

SHUYI UPS SOLUTIONS



SY - RT Online High-Frequency UPS

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COMPANY

PROFILE

- Shuyi digital power, based on the core technology of power electronics, integrates innovative digital technology, provides comprehensive solutions for data center, high-end power supply and clean energy, promotes the transformation and development of digitalization and low-carbon energy in government, finance, industry, communication, transportation, Internet and other industries.
- With over 10 years of development, we have exported our various kinds of products and solutions to 86 countries and have branches and offices in over fifty countries and regions. Our products and solution won a good reputation in quality and service.

Mission

- Committed to innovation in digital energy technology and building a green and intelligent future.

Vision

- Serve global customers and become a leading expert in digital Power infrastructure.



- As the technology improves by leaps and bounds over the past decades, and AI technology starts massive applications, that strongly demands data centers must make progress and breakthroughs in terms of scale, architecture, technology and management, must work more efficient, more reliable, more intelligent and much greener.

SOETECK

Hefei Shuyi Digital Power Co., Ltd.

Products and Solutions

- Data Center Solution : Micro Data center, Modular Data Center, Prefabricated Container Data Center.
Critical Power : PDU,UPS,DC Power System ,Lead Acid Battery, Lithium battery
Thermal Management Solution : Room /In row precision air conditioner,Fluorine pump air conditioner Liquid cooling ,Free cooling
PV Energy Storage : PV, Inverter, Energy Storage System
- Shuyi attaches great importance to product innovation and research and development. Having industry-leading power electronics research and development centers, testing centers, and laboratories.
- At present, we have established industry-leading electromagnetic compatibility laboratories, including Enthalpy difference laboratory, Environmental reliability laboratory, Noise laboratory, Vibration laboratory, Power laboratory, and IP protection laboratory. We passed the ISO9001 quality management system certification, ISO14001 environmental management system certification, and the products have passed CE ICE, UL certification.

SY-RT Series 1-10kVA Rack Mounted UPS

Power range

1 - 10 kVA

Phase

Single phase grounding

Application area

Widely applied in government, finance, communication, education, transportation, climate, broadcasting television, industry. Various industries such as taxation, healthcare, energy and electricity.

Performance characteristics

- Truly achieving online dual conversion
- Microprocessor control technology ensures high reliability
- Input power factor correction
- Output power factor 0.8
- Wide input voltage (110 V to 300 V)
- Efficient frequency conversion mode
- ECO mode provides energy-saving effect (limited to 1-3K models only)
- Compatible with generator input
- The charging current of the long-lasting model reaches 6A



