

USER MANUAL



Online UPS: Challenger Series

Stand Alone (SA) 120 VAC - 220 VAC

Capacity: 1 KVA ~ 2 KVA ~ 3 KVA

REVISION	DESCRIPTION	DATE
Rev. 1.3	Formal Release	2015/08/31









Danger: For your safety

Improper use on this equipment can lead to an imminently hazardous situation which, if not avoided, will result in death or serious injury.



Warning: Caution

Unsafe practices that could endanger health, safety and cause financial damage.



Important

Any important technical and operating information on the equipment, should not neglected.



Annotation

Sy-G reserves the right to alter the features of its products without prior notice.







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1. Safety Warning

Please comply with all warnings and operating instructions in this manual strictly. Save this manual properly and read carefully the following instructions before installing the unit. Do not operate this unit before reading through all safety information and operating instructions carefully.

1.1. **Transportation**

Please transport the UPS system only in the original package to protect against shock and impact.

1.2. **Preparation**

Condensation may occur if the UPS system is moved directly from cold to warm environment.

The UPS system must be absolutely dry before being installed.

PLEASE ALLOW AT LEAST TWO HOURS FOR THE UPS SYSTEM TO ACCLIMATE THE **ENVIRONMENT.**

- **Do not** install the UPS system near water or in moist environments.
- Do not install the UPS system where it would be exposed to direct sunlight or near heater.
- **Do not** block ventilation holes in the UPS housing.

1.3. Installation

- Do not connect appliances or devices which would overload the UPS system (e.g. laser printers) to the UPS output sockets.
- Place cables in such a way that no one can step on or trip over them.
- Do not connect domestic appliances such as hair dryers to UPS output sockets.
- The UPS can be operated by any individuals with no previous experience.
- Connect the UPS system only to an earthed shockproof outlet which must be easily accessible and close to the UPS system.
- Please use only VDE-tested, CE-marked mains cable (e.g. the mains cable of your computer) to connect the UPS system to the building wiring outlet (shockproof outlet).







- Please use only VDE-tested, CE-marked power cables to connect the loads to the UPS system.
- When installing the equipment, it should ensure that the sum of the leakage current of the UPS and the connected devices does not exceed 3.5mA.

1.4. Operation

- **Do not** disconnect the mains cable on the UPS system or the building wiring outlet (shockproof socket outlet) during operations since this would cancel the protective earthing of the UPS system and of all connected loads.
- The UPS system features its own, internal current source (batteries). The UPS output sockets or output terminals block may be electrically live even if the UPS system is not connected to the building wiring outlet.
- In order to fully disconnect the UPS system, first press the **OFF/Enter** button to disconnect the mains (commercial power).
- Prevent no fluids or other foreign objects from inside of the UPS system.

1.5. Maintenance, service and faults

THE UPS SYSTEM OPERATES WITH HAZARDOUS VOLTAGES, REPAIRS MAY BE CARRIED OUT ONLY BY QUALIFIED MAINTENANCE PERSONNEL.

- o Caution Risk of electric shock. Even after the unit is disconnected from the mains (commercial power), components inside the UPS system are still connected to the battery and electrically live and dangerous.
- Before carrying out any kind of service and/or maintenance, disconnect the batteries and verify that no current is present and no hazardous voltage exists in the terminals of high capability capacitor such as BUS-capacitors.
- o Only persons are adequately familiar with batteries and with the required precautionary measures may replace batteries and supervise operations. Unauthorized persons must be kept well away from the batteries.
- Caution Risk of electric shock. The battery circuit is not isolated from the input voltage. Hazardous voltages may occur between the battery terminals and the ground. Before touching, please verify that no voltage is present!
- Batteries may cause electric shock and have a high short-circuit current. Please take the precautionary measures specified below and any other measures necessary when working with batteries:

Remove wristwatches, rings and other metal objects

Use only tools with insulated grips and handles.

When changing batteries, install the same number and same type of batteries.





