MPPT SOLAR CHARGE CONTROLLER
Model: SL-40A/60A

Features：

SL series 40A and 60A MPPT solar charge controller is mainly used for solar power station, home solar power system, solar street light control system, mobile solar power system, DC wind solar generating systems.

Advantages:

- Adopt advanced MCU microprocessor control technology.
- 12V/24V/48V self detect to choose output voltage.
  Advanced MPPT Technology, High converting efficiency higher than 97% for
- minimizing energy loss.
- Capable to parallel in output, to expand capacity easily.
- Reversed current protection at night, over voltage and reverse polarity protection.
- Capable of selecting different charging mode for various types of batteries.
- Capable of connecting additional DC load for wider applications.
- Three stage charge control system (bulk, absorption, and float mode) with optionaltemperature compensation.
- LED indicators display charge status in real time, Optional LCD digital display.
- Pulse Width Modulation (PWM) technology combined with a multi-stage charge control algorithm leads to superior charging and enhanced battery performance.

MPPT solar charger controller	SL-40A/60A	
Rated Voltage	12/24/48Vdc auto-detection	
Rated charge current (include load current)	40Amp/60Amp	
Load current	15Amp	
Input voltage range	15-55Vdc	
Max. PV open circuit array voltage	55Vdc	
Overload protection (DC load)	2.0 * Inom>5s	
	1.5 * Inom >20s	
	1.25 * Inom temperature controlled	
Typical idle consumption	At idle < 10mA	
Bulk charge	14.6Vdc (default)	29.2Vdc (default)
Floating charge	13.4Vdc (default)	26.8Vdc (default)
Equalization charge	14.0Vdc (default)	28.0Vdc (default)
Over charge disconnection	14.8Vdc	29.6Vdc
Over charge recovery	14Vdc	28Vdc
Over discharge disconnection	10.8Vdc (default)	21.6Vdc (default)
Over discharge reconnection	12.3Vdc	24.6Vdc
Temperature compensation	-13.2mV/℃	-26.4mV/℃
Lead acid battery settings	Adjustable	
NiCad battery settings	Adjustable	
Load control mode	1. Low Voltage Reconnect (LVR): Automatic	
	2. Low Voltage Disconnect (LVD): Automatic	
	3. Reconnection: warning flash before disconnect and reconnection	
Low voltage reconnect	12.0-14.0Vdc	24.0-28.0Vdc
Low voltage disconnect	10.5-12.5Vdc	21.0-25.0Vdc
Ambient temperature	0-40℃ (full load) 40—60℃ (de-rating)	
Altitude	Operating 5000 m, Non-Operating 16000 m	
Protection class	IP21	
Cooling	natural cooling	
Terminal size (fine/single wire)	#8 AWG	
Dimension(L*W*H)	192*140*66mm	

Mini Powerstar Inverter with UPS and transformer
Model: Mini PV500W-1000W

Features:

MINI Powerstar Low Frequency Pure Sine Wave Inverter is from 500W to 1000W, DC12V-24V, AC 110V/220V/230V, 50Hz or 60Hz, LCD indicators display optional.
Off grid solar inverter with pure copper transformer, peak power three times, with built-in DC Charger 20/35Amp, Charger current adjustable, UPS Function. It can work with both solar and home (air-conditioner, freezer, pump, laser printer, generator, fans, lights, TV, computer and so on).

Advantages:

- LED display show voltage, load and battery info by indicators in real time.
- Peak power is three times of rated power.
- Can work with inductive motor load such as air conditioner, motor door and so on.
- Pure sine wave output, available for sensitive load.
- 4-step progressive charging, 7 battery type selector.
- Fast and powerful charger with 20A and 35A.
- Accept generator's energy output.
- High power factor 0.9, Low power consumption.
- Automatically transfer between battery and line modes.
- Microprocessor control guarantees high reliability.
- Bypass without battery connected.
- Remote control.
- Protection against: Over load, over temperature, over charging, low battery.
- Reverse connection (optional by hard connector), Blackouts.