SYRT1kVA/SYRT2kVA/SYRT3kVA



SYRT6kVA/SYRT10kVA

Specification

Model	SYR-1101/1101L	SYR-1102/1102L	SYR-1103/1103L	SYR-1106L	SYR-1110L			
Capacity	1000VA/800W	2000VA/1600W	3000VA/2400W	6000VA/4800W	10000VA/8000W			
INPUT								
Nominal voltage	100/110/115/120/127VAC or 200/208/220/230/240VAC			208/220/230/240VAC				
Input voltage range	55-145 VAC or 110-300 VAC at 50% load 85-140 VAC or 160-280 VAC at 100% load			110-300 VAC ± 3% at 50% load 176-300 VAC ± 3% at 100% load				
Frequency range	40Hz ~ 70 Hz			46Hz ~ 54 Hz or 56Hz ~ 64 Hz				
Power factor	≥ 0.99 @ 100% load							
OUTPUT								
Rated voltage	100/110/115/120/127VAC or 200/208/220/230/240VAC			208/220/230/240VAC				
Voltage range (Battery mode)	± 1%							
Frequency range (Synchronous correction range)	47~ 53 Hz or 57 ~ 63 Hz			46Hz ~ 54 Hz or 56Hz ~ 64 Hz				
Frequency range (Battery mode)	50 Hz ± 0.25 Hz or 60Hz ± 0.3 Hz			50 Hz ± 0.1 Hz or 60 Hz ± 0.1 Hz				
Current peak ratio	3:1							
Harmonic distortion	≤ 3% THD (linear load); ≤ 5% THD (Nonlinear Load)			≤ 3% THD (linear load); ≤ 5% THD (Nonlinear Load)				
Time	Switching from mains mode to battery mode	Not have						
	Reverse to bypass	4 milliseconds (under standard conditions)			0 milliseconds			
Waveform (Battery mode)	Pure sine wave							
EFFICIENCY								
AC mode	88%	89%	90%	92%	93%			
Battery mode	83%	87%	88%	90%	91%			
BATTERY								
Standard Model	Battery type	12 V / 9 AH	12 V / 9 AH	12 V / 7 AH	---			
	Numbers	2	4	6	---			
	Standard charging time	Charge to 90% in 4 hours				---		
	Maximum charging current	1.0A (maximum)				---		
	Charging Voltage	27.4VDC ± 1%	54.7 VDC ±1%	82.1 VDC ±1%	---			
Long-run Model	Battery type	Match multiple battery boxes according to actual applications						
	Numbers	2	3	4	6	6	8	16~20 (adjustable)
	Standard charging time	1.0A/2.0A/4.0A/6.0 A						1A/2A/4A/6A (adjustable, 6A is only suitable for 16 batteries)
	Maximum charging current	27.4VDC ± 1%	41.0VDC ± 1%	54.7 VDC ±1%	82.1 VDC ±1%	82.1 VDC ±1%	109.4VDC ±1%	218.4 VDC ± 1% (Based on 16 pcs batteries)
INDICATORS								
LCD or LED display	Load size, battery capacity, mains mode, battery mode, bypass mode, fault indication							
ALARM								
Battery mode	Sound every 4 seconds							
Low battery	Sound once every second							
Overload	Sound once every second							
Fault	Continuous ringing							
PHYSICAL								
Standard machine	D * W * H (mm)	310 x 438 x 88 [2U]	410 x 438 x 88 [2U]	630 x 438 x 88 [2U]	---			
	Net weight (kg)	10	17	25.6	---			
Long lasting machine	D * W * H (mm)	310 x 438 x 88 [2U]	410 x 438 x 88 [2U]		530 x 438 x 88 [2U]	580 x 438 x133 [3U]		
	Net weight (kg)	6	8.5	9.6	13	18		
ENVIRONMENT								
Temperature and humidity	Relative humidity 20-90% and temperature 0-40 ° C (non condensing)				Relative humidity 0-95% and temperature 0-40 ° C (non condensing)			
Noise	Less than 50dBA @ 1 meter				Less than 55dBA @ 1 meter Less than 58dBA @ 1 meter			
MANAGEMENT								
Intelligent RS-232/optional USB	Supports Windows * 2000/2003/XP/Vista/2008, Windows * 7/8, Linux, Unix, and MAC							
Optional SNMP	Power management supports SNMP management and network management							

*When the UPS is set to constant voltage and frequency mode, the output power will be reduced by 40%. When the output voltage of the UPS is set to 208VAC, the output power will be reduced by 10%.
 **When the number of internal batteries is changed to 16-19, the machine will reduce the output according to the following formula: P=Prating X (N/20 x 100%).
 ***If the machine is installed at an altitude exceeding 1000 meters, the output power will decrease by 1% for every 100 meters increase.

SY-RT Series Rack Tower Online UPS

Power range

1 - 3 kVA

Phase

Single-phase three-wire

Application area

Widely applied in government, finance, communication, education, transportation, climate, broadcasting television, industry. Various industries such as taxation, healthcare, energy and electricity.



Working mode

- Dual-conversion online design
- Input power factor correction (PFC) technology, achieving an input power factor of up to 0.99

Fully digital control

- Digital control ensures a more stable and reliable control system

ECO function

- ECO operation mode, high efficiency and energy saving, reducing user operating costs

Intelligent charging method

- Users can set the charging current, and the charging modes of constant current, constant voltage, and float charging can switch smoothly and automatically
- The charging current for 1/2/3kVA is scalable

Fully and reliably protected

- Power-on self-diagnostic function
- Output overload, output short circuit, inverter overtemperature, battery undervoltage warning, and battery overcharge protection functions, static electronic bypass switch
- Intelligent speed regulation design for fans, ensuring high efficiency and energy saving
- DC start function

LCD display

- LCD/LED dual display

Emergency shutdown function

- optional for 1/2/3kVA

Intelligent management

- RS232 communication interface
- optional for 1/2/3kVA
- SNMP (optional), dry contact card (optional)