- Do not attempt to dispose of batteries by burning them. This could cause battery explosion.
- o Do not open or destroy batteries. Escaping electrolyte can cause injury to the skin and eyes. It may be toxic.
- o Please replace the fuse only with the same type and amperage in order to avoid fire hazards.
- o Do not dismantle the UPS system.

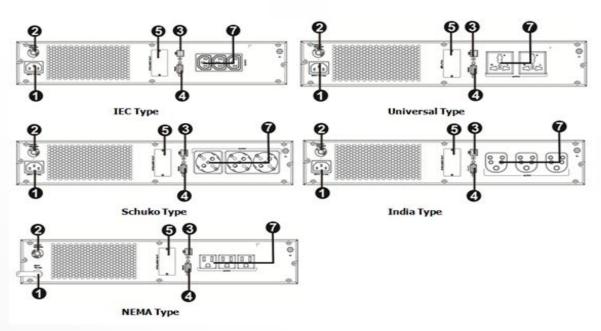


2. Installation and Setup

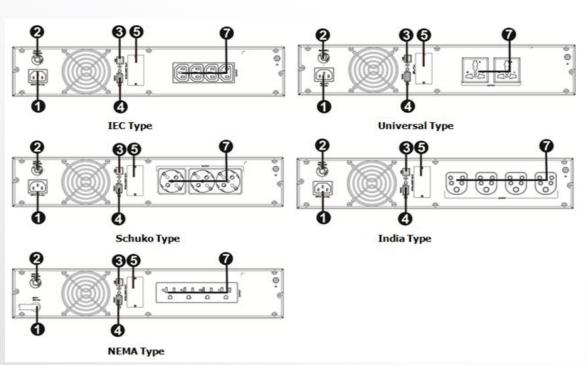
Before installation, please inspect the unit. Be sure that nothing inside the package is damaged. Please keep the original package in a safe place for future use.

2.1. **Rear Panel View**

1 KVA



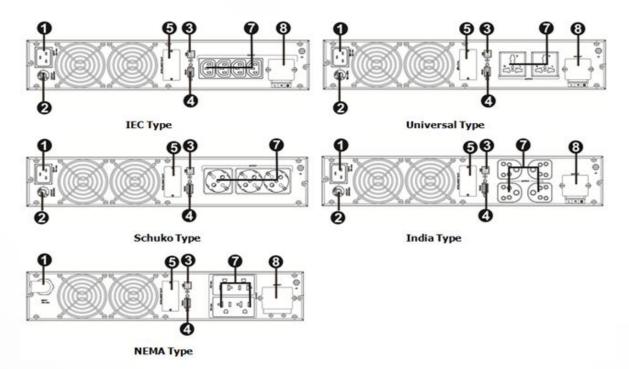
2 KVA



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3 KVA



Description UPS

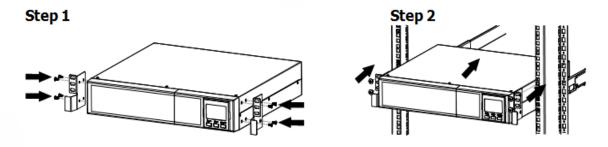
- AC input.
- Input circuit breaker.
- USB communication port.
- RS-232 communication port.
- SNMP intelligent slot (option).
- External battery connection (only available for L model).
- Output receptacles.
- Output terminal.
- Output circuit breaker.



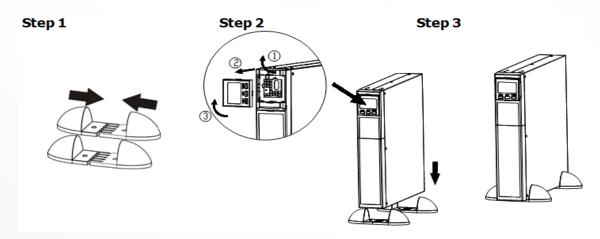
2.2. Install the UPS

Rack-mount Installation

This UPS can be mounted in the 19" rack chassis. Please follow below steps to position this UPS.

