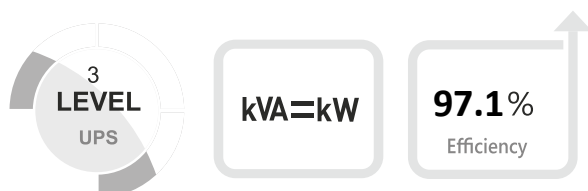


PS52 Series

3:3

PHASE

ONLINE UPS



VFI
TYPE

UPS ONLINE

TOWER

TOWER

PF=
1.0

POWER FACTOR

Service

SERVICE



IGBT
3Level
Topology

HIGHLIGHTS

- 3-Level Rectifier and Inverter adopts IGBT
- Topology Ultra High Energy Efficiency
- Full Rated Power Factor kVA=kW
- Parallel expansion to reach upto 9.6 MW
- N+N, N+1 redundancy mode configurable
- Automatic input phase reversal protection
- High input voltage range saves battery power
- Lithium Battery Compatibility – Future-ready power backup
- Easy Installation & Scalability – Quick deployment, effortless expansion
- Advanced Protection – Intelligent thermal management & fault diagnostics

Innovative 3-Level Topology

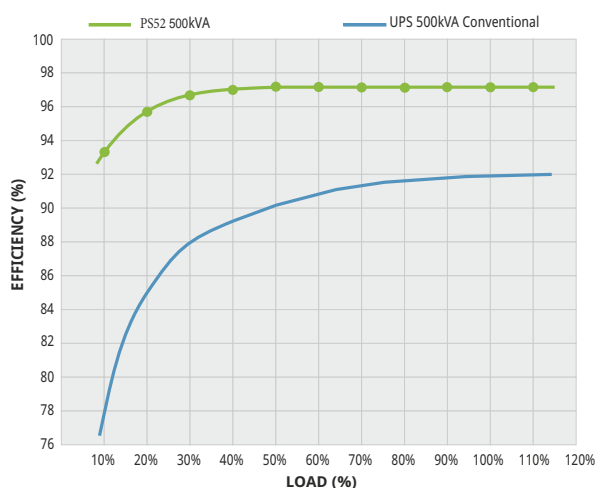
- PS52 Series with Innovative 3-Level

Topology is a true on-line double conversion, three-phase UPS system that provides one of the highest level energy efficiencies in the industry.

- 3-level inverter & rectifier design PS52 Series brings the newest power conversion technology and delivers efficiency up to 97.1% at 40-70% load operation which is the most common operating range.

High Efficiency & Low Total Cost of Ownership

- Less energy consumption to supply the loads, thanks to high efficiency up to 97.1%.
- Reduced energy losses.
- 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 factor 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 1

- 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).

Reverse Energy Tolerance for Regenerative Load

PS52 Series can be used with regenerative loads such as synchronous motors. The regenerative loads pump the energy back to mains, traditional UPS system burn this feedback energy and this causes lower efficiency. PS52 Series UPS with IGBT rectifier are able to absorb intermittent load generated power. Additionally, this reverse power tolerance permits execution of important system operations like closed transfers of the UPS load directly to an engine generator source.

Standard Electrical Features

- Parallel-Redundant (N+X) Systems
- Dual Input
- 3 Level IGBT Rectifier and Inverter
- Cold Start (Optional)
- Advanced Battery Management
- Short Circuit and Overload Protection
- Parallel Redundant Power Supply
- Power Walk-in for Progressive Rectifier Start-up
- Battery Temperature Sensor
- Static and Manual Bypass Operation
- 100% unbalanced load handling capability

Advanced Communication Features

- RS232 Serial and RS485 Ports
- ModBUS RTU / ModBUS TCP (Optional)
- Remote Emergency Power Off (Optional)
- Dry Contact (Optional)
- SNMP (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.
- Compatible version with EN 50171 for supplying power to emergency lighting systems

Perfect Generator Compatibility

PS52 is Perfectly compatible with diverse sources, especially with generators. When generator power is used, thanks to its robust IGBT rectifier, it ensures clean, uninterrupted power to protected equipment. With high input power factor performance of PS52 it is enough to chose generator with power only 20% higher rated then the UPS. PS52 has the ability to adjust power walk in from 5 to 60 seconds, along with reduced input current distortion.

Maximum Availability

- Parallel configuration up to 8 units per redundancy (N+1) and power increase, upto 9.6MW
- Loop connection helps the UPS system to continue the operation when the connection cable is interrupted.

Technical Specifications

MODEL		PS5233XL32 X = kVA						
Capacity		300 kVA	400 kVA	500 kVA	600 kVA	800 kVA	1000 kVA	1200 kVA
INPUT								
Nominal Voltage		380/400/415 VAC 3 P+N+PE (4W)						
Voltage Tolerance		-20% +15%						
Frequency Tolerance		50Hz ±10%						
Power Factor		≥0.99						
Total Harmonic Distortion (THDi)		<3%						
OUTPUT								
Power Factor		1, kVA=kW						
Nominal Voltage		380/400/415 VAC 3 P+N+PE (4W)						
Voltage Tolerance		Static ±1, Dynamic ±3%						
Frequency Tolerance		50Hz						
Output THD		Linear Load <2 %, Non-Linear Load <3%						
Crest Factor		3:1						
Overload Capacity*		110% for 60min, 125% for 10min, 150% for 1min.						
Efficiency (Online Mode)		97.1%						
Efficiency (EHS Mode)		98.5%						
Efficiency (ECO Mode)		99.0%						
BYPASS								
Nominal Voltage		380/400/415 VAC 3 P+N						
Voltage Tolerance		±10%						
BATTERY								
Type		VRLA, Li-ion						
DC Voltage		360 ~ 600V DC (Configurable)						
Recharge Time		6-8 hours						
Battery		External						
ENVIRONMENTAL								
Operating Temperature		0°C to 50°C						
Storage Temperature		-15°C to 60°C						
Ingress Protection		IP42						
Humidity		0-95% (Without Condensation)						
Altitude		1000m above MSL without derating						
Noise Level		<70dBA			<75dBA			
COMMUNICATION								
Communication Port & Display		Modbus/TCP, Modbus/RS485, RS 232, SNMP; Graphical touch screen LCD Display						
STANDARDS								
Quality		ISO 9001, ISO 14001, ISO 27001, ISO 45001, ISO 50001						
Performance		EN62040-3						
		EN62040-2, EN62040-1						
DIMENSIONS & WEIGHT		300 kVA	400 kVA	500 kVA	600 kVA	800 kVA	1000 kVA	1200 kVA
Cabinet Dimensions (mm)	Width	1600					2400	
	Depth	1100					1100	
	Height	2200					2200	
Net Weight (kg)		751	812	878	960	1080	1300	1430
Net Weight (kg)		RAL9005						

* Conditions Apply
Specifications are subject to change without prior notice.

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