
AEC
Made in
ITALY
Made in Italy
Since 1968
UPS
batteries
Italian technology
Global energy
solutions

IST5AU

SERIES

40 - 1000 kVA

3:3 PHASE

ONLINE UPS

FINANCE · TELECOMMUNICATION · ENERGY · MEDICAL · GOVERNMENT

Three LEVEL 3 UPS

kW=kVA

96% Efficiency

VFI TYPE — UPS ONLINE

TOWER

PF= 1.0 — POWER FACTOR

Service — SERVICE

DETAILS

- True Three Level Rectifier and Inverter Technology
- Ultra High Energy Efficiency
- Full Rated Power Factor kW=kVA

Guaranteed Protection

• IST5AU Series with Innovative 3 Level Technology is a true on-line double conversion, three-phase UPS system that provides one of the highest level energy efficiencies in the industry.

• Three level inverter & rectifier design IST5AU Series brings the newest power conversion technology and delivers efficiency up to 96% at 50-75% load operation which is the most common operating range.

Italy
AEC International Srl
20017 Rho (MI), ITALY
Tel: +39 0291531689

USA
Impact Power Inc.
Irvine, California 92614, USA
Tel: +1 949-4779198

Taiwan
Allis Electric Co.Ltd
Taipei City 11501, Taiwan, R.O.C.
Tel: +866-2-26553456

High Efficiency & Low Total Cost of Ownership

• Less energy consumption to supply the loads thanks to high efficiency up to 96%.

• Reduced energy loss.

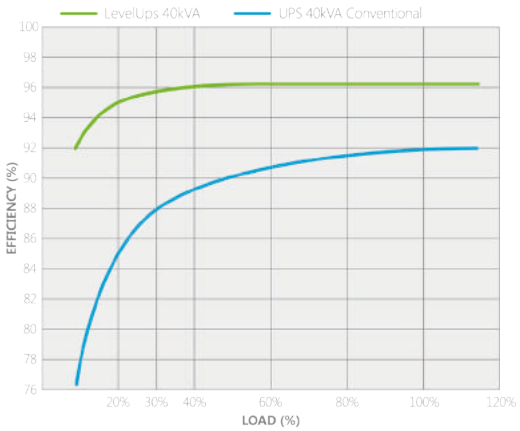
• Reduced electricity usage and air conditioning requirements.

• Reduction in operating cost of UPS.

• IGBT based power factor correction technology provides input power factor close to 1 (≥ 0,99). The high input power leads to reduced electricity pay-out, minimizes cable, switchboard, fuse and generator requirements, thus reducing investment cost.

• Low input current total harmonic distortion (THDi) less than 3% helps to avoid the disturbance and expensive harmonic filters.

• Small footprint and easy maintenance.

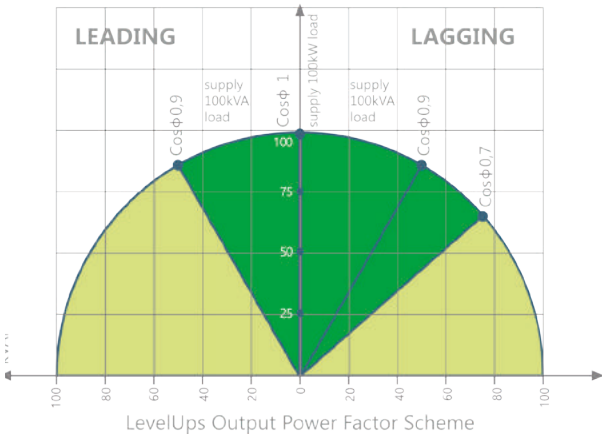


High Output Power Factor

• Output power factor of 1 (kVA=kW) rate provides up to 25% more active power than a traditional UPS.

• Suitable for modern power supply application with unit or capacitive power factor (e.g. new servers generation).

• No reduction in active power from 0,9 leading to 0,9 lagging.



LevelUps Output Power Factor Scheme

Maximum Availability

• Parallel configuration up to 8 units per redundancy (N+1) and power increase.

• Loop connection helps the UPS system to continue the operation when the connection cable is interrupted.

