AEC ITALIA
CATALOG

2022

WWW.AECUPS.COM

UPS SERIES IST 6

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

MODULAR UPS HOT-SWAPPABLE

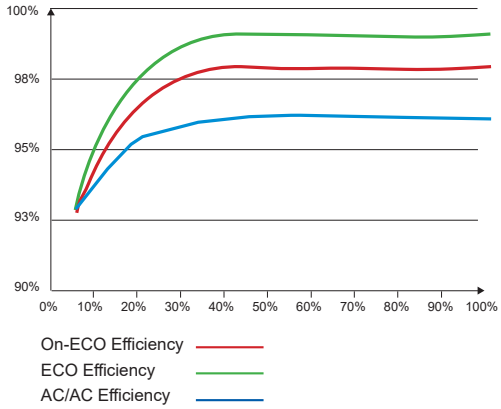
The **IST6 modular UPS** (30-1200kVA) are AEC's range of three-phase modular UPS, UPS with **hot-swappable modules**, in powers starting from 30kVA up to 1200kVA in single structure. The UPS IST6 series adopts a completely modular technology, guaranteeing **constant redundancy** of the continuity system.

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%;

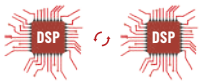


MAXIMUM SCALABILITY

- 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;

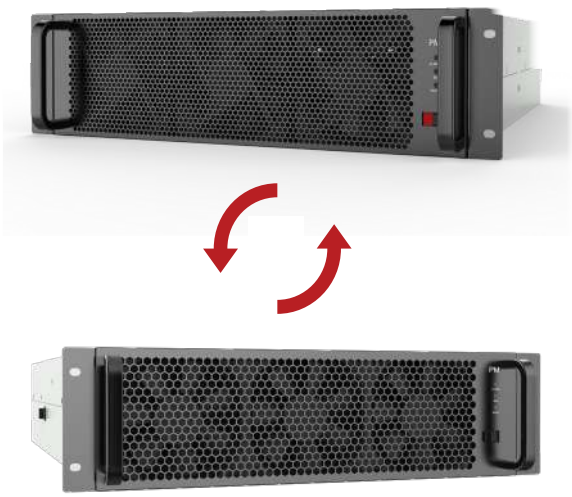


- Completely tropicalized electronic cards;
- Display available in 7 languages;
- Intelligent fans with high efficiency cooling, multiple modes to control their speed, extend their life and improve their efficiency.


Automatic fan control

REDUNDANT AND HOT REMOVABLE POWER MODULES

- Hot-swappable N + 1 UPS module with power of 30kW per 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, 100kW 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.

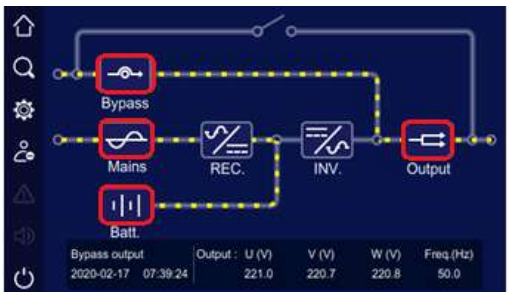
STRONG, FLEXIBLE AND FUTURE EXPANDABLE STRUCTURES

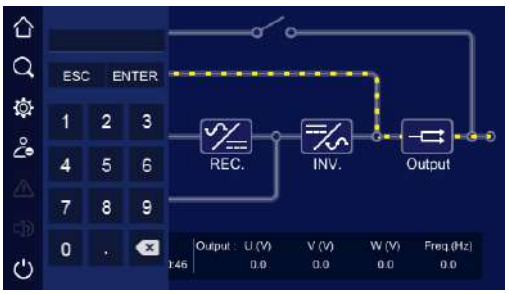
120kW **200-300kW** **600-800kW** **1000-1200kW**

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;

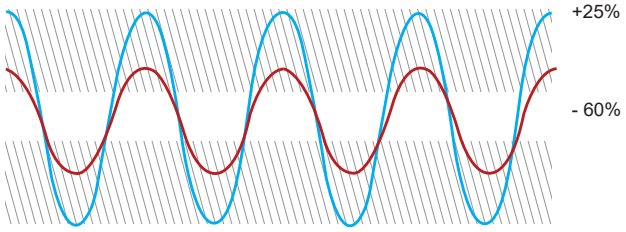
Display 4.9" Inches





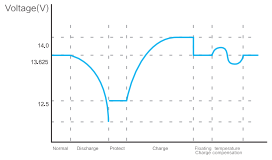
EXCELLENT PERFORMANCE

- 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 ;



Single-phase or 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

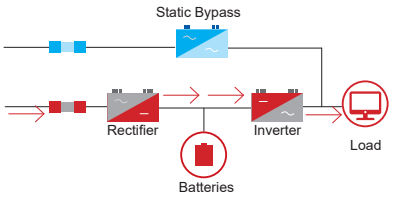
- 50Hz-60Hz or 60Hz-50Hz converter mode;
- Possibility of disabling the static bypass and the DC power supply of the inverter.

Frequency converter mode

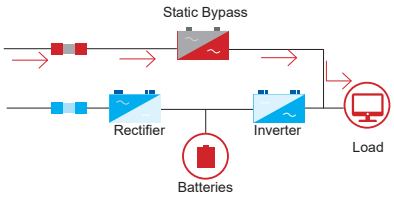
AEC APP FOR MOBILE

- Download the AEC UPS Italia 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.

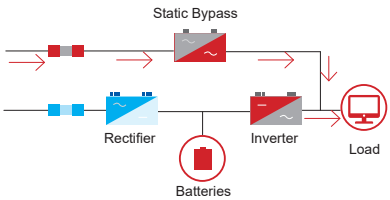
OPERATING MODES



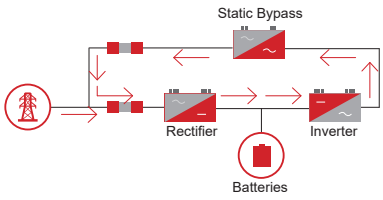
Online Double Conversion



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		IST6120	IST6200-300	IST6600
POWER MODULES		IST630-J	IST650-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, più di 150% Load transfers on Bypass		
OTHER SPECIFICATIONS				
TEMPERATURE (°C)		0~40		
HUMIDITY		0%~95%		
COMMUNICATION		RS485, MODBUS, Free Contact Card (SNMP opzional)		
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	CE (Reference standards: Safety IEC EN 62040-1; EMC IEC EN 62040-2; Classification IEC EN 62040-3)

TECHNICAL SPECIFICATIONS				
MODELS		IST6800	IST611000	IST6112000
POWER MODULES		IST6100-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, più di 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		

CERTIFICAZIONI	
STANDARDS	CE (Reference standards: Safety IEC EN 62040-1; EMC IEC EN 62040-2; Classification IEC EN 62040-3)

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