

## Overview

UPower series is an inverter/charger with power from 1KVA to 5KVA, which combines MPPT solar charge controller, pure sine wave inverter, and AC/DC charger in one unit. The inverter and AC/DC charger can work simultaneously, makes UPower perfectly suits residential applications, schools, cottages and the area where the electricity is not stable or the applications that need uninterruptible power.

## Features

- A new type of all-digital intelligent energy storage and management Inverter/charger
- MPPT technology, Max. tracking efficiency 99.5 %, Max. DC-DC conversion efficiency 98.5 %
- Advanced all-digital control technology for AC-DC charging modules
- SPWM technology, with high efficiency up to 95 %
- With the function of Utility & Solar charging ratio selection, and total charging current setting
- Four charging mode and two output mode
- Rich set of options
- RS485 isolated communication interface with standard Modbus protocol
- Extensive electronic protections
- Variety of accessories can be selected according to user's requirements



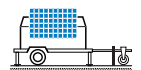
Solar Car



Solar Home



Solar Boat



Solar Power Generator

# Technical Specifications

Model	UP1000-M3212	UP1000-M3222	UP1500-M3222	UP2000-M3322	UP3000-M3322	UP3000-M6322	
Nominal battery voltage	12VDC	24VDC	24VDC	24VDC	24VDC	24VDC	
Battery input voltage range	10.8 ~ 16VDC	21.6 ~ 32VDC	21.6 ~ 32VDC	21.6 ~ 32VDC	21.6 ~ 32VDC	21.6 ~ 32VDC	
Inverter output							
Continuous output power	800W	800W	1200W	1600W	2400W	2400W	
Output power 15min.	1000W	1000W	1500W	2000W	3000W	3000W	
Output voltage range	220V(-6%~+5%) 230V(-10%~+5%)	220V±5%;230V (-10% ~ +5%)	220V±5%;230V (-10% ~ +5%)	220V±5%;230V (-10% ~ +5%)	220V±5%;230V (-10% ~ +5%)	220V±5%;230V (-10% ~ +5%)	
Output frequency	50/60±0.1Hz						
Output mode	Single phase						
Output wave	Pure Sine Wave						
Distortion THD	≤3%(12V or 24V resistive load)						
Max. efficiency	91%	94%	95%	95%	95%	95%	
Utility charging							
Utility input voltage range	160VAC ~ 280VAC(Working voltage range);170VAC ~ 270VAC(Utility starting voltage range)						
Max. utility charge current	20A	20A	20A	30A	30A	30A	
Solar charging							
Max. PV open circuit voltage	60V (At minimum operating environment temperature) ; 46V (At 25°C environment temperature)	100V (At minimum operating environment temperature) ; 92V (At 25°C environment temperature)				150V (At minimum operating environment temperature) ; 138V (At 25°C environment temperature)	
Max. PV input power	390W	780W	780W	780W	780W	1500W	
Max. PV charging current	30A	30A	30A	30A	30A	60A	
Equalization voltage	Sealed:14.6V, Flooded:14.8V	Sealed:29.2V,Flooded:29.6V					
Boost voltage	Gel:14.2V, Sealed:14.4V, Flooded:14.6V	Gel:28.4V,Sealed:28.8V,Flooded:29.2V					
Float voltage	Gel/Sealed/ Flooded:13.8V	Gel/Sealed/Flooded:27.6V					
Tracking efficiency	≤99.5%						
Charging conversion efficiency	≤98%						
Temperature compensation	-3mV/°C/2V (Default)						
Others							
No load consumption	≤1.2A	≤0.6A	≤0.6A	≤0.8A	≤0.8A	≤0.8A	
Enclosure	IP30						
Operating temperature range	-20°C ~ 50°C (full input and output with no derating)						
Dimensions(HxWxL)	386×300×126mm	386×300×126mm	386×300×126mm	444×300×126mm	444×300×126mm	518×310×168mm	
Net weight	7.3kg	7.3kg	7.4kg	8.5kg	9.2kg	14.9kg	

# Technical Specifications

Model	UP3000-M2142	UP3000-M6142	UP5000-M6342	UP5000-M8342	UP5000-M10342
Nominal battery voltage	48VDC	48VDC	48VDC	48VDC	48VDC
Battery input voltage range	43.2 ~ 64VDC	43.2 ~ 64VDC	43.2 ~ 64VDC	43.2 ~ 64VDC	43.2 ~ 64VDC
Inverter output					
Continuous output power	2400W	2400W	4000W	4000W	4000W
Output power 15min.	3000W	3000W	5000W	5000W	5000W
Output voltage range	220V±5%;230V(-10% ~ +5%)				
Output frequency	50/60±0.1Hz				
Output mode	Single phase				
Output wave	Pure Sine Wave				
Distortion THD	≤3%(24V or 48V resistive load)				
Max. efficiency	95%				
Utility charging					
Utility input voltage range	160VAC ~ 280VAC(Working voltage range);170VAC ~ 270VAC(Utility starting voltage range)				
Max. utility charge current	15A	15A	30A	30A	30A
Solar charging					
Max. PV open circuit voltage	150V (At minimum operating environment temperature) ; 138V (At 25°C environment temperature)		200V (At minimum operating environment temperature) ; 180V (At 25°C environment temperature)		
Max. PV input power	1040W	3000W	3000W	4000W	5000W
Max. PV charging current	20A	60A	60A	80A	100A
Equalization voltage	Sealed:58.4V,Flooded:59.2V				
Boost voltage	Gel:56.8V,Sealed:57.6V,Flooded:58.4V				
Float voltage	Gel/Sealed/Flooded:55.2V				
Tracking efficiency	≤99.5%				
Charging conversion efficiency	≤98%				
Temperature compensation	-3mV/°C/2V (Default)				
Others					
No load consumption	≤0.6A	≤0.6A	≤0.8A	≤0.8A	≤0.8A
Enclosure	IP30				
Operating temperature range	-20°C ~ 50°C (full input and output with no derating)				
Dimensions(HxWxL)	444×300×126mm	518×310×168mm	605×315×178mm	605×315×178mm	605×315×178mm
Net weight	7.3kg	14.7kg	16.6kg	17.5kg	17.8kg