Specification

Model	SYR-1101/1101L	SYR-1102/1102L	SYR-1103/1103L
Capacity(kVA)	1	2	3
MAIN CIRCUIT INPUT SPECIFICATIONS			
Rated input voltage	220/230/240		
Input voltage range	110 ~ 300		
Phase	Single-phase three-wire		
Input frequency range	40 ~ 70		
Input power factor	≥ 0.99		
BYPASS INPUT SPECIFICATION			
Rated input voltage	220/230/240		
Phase	Single-phase three-wire		
Bypass synchronous Tracking range	± 10%		
OUTPUT SPECIFICATIONS			
Voltage	220/230/240 (± 1%)		
Frequency	Mains mode: 50/60 (±4); Battery mode: 50/60 (±0.1%)		
Waveform	Sine wave		
Current peak ratio	3 : 1		
Output voltage harmonic	<2% (100% linear load)		
Switch time	0		
Overall efficiency	Up to 94%		
Overload capacity	≤105%, for long-term operation; ≤125%, for 10 minutes; ≤150%, 30s; >150%, immediately switch to bypass		
Power factor	0.9		
BATTERY			
Maximum charging current	Standard : 1; Long-run : 6 (12 optional)		
Battery voltage	Standard : 24 (2 sections) Long-run : 24/36 (2/3 sections)	Standard : 48 (4 sections) Long-run : 48/72 (4/6 sections)	Standard : 72 (6 sections) Long-run : 72/96 (6/8 sections)
ENVIRONMENT			
Operating temperature	0 ~ 40		
Storage temperature	-25 ~ 55 (excluding battery)		
Relative humidity	0 ~ 95% (non-condensing)		
Operating altitude	<1500m, use at reduced capacity when exceeding 1500m		
Noise (dB) (at a distance of 1 meter)	≤ 55		
OTHER FUNCTIONS			
Alert function	Various alarm functions such as overload, mains power anomaly, UPS failure, and battery undervoltage		
Protection function	Short circuit, overload, overtemperature, battery undervoltage, output overvoltage/undervoltage, fan fault alarm		
Communication function	RS232, USB (optional), EPO interface (optional), SNMP (optional), dry contact card (optional)		
MECHANICAL PROPERTIES			
Size: D * W * H(mm)	440*325*86.5	Standard : 440*460*86.5 Long-run : 440*600*86.5	440*600*86.5
Net weight (kg)	Standard : 11.5 Long-run : 5.8	Standard : 19.5 Long-run : 10.5	Standard : 26 Long-run : 11
Execution standard	YD/T 1095-2018		

SY-RT Series 6KVA/10KVA Rack/Tower Online UPS

Power range

6 kVA / 10 kVA

Phase

1 phase in / 1 phase out

Application area

Widely applied in government, finance, communication, education, transportation, climate, broadcasting television, industry. Various industries such as taxation, healthcare, energy and electricity.



Performance characteristics

- Short depth easily to install in any size of cabinet enclosure
- Strong overload capability
- High efficiency up to 95%
- Built-in back-feed relay
- Built-in OVCD protection
- Built-in 8A super charger
- Output power factor 1
- Wide input voltage range (110-300 VAC)
- Active input power factor correction 0.99
- 50Hz/60Hz frequency converter mode
- Emergency power off function (EPO)
- ECO mode for energy saving
- Generator compatible
- Adjustable battery numbers
- Optional 2.8" color touched LCD

