
THD	THD<1% (linear loads), THD <3% (non- linear loads)			
WAVEFORM	Sinusoidal pure, THD<1% linear			
EFFICIENCY	97%			
OVERLOAD	110% Overload for 60mins; 130% Overload for 10mins; 155% Overload for 1min; >155% Overload for 200ms;			
BATTERIES				
BATTERY VOLTAGE (VCC)	±96~±240 configurable	±144~±240 configurable	±144~±240 configurable	±144~±240 configurable
BATTERIES CONFIGURATION STANDARD	32*9AH/12V	36*9AH/12V	72*9AH/12V	72*9AH/12V
MAX. CHARGING CURRENT (A)	1-10 (configurable)		1-20 (configurable)	
OTHER SPECIFICATIONS				
COMMUNICATIONS	RS485, MODBUS, Free contact card (RS232 e SNMP optional)			
DISPLAY	Touch screen+LED			
ALARMS	Low batteries, Anormal input, Overload, Block/Fault ecc.			
PROTECTION	Low batteries, Overload, Short-circuit, Over-temperature ecc.			
NOISE (DB)	<55			
TEMPERATURE (°C)	-5~40			
HUMIDITY	0~95%			
DIMENSIONS (L×W×H) (MM)	250×755x880		300x785x1250	
WEIGHT (KG)	132 with batteries - 50 without	140 with batteries - 50 without	270 with batteries - 85 without	
CERTIFICATIONS				
STANDARDS	CE (Reference standards: Safety IEC EN 62040-1; EMC IEC EN 62040-2; Classification IEC EN 62040-3)			

UPS SERIES IST 7

3:3 **Power from 60kVA to 200kVA**

THREE LEVEL 3 UPS

kW = kVA

97% Efficiency

UPS THREE-PHASE WITH EXPANDABLE MODULAR STRUCTURE

The **IST7 three-phase UPS** (60-200kVA) are AEC's range of **three-phase expandable online UPS**, double conversion tower UPS in powers starting from 60kVA up to 200kVA. The UPS IST7 series uses a **centralized modular design**, allowing future expansion of the UPS.

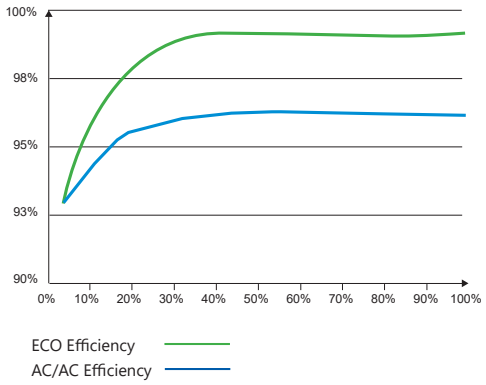
IST7 UPSs are available in **three sizes**, fixed power 60kVA, from 80 to 120kVA and from 160kVA to 200kVA. Thanks to the **inverter's 3 IGBT levels**, the UPS guarantee efficiency up to 97% and a unitary output power factor. They are directly configurable from the display, with **ample flexibility** in the number of batteries and **high overload capacity**. The innovative self-cleaning function reduces the risk of dust accumulation on the boards. The system includes the free contact card for alarms.

UPS THREE-PHASE EXPANDABLE

PRINCIPAL FEATURES

EFFICIENT AND EXPANDABLE

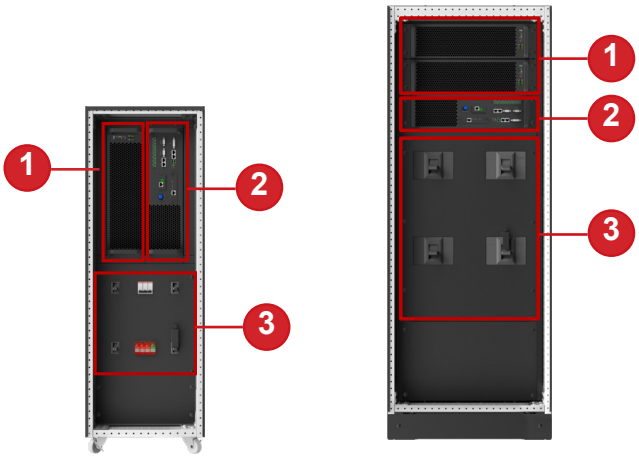
- Output power factor equal to 1;
- Maximum AC \ AC efficiency up to 97%;



- Innovative three-level IGBT technology integrated in the inverter section;
- Expandable in power directly on site and from the display;
- Shared batteries for parallel systems, a single battery pack for two N + 1 UPS;

Common battery pack

MODULAR STRUCTURE

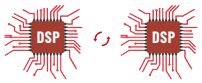


60-120KVA

160-200KVA

1. Power unit capacity 60kW | 80-120kW | 160-200kW
2. Bypass and control unit including RS485, Modbus and programmable dry contact
3. Power distribution unit with terminal block: Input, Output, Bypass and Battery

- Battery Configurations:
  from 28 to 48 monoblocks (±168~±288Vcc);
- ECO mode with efficiency up to 99%, configurable from the display;
- Possibility of parallel installation (redundant or power) up to 1.6MW;
- Advanced control with double redundant DSP;



- Fully tropicalized electronic cards;
- Display available in 7 languages;
- Intelligent fans with high efficiency cooling, multiple modes to control their speed, extend their life and improve their efficiency.

Automatic fan control

COMPUTERIZED MONITOR TOUCH-SREEN

IST7
60-80-100-120KVA

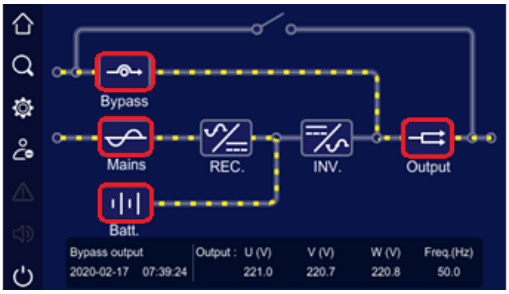
Display 4.3" Inches

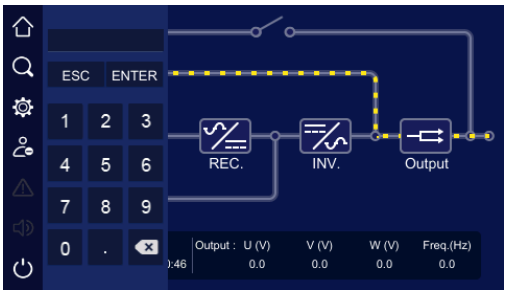
IST7
160-200KVA

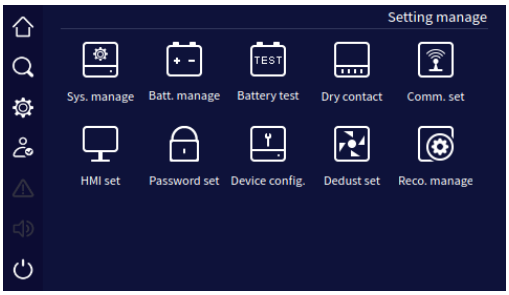
Display 7" Inches

SETTINGS FROM DISPLAY

- Access to the menu via different password levels (User, Technician and Manufacturer);
- Configuration for input, output, bypass, batteries, communications, language and operating modes;
- Periodic self-cleaning function, to expel impurities and reduce the risk of breakdowns;
- Large memory up to 10,000 events downloadable via the USB port integrated in the UPS;
- Advanced communication for installation and operation with diesel generators;
- Alarms from clean contact card, configurable from display;
- Periodic graphic recording of inverter, rectifier and control waveforms.

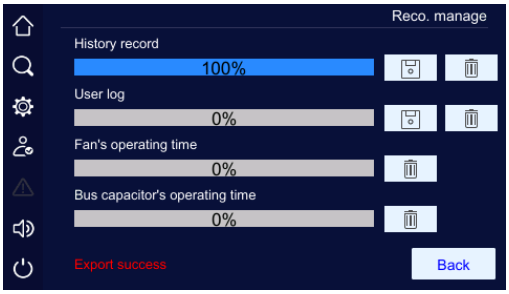






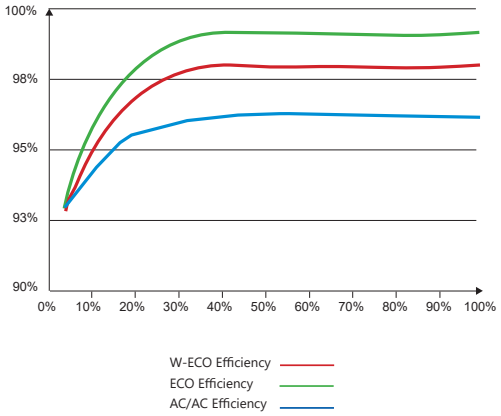
TOUCH-SCREEN DISPLAY WITH LED COLORED BAR

Normal Mode | Bypass Mode | Warning Mode

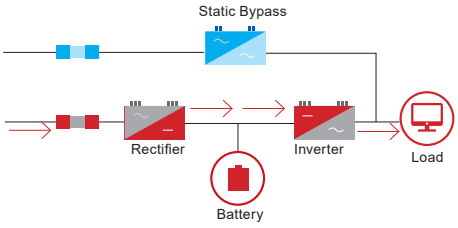


SMART-SLEEP PARALLEL INTELLIGENCE

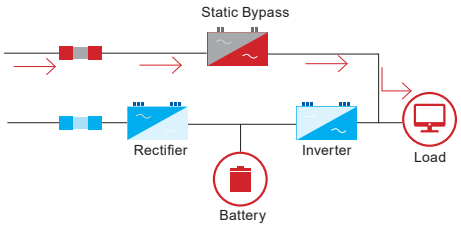
Intelligent Sleep Mode



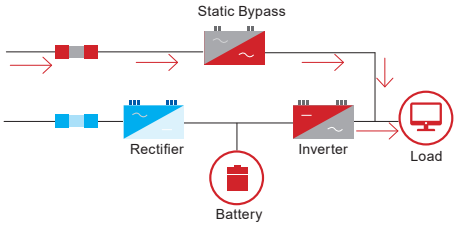
OPERATING MODES



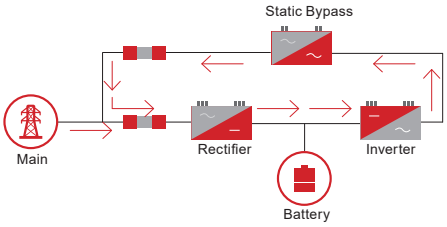
Double Conversion Mode



ECO Mode



W-ECO Mode



Self-load Test Mode

FREQUENCY CONVERTER

- 50Hz-60Hz or 60Hz-50Hz converter mode;
- Possibility of disabling the static bypass and the DC power supply of the inverter.

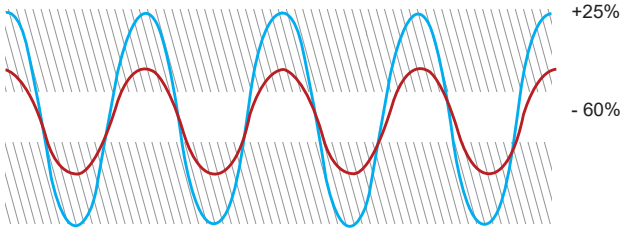
Frequency Converter Mode

STANDARD AND COMMUNICATIONS

- Clean contact card with 5 alarms;
- Bypass switch for maintenance;
- EPO emergency release button on the front, remote clean contact on the back;
- Starting from battery by means of a specific button;
- Integrated RS485 and Modbus communication port;
- Protection against reverse polarity of the batteries;
- SNMP network card for remote control and monitoring (optional);
- NC \ NO dry contact card for further 12 alarms (optional).

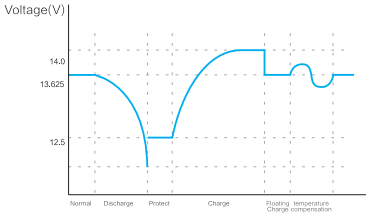
EXCELLENT PERFORMANCE

- Efficiency higher than 95% even at low loads;
- Maximum output tolerance, ability to operate with 100% unbalanced loads;
- Double input with wide tolerance, compatible with diesel generators ;



Three-phase power supply range

- Advanced 3-stage battery charging and maintenance system;



3 charging stages

- Redundant and hot extractable power modules (rectifier and inverter);
- Centralized bypass module with battery start button;

MORE OPTIONS

- Flexible Network Management: SNMP
- Expanded dry contact kit (4 in 4 out)
- BMS kit for lithium battery communication
- Intelligent Battery Monitoring System
- Battery tripping kit
- N+X in parallel
- Input and output isolation transformer
- SPD: C Grade
- Battery Charge Temperature Compensation

ECONOMIC SAVING

Let's take an example on a 120kVA AEC UPS working at full load H24 with average efficiency of 96% and a unit output power factor, comparing it with a typical UPS with standard efficiency 93% and output power factor = 0.9:

- **Daily savings:**
  (120kVA*1*96% - 120kVA*0.9*93%)*24 hours= 354.24 kWh;
- **Daily financial savings:**
  354.24 kWh*0.15€/kWh = 53.1€;
- **Annual saving:** 354.24 kWh*365 days = 129.297,6 kWh;
- **Annual Financial saving:** 129.297,6 kWh*0.15€ = **19.395 € each year**

TECHNICAL SPECIFICATIONS						
MODELS	**IST7-60**	**IST7-80**	**IST7-100**	**IST7-120**	**IST7-160**	**IST7—200**
INPUT						
VOLTAGE (VAC)	380/400/415 (138~485 L-L)					
FREQUENCY (HZ)	40~70					
BYPASS VOLTAGE (VAC)	+20% (-10/-15/-30 selectable) /+15% (10/20/25 selectable)					
POWER FACTOR	≥0.99					
THDI	≤3%					
PHASES	3+N+PE					
OUTPUT						
POWER (kW)	60	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					
THD	3+N+PE					
VOLTAGE STABILIZATION	THDv<1% at linear load, THDv<3% at non-linear load					
WAVEFORM	Pure sine wave					
EFFICIENCY	97%					
OVERLOAD	≤130%: long run; 130%< load ≤150%: 5min; 150%< load ≤200%: 1s; 200%< load≤300%: 100ms; >300%: immediately.					
BATTERIES						
BATTERIES VOLTAGE (VDC)	±168 ~±288 adjustable					
STANDARD BATTERY CONFIGURATION	External					
MAX. CHARGING CURRENT (A)	30			60		
OTHER SPECIFICATIONS						
COMMUNICATIONS	RS485, MODBUS, Free Contact Card (SNMP optional)					
DISPLAY	Touch screen+LED					
ALARMS	Low batteries, Anormal input, Overload, Block/Fault ecc.					
PROTECTION	Low batteries, Overload, Short-circuit, Over-temperature ecc.					
NOISE (DB)	<65					
TEMPERATURE (°C)	0~40					
HUMIDITY	0~95%					
DIMENSIONS (L×W×H) (MM)	400×960×1200				600×1000×1600	
WEIGHT (KG)	145	161	171		312	320
CERTIFICATIONS						
STANDARDS	CE (Reference standards: Safety IEC EN 62040-1; EMC IEC EN 62040-2; Classification IEC EN 62040-3)					

ALL INFORMATION IS INDICATIVE, MAY BE MODIFIED BY AEC AT ANY TIME AND DOES NOT CONSTITUTE CONTRACTUAL OBLIGATIONS.

UPS SERIES IST 7T

3:3 **Power from 80kVA to 600kVA**

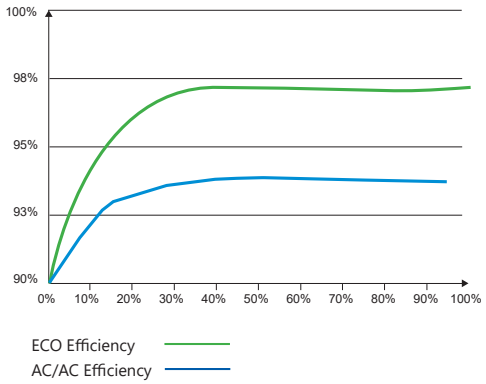
UPS THREE-PHASE WITH INTEGRATED TRANSFORMER

The **IST7 T Transformer based UPS** (80-600kVA) are AEC's range of **three-phase transformer integrated online UPS**, double conversion tower UPS in powers starting from 80kVA up to 600kVA. The UPS IST7 series uses a **isolation transformer on inverter output,** ensuring maximum reliability.
IST7 T UPSs are available in different powers 80kVA, 100kVA, 120kVA, 160kVA, 200kVA, 250kVA, 300kVA, 400kVA, 500kVA, 600kVA. Thanks to the **inverter's 3 IGBT levels**, the UPS guarantee efficiency up to 94% and a output power factor equal to 0.9 They are directly configurable from the display, with **ample flexibility** in the number of batteries and **high overload capacity**. The innovative self-cleaning function reduces the risk of dust accumulation on the boards. The system includes the free contact card for alarms.

