

Series

10-30 kVA

3:3
PHASE

ONLINE UPS



High Efficiency and Low Total Cost

- Advanced dual-core DSP control technology and 3-level technology
- Active power factor correction (APFC), input power factor up to 0.99
- System efficiency is improved to 95%, energy saving rate is doubled
- Output power factor 1.0
- Dual input design, supporting independent bypass
- Advanced digital and parallel technology, providing higher reliability than single system
- Wide input voltage range
- 50 / 60 Hz auto-sensing frequency
- 50 / 60 Hz frequency conversion mode
- Work efficiency up to 98% in ECO mode
- Fan speed varies intelligently with load, reducing noise and extending its service life
- Conformal coating technology to make UPS operate in harsh environment for a long time
- Digitally controlled charger (Max.10 A & 20% output power)
- Flexible battery configuration setting, selectable battery numbers: 32~ 40 pcs
- Ability to switch on the UPS by battery in the absence of mains power (Cold start)

TECHNICAL SPECIFICATIONS

	10kVA/10kW	15kVA/15kW	20kVA/20kW	30kVA/30kW
POWER				
INPUT				
Voltage	380/400/415 VAC (L-L)			
Frequency	304~478Vac (L-L),full load 228V~304Vac (L-L), load decrease linearly according to the minimum phase voltage			
Frequency	50~60Hz (auto-sensing)			
Frequency Tolerance	40~70 Hz			
Power Factor	≥ 0.99			
By-pass Voltage Tolerance	Selectable, default -20%~+15% Up limited: +10%, +15%, +20%, +25%; Down limited: -10%, -15%, -20%, -30%, -40%			
By-pass Frequency Tolerance	Selectable, ±1Hz, ±3Hz, ±5Hz			
THDi	<3% (full Linear Load)			
Bypass Overload	125%: Long term operation; 125%~130%: 10min; 130%~150%: 1min; 150%~400%: 1s; >400%, less than 200ms			
OUTPUT				
Voltage Range	380/400/415 VAC (L-L)			
Voltage Regulation	±1%			
Frequency	Synchronized with utility in mains mode, 50/60 Hz ±0.1% in battery mode			
Waveform	Sinusoidal			
Power Factor	1.0			
Voltage THD	< 1% (full Linear Load) < 3% (full non-linear load according to IEC/EN62040-3)			
Crest Factor	3:1			
Overload Capacity	< 110%, 60min; 110%~125%,10min; 125%~150%,1min; >150%, 200ms			
BATTERIES				
DC Voltage	±240 VDC (Selectable, 32 - 40pcs)			
Internal Battery	(10+10) x 9AH	(20+20) x 7AH	(20+20) x 9AH	(15+15) x 9AH x 2 KOL
Charging Current	10 A Mak.			
Charger Voltage Precision	1%			
Recharge time	Standard model: 90% capacity restored in 8 hours; Long time model: depend on the capacity of battery			
SYSTEM				
Efficiency	95%			
Transfer Time	0 ms			
Protection	Short-circuit, overload, overtemperature, battery low voltage, overvoltage, undervoltage and fan failure			
Communication	RS232, USB, RS485, EPO, Dry contacts, Parallel port (Standard), SNMP card, WI-FI card, GPRS card, SMS alarms (Optional)			
Display	LED + 5 inches LCD touch screen			
OTHERS				
Operating Temperature	0°C -40°C			
Storage Temperature	40°C -70°C			
Relative Humidity	0-95% max. (non-condensing)			
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	Contact us for dimensions.		
	Depth			
	Height			
Gross Weight (kg)				

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et UPS

Series

10-80 kVA

3:3
PHASE

ONLINE UPS



INDUSTRY



MARINE



MEDICAL



DATA CENTER



TRANSPORT



EMERGENCY



High Efficiency and Low Total Cost

- DSP technology guarantees high performance
- Output power factor 1.0
- Active power factor correction in all phases
- Dual Inputs
- 50Hz/60Hz frequency converter mode
- ECO mode operation for energy saving
- Emergency power off function (EPO)
- Adjustable charging current
- Very powerful charger
- Optional parallel operation with common battery
- High overload capability
- Adjustable battery design
- Optional 4.3" touch LCD