Specification

Model		SYR-1106L	SYR-1110L
Capacity		6000VA/6000W	10000VA/10000W
INPUT			
Nominal Voltage		208/220/230/240 VAC	
Voltage Range		110~300VAC ± 3 % at 50% load 176~300VAC ± 3 % at 100% load	
Frequency Range		46~54 Hz or 56~64 Hz 40 ~70 Hz (In generator mode)	
Power Factor		≥ 0.99 @ full load	
THDi		< 4% @100% Load	
OUTPUT			
Output Voltage		208/220/230/240 VAC	208/220/230/240 VAC
AC Voltage Regulation		± 1%	
Frequency Range (Synchronized Range)		46~54 Hz ◎ 50Hz / 56~64 Hz ◎ 60Hz	
Frequency range (Battery mode)		50 Hz ± 0.1 Hz or 60 Hz ± 0.1 Hz	
Current Crest Ratio		3:1 (max.)	
Harmonic Distortion		≤1% THD (Linear Load), ≤4% THD (Non-linear Load)	
Transfer Time	AC Mode to Battery Mode	Zero	
	Inverter to Bypass	Zero	
Waveform (Battery mode)		Pure Sinewave	
Overload	AC Mode	100-110% for 60 min, 110-125% for 10 min, 125%~150% 1min, >150% immediately	
	Battery Mode	100-110% for 3 min, 110-130% for 30s, >130% immediately	
EFFICIENCY			
AC Mode		95%	94%
ECO Mode		98.5%	98.5%
Battery Mode		93%	92%
BATTERY			
Long-run Model	Battery type	Depending on applications	
	Numbers	16-20**	
	Charging Current (max.)	2A(Default), 1A/2A4A/6A/8A adjustable	
	Charging Voltage	(13.65VDCx battery number)±1%	
INDICATORS			
LCD Panel		UPS status, Load level, Battery level, Input/Output voltage, Discharge timer, and Fault conditions	
ALARM			
Battery Mode		Sounding every 4 seconds	
Low Battery		Sounding every seconds	
Overload		Sounding twice every second	
Fault		Continuously sounding	
PHYSICAL			
Long backup time model	D * W * H(mm)	509 x 438 x 88 (2U)	509 x 438 x 88 (2U)
	Net weight (kg)	11	12.1
ENVIRONMENT			
Operating Humidity		20-95 % RH @ 0- 40°C (non-condensing)	
Noise Level		Less than 55dB @1Meter	Less than 58dB @1Meter
MANAGEMENT			
Smart RS-232 / USB		Supports Windows® 2000/2003/XP/Vista/2008, Windows® 7/8/10, Linux and MAC	
Optional SNMP		Power management from SNMP manager and web browser	

* Derate capacity to 60% of capacity in CVCF mode and to 90% when the output voltage is adjusted to 208VAC or parallel system is operated.
 **When using 16 pieces of batteries, the output power factor will be derated to 0.8. If using 18 or 19 pieces of batteries, the output power factor will be derated to 0.9
 ***If the UPS is installed or used in a place where the altitude is above than 1000m, the output power must be derated one percent per 100m.

SY-RT High Frequency Rack Mounted UPS

Power range

10 - 60 kVA

Phase

Three in, three out

Application areas

Widely applied in government, finance, communication, education, transportation, meteorology, broadcasting & television, plus taxation, healthcare, energy & power industries.

Performance characteristics

- Pure double conversion technology
- Automatic LCD screen rotation
- (only for 10K-30K models)
- DSP technology ensures high performance
- Output power factor 1.0
- With power factor correction
- 50 Hz/60Hz inverter mode
- With energy-saving working mode (ECO)
- Emergency shutdown function (EPO)
- Support generator
- Support two-way input
- Three-stage charging design to optimize battery performance
- Adjustable number of batteries for long-term operation
- Support shared battery packs
- Optional isolation transformer
- Optional parallel operation
- SNMP+USB+RS-232 multiple communications
- Power walk-in function



High Frequency Rack Mounted UPS (10-60kVA)



High Frequency Rack Mounted UPS (10-60kVA)

Specification

Model	SYR-3310L	SYR-3315L	SYR-3320L	SYR-3330L	SYR-3340L	SYR-3360L
Capacity	10kVA/10kW	15kVA/15kW	20kVA/20kW	30kVA/30kW	40kVA/40kW	60kVA/60kW
Phase	Three in, three out					
Parallel capacity	4 max					
INPUT						
Rated voltage	3 x 380 VAC (3PH+N)					
Voltage range	190-520VAC (three-phase) @ 50% load, -305-478VAC (three-phase) @ 100% load					
Frequency range	46 ~ 54 Hz or 56 ~ 64Hz					
Power factor	≥ 0.99 100% load					
OUTPUT						
Rated voltage	3 x 360*/380/400/415 VAC (3PH+N)					
Output accuracy (battery mode)	± 1%					
Frequency range (synchronous correction range)	46 ~ 54Hz or 56 ~ 64Hz					
Frequency range (battery mode)	50Hz ± 0.1Hz or 60Hz ± 0.1Hz					
Current peak ratio	3: 1 (maximum value)					
Harmonic distortion	≤ 1% THD (linear load) ≤ 3% THD (nonlinear load)					
Transfer Time	AC mode to battery mode	Not have				
	Inverter to bypass	Not have				
Waveform (battery mode)	Pure sine wave					
Overload	AC mode	100% -110% 60 minutes, 110% -125% 10 minutes, 125% -150% 1 minute,>150% immediate protection				
	Battery mode	100% -110% 60 minutes, 110% -125% 10 minutes, 125% -150% 1 minute,>150% immediate protection				
EFFICIENCY						
AC mode	95.5%					
ECO mode	98.5%					
Battery mode	94.5%					
BATTERY						
Type	Match multiple battery boxes according to actual applications					
Numbers	20	32 ~ 40 (Adjustable)				
Maximum charging current	1A ~ 12A (Adjustable)			1A ~ 16A (Adjustable)		1A ~ 18A (Adjustable)
Charging Voltage	± 13.65 VDC x N (N=10)			± 13.65 V x N (N = 16 ~ 20)		
PHYSICAL PROPERTY						
Size	680 x 438 x 133 [3U]				797 x 438 x 176 [4U]	
Net weight (kg)	27	30	32	40	45	
ENVIRONMENT						
Temperature and humidity	0-95% relative humidity (non condensing) and temperature 0-40 °C					
Noise	less than 62dB@1 m		less than 65dB@1 m		less than 70dB@1 m	
MANAGEMENT						
Intelligent RS-232/USB	Supports Windows® series, Linux and MAC					
Optional SNMP	Power management supports SNMP management and network management					