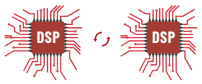
PRINCIPAL FEATURES

EFFICIENT AND RELIABLE

- Output power factor = 0.9;
- Maximum AC \ AC efficiency up to 94%;



- The output isolation transformer provides high reliability to adapt different harsh industrial environments and protects the critial loads.
- Advanced control with double redundant DSP;

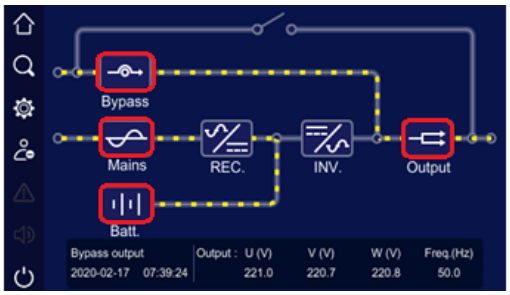


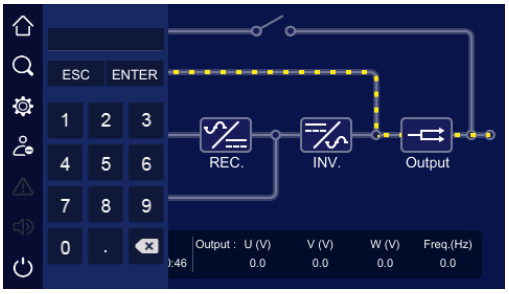
- Fully tropicalized electronic cards;
- Display available in 7 languages;
- Intelligent fans with high efficiency cooling, multiple modes to control their speed, extend their life and improve their efficiency.

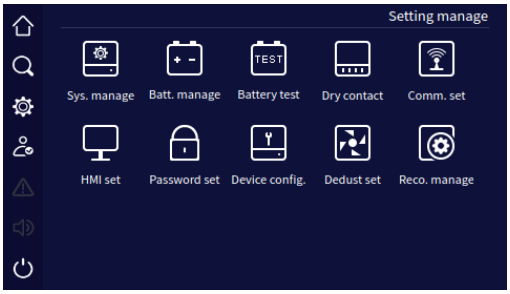
Automatic fan control

SETTINGS FROM DISPLAY

- Access to the menu via different password levels (User, Technician and Manufacturer);
- Configuration for input, output, bypass, batteries, communications, language and operating modes;
- Periodic self-cleaning function, to expel impurities and reduce the risk of breakdowns;
- Large memory up to 10,000 events downloadable via the USB port integrated in the UPS;
- Advanced communication for installation and operation with diesel generators;
- Alarms from clean contact card, configurable from display;
- Periodic graphic recording of inverter, rectifier and control waveforms.

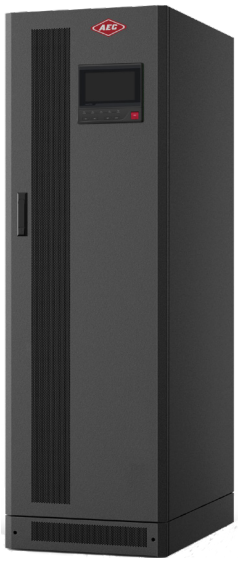




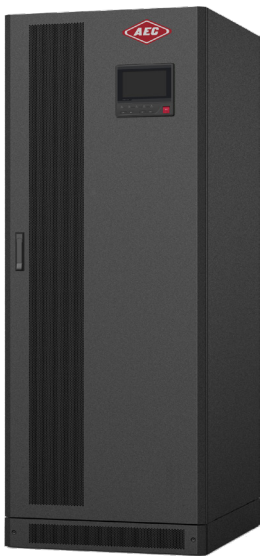


POWER CAPACITY TRANSFORMER SYSTEM

IST7-T
80KVA



IST7-T
100-120-160KVA



IST7-T
200-250KVA

IST7-T
300-400KVA

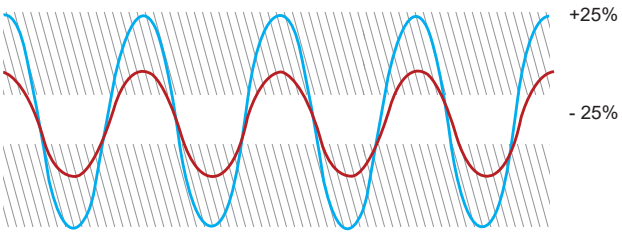
ADVANCE DESIGN AND TECHNOLOGY

- 100% 3-phase unbalance load adapt to different kinds of complex applications;
- Dual airducts design of fer good cooling to protect the key components and extend the service life;
- Dual power supply redundancy;
- Wide input voltage range provides high adaptability to the grid and extend the battery service life;
- Main PCB board with professional electromagnetic shielding improve reliable performance of EMC;
- ECO-mode (98% Efficiency) gives possibility of significant cost reduction and heat emission;
- Bus synchronization control function provides reliable high power for the dual bus application;
- Advanced no-master-slave parallel technology achieves online power expansion and prevent single fault.

IST7-T

500-600KVA

FLEXIBLE, DURABLE AND POWERFULL



Three-phase power range

- Common battery bank sharing in parallel system (optional);
- 3-stage battery charging mode;
- Self-load test function without load enables onsite commission (optional);
- Common bypass cabinet (optional);
- Support parallel mode up to 4.8MVA.

STANDARD AND COMMUNICATIONS

- Clean contact card with 5 alarms;
- Bypass switch for maintenance;
- EPO emergency release button on the front, remote clean contact on the back;
- Starting from battery by means of a specific button;
- Integrated RS485 and Modbus communication port;
- Protection against reverse polarity of the batteries;
- SNMP network card for remote control and monitoring (optional);
- NC \ NO dry contact card for further 12 alarms (optional).

TECHNICAL SPECIFICATIONS				
MODELS	**IST7T-80**	**IST7T-100**	**IST7T-120**	**IST7T-160**
INPUT				
VOLTAGE (VAC)	380/400/415			
TENSION TOLERANCES (VAC)	380/400/415±25%			
FREQUENCY INPUT (HZ)	40-70			
BYPASS TENSION (VAC)	-15% (-20%/-30% optional) ~+15%(+10% /+20% optional)			
POWER FACTOR	≥0.99			
THDI	<5% (Non-linear at full load)			
PHASES	3+N+PE			
BATTERIES (VDC)	348 (360 setting)			
CHARGING CURRENT (A)	10~40A setting			
OUTPUT				
POWER (kW)	80	100	120	160
POWER FACTOR	0.9 (1.0 optional)			
PHASES	3+N+PE			
WAVEFORM	Sinusoidal			
TENSION (VAC)	L-L:380,400,415 ±1%			
FREQUENCY (HZ)	50/60± 0.2%			
DIFFERENCE 3 PHASES	≤2%, allow 100% unbalance			
THD	THD≤2% (linear load)			
MAX. SYSTEM EFFICIENCY	94%			
PARALLEL	up to 8 units			
OVERLOAD	125% load for 10mins, 150% load for 1 min			
OTHER SPECIFICATIONS				
TEMPERATURE (°C)	0~40			
HUMIDITY	0%~95%			
COMMUNICATION	RS485, MODBUS, Dry Contact Card (SNMP optional)			
NOISE (DB)	< 65			
DIMENSIONS (L×W×H) (MM)	500x800x1600	700×800×1800		
WEIGHT (KG)	520	600	650	825
CERTIFICATIONS				
MARKING	CE			
STANDARDS	IEC EN 62040-1, IEC EN 62040-2, IEC EN 62040-3			

TECHNICAL SPECIFICATIONS						
MODELS	**IST7T-200**	**IST7T-250**	**IST7T-300**	**IST7T-400**	**IST7T-500**	**IST7T-600**
INPUT						
VOLTAGE (VAC)	380/400/415					
VOLTAGE TOLERANCES (VAC)	380/400/415±25%					
FREQUENCY INPUT (HZ)	40-70					
BYPASS VOLTAGE (VAC)	-15% (-20%/-30% optional) ~+15%(+10% /+20% optional)					
POWER FACTOR	≥0.99					
THDI	<5% (Non-linear at full load)					
PHASES	3+N+PE					
BATTERIES (VDC)	384 (348/360/372 setting)					
CHARGING CURRENT (A)	10-100A setting					
OUTPUT						
POWER (kW)	200	250	300	400	500	600
POWER FACTOR	0.9 (1.0 optional)					
PHASES	3+N+PE					
WAVEFORM	Sinusoidal					
VOLTAGE (VAC)	L-L:380,400,415 ±1%					
FREQUENCY (HZ)	50/60± 0.2%					
DIFFERENCE 3 PHASES	≤2%, allow 100% unbalance					
THD	≤1% (linear loads at full load), ≤4% (non-linear loads at full load)					
MAX. SYSTEM EFFICIENCY	94%					
PARALLEL	up to 8 units					
OVERLOAD	125% load for 10mins, 150% load for 1 min					
OTHER SPECIFICATIONS						
TEMPERATURE (°C)	0~40					
HUMIDITY	0%~95%					
COMMUNICATION	RS485, MODBUS, Free contact card (SNMP optional)					
NOISE (DB)	<70					
DIMENSIONS (L×W×H) (MM)	1400x1000x1850		1600×1000×1850		3000×1000×1850	
WEIGHT (KG)	1280	1568	1830	2050	4500	
CERTIFICATIONS						
MARKING	CE					
STANDARDS	IEC EN 62040-1, IEC EN 62040-2, IEC EN 62040-3					

UPS SERIES IST 6

3:3 **Power from 30kVA to 1.2MVA**

MODULAR UPS HOT-SWAPPABLE

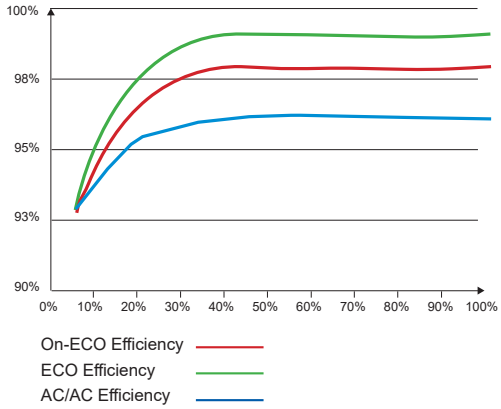
The **IST6 modular UPS** (30-1200kVA) are AEC's range of three-phase modular UPS, UPS with **hot-swappable modules**, in powers starting from 30kVA up to 1200kVA in single structure. The UPS IST6 series adopts a completely modular technology, guaranteeing **constant redundancy** of the continuity system.

Their modularity allows future expansion in power up to 4.8MW. They are available in **four sizes**, up to 120kVA | 200kVA - 300kVA | 600kVA- 800kVA | 1000kVA-1200kVA | with an efficiency of up to 97% and maximum safety. IST6 is designed for **medium and large data centers.** UPS configurable directly from the display, with great flexibility and high overload capacity. The self-cleaning function reduces the risk of dust accumulation on the cards. The system includes the **free contact card** for alarms.

PRINCIPAL FEATURES

MODULAR TECHNOLOGY HOT-SWAPPABLE

- Output power factor equal to 1;
- Maximum AC \ AC efficiency up to 97%
  ECO-Mode up to 99%
  Online ECO-Mode up to 98%;

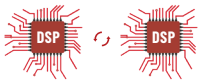


MAXIMUM SCALABILITY

- Innovative modular N + 1 technology in all components of the UPS system;
- Expandable and hot potential directly on site and from the display;
- Possibility of installation in a single structure up to 1200kW with 12 modules of 100kW;
- Possibility of parallel installation (redundant or power) up to 5MW;
- Batteries in common for systems in parallel, a single battery pack for two UPS N + 1;

Share battery pack

- Battery configurations:
  from 15 to 20 monoblocks (± 180 ~ ± 240Vdc);
- ECO mode with efficiency up to 99%, configurable from the display;
- Advanced control with double redundant DSP;

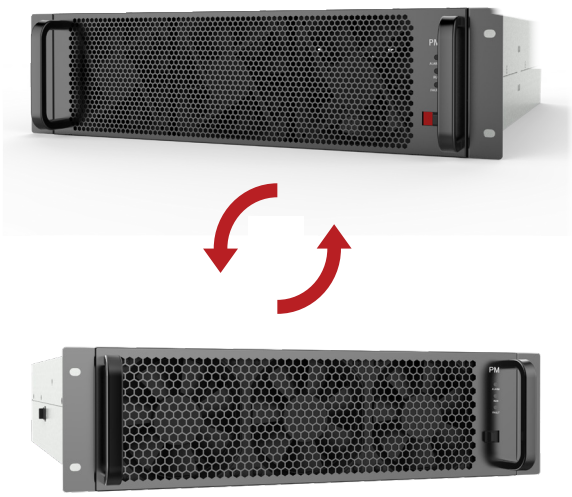


- Completely tropicalized electronic cards;
- Display available in 7 languages;
- Intelligent fans with high efficiency cooling, multiple modes to control their speed, extend their life and improve their efficiency.


Automatic fan control

REDUNDANT AND HOT-SWAPPABLE POWER MODULES

- Hot-swappable N + 1 UPS module with power of 30kW for structure up to 120kW;
- Hot-swappable N + 1 UPS module with power of 50kW for structures with maximum expansion up to 200kW, 300kW and 600kW;
- Hot-swappable N + 1 UPS module with 100kW power for structures with maximum expansion up to 800kW, 1000kW and 1200kW;
- UPS module including rectifier and inverter with 3-level IGBT technology and redundant components;
- Redundant modules in power and in parallel N + 1 for maximum reliability and versatility;
- Intelligent saving modes with modules automatically activated periodically only in case of energy need.

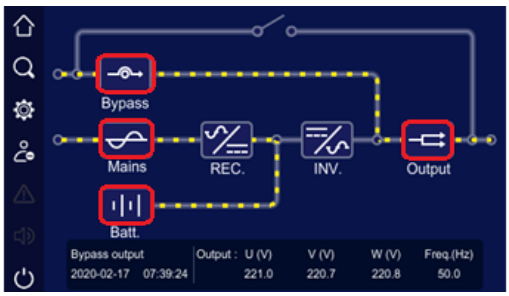


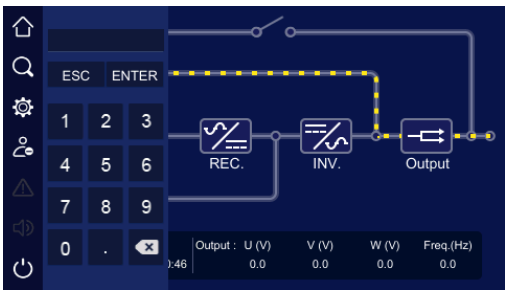
STRONG, FLEXIBLE AND FUTURE EXPANDABLE STRUCTURES

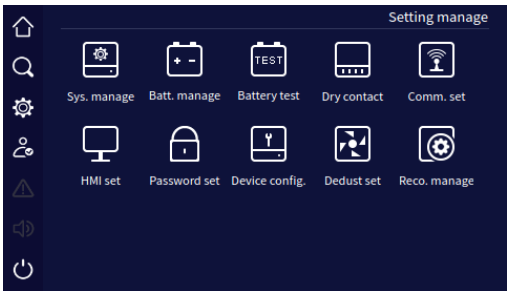
SETTINGS FROM DISPLAY

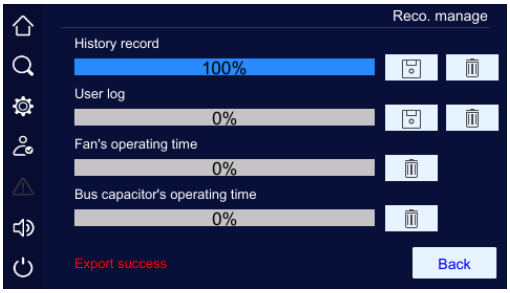
- Access to the menu via different password levels (User, Technician and Manufacturer);
- Configuration for input, output, bypass, batteries, communications, language and operating modes;
- Periodic self-cleaning function, to expel impurities and reduce the risk of breakdowns;
- Large memory up to 10,000 events downloadable via the USB port integrated in the UPS;
- Advanced communication for installation and operation with diesel generators;
- Alarms from clean contact card, configurable from display;

Display 4.9" Inches



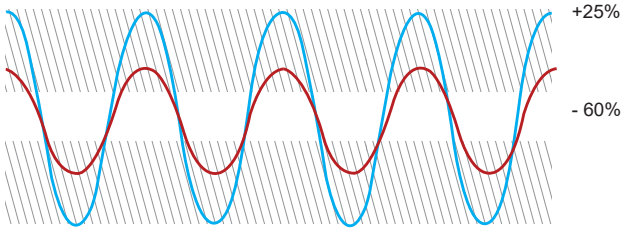






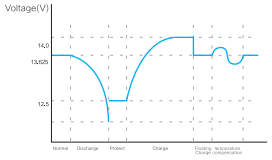
EXCELLENT PERFORMANCE

- Efficiency higher than 95% even at low loads;
- Maximum output tolerance, ability to operate with 100% unbalanced loads;
- Double input with wide tolerance, compatible with diesel generators;



Three-phase power supply range

- Advanced 3-stage battery charging and maintenance system;



3 charging stages

- Redundant and hot extractable power modules (rectifier and inverter);
- Centralized bypass module with battery start button;

FREQUENCY CONVERTER

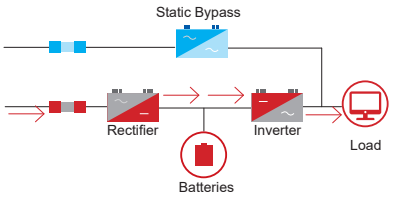
- 50Hz-60Hz or 60Hz-50Hz converter mode;
- Possibility of disabling the static bypass and the DC power supply of the inverter.

Frequency converter mode

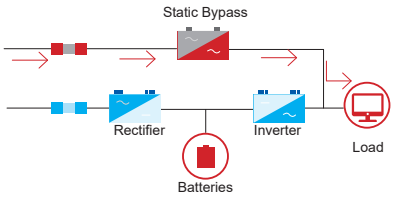
AEC APP FOR MOBILE

- Download the AEC UPS Italy APP and start monitoring and controlling your Modular UPS wherever you are, directly from your smartphone thanks to the AEC SNMP API communication card;
- Possibility of integration with BMS and remote monitoring and control systems of Data-Centers and technological structures with Modbus protocol and API.