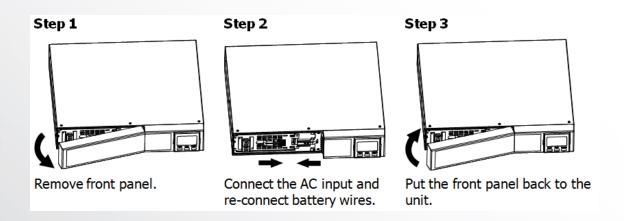


Stand Alone Installation



Step 1: Connect battery wires

If using rack UPS, the UPS is shipped out from factory without connecting battery wires for safety consideration. Before installing the UPS, please follow below steps to re-connect battery wires first.





Step 2: UPS input connection

Plug the UPS into a two-pole, three-wire, grounded receptacle only. Avoid using extension cords.

- o For 208/220/230/240 VAC models: The power cord is supplied in the UPS package.
- o For 110/115/120/127 VAC models: The power cord is attached to the UPS.

The input plug is a NEMA 5-15P for 1 KVA model and NEMA 5-20P for 2 KVA model.

Step 3: UPS output connection

- o For socket-type outputs, simply connect devices to the outlets.
- o For terminal-type input or outputs, please follow below steps for the wiring configuration:
- a) Remove the small cover of the terminal block.
- b) Suggest using AWG14 or 2.1mm² power cords for 3 KVA (208/220/230/240 VAC models).

Suggest using AWG12-10 or 3.3 mm² or 5.3 mm² power cords for 3 KVA (110/115/120/127 VAC models). Please also install a circuit breaker (40A) between the mains and AC input of UPS in 3 KVA (110/115/120127 VAC models) for safety operation.

- c) Upon completion of the wiring configuration, please check whether the wires are securely affixed.
- d) Put the small cover back to the rear panel.

Step 4: Communication connection

Communication Ports USB RS-232 Intelligent

To allow for unattended UPS shutdown/start-up and status monitoring, connect the communication cable one end to the USB/RS-232 port and the other to the





communication port of your PC. With the monitoring software installed, you can schedule UPS shutdown/start-up and monitor UPS status through PC.

The UPS is equipped with intelligent slot perfect for either SNMP or AS400 card. When installing either SNMP or AS400 card in the UPS, it will provide advanced communication and monitoring options.

USB port and RS-232 port can't work at the same time.

Step 5: Turn on the UPS

Press the **ON/Mute button** on the front panel for two seconds to power on the UPS.

NOTE: The battery charges fully during the first five hours of normal operation. Do not expect full battery run capability during this initial charge period.

Step 6: Install software

For optimal computer system protection, install UPS monitoring software to fully configure UPS shutdown. You may insert provided CD into CD-ROM to install the monitoring software. If not, please follow steps below to download and install monitoring software from the internet:

- 1. Insert the included installation CD into CD-ROM drive and then follow the onscreen instructions to proceed software installation. If there no screen shows 1 minute after inserting the CD, please execute setup.exe file for initiating software installation.
- 2. Follow the on-screen instructions to install the software.
- 3. When your computer restarts, the monitoring software will appear as an orange plug icon located in the system tray, near the clock.

2.3. **Battery replacement**

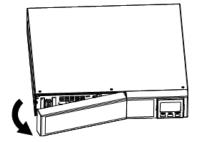
NOTICE: This UPS is equipped with internal batteries and user can replace the batteries without shutting down the UPS or connected loads. (Hot-swappable battery design) Replacement is a safe procedure, isolated from electrical hazards.



NOTE: Upon battery disconnection, equipment is not protected from power outages.

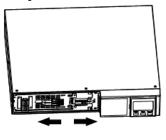
CAUTION!! Consider all warnings, cautions, and notes before replacing batteries.

Step 1



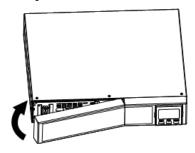
Remove front panel.

Step 2



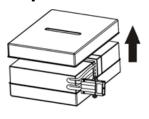
Disconnect battery wires.

Step 3



Pull out the battery box by removing two screws on the front panel.

Step 4



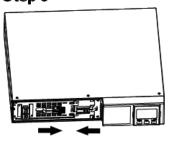
Remove the top cover of battery box and replace the inside batteries.