TECHNICAL SPECIFICATIONS

POWER		10kVA/10kW	20kVA/20kW	30kVA/30kW	40kVA/40kW	60kVA/60kW	80kVA/80kW
INPUT							
Nominal Voltage		3x400VAC (3P+N)					
Voltage Range		190-520VAC (3-Phase) @ 50% load 305-478 VAC (3-phase) @ 100% load					
Frequency Tolerance		46~54Hz or 56~64Hz					
Power Factor		≥ 0.99 @ 100% load					
OUTPUT							
Voltage		3x360/380/400/415 VAC (3P+N)					
AC Voltage Regulation (Batt. Mod.)		±1%					
Frequency Range (Synchr. Range)		46~54 Hz or 56~64 Hz					
Frequency Range (Batt. Mod.)		50Hz±0.1Hz or 60Hz±0.1Hz					
Crest Factor		3:1					
Voltage THD		≤ 2 % THD (Linear Load) ≤ 5 % THD (Non-linear load)					
Transfer Time	AC- Batt. Mode	Zero					
	Inverter to Bypass	Zero					
Waveform (Batt. Mode)		Pure sinewave					
Overload	AC Mode	100-110% for 60 min, 110-125% for 10 min, >150% for immediately					
	Battery Mode	100-110% for 60 second, 110-125% for 10 min, >150% for immediately					
EFFICIENCY							
AC Mode		95.5%					
Eco Mode		98.5%					
BATTERIES							
Type		20 pcs internal	32 pcs internal	32-40 pcs (adjustable)			
Charging Current		1-12A (adjustable)				2-24A (adjustable)	
Charging Voltage		±136.5 VDC ±10%	±218 VDC ±10%	±13,65VxN (N=16~20)			
INDICATORS							
LCD		UPS status, Load level, Battery level, Input/Output voltage, Discharge timer, and Fault conditions					
ENVIRONMENT							
Operating Temperature		0°C +40°C					
Relative Humidity		< 95% (non-condensing)					
Acoustic Noise		<60dBA 1 m	<63dBA 1 m	<65dBA 1 m	<70dBA 1 m	<75dBA 1 m	
COMMUNICATION							
Smart RS-232/USB		Supports Windows® 2000/2003/XP/Vista/2008, 7/8, Linux and MAC					
Optional SNMP		Power management from SNMP manager and web browser					
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	Contact us for dimensions.					
	Depth						
	Height						
Net Weight (kg)		Contact us for dimensions.					
Packaging Dimensions (mm)	Width						
	Depth						
	Height						
Gross Weight (kg)		Contact us for dimensions.					

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Series

10-100 kVA

3:3
PHASE

ONLINE UPS



UPS ONLINE



SERVICE



ICAS



High Efficiency and Low Total Cost

- Transformerless UPS topology
- 3 DSP controlled modular structure
- Separate main control board advantage for rectifier and inverter
- 3-Level technology and fully digital structure
- Less electronic components and SMD technology
- Low input current total harmonic distortion (THDi)
- High input power factor
- High efficiency up to 95%
- Static and maintenance by-pass switch
- High charge current capacity
- Eco Mode operation (optional)
- Split by-pass input (dual input)
- Advanced TFT front panel (40-100kVA)
- Optional 0.8 and 1.0 output power factor (PF)
- Cold start function
- Transformerless UPS topology
- 3 DSP controlled modular structure
- Separate main control board advantage for rectifier and inverter
- 3-Level technology and fully digital structure