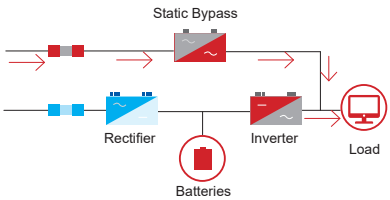
OPERATING MODES



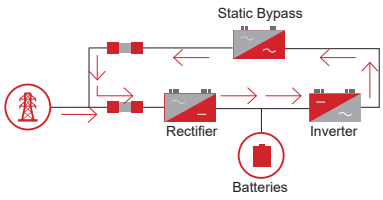
Online Double Conversion



ECO Mode



OnLine-ECO Mode



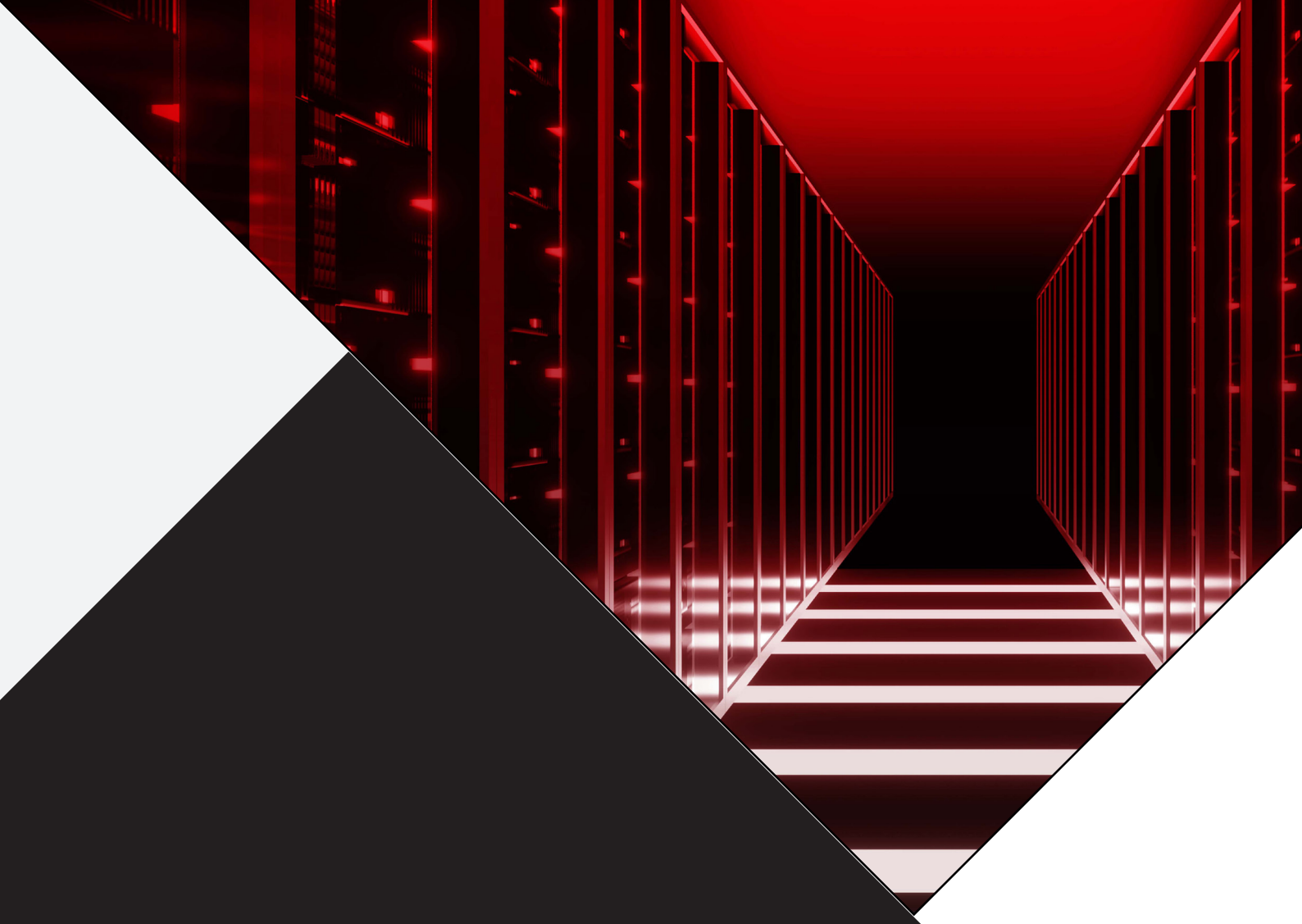
Self-loading test Mode

STANDARD AND COMMUNICATIONS

- Clean contact card with 5 alarms;
- Bypass switch for maintenance;
- EPO emergency release button on the front, remote clean contact on the back;
- Starting from battery by means of a specific button;
- Integrated RS485 and Modbus communication port;
- Protection against reverse polarity of the batteries;
- SNMP network card for remote control and monitoring (optional);
- NC \ NO dry contact card for further 12 alarms (optional).

TECHNICAL SPECIFICATIONS				
MODELS		**IST6-120**	**IST6-200 | IST6-300**	**IST6-600**
POWER MODULES		**IST6-30-J**	**IST6-50-J**	
INPUT				
VOLTAGE (VAC)		380/400/415		
TENSION TOLERANCES (VAC)		L:L 138~485		
FREQUENCY INPUT (HZ)		40-70		
BYPASS TENSION (VAC)		-15% (-20%/-30% optional) ~+15%(+10% /+20% optional)		
POWER FACTOR		≥0.99		
THDI		<5% (Non-linear at full load)		
PHASES		3+N+PE		
BATTERIES (VDC)		±192 (±180~ ±276 settable)		
CHARGING CURRENT (A)		N×10 Maximum (N: number of power modules)		
OUTPUT				
POWER (kW)		120	200 | 300	600
POWER FACTOR		1		
PHASES		3+N+PE		
WAVEFORM		Sinusoidal		
TENSION (VAC)		L-L:380,400,415 ±1%		
FREQUENCY (HZ)		50/60± 0.2%		
DIFFERENCE 3 PHASES		≤2 degrees		
THD		≤1% (Linear loads at full load), ≤4% (Non-Linear loads at full load)		
MAX. SYSTEM EFFICIENCY		97%		
PARALLEL		N+1 redundant		
OVERLOAD		105-115% Overload for 60mins, 116%-130% Overload for 10mins, 131%-150% Overload for 1 min, more than 150% Load transfers on Bypass		
OTHER SPECIFICATIONS				
TEMPERATURE (°C)		0~40		
HUMIDITY		0%~95%		
COMMUNICATION		RS485, MODBUS, Free Contact Card (SNMP optional)		
NOISE (DB)		< 65	<70	
POWER MODULE (KVA)		30	50	
WEIGHT POWER MODULE (KG)		32	33	
DIMENSIONS (L×W×H) (MM)		600×860×2000		1200×860×2000
WEIGHT (KG)	UPS	180	224	427
	Bypass Module	17	25	27
	Power Module 30/50kW	27	33	
CERTIFICATIONS				
STANDARDS AND CERTIFICATIONS		CE (Reference standards: Safety IEC EN 62040-1; EMC IEC EN 62040-2; Classification IEC EN 62040-3)		

TECHNICAL SPECIFICATIONS				
MODELS		**IST6-800**	**IST6-1000**	**IST6-1200**
POWER MODULES		**IST6-100-J**		
INPUT				
VOLTAGE (VAC)		380/400/415		
VOLTAGE TOLERANCES (VAC)		L:L 138~485		
FREQUENCY INPUT (HZ)		40-70		
BYPASS VOLTAGE (VAC)		-15% (-20%/-30% optional) ~+15%(+10% /+20% optional)		
POWER FACTOR		≥0.99		
THDI		<5% (Non-linear at full load)		
PHASES		3+N+PE		
BATTERIES (VDC)		±240 (±180~ ±276 settable)		
CHARGING CURRENT (A)		N×10 Maximum (N: number of power modules)		
OUTPUT				
POWER (kW)		800	1000	1200
POWER FACTOR		1		
PHASES		3+N+PE		
WAVEFORM		Sinusoidal		
VOLTAGE (VAC)		L-L:380,400,415 ±1%		
FREQUENCY (HZ)		50/60± 0.2%		
DIFFERENCE 3 PHASES		≤2 degrees		
THD		≤1% (linear loads at full load), ≤4% (non-linear loads at full load)		
MAX. SYSTEM EFFICIENCY		over 97%		
PARALLEL		N+1 ridondant		
OVERLOAD		105-115% Overload for 60mins, 116%-130% Overload for 10mins, 131%-150% Overload for 1 min, more than 150% Load tranfers on Bypass		
OTHER SPECIFICATIONS				
TEMPERATURE (°C)		0~40		
HUMIDITY		0%~95%		
COMMUNICATION		RS485, MODBUS, Free contact card (SNMP optional)		
NOISE (DB)		<70		
POWER MODULE (KVA)		100		
POWER MODULE WEIGHT (KG)		33		
DIMENSIONS (L×W×H) (MM)		1400*1000*2000	1800*1000*2000	
WEIGHT (KG)	UPS	580	650	740
	Bypass Module	60	80	80
	Power Module 100kW	55		
CERTIFICATIONS				
STANDARDS		CE (Reference standards: Safety IEC EN 62040-1; EMC IEC EN 62040-2; Classification IEC EN 62040-3)		



REDUNDANT MODULAR TECHNOLOGY ...

Thanks to the support of qualified and professional technicians, AEC is able to assist and guide its customers in choosing the most suitable solution for them.

Nowadays the use of data centers in the productive world is growing dramatically as they are of fundamental importance to support the continuous technological development of our planet. If until a few decades ago the interruption of the operation of a data center would not have caused great inconvenience, today we must always remain vigilant and ready to intervene in the event of system failure.

For this reason, UPS uninterruptible power supplies are an indispensable element for the correct and continuous operation of data centers and there are several factors to consider when evaluating the type of UPS to install.

LITHIUM SYSTEM L6

Power 40Ah 50Ah 100Ah

LITHIUM-ION BATTERY SYSTEM

"Carbon Peaking • Carbon Neutrality" has become a global priority for all countries and industries, and the concept of green energy saving has also been widely recognized by the people. Thanks to the new infrastructure and 'dual carbon' goals, the lithium-ion battery industry has developed geometrically at an astonishing pace. Lithium-ion iron phosphate walks in the forefront for its safety and stability, and has constantly carried out security upgrades.

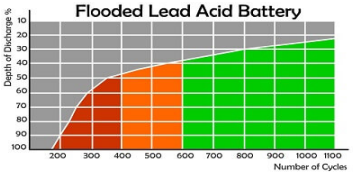
By following the nuclear-grade safety design concept and leveraging its over 30 years of professional experience in the power field, Allis Electric deeply applied power electronics to the lithium-ion battery technology and released lithium-ion battery solution with high safety and reliability - AEC L6 Smart Backup Lithium-ion Battery System Solution.

ADVANCED LITHIUM-ION TECHNOLOGY

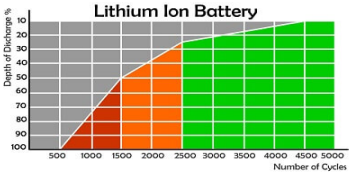
- **Life cycles**: Li-ion batteries have a cycle longer life than lead-acid batteries, i.e can be downloaded and reloaded for a greater number of times before losing their capacity.
- **Self-discharge**: Li-ion batteries have a self-discharge lower than lead-acid batteries, which meaning they lose less energy when not in use.
- **Working voltage**: Li-ion batteries have a higher working voltage than al batteries lead, which means they can deliver more energy for each unit of volume.
- **Working temperature**: lithium ion batteries they can work in a wider range of temperatures compared to lead-acid batteries.

L6 Smart Backup Lithium-ion Battery System Solution

The effects of Depth of Discharge on the cycle life of a battery

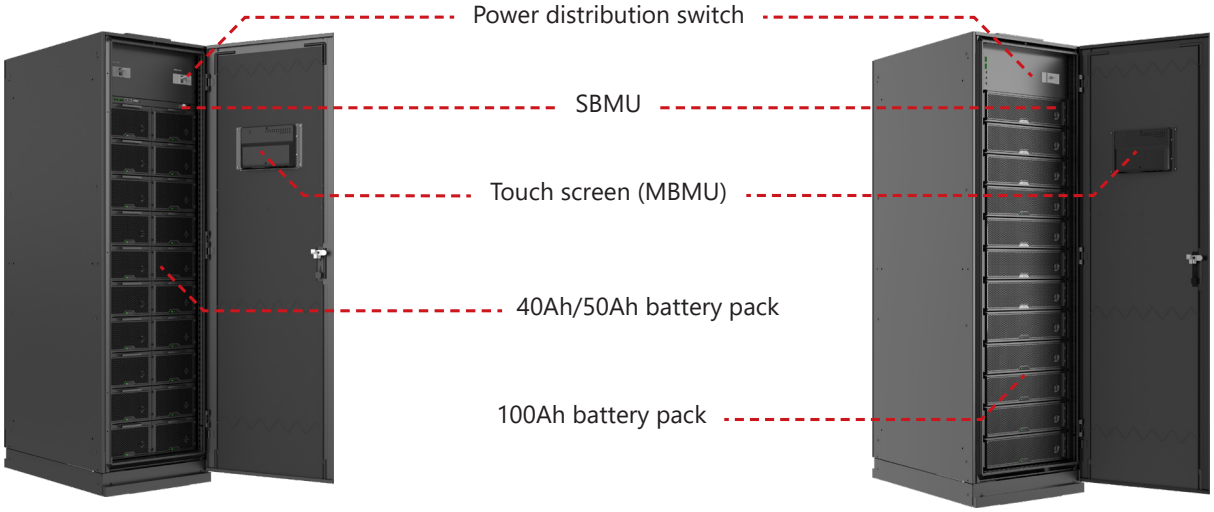


Depth of Discharge	Discharge Cycles
100% DoD	<150
50% DoD	350-450
25% DoD	900-1000
10% DoD	>1000



Depth of Discharge	Discharge Cycles
100% DoD	300-500
50% DoD	1200-1500
25% DoD	2000-2500
10% DoD	3750-4700

PRODUCT STRUCTURE



40Ah/50Ah lithium-ion battery system cabinet

100Ah lithium-ion battery system cabinet

AEC L6 Smart Backup Lithium-ion Battery System Solution

MAIN FEATURES

The L6 smart backup lithium-ion battery system solution adopts the modular parallel design, Safe, smart and simple, which can compatible with the full range of AEC UPS, with power ranging from 60kW to 1200kW.

Safe and reliable

Electrical and physical double isolation

- Reduces the fault scope to an effective space without diffusion
- Port zero voltage, no risk of short circuit shock

Two-level fire linkage

- Module fire protection
- Can quickly, accurately and effectively detect and extinguish the fire source will extinguish the fire in the initial stage.

Concerted operation with modular parallels

Failure module exit automatically

- Modular parallel design, failure module exit automatically, will not affect the system. Other modules can work normally.

