

# Ultra Split Phase Inverter/Charger



Recreational vehicles    Marine    Heavy duty trucks    Work vehicles    Buses / coaches    Specialty vehicles



**Pure sine, high surge, and full feature, the Ultra inverter charger is the state of the art. The heart of your power system!**

The Ultra split phase series low frequency pure sine wave inverter charger is a combination of an inverter, battery charger, automatic voltage regulator and AC auto-transfer switch into on complete system with a peak conversion efficiency of 88%. It is packed with unique features and it is one of the most affordable inverter charger in the market today. Ultra series low frequency pure sine wave inverter charger is available in full range of models: 1000W, 1500W, 2000W, 3000W, 4000W, 5000W, 6000W, 8000W, 10000W and 12000W with 12vdc, 24vdc and 48vdc input for flexible backup system. This series is your smart choice for the power at home power backup, RV, truck, vehicle and emergency appliances.

## Product Features

- Designed to operate under harsh environment
- Split phase output: 120/230vac
- DC start & automatic self-diagnostic function
- True sine wave output (THD<3%) to operate sensitive electronic and electrical equipment.
- Automatic Generator start function
- Easy to install & easy to operate & easy to solve
- Low DC voltage supports home and office appliances
- Charge rate selectable from 0%-100%
- High efficiency design.
- 13Vdc battery recovery point, dedicated for renewable energy systems.
- 8 pre-set battery type selector plus De-sulphation for totally flat batteries.
- Power factor corrected multi-stage charger for fast, efficient charging, minimizing charging time.
- 10ms max transfer time between utility and battery, guarantees power continuity.
- 15s delay before transfer when AC resumes, protection for load when used with generator.
- Conformal coated circuit boards for humid environments.
- Battery temperature sensing to enhance battery lifecycle.
- LCD and LED display to indicate the status of the inverter charger
- Surge capacity to start difficult loads like refrigerators or A/C compressors.
- Power save mode to reduce idle consume.
- Protection: AC input over voltage protection, AC input low voltage protection, Over temperature protection, Over load protection, Short circuit protection (1s after fault), Back feeding protection to avoids presenting an AC voltage on the AC input terminal in inverter mode.

	Model	UltraS	UltraS	UltraS	UltraS	UltraS	UltraS	UltraS	UltraS	UltraS	UltraS
		1000W	1500W	2000W	3000W	4000W	5000W	6000W	8000W	10000W	12000W
Inverter Output	Continuous output power	1000W	1500W	2000W	3000W	4000W	5000W	6000W	8000W	10000W	12000W
	Surge rating (20s)	3000W	4500W	6000W	9000W	12000W	15000W	18000W	24000W	30000W	36000W
	Capable of starting electric motor	1HP	1.5HP	2HP	3HP	4HP	5HP	6HP	8HP	10HP	12HP
	Output waveform	Pure sine wave /same as input (bypass mode)									
	Nominal efficiency	>88% (peak)									
	Line mode efficiency	>95%									
	Power factor	0.9-1.0									
	Nominal output voltage (rms)	100-110-120Vac / 220-230-240Vac									
	Output voltage regulation	±10% RMS									
	Output frequency	50Hz ± 0.3Hz / 60Hz ± 0.3Hz									
	Short circuit protection	Yes, current limit function (Fault after 1 sec)									
	Typical transfer time	10ms (max)									
	THD	< 3%									
	DC input	Nominal input voltage	12Vdc (*2 for 24vdc, *4 for 48vdc)								
Minimum start voltage		10Vdc									
Low battery alarm		10.5Vdc / 11.0Vdc									
Low battery trip		10.0Vdc / 10.5Vdc									
High voltage alarm & fault		16.0Vdc									
High voltage input recovery		15.5Vdc									
Low battery voltage recover		13.0Vdc									
Idle consumption - search mode		< 25W when power saver on									
Charger		Input voltage range	Wide: 90-135Vac / 164-243Vac Narrow: 100-135Vac / 194-243Vac								
	Output voltage	Depends on battery type									
	Charger breaker rating	10A	10A	10A	20A	20A	30A	30A	50A	80A	80A
	Max charge rate	35A/70-90A max (charge current control)									
	Over charge protection shutdown	15.7V for 12Vdc (*2 for 24Vdc, *4 for 48Vdc)									
	Charger curve (4 stage constant current) 4 step digital controlled progressive charge	Battery types (*2 for 24Vdc, *4 for 48Vdc)									
	Battery type	Fast Vdc					Float Vdc				
	Gel U.S.A	14					13.7				
	A.G.M 1	14.1					13.5				
	A.G.M 2	14.6					13.7				
	Sealed Lead Acid	14.4					13.6				
	Gel Euro	14.4					13.8				
	Open Lead Acid	14.8					13.3				
	Calcium	15.1					13.6				
	De-sulphation	15.5 for 4hrs									
	Remote control	Yes. Optional									

Bypass & protection	Input voltage waveform	Sine wave (Grid or Generator)									
	Nominal voltage	120Vac					230Vac				
	Low voltage trip	80V/90V ± 4%					230Vac				
	Low voltage re-engage	90V/100V ± 4%					230Vac				
	High voltage trip	140V ± 4%					230Vac				
	High voltage re-engage	135V ± 4%					230Vac				
	Max input AC voltage	150Vac					230Vac				
	Nominal input frequency	50Hz or 60Hz (Auto detect)									
	Low freq trip	47 ± 0.3Hz for 50Hz, 57 ± 0.3Hz for 60Hz									
	Low freq re-engage	48 ± 0.3Hz for 50Hz, 58 ± 0.3Hz for 60Hz									
	High freq trip	55 ± 0.3Hz for 50Hz, 65 ± 0.3Hz for 60Hz									
	High freq re-engage	54 ± 0.3Hz for 50Hz, 64 ± 0.3Hz for 60Hz									
	Output short circuit protection	Circuit breaker									
	Bypass breaker rating	10A	15A	20A	30A	30A	40A	40A	50A	80A	80A
	Transfer switch rating	30amp for UL & TUV					270Vac				
Max bypass current	30amp					40amp					
Mechanical specification	Mounting	Wall mount									
	Inverter dimensions (L*W*H)	388*415*200mm				488*415*200mm			588*415*200mm		
	Inverter weight	21kg	22kg	23kg	27kg	38kg	48kg	49kg	60kg	66kg	70kg
	Shipping dimensions (L*W*H)	550*520*310mm				650*520*310mm			750*520*310mm		
	Shipping weight	23kg	24kg	25kg	29kg	40kg	50kg	51kg	62kg	68kg	72kg
	Display	Status LEDs / Status LEDs + LCD									
	Standard warranty	1 year									