Step 5



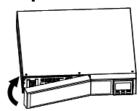
After replacing the batteries, put the battery box back to original location and screw it tightly.

Step 6



Re-connect the battery wires.

Step 7



Put the front panel back to the unit.

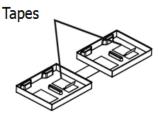
Battery kit Assembly (OPTIONAL) 2.4.

NOTICE: Please assemble battery kit first before installing it inside of UPS. Please select correct battery kit procedure below to assemble it.

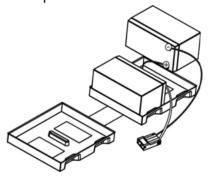


Battery Kit - 2 Units

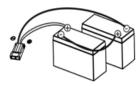
Step 1: Remove adhesive tapes.



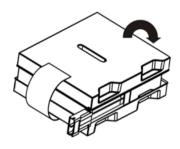
Step 3: Put assembled battery packs on one side of plastic shells.



Step 2: Connect all battery terminals by following below chart.

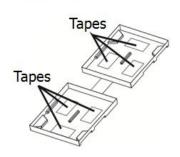


Step 4: Cover the other side of plastic shell as below chart. Then, battery kit is assembly well.

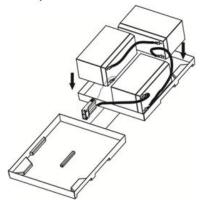


Battery Kit - 3 Units

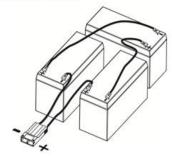
Step 1: Remove adhesive tapes.



Step 3: Put assembled battery packs on one side of plastic shells as below chart.



Step 2: Connect all battery terminals by following below chart.



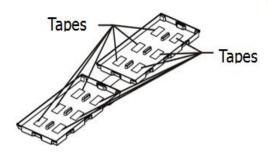
Step 4: Cover the other side of plastic shell as below chart. Then, battery kit is assembly well.



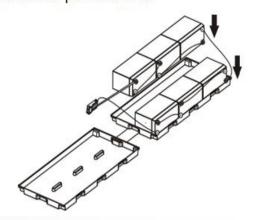


Battery Kit - 6 Units

Step 1: Remove adhesive tapes.



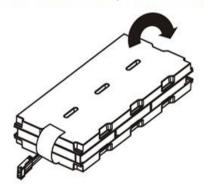
Step 3: Put assembled battery packs on one side of plastic shells.



Step 2: Connect all battery terminals by following below chart.



Step 4: Cover the other side of plastic shell as below chart. Then, battery kit is assembly well.



