



## 150W-600W ELF SERIES

### Pure/Modified Sine Wave Inverter

150W-600W ELF Series Inverters include 150W & 300W pure sine wave inverter, and 300W,500W & 600W modified sine wave inverters, they are with unique attractive arc appearance which are completely designed by our R & D team.

## Features

- Plastic Arc Housing with streamline shape
- Low battery alarm
- Low battery shut down
- High voltage shut down
- Overload protection
- Output short -circuit protection
- Reverse Polarity Protection
- 1X1A and 1X2A 5V USB
- LED indicator showing power status and fault
- Soft Start
- DC/AC Isolated
- CE Approval

## Product Specifications

MODEL \ ITEM	UNIV-150PE	UNIV-300PE	UNIV-300ME	UNIV-500ME	UNIV-600ME
Continuous Output Power (Watts)	150	300	300	500	600
Peak Output Power (Watts)	300	600	600	1000	1200
Nominal Input Voltage (DC)	12V (10-15V)			12V (10-15V) or 24V (21-30V)	
Nominal Output Voltage (AC)	115V / 230V, (Regulation: 5%~10%)				
Frequency	50Hz / 60Hz				
Output Waveform	Pure Sine Wave		Modified Sine Wave		
Efficiency	85-90%				
Thermal Protection	65°C+/-5°C				
Battery Polarity Reverse Protection	By fuse				
Overload Protection	Shutdown & Red LED Light				
Output Short Circuit Protection	Yes				
With Cooling Fan	Automatic Temperature-Controlled Fan				
Optional AC Socket	U.S.A.Type: 2AC Outlets; European Type: 1AC Outlet				
Product Dimension (CM)	28.5x13x8.5				
Net Weight (KGS/PC)	0.8	1.5	1.0	1.2	1.2
Quantity Per Master Carton (PCS)	12				
Size of Master Carton (CM)	65.5x35.5x39.5				

Certificates





## 180W-5KW Pure Sine Wave Inverter

UNIV-P pure sine wave inverters series are used to operate sensitive electronic devices that require high quality waveform with little harmonic distortion. In addition, they have high surge capacity which means they are able to exceed their rated wattage for a limited time. This enables power motors to start easily which can draw up to seven times their rated wattage during startup. Virtually any electronic device will operate with the output from a pure sine wave inverter.

### Features

- High frequency design
- Max efficiency up to 90%
- 2 times high surge power for motor rated application
- Soft-start to reduce inrush current
- Full protection:
  - Input protection:
    - Reverse polarity / Over voltage / Low battery alarm and shutdown
  - Output protection:
    - Short circuit / Overload / Over temperature
- Ideal for powering inductive loads such as motor, and other sensitive loads, medical equipment and solar systems.

# Product Specifications

MODEL \ ITEM	UNIV-180P	UNIV-300P	UNIV-600P	UNIV-1000P	UNIV-1500P	UNIV-2000P	UNIV-3000P	UNIV-5000P
Output Power (Continuous Watts)	180	300	600	1000	1500	2000	3000	5000
Output Power (Peak Watts)	360	600	1200	2000	3000	4000	6000	10000
Nominal Input Voltage (DC)	12V(11-15V) / 24V(21-30V) / 48V(42-60V)							
Nominal Output Voltage (AC)	115V AC / 230V AC, (regulation: 5%~10%)							
Frequency	50Hz or 60Hz							
Output Waveform	Pure Sine Wave (THD<3%)							
Low Battery Alarm (V)	10.8+/-0.5(12V); 21.8+/-1(24V); 43.6+/-2(48V)							
Low Battery Shutdown (V)	10.6+/-0.5(12V); 21+/-1(24V); 42+/-2(48V)							
Over Voltage Shutdown (V)	15.5+/-0.5(12V); 31+/-1(24V); 60+/-2(48V)							
Efficiency	85~90%							
Battery Polarity Reverse	By Fuse							
Thermal Protection	65°C±5°C							
Overload Protection	Shutdown & Red LED light							
Output Short Circuit Protection	Output Short Circuit Protection							
With Cooling Fan	Auto-operation fan (temperature or load)							
AC Output	1AC Outlet	U.S.A. Type: 2AC Outlets European Type: 1AC Outlet			U.S.A. Type: 4 AC Outlets European Type: 2 AC Outlet, AC hardwire terminal block			
Product Dimension (LxWxH)(mm)	170X80X58	150X150X53	250X150X72	290X150X72	370X150X88	410X210X100	480X210X130	560X210X160
N.W. (kgs)	0.45	1.2	2	3	4	7.5	12	17
QTY (pcs)	20	8	4	4	4	2	1	
Carton Size (mm)	420X400X360	400X350X270	410X360X250	450X410X250	490X401X290	590X310X410	750X330X250	810X310X250
Container 20FT (pcs)	9,240	5,920	3,032	2,476	1,920	746	481	446

