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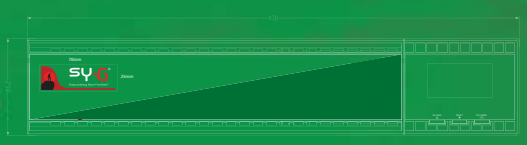
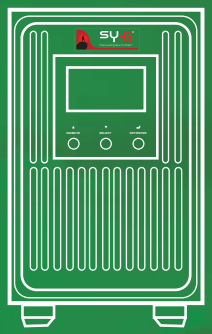
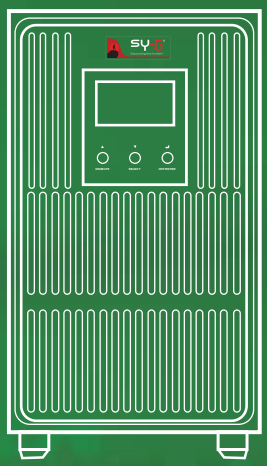
Empowering New Frontiers™







ON LINE UPS
AVENGER SERIES
1 KVA, 1.5 KVA, 2 KVA, 3 KVA

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FEATURES:

- Stand Alone and rack-mount operation
- True on-line double conversion technology
- Wide-input voltage range for harsh environments
- Input power factor correction 0.99
- Output power factor 1
- IGBT PWM rectifier & inverter technology
- Automatic bypass for fault tolerance
- Frequency Converter Mode
- Energy saving, ECO mode operation
- Generator compatible
- Friendly LCD Display
- Selectable output voltage via LCD panel
- Multiple communication ports: USB/ RS-232 and SNMP (Optional)
- Emergency power off function (EPO)
- Programmable power management outlets (only for rack UPS)

BENEFITS:

- High uptime
- High efficiency, energy-saving ECO mode
- Extends battery lifespan
- Microprocessor control optimizes reliability
- Ease of maintenance
- User-friendly and programmable
- Hot swappable battery design (only for rack UPS)
- Smart battery charger design to optimize battery performance
- High power factor charger up to 1000W capacity with very low ripple current when charging battery

True on-line double conversion technology

A true on-line double conversion UPS is a unit where the inverter is always ON. Therefore, it provides clean, high quality power to protect mission critical applications such as servers, sensitive networks, data centers, telecom devices, medical equipment and industrial processes.

Wide input voltage range for harsh environments

The UPS provides stable power to connected devices even under unstable electric environments.

Frequency converter mode

The UPS can be used as a frequency converter from 50 Hz input to 60 Hz output, or from 60 Hz input to 50 Hz output to suit the requirements of power-sensitive equipment.

Energy-saving ECO mode operation

ECO mode is designed to offer 96% efficiency, reducing energy usage and cost. The UPS powers the load via its static switch bypass while returning to on-line double conversion mode on a timely manner when needed.

Generator Compatible:

The UPS through its robust IGBT rectifier has full compatibility with generators and ensures clean uninterrupted power to loads.

Multiple communication ports: USB/ RS-232 and SNMP (Optional)

The UPS units employ a wide range of advanced communication protocols (USB, RS-232 and SNMP), which provide remote management capabilities over the network and enable centralized management

Emergency Power Off (EPO) function

EPO function is designed to switch off the UPS in emergency conditions (fire, flood, etc.). It will turn off the rectifier, inverter, battery and bypass, thus shutting off the load immediately. If the input utility is present, the UPS's controls will remain active; however, the output will be turned off. To remove the remaining power from the UPS, the external feeder breaker must be opened.

LCD Display Panel

- Remaining backup time information
- Configuration and Fault information
- Mute operation
- Output & Battery voltage information
- Load information
- Programable outlets information
- Mode operation information
- Battery information
- Input & Battery voltage information

Optional SNMP (Integrated with specialized software)

- Allows control and monitoring of multiple UPSs through RJ-45 network connection
- Real-time dynamic graphs of UPS data (voltage, frequency, load level, battery level)
- Warning notifications via audible alarm, broadcast,mobile messenger, e-mail and SNMP traps
- Historic data log stored in centralized PC database
- Simple firmware upgrade with one click
- Password security protection and remote access management
- Supports optional environmental monitoring detector for temperature, humidity and smoke
- Supports the following protocols: http, SNMP, SNMP V2