TECHNICAL SPECIFICATIONS

	10kVA	15kVA	20kVA	30kVA	40kVA	60kVA	80kVA	100kVA	
POWER									
INPUT									
Voltage	380/400 VAC 3P + N + G ± 20% (at 100% load) / - 40% (at 70% load)								
Frequency	50Hz / 60Hz, ± 10%								
Power Factor	≥ 0.99								
THDI(*)	≤ 3%								
By-pass Voltage	380/400 VAC 3 Phase + N, ± 10%								
Protection	Fuses, Voltage & Frequency tolerance, Input power limit, Phase sequency indicator								
OUTPUT									
Power Factor (**)	0.9								
Voltage	380 /400 VAC 3F+N, ±1%								
Frequency	50Hz / 60Hz								
Frequency Tolerance	Line synchronized: ± 2% (adjustable) / Free running: ± 0.1%								
Efficiency	95%								
Crest Factor	3:1								
Overload Capacity (***)	100% - 125% load: 10 min, 125% - 150% load: 1 min, - > 150% load: by pass								
Other Protections	Advanced short circuit, Voltage tolerance, DC balance, Regenerative load, Current limiting								
Voltage THD	≤ 2% (at 100% linear load)								
BATTERIES									
Type	2x30 (±30): 60 pieces								
Charge / End of Discharge Voltage	2x405 VDC / 2x300VDC								
Battery Cabinet	Internal						External		
Battery Ambient Temp.	25°C								
Protection	3 level alarms, Battery fuses, Charging current limit, Temperature compensation (optional)								
Automatic Testing	Standard every 72 hours (adjustable)								
GENERAL									
User Interface	4 lines LCD panel, Mimic leds, 5 vector buttons, Buzzer				TFT panel, 5 vector buttons, Buzzer				
Indicators	P-N voltage, P-P voltage, Current, Power, Crest Factor, Frequency, PF, Service Time								
Advanced	Self diagnostics, 3 maintenance time indicators, Calibration over RS232,operating hour meter								
Communication	2xRS232 serial ports, 4 standard and 8 optional DRY contact alarm relays								
Inputs	EPO input, Interactive battery panel input, Genset input								
Software	Standard T-Mon UPS Management Software (3 clients + 1 server management)								
Protection	Power module over-temperature, Overcurrent, Temperature high alarm								
Operating Temperature Range	0°C-40°C								
Protections	IP20								
Relative Humidity	90% max. (non-condensing)								
Altitude	<1000m								
Acoustic noise	<57dBA				<62dBA				
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.

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

Series

10-500 kVA

3:3
PHASE

ONLINE UPS



High Efficiency and Low Total Cost

- Inverter isolation transformer
- 3 DSP controlled modular structure
- Separate main control board advantage for rectifier and inverter
- 3-Level technology and fully digital structure
- Less electronic components and SMD technology
- Low input current total harmonic distortion (THD)
- High input power factor
- High efficiency up to 94%
- Selectable input/output voltage/frequency range
- Static and maintenance by-pass switch
- High charge current capacity
- Eco Mode operation (optional)
- Split by-pass input (dual input)
- Advanced TFT front panel (40-500kVA)
- Cold start function
- Advanced control at the input
- 3 level battery protection
- Temperature compensated charge system
- Output current limitation
- Output DC leakage protection
- Output short circuit and overload protection
- External REPO input
- 512 events memory (46.000 alarm)
- Clock and calender (battery supported)
- Optional 12 dry contact outputs
- Viewing device operating parameters
- Advanced remote control features

TECHNICAL SPECIFICATIONS

POWER (kVA)	10	15	20	30	40	60	80	100	120	160	200	250	300	400	500	
INPUT																
Voltage	380/400 VAC 3P+N+T $\pm 20\%$															
Frequency	50Hz / 60Hz, $\pm 10\%$															
Power Factor (100% Load)	≥ 0.99															
THDi (*)	$\leq 3\%$															
By-pass Voltage	380/400 VAC 3 Phase + N, 4 Wires, $\pm 10\%$															
Protection	Fuses, Voltage & Frequency tolerance, Input power limit, Phase sequency indicator															
OUTPUT																
Power Factor (**)	0.9															
Voltage	380/400VAC 3P+N, $\pm 1\%$															
Frequency	50 Hz / 60 Hz															
Frequency Tolerance	Line synchronized: $\pm 2\%$ / Free running: $\pm 0.1\%$															
Efficiency	95%															
Crest Factor	3:1															
Overload Capacity (***)	100% - 125% load: 10 min, 125% - 150% load: 1 min, - > 150% load: by pass															
Other Protections	Advanced short circuit, Voltage tolerance, DC balance, Regenerative load, Current limiting															
Voltage THD	$\leq 2\%$ (at 100% linear load)															
BATTERIES																
Type	± 336 VDC (2x28 batteries)															
Charge / End of Discharge Voltage	± 378 VDC / ± 280 VDC															
Battery Cabinet	External															
Battery Ambient Temp.	25°C															
Protection	3 level alarms, Battery fuses, Charging current limit, Temperature compensation (optional)															
GENERAL																
User Interface	4 lines LCD panel, Mimic leds, 5 vector buttons, Buzzer								TFT panel, 5 vector buttons, Buzzer							
Advanced	Self diagnostics, 3 maintenance time indicators, Calibration over RS232, operating hour meter															
Communication	2xRS232 serial ports, 4 standard and 8 optional DRY contact alarm relays															
Inputs	EPO input, Interactive battery panel input, Genset input															
Software	Standard T-Mon UPS Management Software (3 clients + 1 server management)															
Protection	Power module over-temperature, Over current, Temperature high alarm															
Operating Temperature Range	0°C - 40°C															
Protections	IP20															
Relative Humidity	90% max. (non-condensing)															
Altitude	<1000m.															
Acoustic noise	<65 dBA															
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.