Module-level expansion with fine granularity

Smart and Intelligent technology

Module design, plug and play

- 5mins maintenance, reduce the OPEX cost

Flexible for expansion

- Module design, can expand the capacity of modules or cabinets.
- Reduce the CAPEX cost

Smart battery test

- Parallel design, the battery can test the capacity Separately. No need to cut off the power supply, improve the reliability

Easy and simple to operate

Intelligent current equalization

- Can be used with new and old batteries
- Can be used with lithium-ion batteries from different suppliers

Intelligent voltage equalization

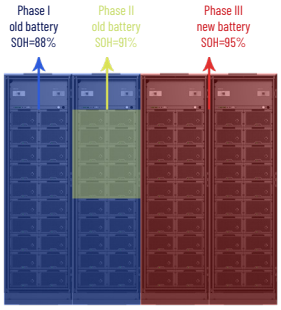
- Intelligent voltage equalization module, no barrel effect
- Prolong the backup time, improve battery utilization

Fault recording, early warning

- Fault recording, early warning, accurate and quick fault location, reduce the OPEX cost

Adaptive SOC management

- Intelligent charge and discharge management, avoid over charge and over discharge
- Detects the battery internal temperature. Improve the safety and reduce the OPEX cost

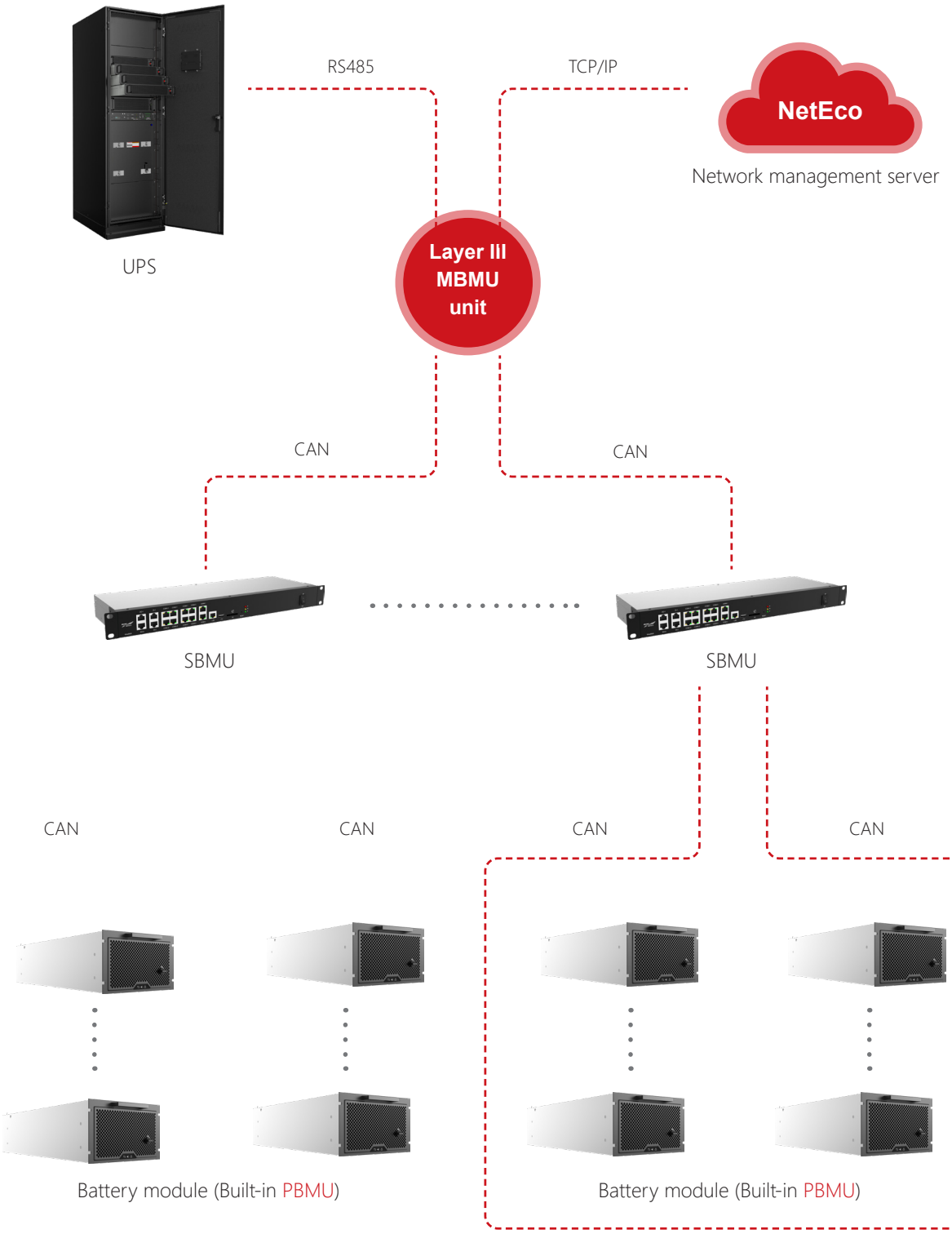


More flexible mixing of old and new batteries

THREE-LAYER BMS ARCHITECTURE

The adopted three-layer BMS architecture (PBMU/SBMU/MBMU) ensures the reliability of lithium-ion battery system from cell, module and system layers.

SYSTEM ARCHITECTURE



BATTERY CONFIGURATION TABLE

1. 40Ah battery module for short time power backup
Meeting the required backup time according to the initial capacity

UPS capacity (kW)	12min (initial)		25min (initial)	
	Cabinet	Battery module	Cabinet	Battery module
≤60	1	6	1	12
≤80	1	8	1	16
≤100	1	10	1	20
≤200	1	20	2	40
≤300	2	30	3	60
≤400	2	40	4	80
≤500	3	50	5	100
≤600	3	60	6	120
≤800	4	80	8	160
Remark: This configuration is calculated with theoretical values, and the actual configuration needs 10% margin: Actual backup time = theoretical backup time * 0.9				

2. 50Ah battery module for short time power backup
Meeting the required backup time according to the initial capacity

UPS capacity (kW)	15min (initial)		30min (initial)	
	Cabinet	Battery module	Cabinet	Battery module
≤60	1	6	1	12
≤80	1	8	1	16
≤100	1	10	1	20
≤200	1	20	2	40
≤300	2	30	3	60
≤400	2	40	4	80
≤500	3	50	5	100
≤600	3	60	6	120
≤800	4	80	8	160
Remark: This configuration is calculated with theoretical values, and the actual configuration needs 10% margin: Actual backup time = theoretical backup time * 0.9				

3. 100Ah battery module for long time power backup
Meeting the required backup time according to the initial capacity

UPS capacity (kW)	1h (initial)		2h (initial)		4h (initial)	
	Cabinet	Battery module	Cabinet	Battery module	Cabinet	Battery module
≤6	1	1	1	2	1	4
≤10	1	2	1	4	1	8
≤15	1	3	1	6	2	12
≤20	1	4	1	8	2	16
≤40	1	8	2	16	/	/
Remark: This configuration is calculated with theoretical values, and the actual configuration needs 10% margin: Actual backup time = theoretical backup time * 0.9						

TECHNICAL PARAMETERS

BATTERY CELL	40AH	50AH	100AH
TYPE	LFP		
DIMENSIONS (MM)	27.0×148.5×133.0		50.5×160.3×120.0
WEIGHT (KG)	1.01±0.1	1.11±0.1	1.95±0.1
RATED CAPACITY (AH)	40	50	100
DISCHARGE RATE (C)	6	4	1
CHARGE RATE (C)	1	1	0.5
RATED VOLTAGE (V)	3.2		
CYCLE LIFE	5,000 TIMES (@50% DOD)		
BATTERY PACK	**L640-6C-240-X**	**L650-4C-240-X**	**L6100-1C-240-X**
BATTERY RATED VOLTAGE (V)	57.6		
BATTERY CAPACITY (AH)	40	50	100
MAX. ENERGY (KWH)	2.3	2.85	5.7
DC/DC RATED OUTPUT VOLTAGE (V)	240*2 (IN SERIES OR PARALLEL)		
DC/DC RATED OUTPUT POWER (KW)	10		5
DIMENSIONS (W*D*H) (MM)	223×665×153		440×665×132
WEIGHT (KG)	36±2	38±2	50±2
BATTERY CABINET	**L640-6C-20-MX**	**L650-4C-20-MX**	**L6100-1C-10-MX**
BATTERY MAX ENERGY (KWH)	46	58	69
RATED OUTPUT VOLTAGE (V)	240/±240/480		
SYSTEM RATED OUTPUT POWER (KW)	200		60
NUMBER OF BATTERY MODULES	20		12
CURRENT-UNBALANCE	≤5%		
SOC ACCURACY	≥95%		
COMMUNICATION	RS485, CAN, TCP/IP AND DRY CONTACT		
WORKING TEMPERATURE (°C)	0~40 (+15~+30 RECOMMENDED)		
ALTITUDE (M)	0~4000M, ABOVE 2000M DERATE		
DIMENSIONS (W*D*H) (MM)	600×860×2000		
WEIGHT (KG)	960±10	1000±10	860±10
MAXIMUM PARALLELED CABINETS	8		
OPTIONAL	DISTRIBUTION CABINET, FIRE EDGE CABINET, IT REAR FRAME		
SELF-DISCHARGE RATE	≤3% (0-30°C/1 MONTH)		

CENTRAL POWER SUPPLY SYSTEM
CPSS EN50171

CENTRAL POWER SUPPLY SYSTEM

The **CPSS - Central Power Supply System**, has been designed to provide lighting in the event of a power failure. A CPSS must comply with the EN 50171 standard for the protection of the power supply of emergency and safety systems.

The CPSS is a **centralized power supply system** designed specifically to be installed in **emergency lighting systems** and other emergency systems such as automatic firefighting systems, alarms, fume extraction equipment, carbon monoxide detection systems.

The **EN 50171** standard provides for the obligation to install CPSS in crowded areas and in public places such as hospitals, schools, museums, cinemas, etc. to provide lighting in the event of a blackout.

DIFFERENCE BETWEEN UPS AND CPSS

Many people still confuse between UPS and CPSS and do not have a clear idea of what their characteristics and functions are. Both are used to make up for a lack of electricity but are applied in different contexts. Let's do some clarity and outline the differences between a UPS and a CPSS.

Central Power Supply Systems (CPSS) and Uninterruptible Power Supply Systems (UPS) have many similarities. As already explained, both products provide electricity in the event of a blackout or network failure, but it is essential to know that these two systems are used in different contexts and for this reason they are not interchangeable.

Although CPSS and UPS have the same components, the former are designed according to regulatory standards that guarantee maximum product safety to be applied to safety systems and must comply with all the requirements of the EN 50171 standard.

In fact, the CPSS are used in the event of a power failure during an emergency and danger situation, such as a fire or an earthquake and, especially on these occasions, it is essential to have a lighting system that allows people to immediately identify the ways of exodus, especially in public places subject to crowding and in the workplace.

EN 50171 COMPLIANT

The EN 50171 standard applies to systems permanently connected to AC power supply voltages not exceeding 1000 V and which use batteries as an alternative energy source. The structure of the CPSS must also comply with the **CEI EN 62040** standard.

The EN 50171 standard lists the technical characteristics that the CPSS must possess in order to be compliant.

FEATURES:

- **Batteries:**

The batteries used in the CPSS must have an expected life of at least 10-12 years;

- **Overload:**

The inverters used in the CPSS must be able to handle a constant overload of 120%;

- **Charging Time:**

The chargers used must recharge the batteries within 12 hours, starting from a low battery condition;

- **Casing Resistence:**

The casing of the CPSS must have excellent mechanical strength, capable of resisting heat and fire.

SERIES CPSS 7

3:1 3:3 **Power from 10kVA to 40kVA**

DETAILS:

- Constant overload of 120%;
- Batteries 10-12 years expected life;
- Charging time of less than 12 hours;
- Structure compliant with CEI EN 62040.

CENTRAL POWER SUPPLY SYSTEM | CPSS7

The **CPSS7 (10-40kVA)** is one of the static CPSS. The CPSS 7 utilize advanced 3-level inverter technology and digital technology for complete interconnection, offering benefits such as **high efficiency** and high power density, while only taking up a small amount of floor space.

AEC's CPSS provide safe, stable, clean and ecological energy to loads and are considered ideal for providing completely **safe and reliable protection**, particularly suitable for emergency lighting systems.

CPSS EN 50171

TECHNICAL SPECIFICATIONS				
MODELS	**CPSS7-10**	**CPSS7-20**	**CPSS7-30**	**CPSS7-40**
INPUT				
VOLTAGE (VAC)	80-280 (L-N) / 138-485 (L-L)			
FREQUENCY (HZ)	40~70			
BYPASS VOLTAGE (VAC)	380/400/415: -20%~+15%			
POWER FACTOR	≥0.99			
THDI	≤3%			
PHASES	3:3 / 3:1 / 1 : 1			
OUTPUT				
POWER (kW)	8	16	24	32
POWER FACTOR	0.8			
VOLTAGE (VAC)	L-N: 220/230/240±1% L-L: 380/400/415±1%			
FREQUENCY (HZ)	50/60±0.1			
THD	THD<1% (linear loads), THD <3% (non-linear loads)			
WAVEFORM	Sinusoidal pure, THD<1% linear			
EFFICIENCY	96%			
OVERLOAD	Constant up to 120%			
BATTERIES				
BATTERIES VOLTAGE (VDC)	±96~±240 configurable	±144~±240 configurable	±144~±240 configurable	±144~±240 configurable
MAX. CHARGING CURRENT (A)	1-10 / 1-20 (configurable)			
BATTERY LIFE	10 - 12 years			
OTHER SPECIFICATIONS				
CHARGING TIME	< 12 hours			
COMPLIANCE	Structure in compliance with CEI EN 62040			
NOISE (DB)	< 65			
TEMPERATURE (°C)	0 ~ 40			
HUMIDITY	0~95%			
DIMENSIONS (L×W×H) (MM)	250×755x880		300x785x1250	
WEIGHT (KG)	143		240	
STANDARDS AND CERTIFICATIONS	CE (Reference standards: Safety IEC EN 62040-1; EMC IEC EN 62040-2; Classification IEC EN 62040-3), EN50171			

SERIES CPSS 7

3:3 **Power from 60kVA up to 200kVA**

DETAILS:

- Constant overload of 120%;
- Batteries 10-12 years expected life;
- Charging time of less than 12 hours;
- Structure compliant with CEI EN 62040.

CENTRAL POWER SUPPLY SYSTEM | CPSS7

The **CPSS7 (60-200kVA)** utilize advanced 3-level inverter technology and digital technology for complete interconnection, offering benefits such as **high efficiency** and high power density, while only taking up a small amount of floor space.
AEC's CPSS provide safe, stable, clean and ecological energy to loads and are considered ideal for providing completely **safe and reliable protection**, particularly suitable for emergency lighting systems.

CPSS EN 50171

TECHNICAL SPECIFICATIONS						
MODELS	**CPSS7-60**	**CPSS7-80**	**CPSS7-100**	**CPSS7-120**	**CPSS7-160**	**CPSS7-200**
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%					
PHASES	3-4W+PE					
OUTPUT						
POWER (kW)	48	64	80	96	128	160
POWER FACTOR	0.8					
VOLTAGE (VAC)	L-N: 220/230/240±1% L-L: 380/400/415±1%					
FREQUENCY (HZ)	50/60±0.1					
THD	3-4W+PE					
WAVEFORM	Pure Sinusoidal , THD<1% linear					
EFFICIENCY	96%					
OVERLOAD	Constant at 120%					
BATTERIES						
BATTERIES VOLTAGE (VDC)	±168 ~±288 adjustable					
STANDARD BATTERY CONFIGURATION	External					
MAX. CHARGING CURRENT (A)	1-30			1-40		
BATTERY LIFE	10 - 12 years					
OTHER SPECIFICATIONS						
CHARGING TIME	< 12 hours					
COMPLIANCE	Structure in compliance with CEI EN 62040					
NOISE (DB)	<65					
TEMPERATURE (°C)	0~40					
HUMIDITY	0~95%					
DIMENSIONS (L×W×H) (MM)	450x840x1400				600x900x1600	
WEIGHT (KG)	180	210	242		320	350
STANDARDS AND CERTIFICATIONS	CE (Reference standards: Safety IEC EN 62040-1; EMC IEC EN 62040-2; Classification IEC EN 62040-3), EN50171					

BATTERY CABINET FOR UPS

STEEL BATTERY CABINETS

The battery cabinet for UPS is an accessory designed to extend the autonomy of the UPS. Each UPS has its own external battery cabinet and the number of batteries varies according to the UPS model to which it will be connected.

AEC is able to offer its customers a tested and solid cabinet housing system for accumulators designed to ensure continuity of power supply for UPS of any size.

The AEC Battery Cabinets are easily customizable and adaptable to projects of different nature. Our carpentry is able to offer battery cabinets with protection degree up to IP44, various aluminum alloys or stainless steel and with a wide range of accessories for internal ventilation such as automatic fans, IP68 with 12V or 24V direct current power supply.

Wide choice of fuse holders or robust bipolar or tripolar disconnectors with a maximum capacity of 1000A.

BATTERY CABINETS for single-phase tower UPS

BB1

Battery cabinet for IST3 1-2-3kVA UPS
Standard 36Vcc with possibility of modification to 24-72Vcc;

BB2

Battery cabinet for IST3 1-2-3kVA UPS
Standard 72Vcc with possibility of modification to 24-36-48-72-96Vcc;

BB3

Battery cabinet for IST3 1-2-3-6-10kVA UPS
Standard 192Vcc with possibility of modification to 24-36-48-72-96Vcc;

BATTERY CABINETS for single-phase rack 19" UPS

BBJ

Battery cabinet for rack IST3J 1-2-3-6-10kVA UPS
Standard 96Vcc with possibility of modification to 24-36-48-72-96Vcc;

BBJ2

Battery cabinet for IST3J e IST9 UPS
Standard 192Vcc with possibility of modification to 24-36-48-72-96Vcc;