SNMP Card

Software UPS Management Software

- Allows control and monitoring of multiple UPSs via LAN and INTERNET
- User-friendly power analysis graphs
- Real-time dynamic graphs of UPS data
- Safely OS shutdown and protection from data loss during power failure
- Warning notifications via audible alarm, broadcast, mobile messenger, and e-mail
- Scheduled UPS on/off, battery test, programmable outlet control, and audible alarm control
- Password security protection and remote access management
- Supports multiple OS and local languages

AVENGER SERIES 1 KVA, 1.5 KVA, 2 KVA, 3 KVA
Stand Alone UPS Technical Specifications

MODEL	SA1P1LVGO o SA1P1HVGO		SA1P1.5LVGO o SA1P1.5HVGO	SA1P2LVGO o SA1P2HVGO			SA1P3LVGO o SA1P3HVGO	
Phase	Single phase with ground							
Capacity*	1000 VA / 1000 W		1500 VA / 1500 W	2000 VA / 2000 W			3000 VA/3000 W	
INPUT								
Nominal Voltage	100/110/115/120/127 VAC or 200/208/220/230/240 VAC							
Voltage Range	55-150 VAC ±3% or 110-300 VAC ±3% @ 50% load							
	80-150 VAC ±3% or 160-300 VAC ±3% @ 100% load							
Frequency Range	40-70 Hz (Selectable)							
Power Factor	At Full Load ≥ 0.99							
Harmonic Distortion (THDi)	≤ 5%							
Rectifier	IGBT							
OUTPUT								
Output Voltage	100*/110*/115*/120/127 VAC or 200*/208*/220/230/240 VAC							
AC Voltage Regulation (Batt. Mode)	± 1%							
Frequency Range (Synchronized Range)	47-53 Hz or 57-63 Hz							
Frequency Range (Batt. Mode)	50 Hz ± 0.1 Hz or 60 Hz ± 0.1 Hz							
Current Crest Ratio	3:1							
Harmonic Distortion (THDv)	Linear Load ≤ 2 % ; Non-linear Load ≤ 4 %							
Transfer Time	Zero (AC to DC) ; 4 ms (Inverter to Bypass); 8 ms (Typical), 10 ms (max)							
Waveform	Pure Sine Wave							
Efficiency								
AC Modo	≥ 89% @ battery full charged			≥ 91% @ battery full charged				
ECO Mode	≥ 96 % @ battery full charged							
Battery Mode	≥ 88%			≥ 90%				
BATTERY								
Battery Type	9 Ah	7 Ah	9 Ah	9 Ah	7 Ah	7 Ah	9 Ah	7 Ah
Numbers	2	3	3	4	6	8	6	8
Typical Recharge Time	3 hours recover to 95% capacity for internal battery @ 2A charging current							
Charging Current	100/110/115/120/127 VAC models: default 2A, max. 8A adjustable				Default 2 A; max. 8A adjustable			
	200/208/220/230/240 VAC models: default 2A, max. 12A adjustable							
Charging Voltage	27.4 VDC ±1%	41.1 VDC ±1%	41.1 VDC ±1%	54.8 VDC ±1%	82.1 VDC ±1%	109.6 VDC ±1%	82.2 VDC ±1%	109.6 VDC ±1%
INDICATORS								
LCD Display	Load level, Battery level, AC mode, Battery mode, and Fault indicator							
ALARM								
Battery Mode	Sounding every 5 seconds							
Low Battery	Sounding every 2 seconds							
Overload	Sounding every second							
Fault	Continuously sounding							
PHYSICAL								
Dimensions (DxWxH) (mm)	397 x 145 x 220			421 x 190 x 318				
Net Weight (without battery) (kg)	6.6	6.6	7	9.9	9.9	9.9	12.3	12.3
Net Weight (w/built-int battery) (kg)	11.7	13	14.6	20.3	23.2	28.5	28	33
ENVIRONMENT								
Running Humidity & Temperature	20 - 90 % RH (Non-condensing) @ 0 - 40°C							
Noise Level	< 50 dB @ 1 meter con control de velocidad de ventilador							
MANAGEMENT								
Smart RS-232 /USB	Supports Windows® 2000/2003/XP/Vista/2008, Windows®7/8, Linux, Unix and MAC							
Optional SNMP	Power management from SNMP manager and web browser							
STANDARDS & CERTIFICATIONS								
Quality	ISO 9001 ; ISO 14001							
Compliance	EMC 1-1.5K; EN62040-2 C1; 2K-3K EN62040-2 C2							

* Derate capacity to 80% when the output voltage is adjusted to 100VAC/200VAC/208VAC.