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(*) Giriş / Çıkış gerilim koşullarına ve güce bağlıdır. (**) 0.8 ve 1.00 güç faktörü için sorunuz. (***) Aşırı yük besleme süreleri ortam sıcaklığına göre değişir.

Series

300-500 kVA

3:3
PHASE

ONLINE UPS



High Efficiency and Low Total Cost

- Transformerless UPS topology
- 3 DSP controlled modular structure
- Separate main control board advantage for rectifier and inverter
- 3-Level technology and fully digital structure
- Less electronic components and SMD technology
- Low input current total harmonic distortion (THDi)
- High input power factor
- High efficiency up to 95%
- Selectable input/output voltage/frequency range
- Static and maintenance by-pass switch
- High charge current capacity
- Eco Mode operation (optional)
- Split by-pass input (dual input)
- Advanced TFT front panel
- Optional 0.8 and 1.0 output power factor (PF)
- Cold start function
- Advanced control at the input
- 3 level battery protection
- Output current limitation
- Output DC leakage protection
- External REPO input
- Clock and calendar (battery supported)
- Optional 12 dry contact outputs
- Optional SNMP, MODBUS and Remote Monitoring Panel
- Viewing device operating parameters
- Advanced remote control features

TECHNICAL SPECIFICATIONS

	300kVA	400kVA	500kVA
POWER			
INPUT			
Voltage	380/400 VAC 3P + N + G \pm 20% (at 100% load) / - 40% (at 70% load)		
Frequency	50Hz / 60Hz, \pm 10%		
Power Factor (100% Load)	\geq 0.99		
THDi (*)	\leq 3%		
By-pass Voltage	380/400 VAC 3 Phase + N, \pm 10%		
Protection	Fuses, Voltage & Frequency tolerance, Input power limit, Phase sequency indicator		
OUTPUT			
Power Factor (**)	0.9		
Voltage	380/400 VAC 3F + N, \pm %1		
Frequency	50 Hz / 60 Hz		
Frequency Tolerance	Line synchronized: \pm 2% (adjustable) / Free running: \pm 0.1%		
Efficiency	95%		
Crest Factor	3:1		
Overload Capacity (***)	100% - 125% load: 10 min, 125% - 150% load: 1 min, - > 150% load: by pass		
Other Protections	Advanced short circuit, Voltage tolerance, DC balance, Regenerative load, Current limiting		
Voltage THD	\leq 2% (at 100% linear load)		
BATTERIES			
Type	2x30 (\pm 30): 60 pieces		
Charge / End of Discharge Voltage	2 x405 VDC / 2x300 VDC		
Battery Cabinet	External		
Battery Ambient Temp.	25°C		
Protection	3 level alarms, Battery fuses, Charging current limit, Temperature compensation (optional)		
GENERAL			
User Interface	TFT panel, 5 vector buttons, Buzzer		
Indicators	P-N voltage, P-P voltage, Current, Power, Crest Factor, Frequency, PF, Service Time		
Advanced	Self diagnostics, 3 maintenance time indicators, Calibration over RS232, operating hour meter		
Communication	2xRS232 serial ports, 4 standard and 8 optional DRY contact alarm relays		
Inputs	EPO input, Interactive battery panel input, Genset input		
Software	Standard T-Mon UPS Management Software (3 clients + 1 server management)		
Protection	Power module over-temperature, Overcurrent, Temperature high alarm		
Operating Temperature Range	0°C - 40°C		
Protections	IP20		
Relative Humidity	90% max. (non-condensing)		
Altitude	<1000m.		
Acoustic noise	<68 dBA		
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	Contact us for dimensions.	
	Depth		
	Height		
Net Weight (kg)			
Packaging Dimensions (mm)	Width	Contact us for dimensions.	
	Depth		
	Height		
Gross Weight (kg)			