BATTERY CABINET BB4

GENERAL CHARACTERISTICS

DIMENSIONS : 255 x 755 x 900mm

BATTERY VRLA 12V : 9Ah

2 or 3 POLES DC FUSES: 32A-63A

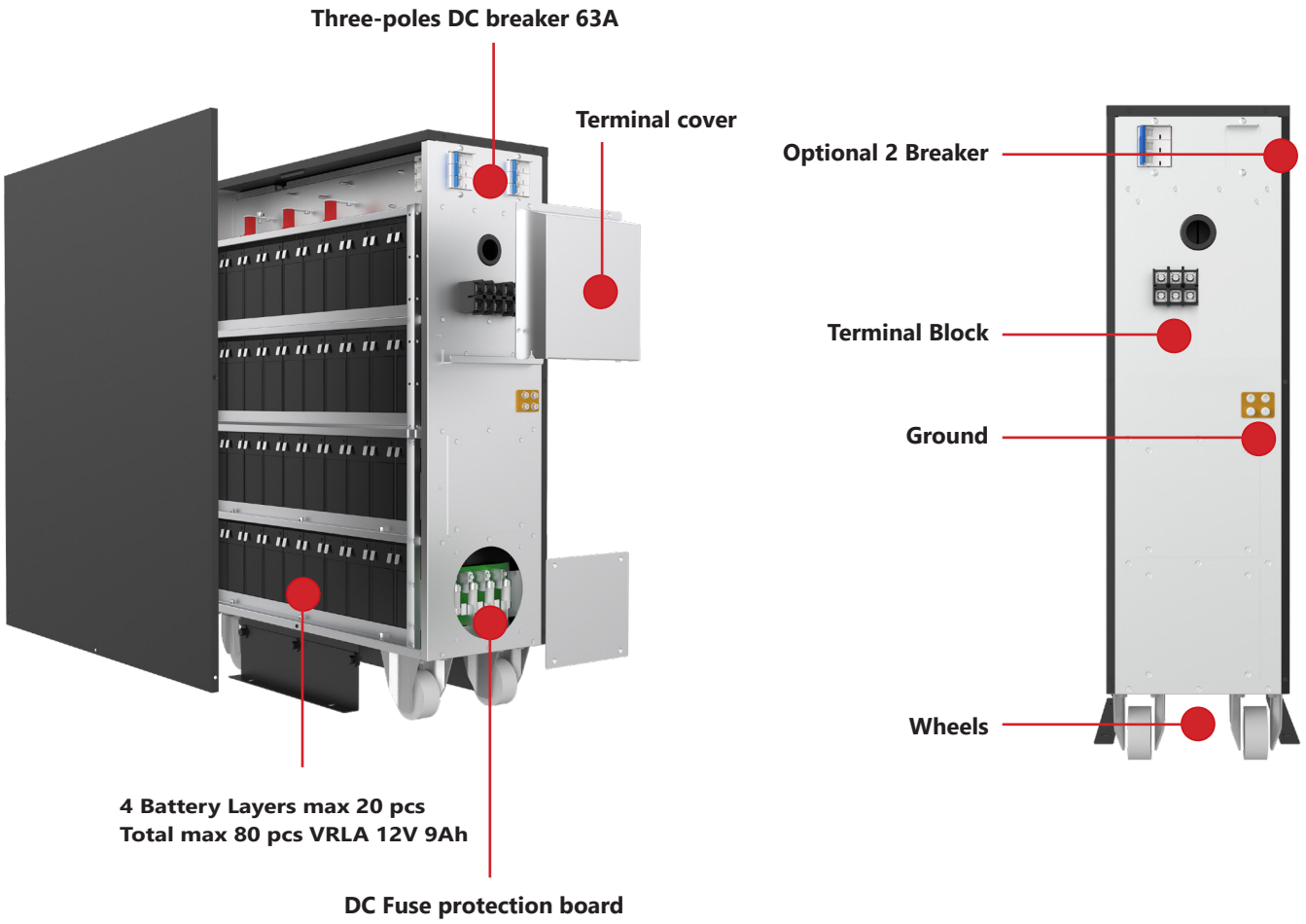
BATTERY CONFIGURATIONS

UPS 2-POLES (POSITIVE - NEGATIVE) :

From 16 up to 80 battery 12V 9Ah

UPS 3-POLES (POSITIVE - NEUTRAL - NEGATIVE) :

From 16 up to 80 battery 12V 9Ah



BATTERY CABINET	
MODELS	BB4
TECHNICAL SPECIFICATIONS	
DIMENSIONS	255 x 755 x 900 mm
WEIGHT (EMPTY)	40 Kg
N° OF SHELVES	4
MAX N° OF BATTERY	80 x 12V 9Ah
IP PROTECTION	IP 20
DC FUSES	32A - 63A
CABLE ENTRANCE	BACK/REAR
COLOUR	RAL9005
UPS POWER COMPATIBILITY	from 1 to 40kVA
STANDARDS	
CE - EC	IEC-EN 62040-1

BATTERY CABINET BB5

GENERAL CHARACTERISTICS

DIMENSIONS : 460 x 800 x 1400mm

BATTERY VRLA 12V : 9Ah-24Ah-40Ah

2 or 3 POLES DC FUSES: 32A-63A-100A-125A

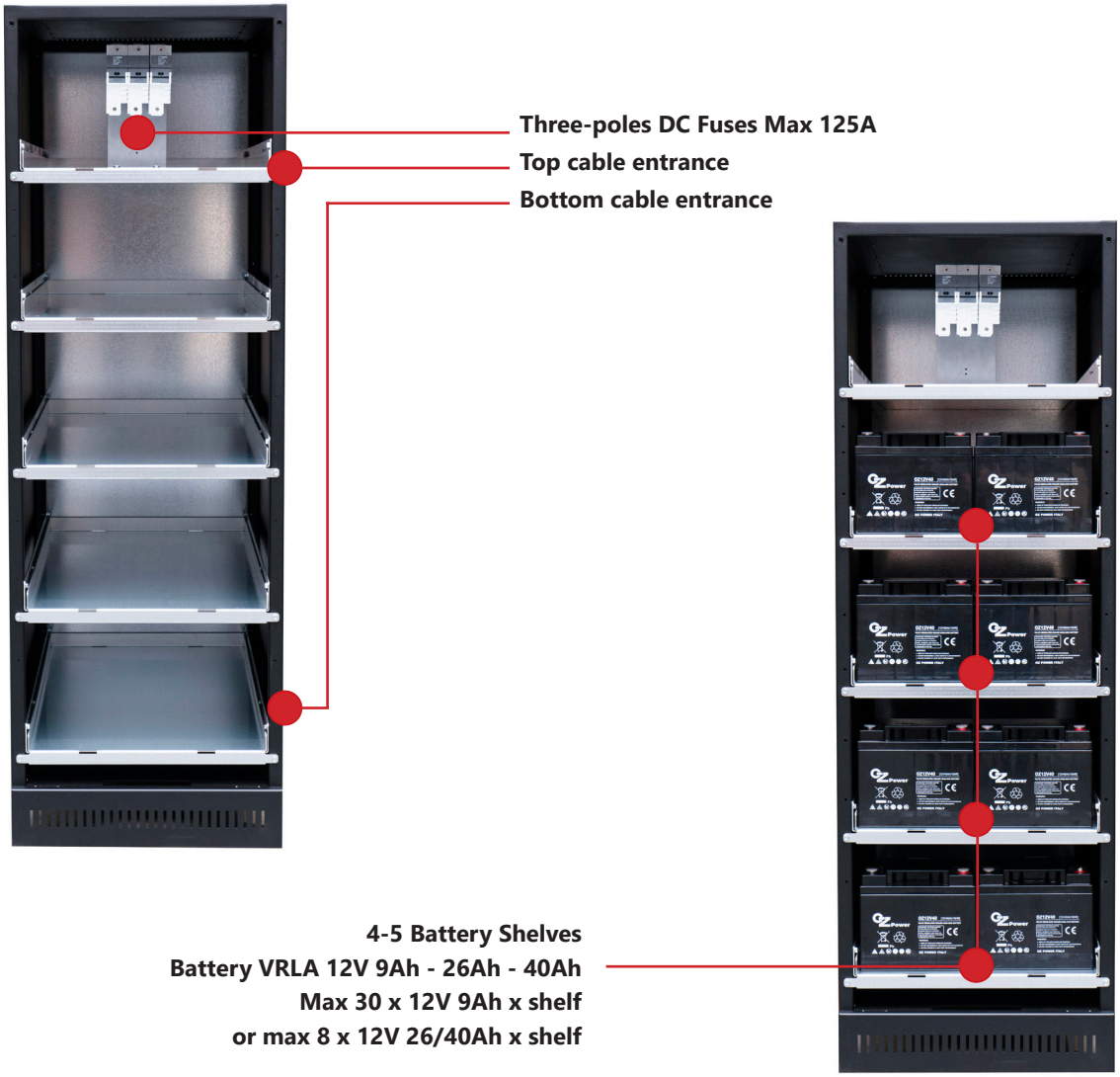
BATTERY CONFIGURATIONS

UPS 2-POLES (POSITIVE - NEGATIVE) :

From 82 up to 128 battery 12V 9Ah
From 16 up to 38 battery 12V 24-26Ah
From 16 up to 38 battery 12V 40Ah

UPS 3-POLES (POSITIVE - NEUTRAL - NEGATIVE) :

From 82 up to 128 battery 12V 9Ah
From 16 up to 38 battery 12V 24-26Ah
From 16 up to 38 battery 12V 40Ah



BATTERY CABINET	
MODELS	BB5
TECHNICAL SPECIFICATIONS	
DIMENSIONS	460 x 800 x 1400 mm
WEIGHT (EMPTY)	110 Kg
N° OF SHELVES	4
MAX N° OF BATTERY	38 x 12V 40Ah or 120 x 12V 9Ah
IP PROTECTION	IP 20 (Optional 21-44)
DC FUSES	63A - 100A - 125A
CABLE ENTRANCE	RIGHT SIDE TOP AND BOTTOM
COLOUR	RAL9005
UPS POWER COMPATIBILITY	from 1 to 60kVA
STANDARDS	
CE - EC	IEC-EN 62040-1

BATTERY CABINET BB6

GENERAL CHARACTERISTICS

DIMENSIONS : 800 x 800 x 1400mm

BATTERY VRLA 12V : 60Ah

2 or 3 POLES DC FUSES: 63A-100A-125-160A

BATTERY CONFIGURATIONS

UPS 2-POLES (POSITIVE - NEGATIVE) :

From 20 up to 40 battery 12V 60Ah

UPS 3-POLES (POSITIVE - NEUTRAL - NEGATIVE) :

From 20 up to 40 battery 12V 60Ah

BATTERY CABINET

Three-poles DC Fuses 60A - 125A - 160A

Top cable entrance

Bottom cable entrance

4-5 Battery Shelves
Battery VRLA 12V 40h - 60Ah
Max 12 x 12V 60Ah x shelf

BATTERY CABINET	
MODELS	BB6
TECHNICAL SPECIFICATIONS	
DIMENSIONS	800 x 800 x 1400 mm
WEIGHT (EMPTY)	140 Kg
N° OF SHELVES	3
MAX N° OF BATTERY	36 x 12V 60Ah
IP PROTECTION	IP 20 (Optional 21-44)
DC FUSES	63A - 100A - 125A - 160A
CABLE ENTRANCE	LEFT SIDE TOP AND BOTTOM
COLOUR	RAL9005
UPS POWER COMPATIBILITY	from 1 to 100kVA
STANDARDS	
CE - EC	IEC-EN 62040-1

BATTERY CABINET BB7

GENERAL CHARACTERISTICS

DIMENSIONS : 800 x 800 x 1900mm

BATTERY VRLA 12V : 80Ah-100Ah

2 or 3 POLES DC FUSES: 63A-100A-125A-160A-200A-250A-400A

BATTERY CONFIGURATIONS

UPS 2-POLES (POSITIVE - NEGATIVE) :

From 20 up to 36 battery 12V 80Ah

From 20 up to 36 battery 12V 100Ah

UPS 3-POLES (POSITIVE - NEUTRAL - NEGATIVE) :

From 20 up to 36 battery 12V 80Ah

From 20 up to 36 battery 12V 100Ah

BATTERY CABINET

Three-poles DC Fuses 60A - 125A - 160A - 250A - 400A

Top cable entrance

Bottom cable entrance

4-5 Battery Shelves
Battery VRLA 12V 80h - 100Ah
Max 8 x 12V 100Ah x shelf

BATTERY CABINET	
MODELS	BB7
TECHNICAL SPECIFICATIONS	
DIMENSIONS	800 x 800 x 1900 mm
WEIGHT (EMPTY)	160 Kg
N° OF SHELVES	4
MAX N° OF BATTERY	36 x 12V 100Ah
IP PROTECTION	IP 20 (Optional 21-44)
DC FUSES	63A - 100A - 125A - 160A - 250A - 400A
CABLE ENTRANCE	LEFT SIDE TOP AND BOTTOM
COLOUR	RAL9005
UPS POWER COMPATIBILITY	from 1 to 1200kVA
STANDARDS	
CE - EC	IEC-EN 62040-1

BATTERY CABINET BB8

GENERAL CHARACTERISTICS

DIMENSIONS : 1400 x 800 x 1900mm

BATTERY VRLA 12V : 80Ah-100Ah

2 or 3 POLES DC FUSES: 63A-100A-125A-160A-200A-250A-400A

BATTERY CONFIGURATIONS

UPS 2-POLES (POSITIVE - NEGATIVE) :

From 40 up to 64 battery 12V 80Ah

From 40 up to 64 battery 12V 100Ah

UPS 3-POLES (POSITIVE - NEUTRAL - NEGATIVE) :

From 40 up to 64 battery 12V 80Ah

From 40 up to 64 battery 12V 100Ah

BATTERY CABINET

Three-poles DC Fuses 60A - 125A - 160A - 250A - 400A

Top cable entrance

Bottom cable entrance

4-5 Battery Shelves
Battery VRLA 12V 80h - 100Ah
Max 16 x 12V 100Ah x shelf

BATTERY CABINET	
MODELS	BB8
TECHNICAL SPECIFICATIONS	
DIMENSIONS	1400 x 800 x 1900 mm
WEIGHT (EMPTY)	250 Kg
N° OF SHELVES	4
MAX N° OF BATTERY	64 x 12V 100Ah
IP PROTECTION	IP 20 (Optional 21-44)
DC FUSES	63A - 100A - 125A - 160A - 250A - 400A
CABLE ENTRANCE	LEFT SIDE TOP AND BOTTOM
COLOUR	RAL9005
UPS POWER COMPATIBILITY	from 1 to 1200kVA
STANDARDS	
CE - EC	IEC-EN 62040-1

ACCESSORIES FOR UPS E CPSS

SNMP CARD

The **Simple Network Management Protocol (SNMP)** was created to have a simple communication of information through computer networks. SNMP is a standard protocol that is part of the Transmission Control Protocol / Internet Protocol (TCP / IP) compatible with Internet and Intranet networks.

The SNMP card allows AEC UPSs to be remotely monitored, assisted, tested and operated anywhere in the world. A SNMP website itself provides the user with all information relating to the UPS in a clear and simple manner.

Through the SNMP card, AEC is also able to carry out **H24 checks on each UPS**, as part of ordinary and / or preventive maintenance contracts.

DRY CONTACT CARD

The **relay or dry contact card** provides a series of potential-free normally open or normally closed contacts to signal the following UPS functions:

- UPS in bypass mode;
- No input network;
- UPS in Inverter mode;
- Batteries not suitable, a check is required;
- Presence of a generic alarm, a check.

It is also possible to carry out manual or automatic shutdowns of the UPS remotely.

USB CARD

The **USB card** allows you to connect the UPS to all latest generation computers via a USB port on the PC. This card is essential if the UPS does not have the RS232 port and is compatible with all our UPS models.

EXTERNAL MAINTENANCE BYPASS

The maintenance by-pass is a device external to the UPS and allows maintenance or repair / replacement of the UPS without interrupting the powered user. The AEC external maintenance by-pass, when operated manually or automatically, allows you to eliminate voltage at the ends of the UPS and therefore carry out battery changes or internal system maintenance by authorized technicians.

TEMPERATURE SENSOR FOR BATTERIES

In order to preserve the expected life of the batteries and improve their performance, AEC offers the temperature sensor for external batteries as an accessory for the UPS. Thanks to a probe that communicates with the logic of the UPS, the batteries will be constantly monitored by compensating the charging current based on the ambient temperature.

AEC APP for SNMP | Remote monitoring

Absolute novelty! **AEC UPS APP**

Download our App now, subscribe to our newsletter and visit our constantly updated catalogs via your smartphone. Through the app it will be possible to access your account and monitor all AEC devices connected to it in real time.

Directly from the AEC App, you can monitor the status and values, modify parameters and carry out test tests of your UPS. Live UPS in real time 24 \ 7.

Immediately receive an alert for any type of anomaly in your UPS system via App notification, SMS, Email or mobile phone call.

YOUTUBE VIDEO TUTORIAL

ASSISTANCE 24\7 ON ALL SOCIAL NETWORK

LEAD-ACID BATTERIES
AGM VRLA 12V

STATIONARY ACCUMULATORS OZ POWER
HIGH QUALITY AND MAXIMUM PERFORMANCE

OZ Power batteries are a fundamental element for the operation of UPS units and are specially made to have greater performance even in extreme contexts. Optimally designed, OZ Power's UPS batteries are engineered using the latest in advanced design oxygen recombination technology and are comprised of lead acid and sealed specifically for UPS applications.

OZ Power lead-acid AGM batteries can last up to 10-15 years, but can affect several external factors on battery life such as:
- Incorrect use of the battery;
- Inadequate maintenance carried out by a non-specialized technician;
- Exposure to extreme temperatures, both too high and too low;
- Incorrect recharging of the battery using an unsuitable charger.

OZ Power AGM batteries are always sold fully charged and, once discharged, it is advisable to fully recharge them to make the most of their potential and to avoid deteriorating them, thus reducing their capacity and therefore also their duration. Furthermore, it is strongly recommended to carry out a full recharge to 100% even in case of prolonged non-use of the battery and to be checked by a specialized technician for complete efficiency.

BATTERY MODELS
12V OZ POWER:

12V 9Ah

12V 24Ah

12V 40Ah

12V 60Ah

12V 80Ah

12V 100Ah

MAIN CHARACTERISTICS

- Totally hermetic without emission of gas in use;
- No liquid to add during the entire life of the batteries;
- No risk of acid loss as the electrolyte (diluted sulfuric acid) is absorbed in an AGM opaque glass-like support;
- The plates are very robust and are welded with special alloys to ensure high mechanical resistance;
- The casing is made of ABS (Acrylonitrile Butadiene Styrene);
- The batteries comply with the international standards JIS, UL, VDE, IATA;
- The batteries are designed for high fast discharge currents;
- The expected life of AEC batteries is 10-12 years, according to the EUROBAT guide;
- Enclosures are constructed to UL-94 HB or UL94-V0 fire resistant.

STATIONARY AGM BATTERIES

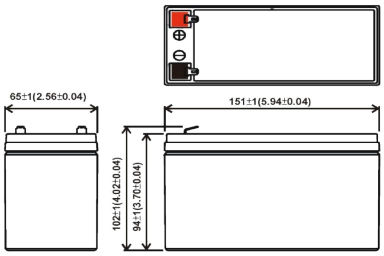
Using the latest innovative Oxygen Recombination Technology, AEC has used its 50 years of experience to design and manufacture the best battery on the market, with an expected life of 10 years on all models.

