



MARINE



INDUSTRY



MEDICAL



DATA CENTER



TRANSPORT



EMERGENCY



UPS ONLINE



RACK/UPS



SERVICE



ICAS

Series

5-1000 kVA

3:3
PHASE

5-30 kVA

3:1
PHASE

1-20 kVA

1:1
PHASE

ONLINE UPS



Highlights

- Rectifier and Inverter Technology
- Ultra High Energy Efficiency
- Full Rated Power Factor $kW=kVA$
- Marine Filter System

New Generation IGBT Technology

- The new generation IGBT technology has high efficiency in the fully controlled uninterruptible power supply class.

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.

High Efficiency & Low Total Cost of Ownership

- Less energy consumption to supply the loads thanks to high efficiency up to 95%.
- 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 ($\geq 0,99$). 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.



3:3 5-1000 kVA**3:1** 5-30 kVA

ONLINE UPS

**TECHNICAL SPECIFICATIONS**

INPUT	
Nominal Voltage	380/400/415 VAC 3P+PE -20% +15%
Voltage with External Transformer	208-690 VAC 3P+PE -20% +15% (Optional)
Frequency Tolerance	50 / 60 Hz \pm 10% (Selectable)
Power Factor	>0.99
Total Harmonic Distortion (THD)	<3%
OUTPUT	
Power Factor	0.9 (1 Optional)
Nominal Voltage	3:3 380/400/415 VAC 3P+PE 3:1 115/230 VAC 2P+PE
Voltage with External Transformer	208-690 VAC 3P+PE (Optional)
Frequency Tolerance	50 / 60 Hz \pm 0,01% (Battery Mode)
Output THD	<1% (Linear Load) / <3% (Non-Linear Load)
Crest Factor	3:1
Overload Capacity*	At 125% Load 10min, At 150% Load 1min
Efficiency (Online Mode)	95%
Efficiency (Eco Mode)	99%
BYPASS	
Nominal Voltage	380/400/415 VAC 3P+PE
Voltage Tolerance	%15 (Configurable from 10% to 30%)
Frequency Tolerance	\pm 5 (Selectable)
BATTERY	
Type	VRLA / GEL
Quantity (12V DC VRLA)	60 / 62
Charge Rate	25% of Active Power
Recharge Time	6-8 saat
ENVIRONMENTAL	
Operating Temperature	For UPS 0°C/+40°C For Battery +15°C/+25°C
Storage Temperature	For UPS -15°C/+45°C For Battery 0°C/+30°C
Protection Class	IP23 (IP Optional)
Humidity	0-95% (Without Condensation)
Altitude	<1000m: Correction Factor 1, <2000m: Correction Factor >0.92, <3000m: Correction Factor >0.84
COMMUNICATION	
Communication Port	RS232 Standart, RS485, Mod-BUS, J-Bus, Web, Tel-Net, GPRS, CAN-Bus, SNMP (Optional), Dry Contact
STANDARDS	
Quality	ISO 9001, ISO 14001, ISO 45001, CE, TSE, TSE-HYB
Performance	EN62040-3 (VFI-SS-111, Bureau Veritas Certified)
EMC/LVD	EN62040-2, EN62040-1, EN60950 (TÜV SÜD Certified)
Marine Certificate	Optional
DIMENSIONS & WEIGHT	
Cabinet Dimensions (mm)	Width
	Depth
	Height
Net Weight (kg)	
Packaging Dimensions (mm)	Width
	Depth
	Height
Gross Weight (kg)	

Contact us for dimensions.

* under certain conditions.

3 Phase in / 1 Phase Out Version is Available. (10 to 30kVA)

Seapower reserves the right to change or modify product design, construction, specifications, or materials without prior notice.