Certificates





## 1KW-6KW Low Frequency Pure Sine Wave Inverter/Charger

UNIV-KP-L inverter is a combination of an inverter, battery charger and AC auto-transfer switch, which is with a conversion efficiency of 88%. It features power factor corrected, sophisticated multi-stage charging and pure sine wave output with unprecedentedly high surge capability to meet demanding power needs of inductive loads without endangering the equipment.

### Features

- Low frequency design
- Environmentally friendly quiet reliable AC power
- Heavy-duty good loading ability
- True sine wave output
- Full protections
- With battery charge and bypass function
- Power the whole off grid solar systems in your house
- Automatic switch between battery and AC grid power
- Ideal for powering inductive loads such as motor, and other sensitive loads, medical equipment and solar systems.



# Product Specifications

MODEL \ ITEM	UNIV-1KP-L	UNIV-1.5KP-L	UNIV-2KP-L	UNIV-3KP-L	UNIV-4KP-L	UNIV-5KP-L	UNIV-6KP-L	
Power(W)	1000	1500	2000	3000	4000	5000	6000	
<b>AC Input</b>								
Phase & waveform	Single Phase & Sine Wave							
Voltage	100V AC / 120V AC / 220V AC / 230V AC / 240V AC							
Acceptable Voltage	194~243V AC / 164~243V AC (wide mode)							
Frequency	50Hz or 60Hz (auto sensing)							
<b>Output</b>								
Phase & waveform	Single Phase & Sine Wave (bypass mode sync to input)							
Voltage	100V DC / 120V DC / 220V DC / 230V DC / 240V DC (same as input on bypass mode)							
Voltage Regulation	±10% RMS (bypass mode sync to input)							
Frequency	50Hz or 60Hz(auto sensing)							
Crest Power	3 times of ratings							
Short Circuit Protection	Shutdown after 10 minutes							
Power Factor	0.9-1.0							
<b>DC Input</b>								
Battery Voltage	12V / 24V	12V / 24V / 48V			24V / 48V			
Max Charging Current	20A~75A							
Over Charge Voltage	15. 7V for 12V, 31. 4V for 24V, 62. 8V for 48V							
<b>Transfer Efficiency</b>								
Line Mode	>95%							
Battery Mode	>85%							
Power Saver	Available when the load is less than 50 watts							
<b>Enviromental</b>								
Operating Environment	0-40°C, 0-95% RH (non-condensing)							
N.W. (kgs)	20	20	20	22	35	38	40	
Dimension, DxWxH (mm)	460x220x190				635x222x190			

## Certificates





## 150W-3KW Modified Sine Wave Inverter

UNIV-M modified sine wave inverters series (modified square wave or step wave) approximate a pure sine waveform. Modified sine wave inverters are designed to satisfy the efficiency requirements of the photovoltaic system while being less expensive than pure sine waveform inverters. These inverters are capable of operating a wide variety of loads; electronic and household items including but not limited to TV, VCR, and satellite receiver, computers, and printers.

### Features

- High frequency design
- Max efficiency up to 90%
- Full protection:
  - Input protection:  
Reverse polarity / Over voltage / Battery low alarm and shutdown
  - Output protection:  
Short circuit / Overload / Over temperature
- Ideal for powering simple office equipments, household appliances, portable electronics and loads from your car, truck, boat, RV etc.