OZ POWER | 12V 9AH

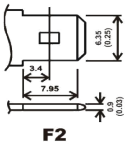
AGM SEALED LEAD BATTERY

TECHNICAL SPECIFICATIONS	
CELLS PER UNIT	6
NOMINAL VOLTAGE	12
NOMINAL CAPACITY	9Ah@20Hour rate F.V(1.75/cell)
WEIGHT	Approx. 2.40Kg(5.29Lbs)
INTERNAL RESISTANCE	<18mΩ
TERMINAL TYPE	F2
MAX DISCHARGE CURRENT	130A
DESIGN LIFE	8-10 Years
MAX CHARGE CURRENT	2.7A
STAND BY	13.5-13.8V
CYCLE USE	14.4-15.0V
AMBIENT TEMPERATURE	Discharge: -15°C~50°C Charge: 0°C~40°C Storage:-15°C~40°C
CONTAINER MATERIAL	ABS, UL94-HB & 94V-0

DIMENSIONS	
LENGTH	151±1 mm
WIDTH	65±1 mm
HEIGHT	94±1 mm
TOTAL HEIGHT	100±1 mm



mm(inch)

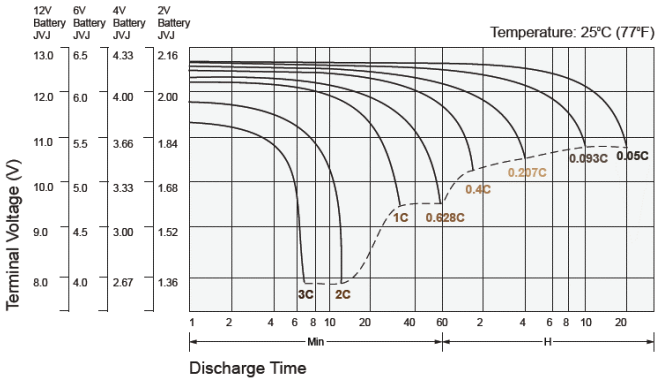


F2

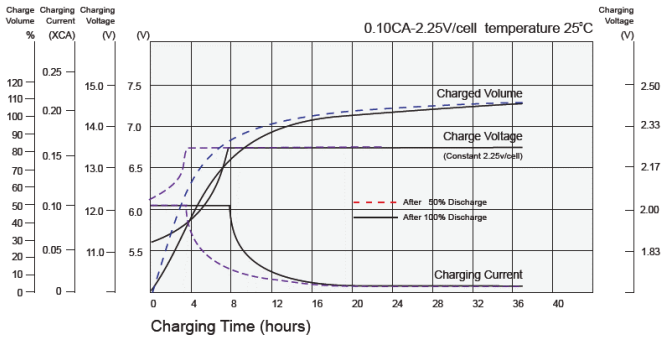
CONSTANT CURRENT DISCHARGE CHARACTERISTICS: A 25° C										
F.V/TIME	5 Min	10 Min	15 Min	30 Min	60 Min	2 Hours	3 Hours	5 Hours	10 Hours	20 Hours
1.60V	33	19	16.4	9.78	5.1	2.96	2.16	1.46	0.80	0.461
1.67V	30.8	18.5	15.6	8.9	5.08	2.89	2.13	1.44	0.79	0.452
1.70V	28	18.2	15	8.55	5.02	2.84	2.08	1.41	0.78	0.450
1.75V	25.5	17.5	14.3	8.24	4.92	2.76	2.04	1.93	0.76	0.450
1.80V	22.6	16	13.4	7.5	4.73	2.69	1.99	1.36	0.75	0.400

CONSTANT POWER DISCHARGE CHARACTERISTICS: W 25°										
F.V/TIME	5 Min	10 Min	15 Min	30 Min	60 Min	2 Hours	3 Hours	5 Hours	10 Hours	20 Hours
1.60V	384.0	249.6	192	110.4	62.4	28.7	23.7	16.1	9.0	4.71
1.67V	371	244.7	188.2	109.2	61.8	29.6	23.6	16.1	9.0	4.71
1.70V	355.7	239	184	107.8	61.1	29.4	23.4	16	8.9	4.70
1.75V	334.8	230.6	178.5	105.4	60.0	28.7	23.2	15.9	8.9	4.68
1.80V	289.2	212.9	170.6	101.5	58.2	27.8	22.7	15.7	8.8	4.59

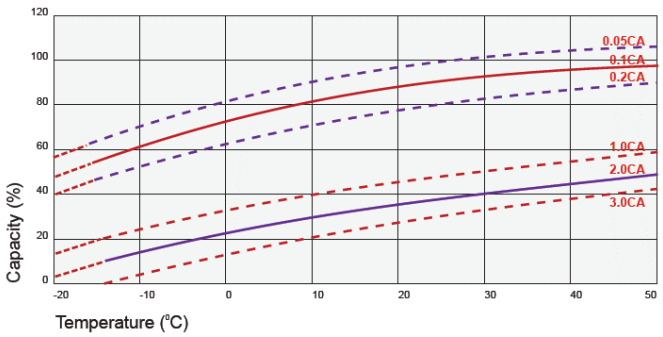
BATTERY DISCHARGE CHARACTERISTICS



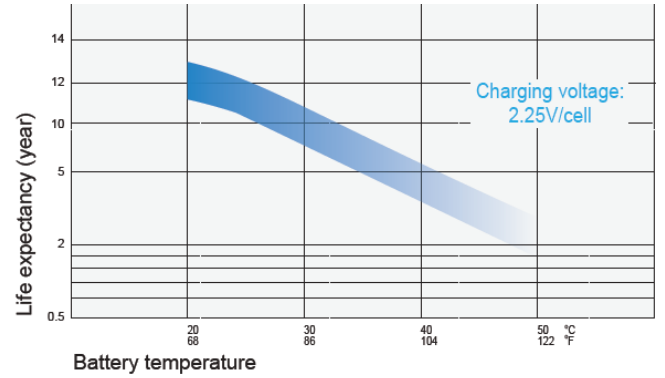
BATTERY CHARGE CHARACTERISTICS



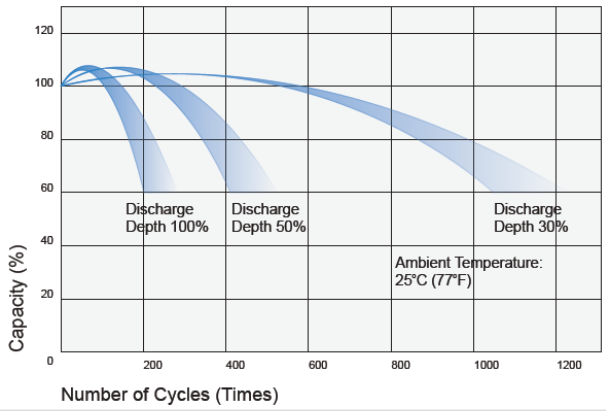
TEMPERATURE EFFECTS IN RELATION TO BATTERY CAPACITY



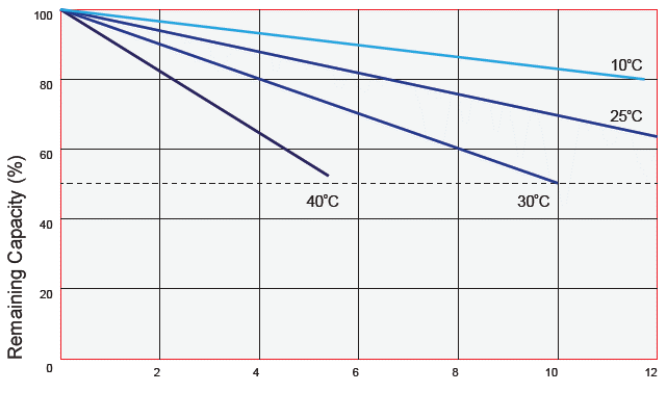
TEMPERATURE EFFECTS ON LONG TERM FLOAT LIFE



CYCLE SERVICE LIFE



SELF DISCHARGE CHARACTERISTICS



TECHNICAL SPECIFICATION

USE	CHARGE VOLTAGE V/CELL			MAX CHARGE CURRENT
	TEMP.	VALUE	RANGE	
CYCLE USE	25°C	2.45	2.40-2.50	0.25°C
STANDBY	25°C	2.275	2.25-2.30	

OZ POWER | 12V 24AH

AGM SEALED LEAD BATTERY

TECHNICAL SPECIFICATIONS	
CELLS PER UNIT	6
NOMINAL VOLTAGE	12
NOMINAL CAPACITY	24Ah@20Hour rate F.V(1.75/cell)
WEIGHT	Approx. 7.0Kg
INTERNAL RESISTANCE	<12mΩ
TERMINAL TYPE	IT (F12)
MAX DISCHARGE CURRENT	375A (5s)
DESIGN LIFE	8-10 Years
MAX CHARGE CURRENT	7.8A
STAND BY	13.5-13.8V
CYCLE USE	14.4-15V
AMBIENT TEMPERATURE	Discharge: -15°C~50°C Charge: 0°C~40°C Storage:-15°C~40°C
CONTAINER MATERIAL	ABS, UL94-HB & 94V-0

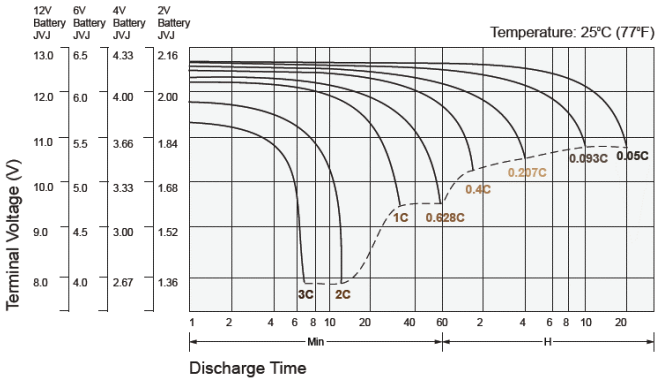
DIMENSIONS	
LENGTH	166±2 mm
WIDTH	175±2 mm
HEIGHT	125±2 mm
TOTAL HEIGHT	125±2 mm

The OZ 12V range is commonly used in many applications, especially the emergency power supply of UPS systems. The battery is designed and manufactured to guarantee the highest levels of performance in rapid discharges, while maintaining maximum reliability and durability over time. Based on proven AGM VRLA technology, the OZ battery is 99% recyclable at end of life.
OZ 12V does not require any maintenance. In addition, the series is classified as non-dangerous goods and can be safely transported by truck, rail and air. The specific design has been optimized to reduce self-discharge during storage.

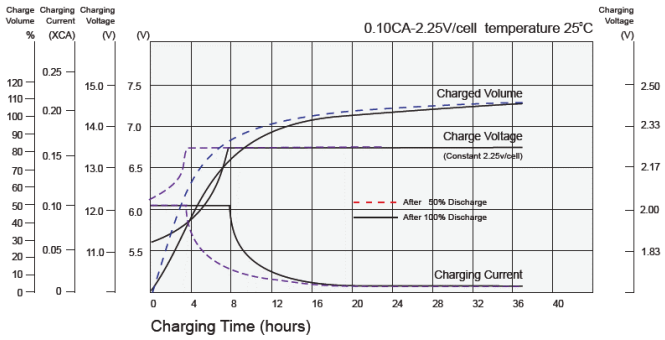
CONSTANT CURRENT DISCHARGE CHARACTERISTICS: A 25° C										
F.V/TIME	5 Min	15 Min	30 Min	60 Min	2 Hours	3 Hours	5 Hours	8 Hours	10 Hours	20 Hours
1.60V	99.41	46.76	28.53	15.39	9.41	6.88	4.56	3.04	2.50	1.36
1.65V	93.24	45.29	27.35	15.10	9.25	6.78	4.49	3.01	2.47	1.35
1.70V	86.08	43.92	24.80	14.31	9.07	6.66	4.43	2.97	2.45	1.34
1.75V	85.10	42.45	23.43	14.22	8.82	6.52	4.37	2.93	2.41	1.32
1.80V	75.39	38.63	21.86	14.02	8.53	6.35	4.31	2.88	2.38	1.30

CONSTANT POWER DISCHARGE CHARACTERISTICS: W 25°										
F.V/TIME	5 Min	15 Min	30 Min	60 Min	2 Hours	3 Hours	5 Hours	8 Hours	10 Hours	20 Hours
1.60V	1070.6	541.2	329.4	188.2	110.6	81.18	54.00	36.29	29.88	16.06
1.65V	1011.8	529.4	320.6	182.4	108.8	80.59	53.53	36.06	29.71	15.98
1.70V	947.1	505.9	311.8	179.4	107.4	78.82	52.88	35.71	29.41	15.88
1.75V	862.7	483.3	300.0	174.1	105.1	77.65	52.18	35.29	29.40	15.71
1.80V	776.5	454.9	287.3	171.6	103.1	75.88	51.29	34.82	28.63	15.49

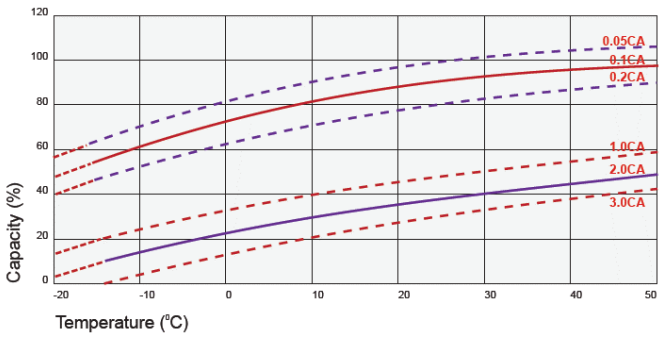
BATTERY DISCHARGE CHARACTERISTICS



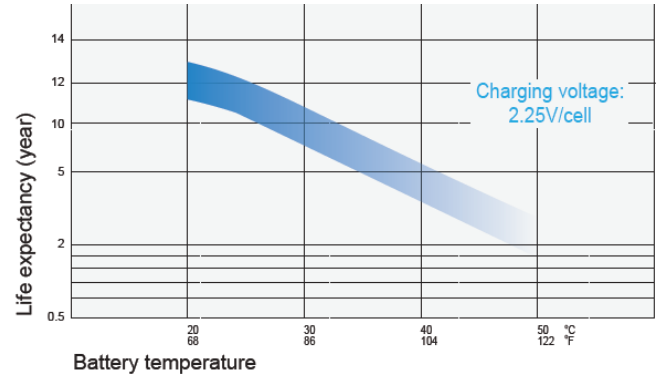
BATTERY CHARGE CHARACTERISTICS



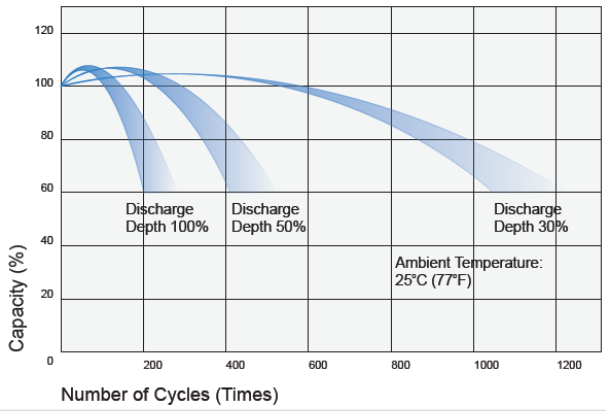
TEMPERATURE EFFECTS IN RELATION TO BATTERY CAPACITY



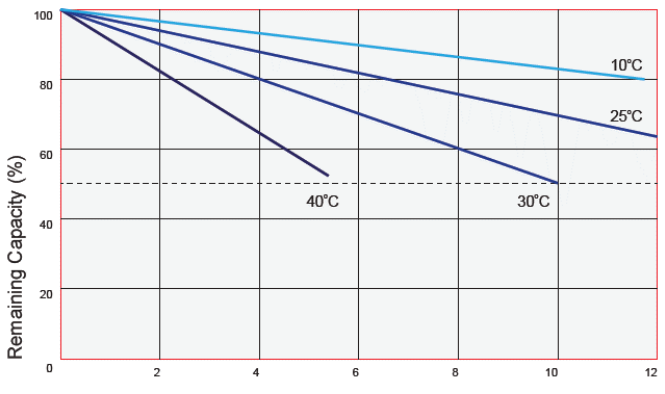
TEMPERATURE EFFECTS ON LONG TERM FLOAT LIFE



CYCLE SERVICE LIFE



SELF DISCHARGE CHARACTERISTICS



TECHNICAL SPECIFICATION

USE	CHARGE VOLTAGE V/CELL			MAX CHARGE CURRENT
	TEMP.	VALUE	RANGE	
CYCLE USE	25°C	2.45	2.40-2.50	0.25°C
STANDBY	25°C	2.275	2.25-2.30	

OZ POWER | 12V 40AH

AGM SEALED LEAD BATTERY

TECHNICAL SPECIFICATIONS	
CELLS PER UNIT	6
NOMINAL VOLTAGE	12
NOMINAL CAPACITY	40Ah@20Hour rate F.V(1.75/cell)
WEIGHT	Approx. 12.40Kg
INTERNAL RESISTANCE	<10mΩ
TERMINAL TYPE	IT (M)
MAX DISCHARGE CURRENT	380A (5s)
DESIGN LIFE	10-12 Years
MAX CHARGE CURRENT	12A
STAND BY	13.5-13.8V
CYCLE USE	14.4-15V
AMBIENT TEMPERATURE	Discharge: -15°C~50°C Charge: 0°C~40°C Storage:-15°C~40°C
CONTAINER MATERIAL	ABS, UL94-HB & 94V-0

DIMENSIONS	
LENGTH	197±3 mm
WIDTH	166±1 mm
HEIGHT	170±1 mm
TOTAL HEIGHT	170±1 mm

The OZ 12V range is commonly used in many applications, especially the emergency power supply of UPS systems. The battery is designed and manufactured to guarantee the highest levels of performance in rapid discharges, while maintaining maximum reliability and durability over time. Based on proven AGM VRLA technology, the OZ battery is 99% recyclable at end of life.
OZ 12V does not require any maintenance. In addition, the series is classified as non-dangerous goods and can be safely transported by truck, rail and air. The specific design has been optimized to reduce self-discharge during storage.