TECHNICAL SPECIFICATIONS

INPUT												
Related Voltage	1:1 115V / 208V / 220V / 230V / 240 VAC 2P+PE											
Voltage Range	-20% / +15%											
Frequency	40 ~ 70 Hz (Auto Sensing)											
Power Factor	≥ 0.99											
Bypass Voltage Range	-25% ~ +15% (Selectable)											
Generator	Compatible											
OUTPUT												
Voltage Range	115V / 208V / 220V / 230V / 240 VAC 2P+PE											
Voltage Regulation	±1%											
Frequency	45 ~ 55 Hz or 55 ~ 65 Hz (Synchronized Range); 50 / 60 Hz ±0.1 Hz (Battery Mode)											
Waveform	Sinusoidal											
Crest Factor	3:1											
Harmonic Distortion	<2% (Linear Load) / <5% (Non-Linear Load)											
Transfer Time	Mains Mode - Battery Mode: 0ms Inverter Mode - Bypass Mode: 4ms (Tipik)											
Overload Capacity	105% ~ 125%: Transfer to Bypass in 1min 125% ~ 150%: Transfer to Bypass in 30s >150%: Transfer to Bypass in 300ms											
EFFICIENCY												
Online Mode	≥90%	≥91%	≥92%	≥92%	≥91%							
ECO Mode	≥95%	≥96%	≥97%	≥98%	≥98%							
BATTERIES												
DC Voltage	24V	36V	36V	48V	72V	72V	72V	96V	96V	192V - 240V	192V-240V	
Inbuilt Battery	2 x 7Ah	3 x 7Ah	Harici	4 x 7Ah	6 x 7Ah	Harici	6 x 7Ah	8 x 7Ah	Harici	16/20 x 7/9Ah	16/20 x 7/9Ah	
Charging Current (Max.)	1A	6A	1A	6A	1A	6A	1A	6A	3,5A	3,5A		
Recharge Time	8h											
SYSTEM FEATURES												
Charge Current	Intelligent Charging System											
Intelligent Alarm System	Compatible											
LED&LCD Screen	Compatible											
ALARM												
Utility Failure	Beep / 4sec											
Low Battery	Beep / 1sec											
Overload	Beep Twice / 1sec											
UPS Fault	Long Beep											
ENVIRONMENTAL												
Protection Class	IP23 (IP Optional)											
Operating Temperature	0 ~ 40°C											
Relative Humidity	0 ~ 90% (Non-Condensing)											
Noise Level	≤45 dB (1m)				≤50 dB (1m)				≤55-60 dB (1m)			
COMMUNICATION												
RS232 (Standard) / USB (Optional)	Supports Windows® 98/2000/2003/XP/Vista/2008/Windows® 7/8/10											
SNMP (Optional)	Power Management from SNMP Manager and Web Browser											
Dry Contact	9 Alarm Output											
STANDARDS												
Security	CE LVD											
EMC	CE EMC											

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Standard Electrical Features

- Parallel-Redundant (N+X) Systems
- Co-Aging
- 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
- Co-Aging
- Smart Paralleling

Advanced Communication Features

- 2000 Real Time Event Log with Detailed Parameters (Three Phase Devices)
- User Friendly Multilingual Graphic Display Provides Operation Information
- Monitoring and Shutdown Software
- RS232 Serial and RS485 Ports
- 2 Communication Slots
- ModBUS RTU / ModBUS TCP (Optional)
- Remote Emergency Power Off (Optional)
- Remote Display Panel (Optional)
- Dry Contact (Optional)
- SNMP (Optional)

Flexibility

- MT-UPS Series provides maximum flexibility advantage for all applications. It can be configured in a variety of features with available options and accessories.
- Custom input voltage range.
- It can be used in capacitive loads such as blade server etc. thanks to its flexible configuration with existing options and accessories.
- Temperature sensor for external battery cabinets.
- External battery cabinets for different sizes of batteries.
- 3/1 phase version in 10-30kVA models.
- Galvanic isolation.
- Compatible version with EN 50171 for supplying power to emergency lighting systems.
- Leak Detection (Optional)



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