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3. Operations

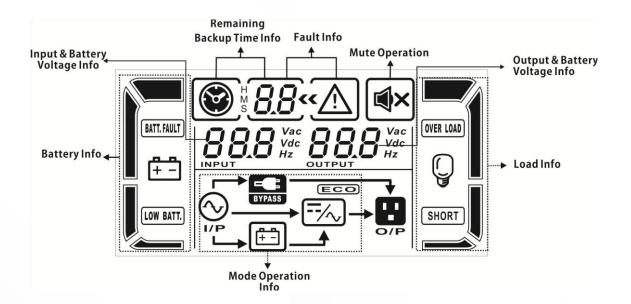
3.1. Button Operation

BUTTON	FUNCTION
ON/Mute Button	 Turn on the UPS: Press and hold ON/Mute button for at least 2 seconds to turn on the UPS. Mute the alarm: After the UPS is turned on in battery mode, press and hold this button for at least 5 seconds to disable or enable the alarm system. But it is not applied to the situations when warnings or errors occur. Up key: Press this button to display previous selection in UPS setting mode.
	 Switch to UPS self-test mode: Press ON/Mute buttons for 5 seconds to enter UPS self-testing while in AC mode, ECO mode, or converter mode.
OFF/Enter Button	 Turn off the UPS: Press and hold this button at least 2 seconds to turn off the UPS. UPS will be in standby mode under power normal or transfer to bypass mode if the bypass enable setting by pressing this button. Confirm selection key: Press this button to confirm selection in UPS setting mode.
Select	 Switch LCD message: Press this button to change the LCD message for input voltage, input frequency, battery voltage, output voltage and output frequency. It will return back to default display when pausing for 10 seconds.
Button	 Setting mode: Press and hold this button for 5 seconds to enter UPS setting mode when UPS is in standby and bypass mode. Down key: Press this button to display next selection in UPS setting mode.
ON/Mute + Select Button	 Switch to bypass mode: When the main power is normal, press ON/Mute and Select buttons simultaneously for 5 seconds. Then UPS will enter to bypass mode. This action will be ineffective when the input voltage is out of acceptable range.

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3.2. LCD Panel



DISPLAY	FUNCTION
REMAINING BACKUP	TIME INFORMATION
	Indicates the remaining backup time in pie chart.
H 88 S	Indicates the remaining backup time in numbers. H: hours, M: minute, S: second
FAULT INFORMATION	
<<\i	Indicates that the warning and fault occurs.
8.8	Indicates the warning and fault codes, and the codes are listed in details in 3.5 section.
MUTE OPERATION	
剩 ×	Indicates that the UPS alarm is disabled.
OUTPUT & BATTERY	VOLTAGE INFORMATION
888 Vac Vdc Hz	Indicates the output voltage, frequency or battery voltage. Vac: output voltage, Vdc: battery voltage, Hz: frequency
LOAD INFORMATION	
01	Indicates the load level by 0-25% , 26-50% , 51-75% , and 76-100% .
OVER LOAD	Indicates overload.
SHORT	Indicates the load or the UPS output is short circuit.
MODE OPERATION IN	FORMATION
⟨O ₁ /P	Indicates the UPS connects to the mains.
(+ -1	Indicates the battery is working.



BYPASS	Indicates the bypass circuit is working.	
ECO	Indicates the ECO mode is enabled.	
==/~	Indicates the Inverter circuit is working.	
O/P	Indicates the output is working.	
BATTERY INFORMATION		
	Indicates the Battery level by 0-25% , 26-50% , 51-75% , and 76-100% .	
BATT. FAULT	Indicates the battery is fault.	
LOW BATT.	Indicates low battery level and low battery voltage.	
INPUT & BATTERY VOLTAGE INFORMATION		
888 Vac Vdc Hz	Indicates the input voltage or frequency or battery voltage. Vac: Input voltage, Vdc: battery voltage, Hz: input frequency	

3.3. Audible Alarm

Battery Mode	Sounding every 4 seconds.
Low Battery	Sounding every second.
Overload	Sounding twice every second.
Fault	Continuously sounding.
Bypass Mode	Sounding every 10 seconds.

3.4. LCD display wordings index

ABBREVIATION	DISPLAY CONTENT	MEANING
ENA	ENR	Enable
DIS	dl 5	Disable
ESC	ESC	Escape
HLS	HLS	High loss
LLS	LLS	Low loss
BAT	6RE	Battery
CF	[F	Converter
TP	ŁP	Temperature
СН	£Η	Charger
FU	FU	Bypass frequency unstable
EE	88	EEPROM error

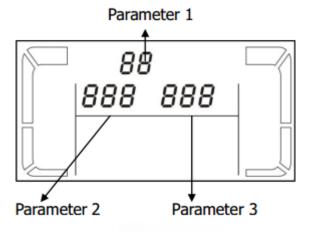
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3.5. UPS Setting

Parameter 1: It's for program alternatives. Refer to below table.

Parameter 2 and Parameter 3 are the setting options or values for each program.



00: Exit setting.

01: Output voltage setting.

INTERFACE	SETTING
O /« 230 Vac OUTPUT	Parameter 3: Output voltage For 208/220/230/240 VAC models, you may choose the following output voltage: 208: presents output voltage is 208Vac. 220: presents output voltage is 220Vac. 230: presents output voltage is 230Vac (Default). 240: presents output voltage is 240Vac. For 110/115/120/127 VAC models, you may choose the following output voltage: 110: presents output voltage is 110Vac. 115: presents output voltage is 115Vac. 120: presents output voltage is 120Vac (Default). 127: presents output voltage is 127Vac.