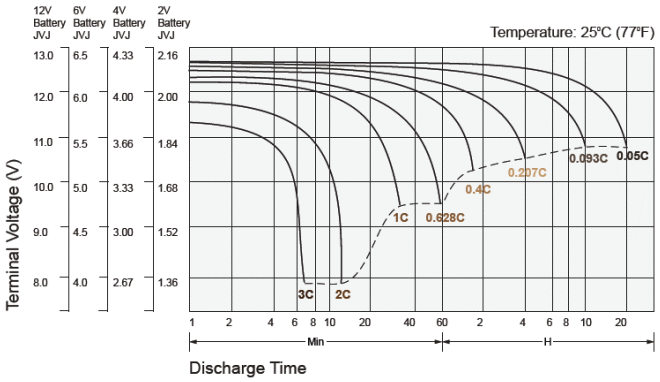
CONSTANT CURRENT DISCHARGE CHARACTERISTICS: A 25° C

F.V/TIME	5 Min	15 Min	30 Min	60 Min	2 Hours	3 Hours	5 Hours	8 Hours	10 Hours	20 Hours
1.60V	171.0	81.0	40.9	24.6	13.9	10.10	7.13	5.35	3.90	2.14
1.67V	168.0	75.0	40.0	23.5	13.8	10.00	7.02	5.25	3.85	2.12
1.70V	157.0	72.0	38.9	22.7	13.5	9.62	6.98	5.10	3.81	2.07
1.75V	140.0	66.0	34.9	23.2	13.1	9.27	6.84	5.00	3.80	2.03
1.80V	103.0	61.2	30.7	22.5	12.6	9.17	6.68	4.90	3.80	1.95

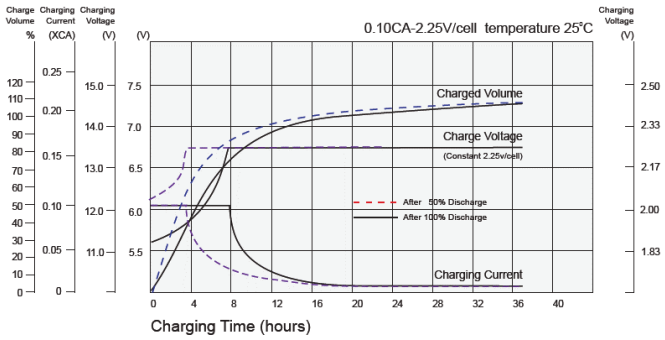
CONSTANT POWER DISCHARGE CHARACTERISTICS: W 25°

F.V/TIME	5 Min	15 Min	30 Min	60 Min	2 Hours	3 Hours	5 Hours	8 Hours	10 Hours	20 Hours
1.60V	1951	927.0	494.0	272.9	168.0	126.3	87.2	50.0	40.22	21.19
1.67V	1919	913.0	487.0	270.4	167.0	125.7	86.6	49.6	40.20	21.19
1.70V	1795	861.0	459.0	266.9	164.0	120.0	85.2	49.0	40.10	21.08
1.75V	1603	780.0	416.0	262.4	161.0	117.0	83.6	48.4	39.80	21.08
1.80V	1337	663.0	354.0	254.5	155.0	113.0	81.4	47.6	39.30	20.69

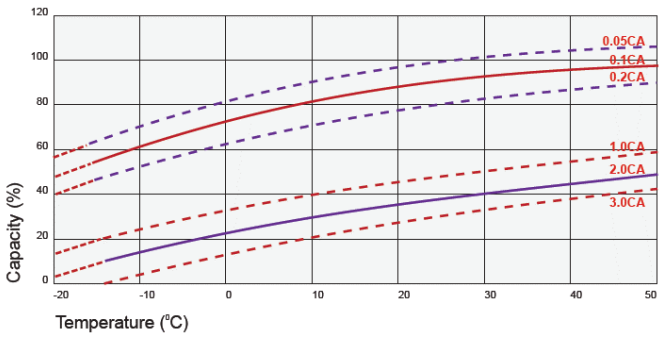
BATTERY DISCHARGE CHARACTERISTICS



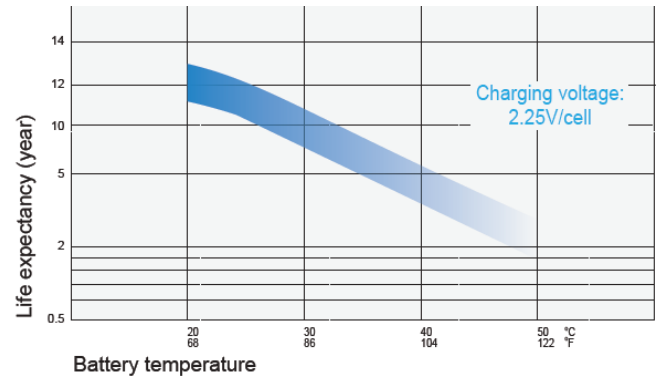
BATTERY CHARGE CHARACTERISTICS



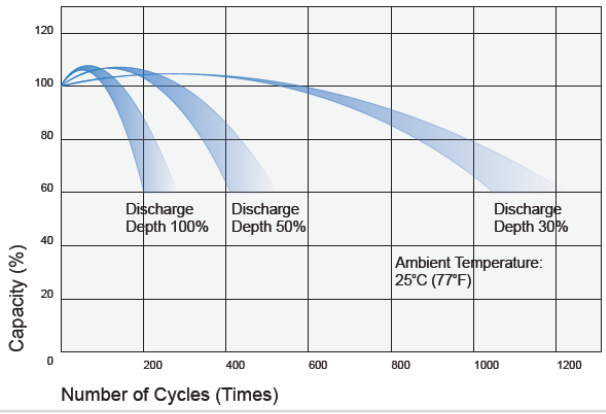
TEMPERATURE EFFECTS IN RELATION TO BATTERY CAPACITY



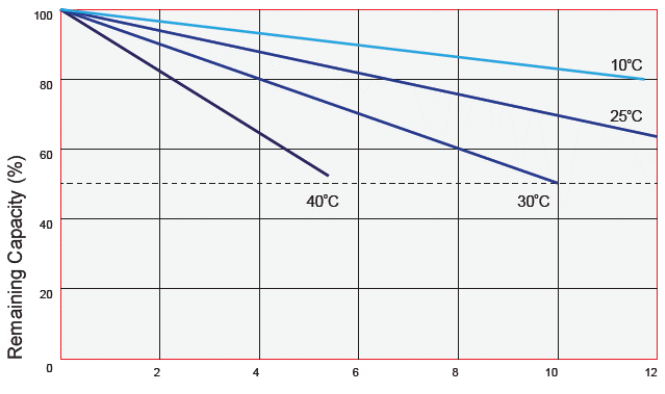
TEMPERATURE EFFECTS ON LONG TERM FLOAT LIFE



CYCLE SERVICE LIFE



SELF DISCHARGE CHARACTERISTICS



TECHNICAL SPECIFICATION

USE	CHARGE VOLTAGE V/CELL			MAX CHARGE CURRENT
	TEMP.	VALUE	RANGE	
CYCLE USE	25°C	2.45	2.40-2.50	0.25°C
STANDBY	25°C	2.275	2.25-2.30	

OZ POWER | 12V 60AH

AGM SEALED LEAD BATTERY

TECHNICAL SPECIFICATIONS	
CELLS PER UNIT	6
NOMINAL VOLTAGE	12
NOMINAL CAPACITY	60Ah@20Hour rate F.V(1.75/cell)
WEIGHT	Approx. 16.50Kg
INTERNAL RESISTANCE	8mΩ
TERMINAL TYPE	IT (M6)
MAX DISCHARGE CURRENT	500A
DESIGN LIFE	10-12 Years
MAX CHARGE CURRENT	15A
STAND BY	13.5-13.8V
CYCLE USE	14.4-15V
AMBIENT TEMPERATURE	Discharge: -15°C~50°C Charge: 0°C~40°C Storage:-15°C~40°C
CONTAINER MATERIAL	ABS, UL94-HB & 94V-0

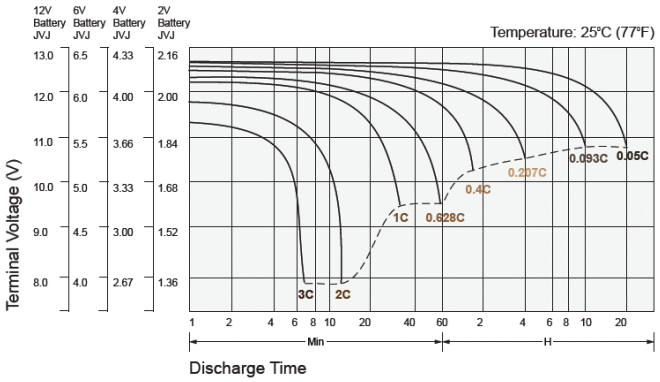
DIMENSIONS	
LENGTH	230±1 mm
WIDTH	138±1 mm
HEIGHT	211±1 mm
TOTAL HEIGHT	216±1 mm

The OZ 12V range is commonly used in many applications, especially the emergency power supply of UPS systems. The battery is designed and manufactured to guarantee the highest levels of performance in rapid discharges, while maintaining maximum reliability and durability over time. Based on proven AGM VRLA technology, the OZ battery is 99% recyclable at end of life.
OZ 12V does not require any maintenance. In addition, the series is classified as non-dangerous goods and can be safely transported by truck, rail and air. The specific design has been optimized to reduce self-discharge during storage.

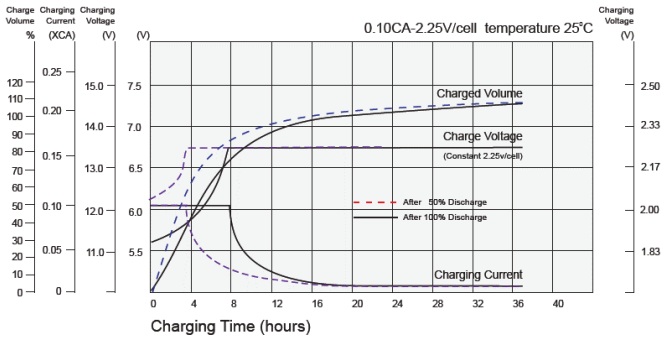
CONSTANT CURRENT DISCHARGE CHARACTERISTICS: A 25° C										
F.V/TIME	5 Min	15 Min	30 Min	60 Min	2 Hours	3 Hours	5 Hours	8 Hours	10 Hours	20 Hours
1.60V	190.0	100.0	59.4	33.6	20.7	15.80	10.30	6.82	5.73	3.12
1.65V	173.0	94.0	56.3	32.4	20.0	15.30	9.98	6.75	5.72	3.10
1.70V	156.0	88.5	53.3	31.3	19.0	14.70	9.71	6.65	5.56	3.05
1.75V	142.0	83.1	51.3	30.4	18.7	14.30	9.46	6.56	5.50	3.00
1.80V	126.0	76.0	49.4	29.0	18.0	14.10	9.23	6.45	5.18	2.72

CONSTANT POWER DISCHARGE CHARACTERISTICS: W 25°										
F.V/TIME	5 Min	15 Min	30 Min	60 Min	2 Hours	3 Hours	5 Hours	8 Hours	10 Hours	20 Hours
1.60V	1898	1350	648.0	378.0	235.2	181.2	119.4	79.8	68.4	35.40
1.65V	1762	1272	618.0	367.2	228.6	176.4	115.8	79.2	67.8	35.28
1.70V	1620	1188	588.0	358.2	223.8	170.4	113.4	78.0	66.6	34.86
1.75V	1512	1116	572.4	348.0	215.4	165.6	110.4	77.4	66.0	34.20
1.80V	1368	1032	556.2	334.2	208.8	150.0	108.0	76.2	65.4	33.96

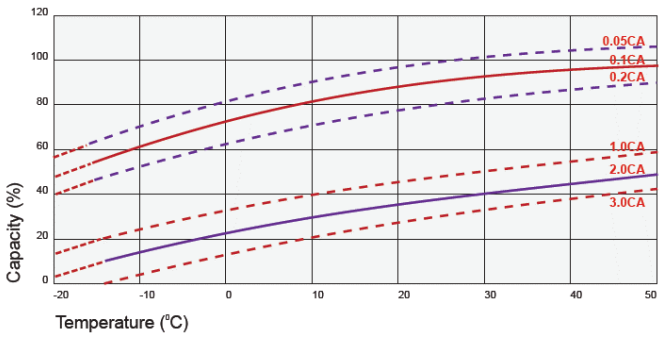
BATTERY DISCHARGE CHARACTERISTICS



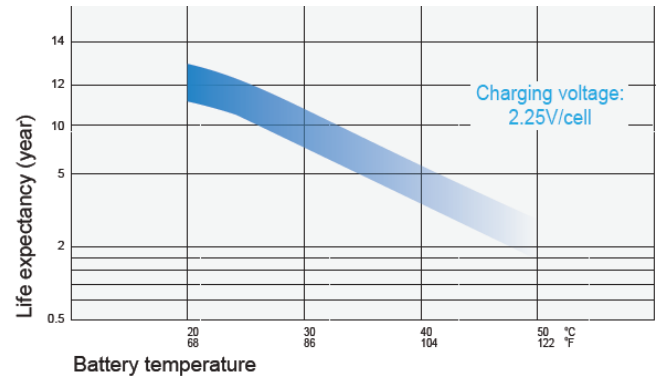
BATTERY CHARGE CHARACTERISTICS



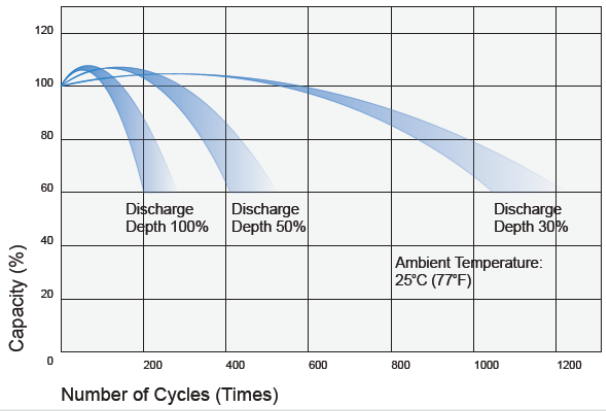
TEMPERATURE EFFECTS IN RELATION TO BATTERY CAPACITY



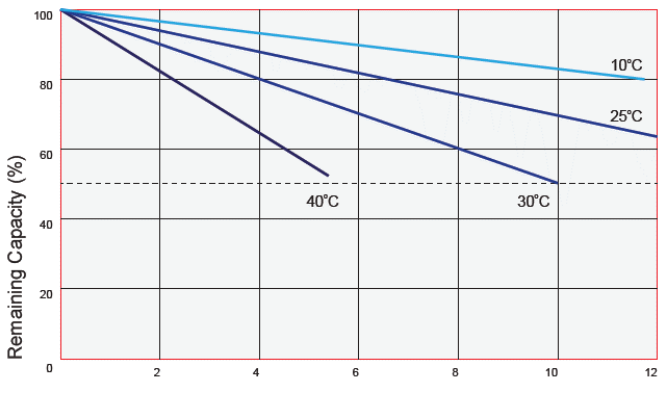
TEMPERATURE EFFECTS ON LONG TERM FLOAT LIFE



CYCLE SERVICE LIFE



SELF DISCHARGE CHARACTERISTICS



TECHNICAL SPECIFICATION

USE	CHARGE VOLTAGE V/CELL			MAX CHARGE CURRENT
	TEMP.	VALUE	RANGE	
CYCLE USE	25°C	2.45	2.40-2.50	0.25°C
STANDBY	25°C	2.275	2.25-2.30	

OZ POWER | 12V 80AH

AGM SEALED LEAD BATTERY

TECHNICAL SPECIFICATIONS	
CELLS PER UNIT	6
NOMINAL VOLTAGE	12
NOMINAL CAPACITY	80Ah@20Hour rate F.V(1.75/cell)
WEIGHT	Approx. 20.50Kg
INTERNAL RESISTANCE	6.6mΩ
TERMINAL TYPE	IT (M6)
MAX DISCHARGE CURRENT	700A
DESIGN LIFE	10-12 Years
MAX CHARGE CURRENT	22.5A
STAND BY	13.5-13.8V
CYCLE USE	14.4-15V
AMBIENT TEMPERATURE	Discharge: -15°C~50°C Charge: 0°C~40°C Storage:-15°C~40°C
CONTAINER MATERIAL	ABS, UL94-HB & 94V-0

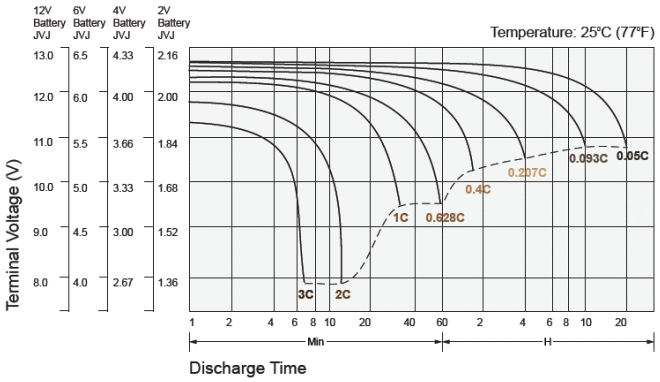
DIMENSIONS	
LENGTH	259±2 mm
WIDTH	168±1 mm
HEIGHT	208±1 mm
TOTAL HEIGHT	212±1 mm

The OZ 12V range is commonly used in many applications, especially the emergency power supply of UPS systems. The battery is designed and manufactured to guarantee the highest levels of performance in rapid discharges, while maintaining maximum reliability and durability over time. Based on proven AGM VRLA technology, the OZ battery is 99% recyclable at end of life.
OZ 12V does not require any maintenance. In addition, the series is classified as non-dangerous goods and can be safely transported by truck, rail and air. The specific design has been optimized to reduce self-discharge during storage.