# Product Specifications

MODEL \ ITEM	UNIV-150M	UNIV-200M	UNIV-300M	UNIV-500M	UNIV-600M	UNIV-800M	UNIV-1000M	UNIV-1500M	UNIV-2000M	UNIV-3000M
Output Power (Continuous Watts)	150	200	300	500	600	800	1000	1500	2000	3000
Output Power (Peak Watts)	300	400	600	1000	1200	1600	2000	3000	4000	6000
Nominal Input Voltage (DC)	12V (10-15V) / 24V(21-30V) / 48V(42-60V)									
Nominal Output Voltage (AC)	115V AC / 230V AC, (regulation: 5%~10%)									
Frequency	50Hz or 60Hz									
Output Waveform	Modified Sine Wave									
Efficiency	85~90%									
Battery Polarity Reverse	By Fuse									
Thermal Protection	65°C±5°C									
Overload Protection	Shutdown & Red LED light									
Output Short Circuit Protection	Output Short Circuit Protection									
Cooling Fan	Auto-operation fan (temperature or load)									
AC Output	1AC Outlet		U.S.A. Type: 2AC Outlets / European Type: 1AC Outlet						U.S.A. Type: 4 AC Outlets European Type: 2 AC Outlet, AC hardwire terminal block	
Product Dimension (LxWxH)(cm)	10x64x3.8	11x7x4.6	15x94x5.4	18x94x5.5	18x94x5.5	23.5x94x5.4	26x12x7.0	41x16.5x6.5	29x16.5x12.9	41x16.5x12.9
N.W. (kgs)	0.35	0.4	0.7	1.0	1.0	1.2	2.0	3.0	3.8	5.5
QTY (pcs)	80	80	40	20	20	14	10	6	2	2
Carton Size (cm)	48.5x42x66	48.5x42x66	61x42x56.5	64x27x56	64x27x56	40.5x29.5x43	41x30x43	46.5x21.5x12.5	46.5x23.5x20	53x25x42.5

Certificates







## 600W-2KW Modified Sine Wave Inverter / Charger

UNIV-MC Inverter/Charger is a combination of a MSW inverter, battery charger into one complete system. It transfers the DC power into AC power for appliance work, and it charges battery from the incoming AC power. It is designed for convenient wall mounting.

### Features

- High frequency design
- Max efficiency up to 90%
- LED indicators showing power, fault and charging status
- Three-stage battery charger (manually operated)
- Full protection:  
Reverse polarity / Over voltage /  
Battery low alarm and shutdown
- Ideal for powering simple office equipments, household appliances, portable electronics and loads from your car, truck, boat, RV etc.



## Product Specifications

MODEL \ ITEM		UNIV-600MC	UNIV-1000MC	UNIV-2000MC
INVERTER	Output Power (Continuous Watts)	600	1000	2000
	Output Power (Peak Watts)	1200	2000	4000
	DC Input Voltage (Rated)	12V (11-15V)		
	AC Output Voltage	115V AC / 230V AC, (regulation: 5%~10%)		
	Output Frequency	50Hz or 60Hz		
	Output Waveform	Modified Sine Wave		
	Efficiency	83-87%		
	Battery Polarity Reverse	By Fuse		
	Thermal Protection	65°C±5°C		
	Overload Protection	Shutdown & red LED light		
	Cooling Fan	Auto-operation fan (temperature or load)		
	Ideal battery size (12V Charger)	50~130Ah		100~600Ah
	CHARGER	Rated Input Voltage	230V AC/110V AC	
Input Frequency		50Hz or 60Hz		
Rated Output (12V Charger)		12V DC, 8A		12V DC, 15A
Type		3 Stage Automatic		
Charge Control (12V Charger)		Bulk 5A / 8A / 10A / 15A (up to 14.7V) / Absorption 14.4V / Float 13.8V		
Battery Type		For Charging 12V lead acid batteries only		
Product Dimension (LxWxH)(mm)		282X170X64	355X165X66	250X150X125
Weight (kgs)		1.8	2.4	4.5
Carton Size (mm)	440X360X675, 10pcs	455X435X400, 6pcs	420X215X172, 4pcs	

## Certificates





## 1KW-6KW Low Frequency Solar Hybrid Inverter

UNIV-PSC-L Solar Hybrid Inverter is a combination of UNIV-PC-L inverter and solar charge regulator. It makes your solar system simple in wiring, with all the unique features from the inverter and solar regulator, it brings you long term trouble free operation beyond your expectation.