*When the output voltage is set to 3 x 360VAC, the output capacity is reduced to 90%.

SY-RT Series 1~6kVA Rack/Tower Online UPS

Power range

1 ~ 6 kVA

Phase

1 phase in / 1 phase out

Application area

Widely applied in government, finance, communication, education, transportation, climate, broadcasting television, industry. Various industries such as taxation, healthcare, energy and electricity.



Performance characteristics

- Lithium-ion battery pack
- Modular design, easy to expand
- Rack/tower convertible
- Battery Management System (BMS)



Specification

Model	SYR-1101/1101L	SYR-1102/1102L	SYR-1103/1103L	SYR-1106L
Capacity	1000VA/900W	2000VA/1800W	3000VA/2700W	6000VA/6000W
Phase	1 phase in / 1 phase out			
INPUT				
Rated voltage	230 VAC			
Voltage range	160 VAC - 300 VAC at 100% load 110 VAC at 60% load (derated)			176Vac - 300 Vac at 100% load 110 VAC at 60% load (derated)
Frequency range	40 Hz ~ 70 Hz			
Power factor	≥ 0.99 @ rated voltage (full load)			
Input connection	IEC 320 C14	IEC 320 C20	IEC 320 C20	Terminal block
OUTPUT				
Output voltage	220/230/240 VAC (optional)			
Voltage regulation accuracy (battery mode)	± 1%			
Frequency range (synchronous correction range)	57~63Hz or 47~53Hz			56~64Hz or 46~54Hz
Frequency range (battery mode)	50Hz /60Hz ± 0.1Hz			
Charging current	5A	10A	10A (If the output load is greater than 95%, The charging current will be derated to 6A)	10,20,30 (20A preset)
Battery voltage	48A			
Output connection	(6) IEC 320 C13	(6) IEC 320 C13	(6) IEC 320 C13 + (1) IEC C19	Terminal block
Peak coefficient	3 : 1			
Harmonic distortion	≤ 3% THD (linear load) ≤ 6% THD (non-linear load)			≤ 1% THD (linear load) ≤ 4% THD (non-linear load)
Transfer time	Online mode to battery mode	0		
	Inverter to bypass	4 ms (general)		
Waveform (Battery mode)	Pure sine wave			
Overload	Online mode	<35°C 105~125% for 2 minutes; 125~140% for 30 seconds;		
	Battery mode	<35°C 105~120% for 1 minute; >120% immediately shut down		
			100~125% for 10 minutes; 125~130% for 1 minute >130% for 1 second	100~125% for 30 seconds; 125~130% for 10 seconds; "130%: Shut down immediately"
EFFICIENCY				
Online mode	90%			94%
Battery mode	85%			90%
PHYSICAL PROPERTIES				
Dimensions depth * width * height (mm)	450*438*86	500*438*86	500*438*86	689*438*86
Net weight (kg)	8	8.8	9.7	19.7
ENVIRONMENT				
Working temperature and humidity	0-95% relative humidity at 0-40°C (non-condensing)			
Noise	Less than 50dB at 1 meter			Less than 60dB at 1 meter
MANAGEMENT				
Smart RS-232/USB	Support for Windows ® 2000/2003/XP/Vista/2008, Windows ® 7/8, Linux and Mac			
SNMP Option	SNMP Card and Browser Power Management			