Standard Electrical Features

• Dual Input
• Common Battery
• Backfeed Protection
• Cold Start (Optional)
• Advanced Battery Management
• Short Circuit and Overload Protection
• Parallel Ready
• Redundant Power Supply
• Power Walk-in for Progressive Rectifier Start-up when the Mains is Restored.
• Battery Temperature Sensor
• Static and Manual Bypass Operation

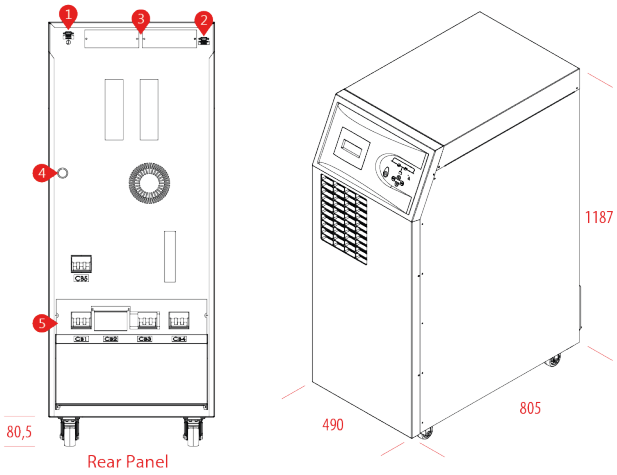
Advanced Communication Features

• 500 Real Time Event Log with Detailed Parameters
• User Friendly Multilingual 320x240 Graphic Display Provides Operation Information
• Monitoring and Shutdown Software
• RS232 Serial and RS485 Ports
• Modbus RTU (Optional)
• 2 Communication Slots
• Remote Emergency Power Off (Optional)
• Remote Display Panel (Optional)
• Dry Contact (Optional)
• SNMP (Optional)
• ProfiBUS (Optional)

Flexibility

• Temperature sensor for external battery cabinets for extended runtimes.
• External battery cabinets for different sizes of batteries to provide extended runtimes.
• Frequency converter mode.
• Isolation transformers to vary neutral connectivity in the event of separate power sources or for galvanic isolation between input and output.
• Compatible version with EN 50171 for supplying power to emergency lighting systems.

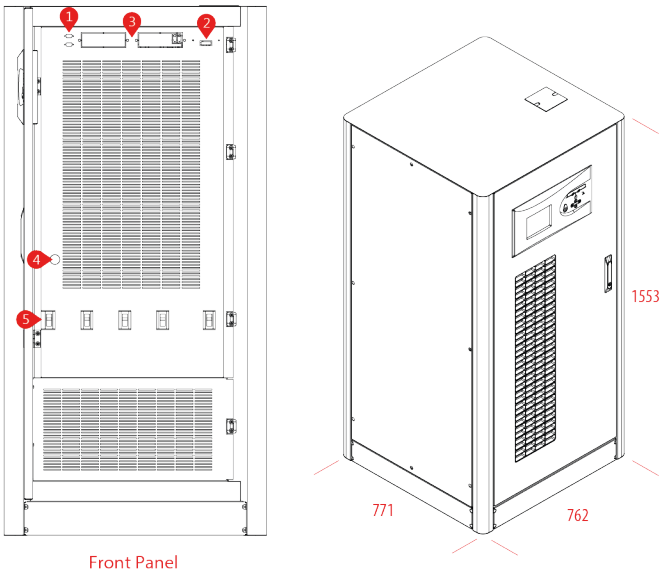
IST5 AU SERIES 40 kVA
IST5 AU SERIES 60 kVA (Power Factor 0.9)