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Series

500-800 kVA

3:3
PHASE

ONLINE UPS



UPS ONLINE



SERVICE



ICAS



High Efficiency and Low Total Cost

- Low input current total harmonic distortion (THD)
- Output power factor 1.0 for 500-600kVA
- Transformerless UPS topology
- High input power factor
- High efficiency up to 95%
- Cold start function
- Static and maintenance by-pass switch
- Output short circuit and overload protection
- External REPO switch input
- 512 events memory (512 events 46000 alarms)
- Clock and calendar (battery supported)
- Automatic battery test, remaining battery time indicator
- Temperature compensated charge system (optional)
- 3 DSP controlled modular structure
- Optional SNMP and MODBUS adaptors
- Optional graphical panel
- Full digital structure
- Small footprint
- Ecomode operation (optional)
- Fewer electronic components
- Output current limiting
- Advanced diagnostics for the input
- Split by-pass input (second input)
- Output DC leakage protection
- Separate DSP for inverter control
- Separate DSP for the PFC
- 3 level battery protection
- High charge current capacity
- Charge/discharge current indicator
- Advanced remote control features

TECHNICAL SPECIFICATIONS

	500kVA	600kVA	800kVA				
POWER							
INPUT							
Voltage	380/400 VAC 3P + N + G ± 20% (415 VAC +15%, - 25% optional)						
Frequency	50Hz / 60Hz, ±10%						
Power Factor (100% Load)	≥ 0.99						
THDi (*)	≤%3						
By-pass Voltage	380/400 VAC 3P + N, ± 10%						
Protection	Fuses, Voltage & Frequency tolerance, Input power limit, Phase sequency indicator						
OUTPUT							
Power Factor	1.0		0.9				
Voltage	380/400 VAC 3 Phase + N, ± 1% (415 VAC optional)						
Voltage THD	≤2% (at 100% Linear Load)						
Frequency	50 Hz / 60 Hz						
Frequency Tolerance	Line synchronized: ± 2% / Free running: ± 0.1%						
Efficiency (100% Load)	95%						
Crest Factor	3:1						
Overload Capacity	100% - 125% load: 10 min, 125% - 150% load: 1 min, - > 150% load: by pass						
Other Protections	Advanced short circuit, Voltage tolerance, DC balance, Regenerative load, Current limiting						
BATTERIES							
Type	2x30 (±30): 60 pieces						
Charge / End of Discharge Voltage	±405 VDC / ±300 VDC						
Battery Cabinet	External						
Battery Ambient Temp.	25°C						
Protection	3 level alarms, Battery fuses, Charging current limit, Temperature compensation (optional)						
GENERAL							
User Interface	TFT panel, 5 vector buttons, Buzzer						
Indicators	P-N voltage, P-P voltage, Current, Power, Crest Factor, Frequency, PF, Service Time						
Advanced	Self diagnostics, 3 maintenance time indicators, Calibration over RS232, operating hour meter						
Communication	2xRS232 serial ports, 4 standard and 8 optional DRY contact alarm relays						
Inputs	EPO input, Interactive battery panel input, Genset input						
Software	Standard T-Mon UPS Management Software (3 clients + 1 server management)						
Protection	Power module over-temperature, Over current, Temperature high alarm						
Operating Temperature Range	0°C - 40°C						
Protections	IP20						
Relative Humidity	90% max. (non-condensing)						
Altitude	<1000m.						
Acoustic noise	<72 dBA						
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	Contact us for dimensions.					
	Depth						
	Height						
Net Weight (kg)							
Packaging Dimensions (mm)	Width			Contact us for dimensions.			
	Depth						
	Height						
Gross Weight (kg)							

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