02: Frequency Converter enable/disable.

INTERFACE	SETTING
O2« CF ENR	Parameter 2 & 3: Enable or disable converter mode. You may choose for the following two options: CF ENA: Converter modes enable. CF DIS: Converter mode disable (Default).



03: Output frequency setting.

INTERFACE	SETTING
03« EF 500 Hz	Parameter 2 & 3: Output frequency setting. You may set the initial frequency on battery mode: BAT 50: presents output frequency is 50Hz. BAT 60: presents output frequency is 60Hz.
	If converter mode enable, you may choose the following output frequency: CF 50: presents output frequency is 50Hz. CF 60: presents output frequency is 60Hz.

04: ECO enable/disable.

INTERFACE	SETTING
ENA ENA	Parameter 3: Enable or disable ECO function. You may choose the following two options: ENA: ECO mode enable. DIS: ECO mode disable (Default).

05: ECO voltage range setting.

INTERFACE	SETTING
	Parameter 2 & 3: Set the acceptable high voltage point and low voltage point for ECO mode. Press the Down key or Up key.
OS« HLS 280 Vac INPUT ECO	HLS: High loss voltage in ECO mode. For 208/220/230/240 VAC models, the setting range are from +7V to +24V of the nominal voltage (Default: +12V). For 110/115/120/127 VAC models, the setting range is from +3V to +12V of the nominal voltage (Default: +6V). LLS: Low loss voltage in ECO mode. For 208/220/230/240 VAC models, the setting range is from -7V to -24V of the nominal voltage. (Default: -12V). For 110/115/120/127 VAC models, the setting range is from -3V to -12V of the nominal voltage (Default: -6V).



06: Bypass mode enable/disable.

INTERFACE	SETTING
06« ENR	Parameter 3: Enable or disable Bypass function. You may choose the following two options: ENA: Bypass mode enable. DIS: Bypass mode disable (Default).

07: Bypass voltage range setting.

INTERFACE	SETTING
	Parameter 2 & 3: Set the acceptable high voltage point and acceptable low voltage for bypass mode. Press the Down key or Up key to set.
STATE OF THE STATE	HLS: Bypass high voltage point. For 208/220/230/240 VAC models: 235-264: setting the high voltage point from 235Vac to 264Vac (Default: 264Vac). For 110/115/120/127 VAC models: 125-132: setting the high voltage point from 115Vac to 132Vac (Default: 132Vac).
	LLS: Bypass low voltage point.
	For 208/220/230/240 VAC models:
	184-225: setting the low voltage point from 184Vac to 225Vac (Default: 195Vac).
	For 110/115/120/127 VAC models:
	98-115: setting the low voltage point from 98Vac to 115Vac (Default: 98Vac).

08: Autonomy limitation setting.

INTERFACE	SETTING	
© *08* 999 □	Parameter 3: Set the backup time on battery mode for general outlets. 0-999: setting the backup time in minutes from 0-999 for general outlets on battery mode. 0: When setting as "0", the backup time will be only 10 seconds. 999: When setting as "999", the backup time setting will be disabled (Default).	



3.6. Operating Mode Description

OPERATING MODE	DESCRIPTION	LCD DISPLAY
Online mode	When the input voltage is within acceptable range, UPS will provide pure and stable AC power to output. The UPS will also charge the battery at online mode.	230 Vac 230 Vac NAP UT OUT PUT PUT PUT PUT PUT PUT PUT PUT PUT P
ECO mode	Energy saving mode: When the input voltage is within voltage regulation range, UPS will bypass voltage to output for energy saving.	P COP COP COP
Frequency Converter mode	When input frequency is within 40 Hz to 70 Hz, the UPS can be set at a constant output frequency, 50 Hz or 60 Hz. The UPS will still charge battery under this mode.	CF 230 Vac 230 Vac OUTPUT O
Battery mode	When the input voltage is beyond the acceptable range or power failure and alarm is sounding every 4 second, UPS will backup power from battery.	720 vdc 230 vac Q
Bypass mode	When input voltage is within acceptable range but UPS is overload, UPS will enter bypass mode or bypass mode can be set by front panel. Alarm is sounding every 10 second.	230 Vac 230 Vac Q
Standby mode	UPS is powered off and no output supply power, but still can charge batteries.	P P P P P P P P P P P P P P P P P P P