Rear Panel

1. Parallel Port Terminal
2. RS232 Terminal
3. Optional Card Slots
4. DC Bus Ramping Up Button
5. Switch

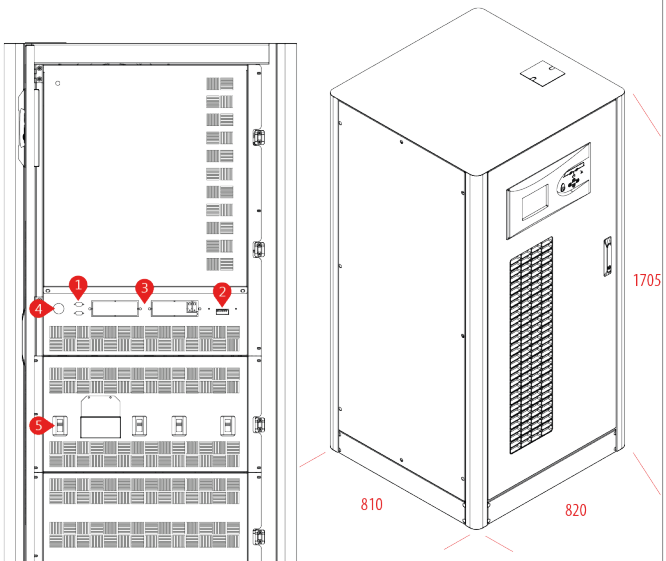
IST5 AU SERIES 60-80 kVA



Front Panel

1. RS232 Terminal
2. External Temperature Sensor Output
3. Optional Card Slots
4. DC Bus Ramping Up Button
5. Switch

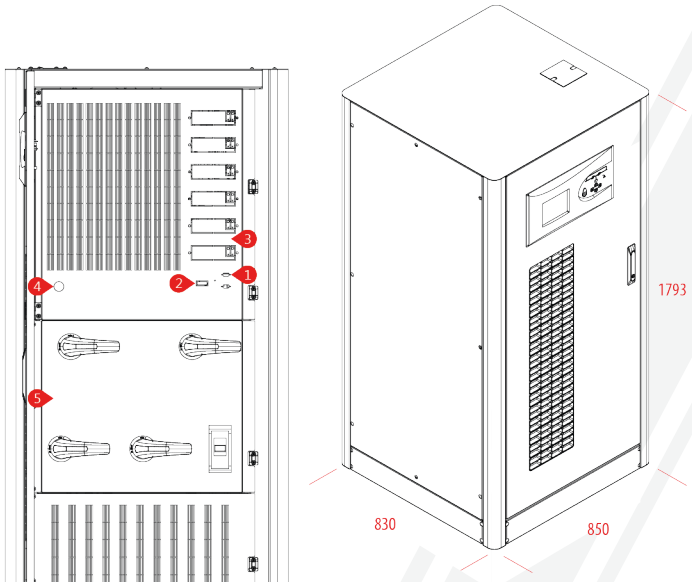
IST5 AU SERIES 100-120 kVA



Front Panel

1. RS232 Terminal
2. External Temperature Sensor Output
3. Optional Card Slots
4. DC Bus Ramping Up Button
5. Switch

IST5 AU SERIES 160-200-250 kVA



Front Panel

1. RS232 Terminal
2. External Temperature Sensor Output
3. Optional Card Slots
4. DC Bus Ramping Up Button
5. Switch

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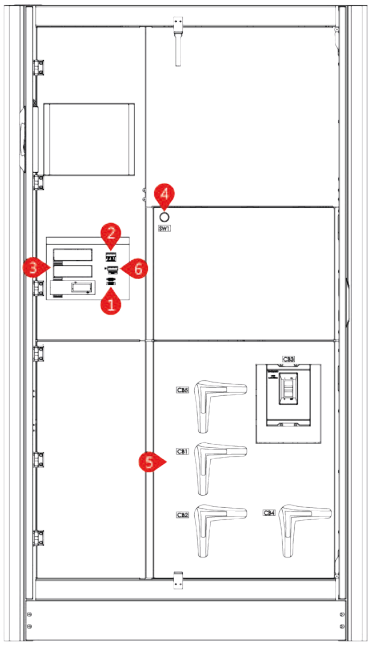
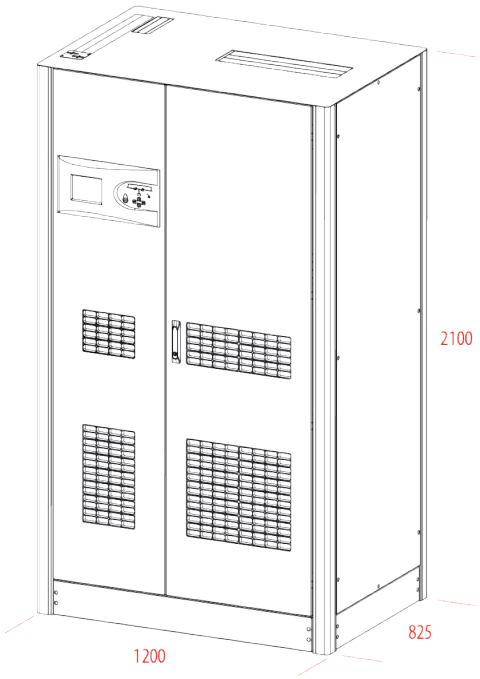
DETAILS