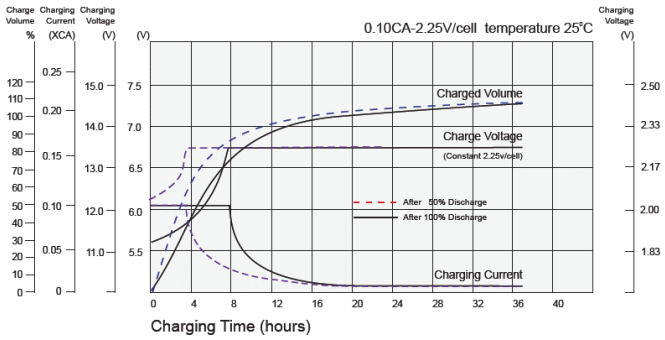
CONSTANT CURRENT DISCHARGE CHARACTERISTICS: A 25° C										
F.V/TIME	5 Min	15 Min	30 Min	60 Min	2 Hours	3 Hours	5 Hours	8 Hours	10 Hours	20 Hours
1.60V	240.0	142.2	85.8	50.2	28.9	22.0	14.3	9.35	7.74	4.10
1.67V	222.0	135.3	85.0	47.5	27.8	21.6	14.2	9.30	7.66	4.08
1.70V	205.0	119.6	84.4	46.9	27.6	21.3	14.0	9.20	7.51	4.02
1.75V	195.0	105.9	82.7	45.3	26.8	20.8	13.9	9.08	7.50	4.00
1.80V	180.0	102.0	80.3	43.4	25.6	20.2	13.5	8.99	7.35	3.82

CONSTANT POWER DISCHARGE CHARACTERISTICS: W 25°										
F.V/TIME	5 Min	15 Min	30 Min	60 Min	2 Hours	3 Hours	5 Hours	8 Hours	10 Hours	20 Hours
1.60V	2520	1488	960	576.0	330.0	241.2	161.4	108.0	90.60	45.32
1.67V	2430	1452	930	565.2	322.8	235.2	160.2	106.2	88.20	45.32
1.70V	2268	1428	876	546.0	315.6	234.0	159.0	103.8	86.40	45.23
1.75V	2136	1350	858	525.0	307.2	231.6	157.2	103.2	85.20	45.00
1.80V	2046	1290	852	511.2	298.8	228.0	155.4	100.8	82.80	44.10

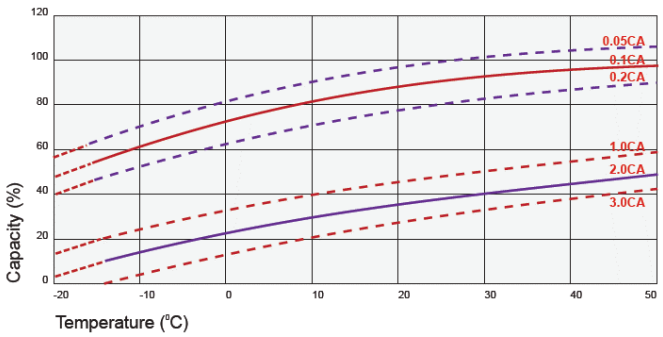
BATTERY DISCHARGE CHARACTERISTICS



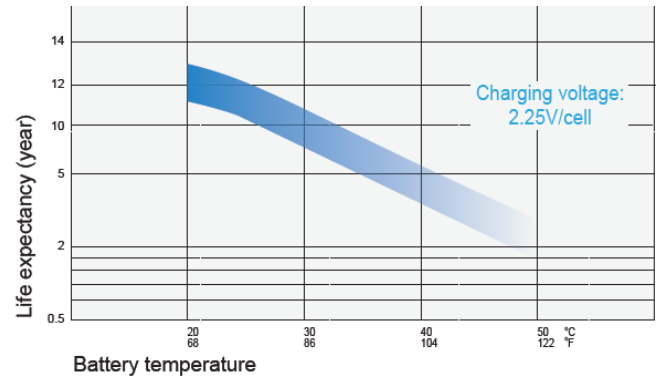
BATTERY CHARGE CHARACTERISTICS



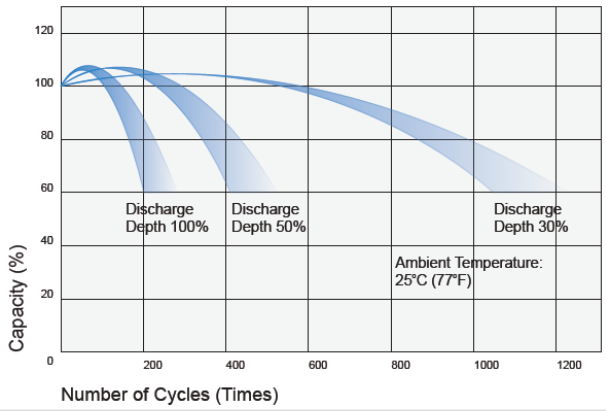
TEMPERATURE EFFECTS IN RELATION TO BATTERY CAPACITY



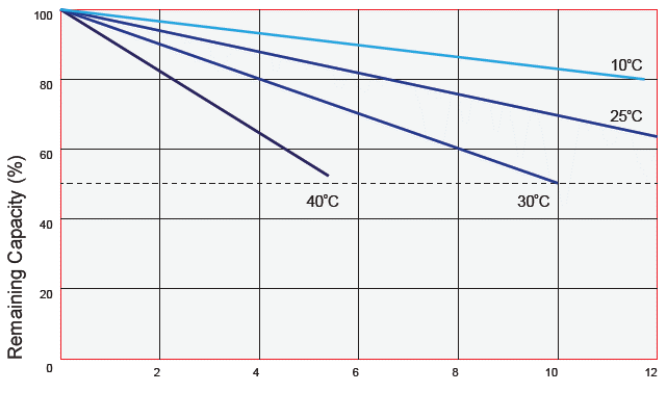
TEMPERATURE EFFECTS ON LONG TERM FLOAT LIFE



CYCLE SERVICE LIFE



SELF DISCHARGE CHARACTERISTICS



TECHNICAL SPECIFICATION

USE	CHARGE VOLTAGE V/CELL			MAX CHARGE CURRENT
	TEMP.	VALUE	RANGE	
CYCLE USE	25°C	2.45	2.40-2.50	0.25°C
STANDBY	25°C	2.275	2.25-2.30	

OZ POWER | 12V 100AH

AGM SEALED LEAD BATTERY

TECHNICAL SPECIFICATIONS	
CELLS PER UNIT	6
NOMINAL VOLTAGE	12
NOMINAL CAPACITY	100Ah@20Hour rate F.V(1.75/cell)
WEIGHT	Approx. 28.5Kg
INTERNAL RESISTANCE	5mΩ
TERMINAL TYPE	IT (M8)
MAX DISCHARGE CURRENT	1000A
DESIGN LIFE	10-12 Years
MAX CHARGE CURRENT	33A
STAND BY	13.5-13.8V
CYCLE USE	14.4-15V
AMBIENT TEMPERATURE	Discharge: -15°C~50°C Charge: 0°C~40°C Storage:-15°C~40°C
CONTAINER MATERIAL	ABS, UL94-HB & 94V-0

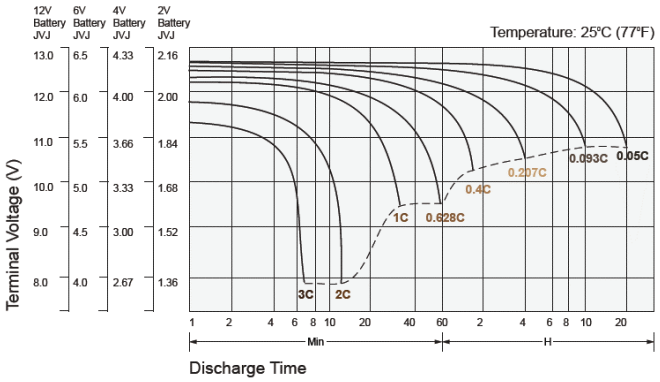
DIMENSIONS	
LENGTH	330±3 mm
WIDTH	173±2 mm
HEIGHT	216±3 mm
TOTAL HEIGHT	222±3 mm

The OZ 12V range is commonly used in many applications, especially the emergency power supply of UPS systems. The battery is designed and manufactured to guarantee the highest levels of performance in rapid discharges, while maintaining maximum reliability and durability over time. Based on proven AGM VRLA technology, the OZ battery is 99% recyclable at end of life.
OZ 12V does not require any maintenance. In addition, the series is classified as non-dangerous goods and can be safely transported by truck, rail and air. The specific design has been optimized to reduce self-discharge during storage.

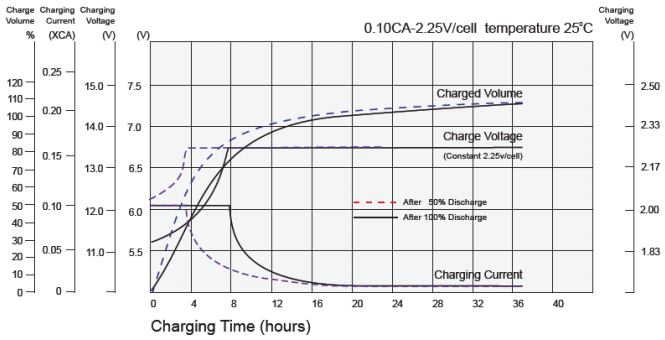
CONSTANT CURRENT DISCHARGE CHARACTERISTICS: A 25° C										
F.V/TIME	5 Min	10 Min	15 Min	30 Min	60 Min	2 Hours	3 Hours	5 Hours	10 Hours	20 Hours
1.60V	313.0	238.0	188.5	112.3	66.0	38.0	28.5	18.6	10.5	5.18
1.65V	304.0	230.	178.5	106.7	63.3	37.2	27.6	18.3	10.3	5.13
1.70V	297.0	225.0	165.1	101.8	62.4	35.5	26.0	17.9	10.2	5.11
1.75V	280.0	218.0	154.0	96.5	58.3	32.4	25.4	17.6	10.0	5.10
1.80V	257.0	211.0	143.7	92.1	52.6	29.2	24.6	17.2	9.65	5.05

CONSTANT POWER DISCHARGE CHARACTERISTICS: W 25°										
F.V/TIME	5 Min	10 Min	15 Min	30 Min	60 Min	2 Hours	3 Hours	5 Hours	10 Hours	20 Hours
1.60V	3216	2586	2100	1267.8	796.2	451.8	329.4	223.2	129.0	66.6
1.65V	3120	2520	2016	1228.8	774.0	446.4	324.0	220.8	128.4	66.0
1.70V	3054	2460	1921.2	1195.2	753.6	439.2	321.0	217.8	127.2	65.4
1.75V	2880	2400	1830	1165.8	732.6	432.6	316.2	214.2	126.6	65.4
1.80V	2640	2280	1668.6	1125.0	715.2	423.0	308.4	210.0	216.0	64.2

BATTERY DISCHARGE CHARACTERISTICS



BATTERY CHARGE CHARACTERISTICS



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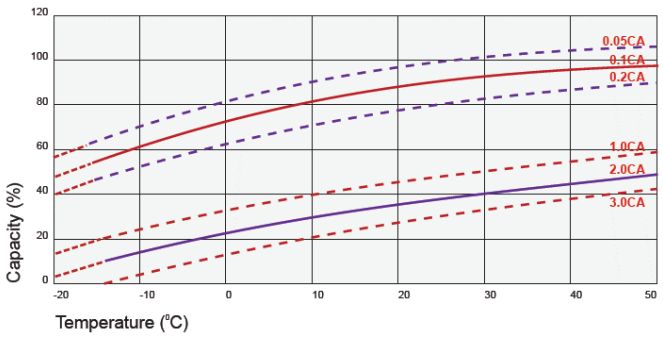
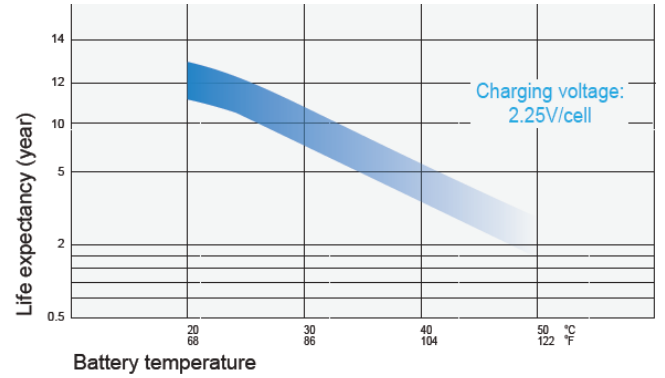
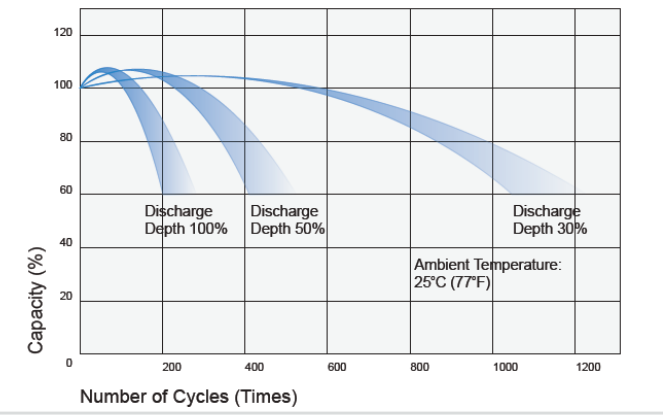


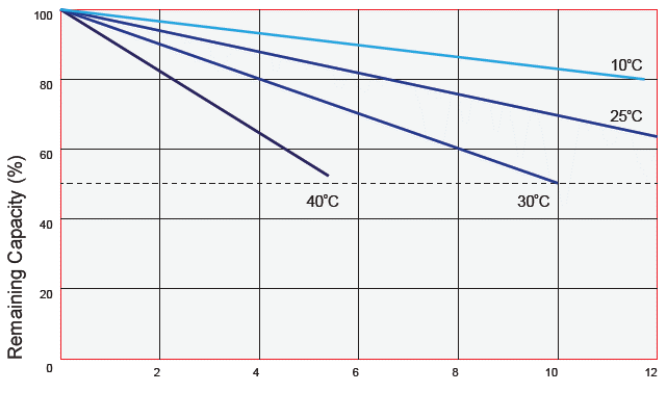
TEMPERATURE EFFECTS ON LONG TERM FLOAT LIFE



CYCLE SERVICE LIFE



SELF DISCHARGE CHARACTERISTICS



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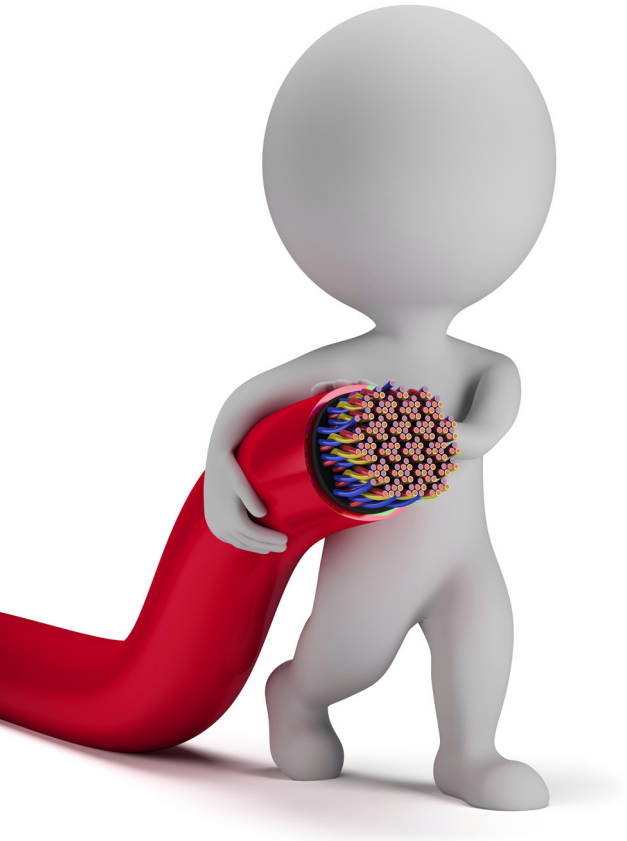

We have been guaranteeing continuity and reliability since 1968

WE ARE BEHIND THE POWER...

AEC is more than just a company, AEC is a family, we are a team of professionals with passion for innovation and new technologies
We are AEC!

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