AEC ITALY
CATALOG

2023

WWW.AECUPS.COM

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

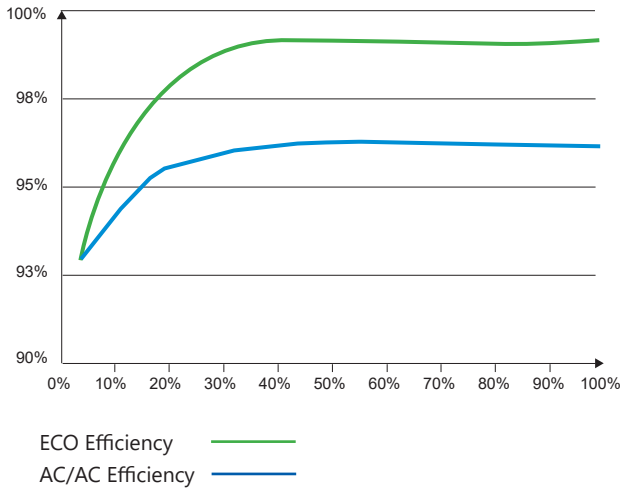
The IST7 three-phase UPS (10-40kVA) are AEC's three-phase online UPS range, double conversion tower UPS in powers starting from 10kVA up to 40kVA. The UPS IST7 series adopts the most innovative **3-level IGBT** technologies, ensuring efficiency up to 97% and a unitary output power factor.

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%;

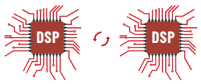


- Innovative three-level IGBT technology integrated in the inverter section;
- Modifiable input and output:
  - 1:1, 3:1, 3:3 (10-20kVA)
  - 3:1, 3:3 (30-40kVA);
- Maximum capacity of built-in batteries:
  - from 16 up to 40 12V 9Ah monoblocks (10-20kVA);
  - from 48 up to 80 12V 9Ah monoblocks (30-40kVA);

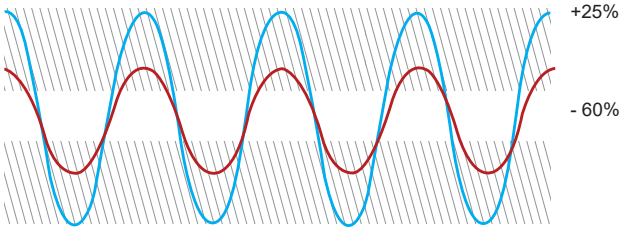
MULTIPLE CONFIGURATIONS

- 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;

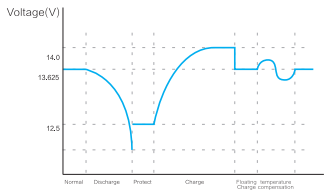


- ECO mode with efficiency up to 99%, configurable from the display;
- Maximum output tolerance, ability to operate with 100% unbalanced loads;
- Fully tropicalized electronic cards;
- Double input with wide tolerance, compatible with diesel generators;



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;



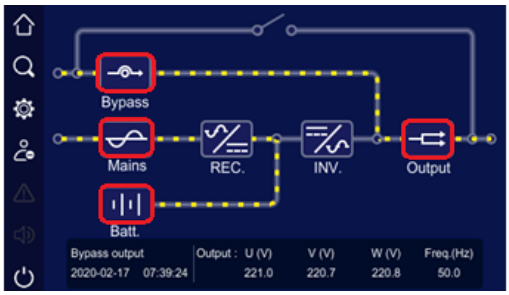
3 Stadi di ricarica

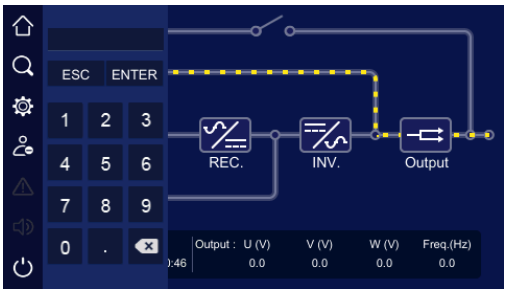
- Shared batteries for parallel systems, a single battery pack for two N + 1 UPSs;
- Possibility of parallel installation N + 1 (redundant or power) up to 10 units.

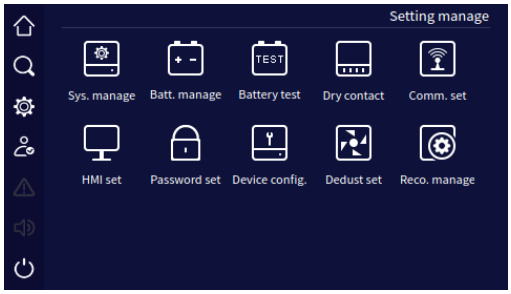
SETTINGS FROM DISPLAY

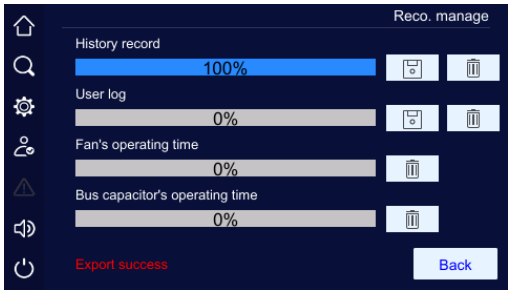
- Access to the menu via different password levels (User, Technician and Manufacturer);
- Configuration for input, output, bypass, batteries, communications, language and operating modes;
- Periodic self-cleaning function, to expel impurities and reduce the risk of failure;
- Large memory up to 10,000 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 (KVA)	10	20	30	40
POWER FACTOR	1			
VOLTAGE (VAC)	L-N: 220/230/240±1% L-L: 380/400/415±1%			
FREQUENCY (HZ)	50/60±0.1			
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)			

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