3.7. Faults Reference Code

FAULT EVENT	FAULT CODE	ICON	FAULT EVENT	FAULT CODE	ICON
Bus start fail	01	х	Inverter output short	14	SHORT
Bus over	02	х	Battery voltage too high	27	BATT. FAULT
Bus under	03	х	Battery voltage too low	28	BATT. FAULT
Bus unbalance	04	х	Over temperature	41	х



Inverter soft start fail	11	х	Overload	43	OVER LOAD
Inverter voltage high	12	Х	Charge failure	45	х
Inverter voltage Low	13	х			

3.8. Warning indicator

WARNING	ICON (FLASHING)	ALARM
Low Battery	LOW BATT.	Sounding every second
Overload	OVER LOAD	Sounding twice every second
Battery is not connected	⚠ 🛅	Sounding every second
Over Charge	<u></u>	Sounding every second
Over temperature	44 ₹	Sounding every second
Charger failure	EH A	Sounding every second
Battery fault	<u> </u>	Sounding every second
Out of bypass voltage range	<u>↑</u> • • • • • • • • • • • • • • • • • • •	Sounding every second
Bypass frequency unstable	FU∆	Sounding every second
EEPROM error	££ 🛆	Sounding every second



4. Troubleshooting

If the UPS system does not operate correctly, please solve the problem by using the table below.

SYMPTOM	POSSIBLE CAUSE	REMEDY
No indication and alarm even though the mains is normal.	The AC input power is not connected well.	Check if input power cord firmly connected to the mains.
though the mains is normal.	The AC input is connected to the UPS output.	Plug AC input power cord to AC input correctly.
The icon and flashing on LCD display and alarm is sounding every second.	The external or internal battery is incorrectly connected.	Check if all batteries are connected well.
Fault code is shown as 27 or 28 and the icon BATT.FAULT is lighting on LCD display and alarm is continuously sounding.	Battery voltage is too high/low or the charger is fault.	Contact your dealer.
	UPS is overload	Remove excess loads from UPS output.
The icon and OVER LOAD is flashing on LCD display and alarm is sounding twice every second.	UPS is overloaded. Devices connected to the UPS are fed directly by the electrical network via the Bypass.	Remove excess loads from UPS output.
	After repetitive overloads, the UPS is locked in the Bypass mode. Connected devices are fed directly by the mains.	Remove excess loads from UPS output first. Then shut down the UPS and restart it.
Fault code is shown as 43 and The icon OVER LOAD is lighting on LCD display and alarm is continuously sounding.	The UPS shut down automatically because of overload at the UPS output.	Remove excess loads from UPS output and restart it.
Fault code is shown as 14 and the icon SHORT is lighting on LCD display and alarm is continuously sounding.	The UPS shut down automatically because short circuit occurs on the UPS output.	Check output wiring and if connected devices are in short circuit status.
Fault code is shown as 01, 02, 03, 04, 11, 12, 13, 41 and 45 on LCD display and alarm is continuously sounding.	A UPS internal fault has occurred. There are two possible results: 1. The load is still supplied,	Contact your dealer



but directly from AC power via bypass.	
The load is no longer supplied by power.	

SYMPTOM	POSSIBLE CAUSE	REMEDY
Battery backup time is shorter than nominal value	Batteries are not fully charged	Charge the batteries for at least 5 hours and then check capacity. If the problem still persists, consult your dealer.
	Batteries defect	Contact your dealer to replace the battery.
Warning code" દ P "is displayed in LCD panel when turn on.	The internal temperature is too high.	Temperature sensor problem. Please contact your dealer. Wait until internal temperature cool down. Then, turn on the UPS again.