MODEL	MINIPV-500	MINIPV-750	MINIPV-1000
Nominal Power	500W	750W	1000W
AC Input			
Phase & waveform	Single phase & Pure Sine Wave		
Voltage	110/120/130VAC or 220/230/240VAC		
Acceptable Voltage	95-126VAC or 194-253VAC±4%		
Low Line Disconnect	85VAC±4% or 184VAC±4%		
Low Line Re-connect	95VAC±4% or 194VAC±4%		
High Line Disconnect	136VAC±4% or 263VAC±4%		
High Line Re-connect	126VAC±4% or 253VAC±4%		
Frequency	50Hz:41-54Hz 60Hz:51-64Hz		
AC Output			
Phase & waveform	Single phase & Pure Sine Wave (bypass mode sync to input)		
Voltage	110/120/130VAC or 220/230/240VAC±10%rms (bypass mode sync to input)		
Frequency	50Hz±0.3Hz 60Hz±0.3Hz (bypass mode sync to input)		
Peak Power	3 times of rating power		
Short Circuit Protection	Yes, shutdown after 10ms		
Power Factor	0.9-1.0		
DC Input			
Battery Voltage	12VDC or 24VDC		
Minimum Start Voltage	10VDC or 20VDC		
Low Battery Alarm	10.5±0.3vdc or 21±0.6vdc		
Low DC input Shut-down	10±0.3vdc or 20±0.6vdc		
High DC input Alarm & Fault	16±0.3vdc or 32±0.6vdc		
High DC input Recovery	15.5±0.3vdc or 31±0.6vdc		
MAX Charger Current	20A/35A (According to the Inverter model)		
System parameter			
Battery Mode Efficiency	>85%		
Line Mode Efficiency	>96%		
power saver	Load <=25W (Enabled on "P/S auto" setting of Remote control)		
Audible Alarm	Sounding when the heat sink's tem is over 100℃ and shutdown after 30 seconds.		
Over Load Protection	110%<load<150%, beeps="" 0.5s="" every="" 1s,="" and="" fault="" after="" 60s.<="" div="">Load>150%, beeps 0.5s every 1s, and Fault after 20s.		
Protections	low battery、over charging、over temp、over load		
Communications	RS-232/USB/SNMP(custom-made)		
Operating Environment	0-40℃,0-90%RH(non-condensing)		
Audible Noise	<60dB		
Net Weight(KG)	7.5kg	8.5kg	12.5kg
Dimension L X W X H	380 X182 X160mm		

PV Powerstar Pure Sine Wave Inverter with UPS and transformer
Model: PV1KW-PV6KW

Features:

PV Powerstar Low Frequency Pure Sine Wave Inverter is from 1KW to 6KW, DC12V-48V, AC 110V/220V/230V, 50Hz or 60Hz, LCD digital display.
Off grid solar inverter with pure copper transformer, peak power three times, with built-in DC Charger 35/70Amp, Charger current adjustable, UPS Function.

It Based on transformer technology, strong loading capacity.
Used for all kinds of home/office equipment and off grid solar power system.
Work with both solar and home (air-conditioner, freezer, pump, laser printer, generator, fans, lights, TV, computer and so on).

Advantages:

- LCD digital display show voltage, load and battery info in real time.
- Peak power is three times of rated power.
- Can work with inductive motor load such as air conditioner, motor door and so on.
- Pure sine wave output, available for sensitive load.
- 4-step progressive charging, 7 battery type selector.
- Fast and powerful charger with 35A and 70A.
- Accept generator's energy output.
- High power factor 0.9, low power consumption.
- Automatically transfer between battery and line modes.
- Microprocessor control guarantees high reliability.
- Bypass without battery connected.
- Remote control function.
- Protection against: Over load, over temperature, over charging, low battery Reverse connection (optional by hard connector), Blackouts