IST5 AU SERIES 300-400-500 kVA

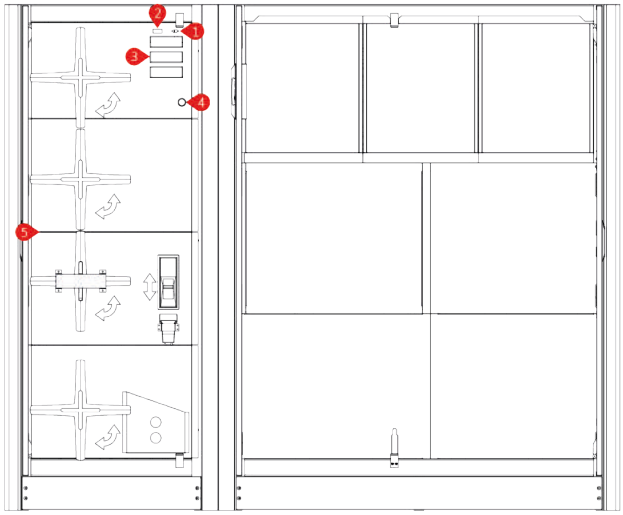


Front Panel

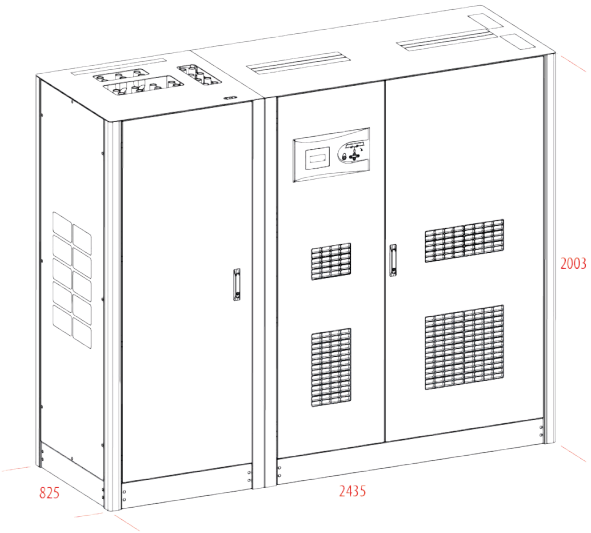


1. RS232 Terminal
2. External Temperature Sensor Output
3. Optional Card Slots
4. DC Bus Ramping Up Button
5. Switch
6. Optional Modbus

IST5 AU SERIES 600-800 -1000 kVA



Front Panel



1. RS232 Terminal
2. External Temperature Sensor Output
3. Optional Card Slots
4. DC Bus Ramping Up Button

IST5AU

Model	IST5040AU	IST5060AU	IST5080AU	IST5100AU	IST5120AU	IST5160AU	IST5200AU	IST5250AU	IST5300AU	IST5400AU	IST5500AU	IST5600AU
MAIN INPUT												
Capacity	**40KVA**	**60KVA**	**80KVA**	**100KVA**	**120KVA**	**160KVA**	**200KVA**	**250KVA**	**300KVA**	**400KVA**	**500KVA**	**600KVA**
Input voltage	380/400/415V - 50/60Hz											
Input connection	3ph+N+PE											
Power factor	>0,99											
Input current THD	<3%											
Input voltage window	-20% / +25% full load											
Frequency window	45-65Hz											
BYPASS INPUT												
Bypass voltage	380/400/415V											
Bypass voltage window	-20 / + 15% full load											
Frequency window	±5Hz											
Battery												
Battery voltage	372 – 0 – 372VDC					360 – 0 – 360VDC						
Charger power	20% nominal power											
Charger voltage precision	1,00%											
OUTPUT												
Inverter topology	3 LEVEL DIGITAL IGBT											
Power factor	1											
Output voltage	380/400/415V											
Voltage precision	±0,5% (balance load) 1% (unbalance load)											
Output voltage transient	5% (0-100% load step))											
Voltage THD	THD<1% (linear load) / THD<5% (non linear load)											
Frequency tracking range	50/60Hz±3Hz, adjustable											
Frequency precision (free running)	±0,02%											
Phase tolerance	120° ±0,5°											
Voltage unbalance degree	Da 0,5Hz/s a 5Hz/s adjustable											
Frequency racking speed	3:1											
Overload capability	102% operation time - 110% after 1 hour - 125% after 10 min - 150% after 1 min - > 150% after 200 ms											
Bypass overload capability	125% operation time - Da 125% a 130% after 1 hour - Da 130% a 150% after 6 min - >1000% after 100 ms											
SYSTEM												
System efficiency	> 95%											
Battery mode efficiency	ECO mode 99%											
Battery configuration	12V 62 pcs					12V 60 pcs from 160 kVA in external battery pack						
Display	LCD+LED touch screen											
EMI	EN62040-1-2-3 EN60950											
EMS	IEC61000-4-2(ESD), IEC61000-4-3(RS), IEC6100-4-4 (EFT), IEC6100-4-5											
Insulation resistance	>2m (500Vcc)											
IP class	IP20											
Interface (communication ports)	RS232 standard / RS485, dry contact , SNMP, remote EPO optional											
Operation temperature	0-40°C											
Relative humidity	0-90% (non condensing)											
Noise (dB)	<65dB											
Weight (Kg)	173	323	331	353	368	475	490	553	850	850	1350	1740
Dimension (W*D*H) (mm)	490*805*1190	763*771*1555		810*820*1705		830*870*1800			1250*845*2102			

All information contained in this brochure is purely indicative and cannot be used to form any contractual obligations.
Specifications or design can be changed at anytime without notice.

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