5. Storage and Maintenance

Operation

The UPS system contains no user-serviceable parts. If the battery service life (3~5 years at 25°C ambient temperature) has been exceeded, the batteries must be replaced. In this case, please contact your dealer.

BE SURE TO DELIVER THE SPENT BATTERY TO A RECYCLING FACILITY OR SHIP IT TO YOUR DEALER IN THE REPLACEMENT BATTERY PACKING MATERIAL.



Storage

Before storing, charge the UPS 5 hours. Store the UPS covered and upright in a cool, dry location. During storage, recharge the battery in accordance with the following table:

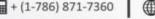
STORAGE TEMPERATURE	RECHARGE FREQUENCY	CHARGING DURATION
-25°C - 40°C	Every 3 months	1-2 hours
40°C - 45°C	Every 2 months	1-2 hours



6. Technical Specifications

UNIT MODEL	1 KVA	2 KVA	3 KVA	
Phase		Single phase with ground		
Capacity [1]	1000 VA / 900 W	2000 VA / 1800 W	3000 VA / 2700 W	
INPUT				
Nominal Voltage	100/110/1	15/120/127 VAC or 200/208/220/230	/240 VAC	
Voltage Range	60-	145 VAC or 120-300 VAC @ 50% lo	pad	
	90-	45 VAC or 180-300 VAC @ 100% l	oad	
Power Factor		≥ 0.99, Nominal Voltage (100% load)		
Frequency Range		40 Hz - 70 Hz		
Rectifier		IGBT		
OUTPUT	100 [1]	- (1) (200 [1] (200 [1) (200 [1] (200 [1] (200 [1] (200 [1] (200 [1] (200 [1] (200 [1) (200 [1] (200 [1] (200 [1] (200 [1] (200 [1] (200 [1] (200 [1) (200 [1] (200 [1) (200 [1] (200 [1) (200 [1000/040 1/40	
Output Voltage	100 11/110/11	5/120/127 VAC or 200 [1]/208 [1]/220/	230/240 VAC	
Voltage Regulation Frequency Range (Synchronized Range)		± 1% 47 - 53 Hz or 57 - 63 Hz		
Frequency Range (Synchronized Range) Frequency Range (Batt. Mode)		50 Hz ± 0.25 Hz or 60 Hz ± 0.3 Hz		
Current Crest Ratio		3:1		
Harmonic Distortion (THDv)	≤ 3% THE	(Linear Load), ≤ 6% THD (Non-line	ear Load)	
Transfer Time		(AC to DC); 4 ms (Inverter to Bypa	•	
Waveform		Pure Sine Wave	,	
EFFICIENCY				
AC Mode	88%	89%	90%	
Battery Mode	83%	87%	88%	
BATTERY				
Battery Type		12V/ 9 Ah		
Numbers	2	4	6	
Typical Recharge Time		4 hours recover to 90% capacity		
Charging Current		1.0 A		
Charging Voltage	27.4VDC ± 1%	54.7 VDC ±1%	82.1 VDC ±1%	
INDICATORS	UD0 44 1 11 1 D #	1 11 1/0 1 1 1 B' 1	e IE k Pe	
LCD Display	UPS status, load level, Battery	level, Input/Output voltage, Discharg	ge timer, and Fault conditions	
ALARM Bettern Made		Counding over 4 coords		
Battery Mode		Sounding every 4 seconds Sounding every seconds		
Low Battery Overload		Sounding twice every second		
Fault		Continuously sounding		
PHYSICAL		Continuously countaing		
Dimensions, D x W x H (mm)	310 x 438 x 88 [2U]	410 x 438 x 88 [2U]	630 x 438 x 88 [2U]	
Net Weight (kg)	12	19	29.3	
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	EN62040-3, EN61000, EN62040-2, EN62040 -1, CE			

^{[1] -} Derate to 80% of capacity in Frequency converter mode and to 80% when the output voltage is adjusted to 100/200/208 VAC.





SY-G reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on SY-G products previously or subsequently sold.



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