



AEC ITALY CATALOG

2023





UPS SERIES IST 6



3:3

Power from 30kVA to 1.2MVA



kW = kVA

97%
Efficiency

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.

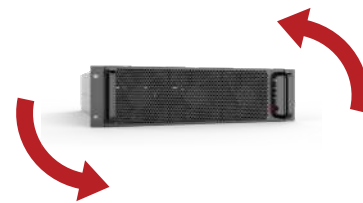
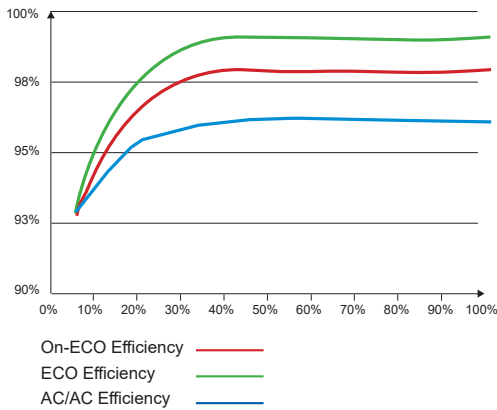
Their modularity allows future expansion in power up to 4.8MW. They are available in **four sizes**, up to 120kVA | 200kVA - 300kVA | 600kVA- 800kVA | 1000kVA-1200kVA | with an efficiency of up to 97% and maximum safety. IST6 is designed for **medium and large data centers**. UPS configurable directly 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.

UPS MODULAR

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;



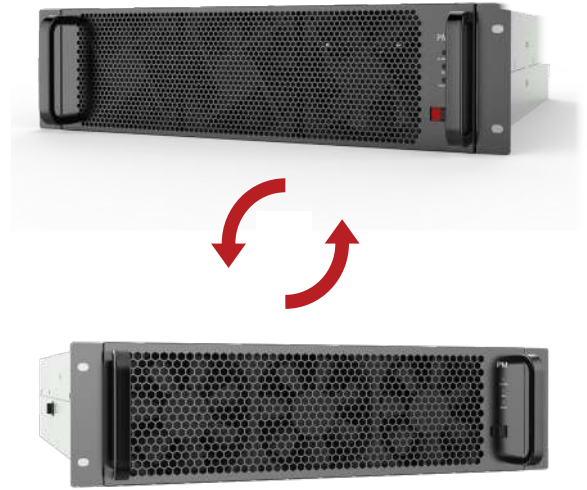
- Battery configurations: from 15 to 20 monoblocks ($\pm 180 \sim \pm 240Vdc$);
- ECO mode with efficiency up to 99%, configurable from the display;
- Advanced control with double redundant DSP;
- Completely tropicalized electronic cards;
- Display available in 7 languages;
- Intelligent fans with high 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

120kW

200-300kW

600-800kW

1000-1200kW

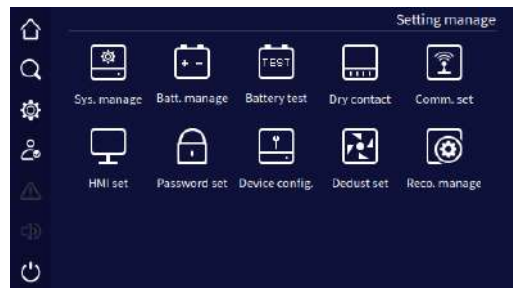
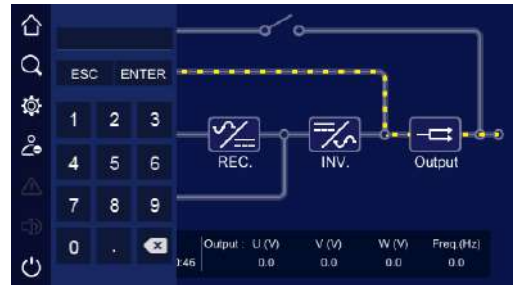
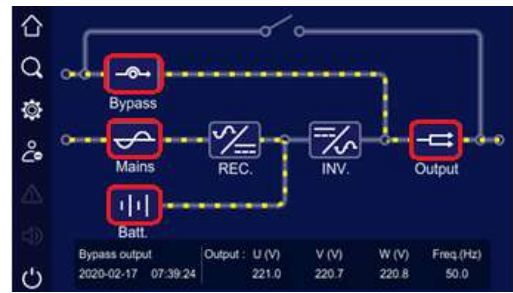


SETTINGS FROM DISPLAY

- 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;

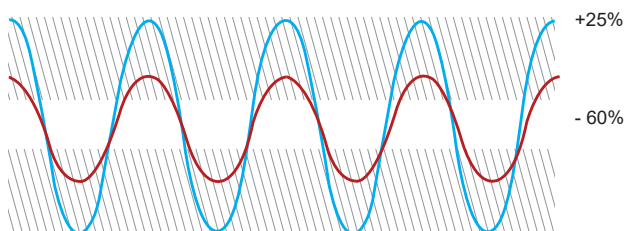


Display 4.9" Inches



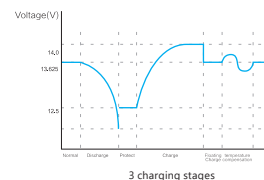
EXCELLENT PERFORMANCE

- 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;



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

FREQUENCY CONVERTER

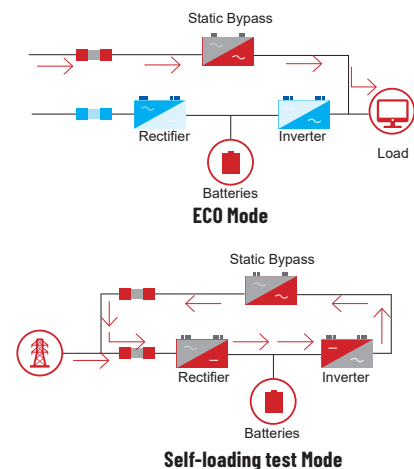
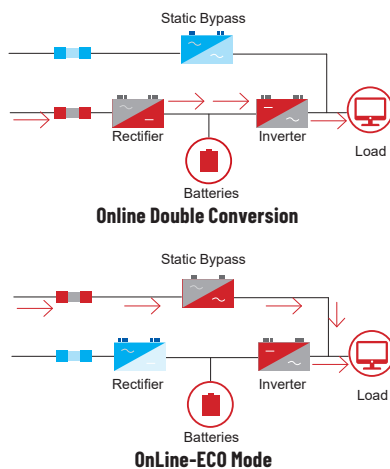
- 50Hz-60Hz or 60Hz-50Hz converter mode;
- Possibility of disabling the static bypass and the DC power supply of the inverter.



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



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 (KVA)	120	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	over 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
	Bypass Module	17	25
	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 (KVA)	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	740
	Bypass Module	60	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)		

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



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