MODEL	PV-1000	PV-1500	PV-2000	PV-3000	PV-4000	PV-5000	PV-6000
Nominal Power	1000W	1500W	2000W	3000W	4000W	5000W	6000W
AC Input							
Phase & waveform	Single phase & Pure Sine Wave						
Voltage	110/120/130VAC or 220/230/240VAC						
Acceptable Voltage	95-126VAC or 194-253VAC ± 4%						
Low Line Disconnect	85VAC±4% or 184VAC±4%						
Low Line Re-connect	95VAC±4% or 194VAC±4%						
High Line Disconnect	136VAC±4% or 263VAC±4%						
High Line Re-connect	126VAC±4% or 253VAC±4%						
Frequency	50Hz:41-54Hz 60Hz:51-64Hz						
AC Output							
Phase & waveform	Single phase & Pure Sine Wave (bypass mode sync to input)						
Voltage	110/120/130VAC or 220/230/240VAC±10% rms (bypass mode sync to input)						
Frequency	50Hz±0.3Hz 60Hz±0.3Hz (bypass mode sync to input)						
Peak Power	3 times of rating power						
Short Circuit Protection	Yes, shutdown after 10ms						
Power Factor	0.9-1.0						
DC Input							
Battery Voltage	12VDC or 24VDC or 48VDC						
Minimum Start Voltage	10VDC or 20VDC or 40VDC						
Low Battery Alarm	10.5±0.3vdcor21±0.6vdcor42±1.2vdc						
Low DC input Shut-down	10±0.3vdcor20±0.6vdcor40±1.2vdc						
High DC input Alarm & Fault	16±0.3vdcor32±0.6vdcor64±1.2vdc						
High DC input Recovery	15.5±0.3vdcor31±0.6vdcor62±1.2vdc						
MAX Charger Current	20A/35A/ 50A/75A/90A(According to the Inverter model)						
System parameter							
Battery Mode Efficiency	>85%						
Line Mode Efficiency	>96%						
power saver	Load <=25W (Enabled on " P/S auto " setting of Remote control)						
Audible Alarm	Sounding when the heat sink ' s tem is over 100 ℃ and shutdown after 30 seconds.						
Over Load Protection	110% Load>150%, beeps 0.5s every 1s, and Fault after 20s.						
Protections	low battery 、 over charging 、 over temp 、 over load						
Communications	RS-232/USB/SNMP(custom-made)						
Operating Environment	0-40℃,0-90%RH(non-condensing)						
Audible Noise	<60dB						
Net Weight(KG)	16kg	18kg	20kg	25kg	39kg	42kg	49kg
Dimension L X W X H	470X223X185mm				650X223X185mm		

PW Pure Sine Wave Inverter with UPS and transformer
Model: PW8KW-PW12KW

Features:

Single phase PW pure sine wave inverter 8000W-12000W with charger, LCD display, 3times peak power, built-in transformer can provide more stability power supply for motor-type loads such as refrigerators, air conditioners, motors, pumps, compressors and laser printers as well as electronic loads like TV's, Computers, power tool and battery chargers, also solar and wind.

Advantages:

- LCD digital display show voltage, load and battery info in real time.
- Peak power is three times of rated power.
- Can work with inductive motor load such as air conditioner, motor door and so on.
- Pure sine wave output, available for sensitive load.
- 4-step progressive charging, 7 battery type selector.
- Fast and powerful charger with 35A and 70A.
- Accept generator's energy output.
- High power factor 0.9, low power consumption.
- Automatically transfer between battery and line modes.
- Microprocessor control guarantees high reliability.
- Bypass without battery connected.
- Remote control function.
- Protection against: Over load, over temperature, over charging, low battery Reverse connection (optional by hard connector), Blackouts