AVENGER SERIES 1 K VA, 1.5 KVA,2 KVA, 3 KVA
Rack Mount UPS Technical Specifications

MODEL	RM1P1LVGO / RM1P1HVGO		RM1P1.5LVGO / RM1P1.5HVGO	RM1P2LVGO / RM1P2HVGO		RM1P3LVGO / RM1P3HVGO
Phase	Single phase with ground					
Capacity*	1000 VA / 1000 W		1500 VA / 1500 W	2000 VA / 2000 W		3000 VA/3000 W
INPUT						
Nominal Voltage	100/110/115/120/127 VAC or 200/208/220/230/240 VAC					
Voltage Range	55-150 VAC ±5% or 110-300 VAC ±5% @ 50% load					
	80-150 VAC ±5% or 160-300 VAC ±5% @ 100% load					
Frequency Range	40-70 Hz (Selectable)					
Power Factor	At Full Load ≥ 0.99					
Harmonic Distortion (THDi)	≤ 5% @ nominal input voltage					
Rectifier	IGBT					
OUTPUT						
Output Voltage	100*/110*/115*/120/127 VAC or 200*/208*/220/230/240 VAC					
AC Voltage Regulation (Batt. Mode)	± 1%					
Frequency Range (Synchronized Range)	57-63 Hz or 47-53 Hz					
Frequency Range (Batt. Mode)	60 Hz ± 0.1 Hz or 50 Hz ± 0.1 Hz					
Current Crest Ratio	3:1 (max)					
Harmonic Distortion (THDv)	Linear Load ≤ 2 % ; Non-linear Load ≤ 4 %					
Transfer Time	Zero (AC to DC) ; 4 ms (Inverter to Bypass)					
Waveform	Pure Sine Wave					
Efficiency						
AC Modo	≥ 89% @ full charged battery			≥ 91% @ full charged battery		
ECO Mode	≥ 96 % @ full charged battery					
Battery Mode	≥ 88%			≥ 90%		
BATTERY						
Battery Type	9 Ah	7 Ah	9 Ah	9 Ah	7 Ah	9 Ah
Numbers	2	3	3	4	6	6
Typical Recharge Time	3 hours recover to 95% capacity for internal battery @ 2A charging current					
Charging Current	100/110/115/120/127 VAC models: default 2A, max. 8A adjustable				Default 2 A; max. 8A adjustable	
	200/208/220/230/240 VAC models: default 2A, max. 12A adjustable					
Charging Voltage	41.1 VDC ±1%	41.1 VDC ±1%	41.1 VDC ±1%	54.8 VDC ±1%	82.1 VDC ±1%	82.1 VDC ±1%
INDICATORS						
LCD Display	UPS status, load level, Battery level, Input/Output voltage, Discharge timer, and Fault conditions					
ALARM						
Battery Mode	Sounding every 5 seconds					
Low Battery	Sounding every 2 seconds					
Overload	Sounding every second					
Fault	Continuously sounding					
PHYSICAL						
Dimensions (DxWxH) (mm)	410 x 438 x 88		410 x 438 x 88	510 x 438 x 88	630 x 438 x 88	630 x 438 x 88
Net Weight (without battery) (kg)	6.6	7.8	8.1	9.4	10.6	12.4
Net Weight (w/built-int battery) (kg)	11.6	14.1	15.5	19.5	23.3	27.5
ENVIRONMENT						
Running Humidity & Temperature	20 - 90 % RH (Non-condensing) @ 0 - 40°C					
Noise Level	< 50 dB @ 1 meter					
MANAGEMENT						
Smart RS-232 /USB	Supports Windows® 2000/2003/XP/Vista/2008, Windows®7/8, Linux, Unix and MAC					
Optional SNMP	Power management from SNMP manager and web browser					
STANDARDS & CERTIFICATIONS						
Quality	ISO 9001 ; ISO 14001					
Compliance	EMC 1-1.5K; EN62040-2 C1; 2K-3K EN62040-2 C2					

* Derate capacity to 80% when the output voltage is adjusted to 100VAC/200VAC/208VAC.

Product specifications are subject to change without further notice.

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