### Features

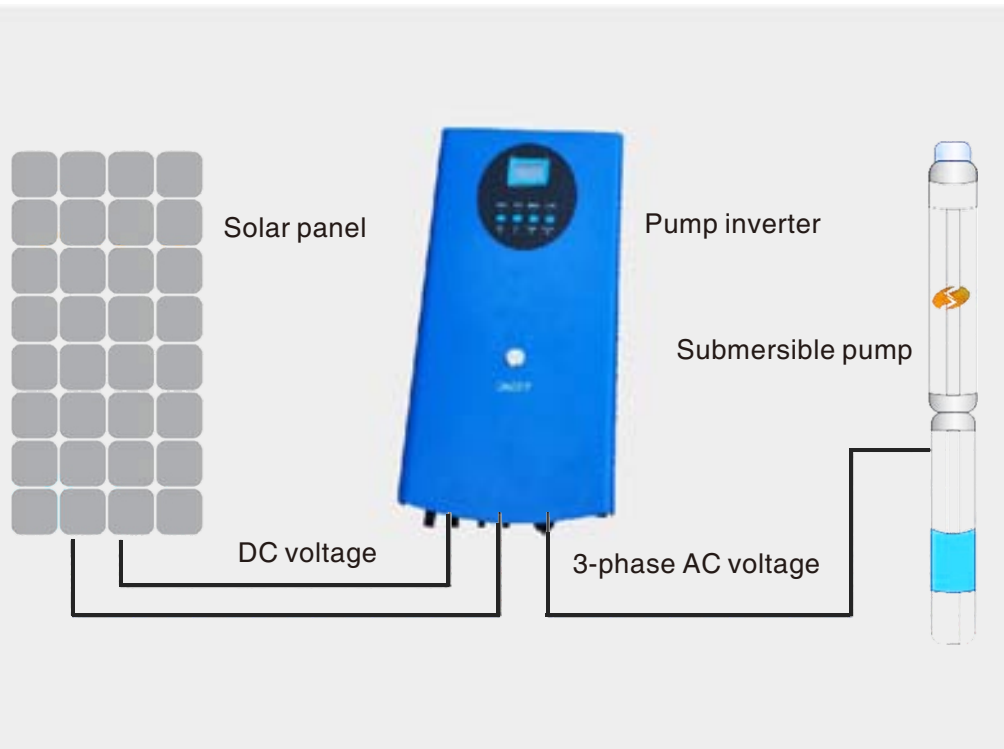
- Off-grid inverter (pure sine) +Battery charger+ MPPT Solar charge controller
- Connect directly to solar panel
- Charge the battery via AC grid power or solar panel
- Wide stabilizing AC range
- Full protections
- 3-step intelligent battery charging
- Battery / AC grid power priority switch available for off grid solar system
- Ideal for powering AC and DC appliance in home, office, boat or industry place
- Mainly for the solar power system