MODEL	PW Model		
	PW8-12KW		
Line Mode Specifications:			
Input Voltage	Input Voltage Waveform	Sinusoidal (utility or generator)	
	Nominal Input Voltage	230Vac	
	Low Line Disconnect	184Vac±4%	
	Low Line Re-connect	194Vac ±4%	
	High Line Disconnect	263Vac±4%	
	High Line Re-connect	253Vac±4%	
	Max AC Input Voltage	270Vrms	
Input Frequency	Nominal Input Frequency	50Hz/ 60Hz (Auto detection)	
	Low Line Frequency Re-connect	51±0.3Hz for 60Hz; 41+0.3Hz for 50Hz;	
	Low Line Frequency Disconnect	50±0.3Hz for 60Hz; 40±0.3Hz for 50Hz;	
	High Line Frequency Re-connect	64±0.3Hz for 60Hz; 54±0.3Hz for 50Hz;	
	High Line Frequency Disconnect	65±0.3Hz for 60Hz; 55±0.3Hz for 50Hz;	
Main Functions	Output Voltage Waveform	As same as Input Waveform	
	Over-Load Protection (SMPS load)	Fuse	
	Output Short Circuit Protection	Fuse	
	Transfer Switch Rating	63A/80A/100A	
	Max Bypass Overload Current	100A	
Battery Invert Mode Specifications:			
Output	Output Voltage Waveform	Sine wave	
	Rated Output Power (KW)	8kw/10kw/12kw	
	Power Factor	0.9~1.0	
	Nominal Output Voltage (V)	230Vac ±10% rms	
	Nominal Output Frequency (Hz)	60Hz ± 0.3Hz 50Hz ± 0.3Hz	
DC Voltage	Nominal DC Input Voltage	48V/72V	
	DC Voltage range	40-62Vdc for 48VDC/ 70-93Vdc for 72VDC	
	Low Battery Alarm	42.0Vdc ± 1.2Vdc for 48V battery 63.0Vdc ± 1.8Vdc for 72V battery	
	Low DC input Shut-down	40.0Vdc ± 1.2Vdc for 48V battery 60.0vdc± 1.8Vdc for 72V battery	
	High DC input Alarm & Fault	64Vdc ± 1.2Vdc for 48V battery 96Vdc ± 1.8Vdc for 72V battery	
	High DC input Recovery	62.0Vdc ± 1.2Vdc for 48V battery 93.0Vdc ± 1.8Vdc for 72V battery	
Charger	Nominal Charge Current	35A/50A(5 stages adjustable charging current)	
	Charge Current Regulation	± 5Adc	
	Over Charge Protection	Bat. V ≥62Vdc / 93Vdc, beeps 0.5s every 1s & fault after 60s	
	Algorithm	Three stage: Boost CC (constant current stage) → Boost**CV** (constant voltage stage) → Float (constant voltage stage)	
Efficiency	Efficiency (Battery Mode)	≥85%	
	Efficiency (Line Mode)	>98%	
Transfer Time	AC to DC	20ms (Max)	
	DC to AC	15ms (Max)	
System parameter	Over-Load Protection	110% <load<150%, beeps 0.5s every 1s, and fault after 60s off the output, load>150%, beeps 0.5s every 1s, and Fault after 20s.	
	Output Short Circuit Protection	Current limit (Fault after 10s)	
	Surge rating (10s)	1:3 (VA)	
	Power saver	Load <25W (Enabled on "P/S auto" setting of Remote control)	
	Protections	Low battery, over charging, over load , over temp.	
	Indicators	LED+LCD Display	
General Specifications	Operating Temperature Range	0°C to 40°C	
	Storage temperature	-15ºC ~60ºC	
	Operation humidity	5% to 95%(non-condensing)	
	Audible Noise	60dB max	
	Cooling	Forced air, variable speed fan	
	Dimension(L*W*H)	538*255*630mm	
	Net weight(Kg)	8KW	10KW	12KW
		60kg	65.5kg	71kg

PVS Hybrid Inverter

sinewave output

Solar/AC charger

LCD/LED display

96% Efficiency (ECO Mode)

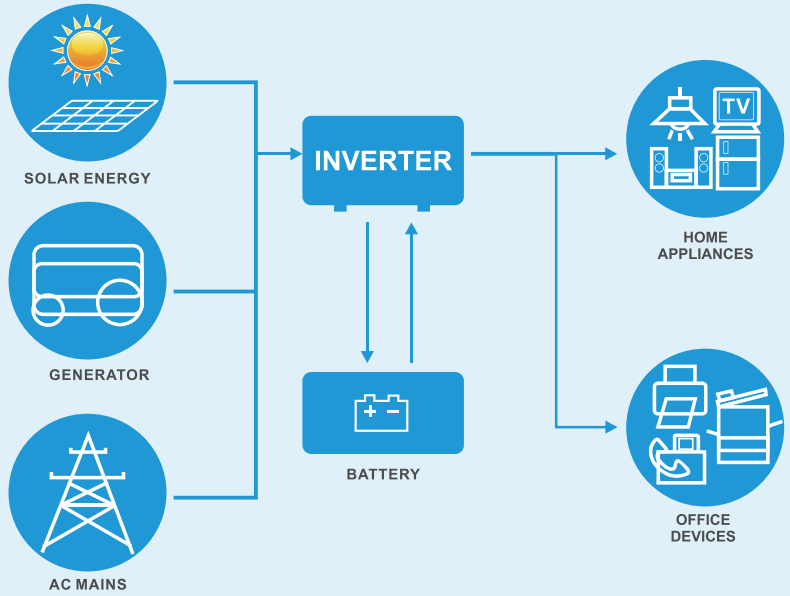
Generator Restart

MPPT Controller Inside

Product description

- PVS Series AC/Solar charging Off grid Hybrid Inverter.
- LED/LCD display, Enhanced functions setting via LCD, Man-machine intelligent design.
- Built-in 40A/60A optional MPPT solar charger controller.
- LCD shows the solar capacity.
- 5 stages adjustable AC charging current. AC charging also can be closed.
- AC/DC priority modes can be set.
- Generator restart signal. (Dry contact)
- 3 times peak power. Strong loading capacity.
- Overload, output short-circuit protection.

Typical Application



Specifications

Patameters \ Model		PVS4000	PVS5000	PVS6000	PVS7000	PVS8000	PVS10KW
AC Input	Nominal Power	4000W	5000W	6000W	7000W	8000W	10KW
	Input Voltage Waveform	Nominal input Voltage					
	Nominal input Voltage	120/230VAC			230VAC		
	Low Line Disconnect	85Vac±4%(Normal) or 80Vac±4%(Wide) for 120V			184Vac±4%(Normal) or 135Vac±4%(Wide) for 230V		
	Low Line Re-connect	95Vac±4%(Normal) or 85Vac±4% (Wide) for 120V			194Vac±4%(Normal) or 145Vac±4%(Wide) for 230V		
	High Line Disconnect	136Vac±4%(Normal) or 140Vac±4%(Wide) for 120V			263Vac±4%(Normal) or 263Vac±4%(Wide) for 230V		
	High Line Re-connect	131Vac±4%(Normal) or 135Vac±4% (Wide) for 120V			253Vac±4%(Normal) or 253Vac±4%(Wide) for 230V		
	Max AC input Voltage	120V for Max150V			230V for Max270V		
	Frequency	50Hz:41-54Hz / 60Hz:51-64Hz					
AC output	Output Voltage Waveform	Sine wave					
	Power Factor	0.9~1.0					
	Nominal Output Voltage (V)	LV:120Vac ±10%rms			HV:230Vac ±10%rms		
	Nominal Output Frequency (Hz)	60Hz ± 0.3Hz 50Hz ± 0.3Hz					
Solar charger	Rated Charge Current	40A or 60A					
	Rated charge battery Voltage type	24V/48V for 40A 24V for 60A					
	Max.PV open circuit array voltage	24V for 55Vdc 48V for 110Vdc					
	Charger mode	MPPT					
	PV Low Voltage Re-connect	PV≥Bat.V=3V					
	PV Low Voltage Disconnect	PV≦Bat.V					
	Efficiency	≥97%					
AC Charger	Nominal Charger Current	35A/50A/70A(According to the inverter model)					
		5 stages adjustable charging current					
	Over charge Protection	Bat.V≥31.0VDC for 24V battery、Bat.V≥62.0VDC for 48V battery beeps 0.5s every 1s & fault after 60s					
	Three-stage charging	Three stage:Boost cc (constant current stage)					
		Boost CV (constant voltage stage)					
		float (conatant voltage stage)					

Efficiency	Efficiency（Battery Mode）	⩾87%					
	Efficiency （Line Mode）	＞98%					
Battery Voltage	Nominal DC input Voltage	24/48VDC					
	Low Battery Alarm	21VDC±0.6VDC for 24VDC					
		42VDC±1.2VDC for 48VDC					
	Low DC input shut-down	20VDC±0.6VDC for 24VDC					
		40VDC±1.2VDC for 48VDC					
	High DC input Alarm & Fault	32VDC±0.6VDC for 24VDC					
		64VDC±1.2VDC for 48VDC					
	High DC input Recovery	31VDC±0.6VDC for 24VDC					
		62VDC±1.2VDC for 48VDC					
Transfer Time	AC to DC	20ms(max)					
	DC to AC	15ms(max)					
System Parameter	Over-Load Protection	110%＜load＜150%, beeps 0.5s every 1s, and Fault after 60s off the output, load＞150%, beeps 0.5s every 1s, and Fault after 20s					
	Output Short Circuit Protection	Current limit(Fault after 10s)					
	Surge Rating(10s)	1:3(VA)					
	Power Saver	Load≤25W(Enabled on "P/S auto"Setting of Remote control)					
	Protections	Low battery,over charging,over load,over temp					
	Indicators	LED+LCD Display					
General Specifications	Operating Temperature Range	0℃ to 40℃					
	Storage Temperature	15℃～60℃					
	Operation humidity	5% to 95%(non-condensing)					
	Audible Noise	60dB max					
	cooling	Forced air,variable speed fan					
	Dimension(L*W*H)	530*400*190mm				590*420*195mm	
	Net Weight(kg)	30.0kg	35.5kg	38.5kg	41.5kg	48.0kg	55.0kg

◆ ***Product specifications are subject to change without further notice***