## Product Specifications

MODEL	ITEM	UNIV-1000PSC-L	UNIV-1500PSC-L	UNIV-2000PSC-L	UNIV-3000PSC-L	UNIV-4000PSC-L	UNIV-5000PSC-L	UNIV-6000PSC-L	
Output (Inverter Mode)	Continuous power (W)	1000	1500	2000	3000	4000	5000	6000	
	Surge Rating (W)	3000	4500	6000	9000	12000	15000	18000	
	Output waveform	Pure Sine Wave / same as input (bypass mode)							
	Nominal Output Voltage	100-110-120V AC / 220-230-240V AC							
	Output Frequency	50Hz ± 0.3Hz/60Hz ± 0.3Hz							
	THD	<10%							
DC Input	Nomina Input Voltage	12V / 24V DC		12V / 24V / 48V DC		24V / 48V DC			
	Idle Consumption Search Mode	<25W when power saver on							
AC Charger	Input Voltage Range	Wide: 90~135V AC / 164~243V AC; Narraw: 100~135VAC / 194~243V AC							
	Output Voltage	Depends on battery type							
	Max Charge Rate	35A / 70-90A Max (charger current control)							
Bypass & Protection	Input Voltage Waveform	Sine Wave (grid or generator)							
	Nominal Input Frequency	50Hz or 60Hz (auto detect)							
	Nominal Voltage	120VAC / 230VAC							
	Max Bypass Current	30A				40A			
	Bypass over Load Current	35A: alarm				45A: alarm			
Solar Charge Controller	Rated Voltage	12V/24V/48V							
	Rated Charge Current	40A (60A, optional for 12V /24V)							
	Rated Output Current	15A							
	Self Consumption	<10mA							
Mechanical Data	Inverter Dimensions (LxWxH)	598x218x179mm				470x190x340mm			
	N.W. (kgs)	21kgs	22kgs	23kgs	27kgs	38kgs	39kgs	40kgs	
	Shipping Dimensions (LxWxH)	740x315x300mm				590x330x475mm			
	G.W. (kgs)	23kgs	24kgs	25kgs	29kgs	40kgs	41kgs	42kgs	
	Display	Status LEDs / Status LEDs+LCD							

Certificates





## 750W-100KW Solar Combiner Pump Inverter with Junction Box

UNIV-PP3-C solar pump inverter converts solar array power from DC into AC to drive the pump. The solar pump system consists of pump, solar panels and inverter. With the function of MPPT (maximum power point tracking), the inverter regulates the output frequency according to irradiation in real time to achieve the maximum power. It is widely used for daily life(ground water), agricultural irrigation, forest, desert control, livestock irrigation, wastewater treatment and so on.

## Features

- Designed with VFD
- Optimizes pure sine wave PWM control
- Combined pump inverter and junction box.
- Dynamic maximum power point tracking (MPPT)
- Fast response and easy operation
- Low installation and maintenance costs
- Reduce the energy storing devices
- IP65 anti-dust and water-proof
- Adjustable speed range of pump based on the actual situation of the system.
- Available option of water-level detecting and control circuit.
- Full protection: Lightning, over / low input voltage, over current and over load protection, etc.
- Easy to installation, simple connection

# Product Specifications

MODEL \ ITEM	UNIV-7.5PP3-C	UNIV-15PP3-C	UNIV-22PP3-C	UNIV-37PP3-C	UNIV-55PP3-C	UNIV-75PP3-C	UNIV-11KPP3-C	UNIV-15KPP3-C
Solar Pumping Inverter Power (W)	750	1500	2200	3700	5500	7500	11K	15K
Recommend Pump Power(W)	370~550	750~1100	1500	2200~3000	3700~4500	5500~6000	7500~9200	11K
Recommend Pump Power(HP)	0.5~0.75	1~1.5	2	3~4	5~6	7.5~8	10~12.5	15~18.5
Input Volt	PV Open Volt:450-750VDC or AC input:Three-phase AC 380V (Optional)							
Recommended MPPT Volt (V)	480~600V DC							
Recommend Power of Solar Panel (Wp)	600~825	1125~1650	2250	3300~4500	5650~6750	8250~9000	11250~13800	16.5K~19.5K
Output Frequency	50Hz / 60Hz							

MODEL \ ITEM	UNIV-18KPP3-C	UNIV-22KPP3-C	UNIV-30KPP3-C	UNIV-37KPP3-C	UNIV-45KPP3-C	UNIV-55KPP3-C	UNIV-75KPP3-C	UNIV-100KPP3-C
Solar Pumping Inverter Power (W)	18K	22K	30K	37K	45K	55K	75K	100K
Recommend Pump Power(W)	15K	18.5K	22K~26K	30K	37K	45	55K~65K	75K~93K
Recommend Pump Power(HP)	20	25	30~35	40	50	60	73~86	100~124
Input Volt	PV Open Volt:450-750VDC or AC input:Three-phase AC 380V (Optional)							
Recommended MPPT Volt (V)	480~600V DC							
Recommend Power of Solar Panel (Wp)	22.5K	27.8K	33K~39K	45K	56K	68K	83K~98K	113K~140K
Output Frequency	50Hz / 60Hz							