

Features

It is an electronic system that operates the photovoltaic(PV)modules in a manner that allows the modules to produce all the power they are capable of. The solar panel charge controller is a microprocessor-based system designed to implement the MPPT. It can increase charge current up to 30% or more compared to traditional charge controllers.

AC or Battery Priority

Our inverter is designed AC priority by default. This means, when AC input is present, the battery will be charged first.

When you choose battery priority(Battery type selector on 7-9), then inverter will invert from battery despite the AC input. Only when the battery voltage reaches low voltage alarm point will be inverter transfer to AC input, charge battery when the battery is fully charged. This function is mainly for wind/' solar systems using utility power as back up.

Maximum Power Point Tracking(MPPT)function

Maximum Power Point Tracking, frequently referred to as MPPT, is an electronic system that operates the Photovoltaic(PV)modules in a manner that allows the modules to produce all the power they are capable of. The solar panel charge controller is a microprocessor-based system designed to implement the MPPT. And it can increase charge current up to 30% or more compared to traditional charge controllers.

Characteristics

- 12/24vdc input optional
- Max. AC charge current 70A.(Optional)
- Inbuilt pure copper transformer
- Pure sine wave output
- CPU single chip intellectual control technology
- Battery priority function
- 50Hz/60Hz Automatic



PV Series (300W-10KW)

Features

- 100% Pure sine wave output inverter
- Built-in MPPT charge controller to enhance overall efficiency
- Configurable AC/Solar input priority
- Compatible to mains voltage or generator power
- Overload & short circuit protection
- Smart battery charger design for optimized battery performance
- CPU single chip intellectual control technology
- 50Hz/60Hz Automatic

100% Pure sine wave inverter
MPPT BASED SOLAR POWER CONDITIONING UNIT



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Model	RTI-1024	RTI-1524	RTI-2024	RTI-3024	RTI-5048	RTI-6048	RTI-10048
Rated Voltage	24			48			
Rated Charge Current	40A			60A			
Load Current	15A						
Input Voltage Range	15-150V DC						
Max.PV open circuit array voltage	150V DC						
Typicle Idle Consumption	At idle<10mA						
Over load protection(Dc load)	2.0*Inom>5s;		1.5*Inom>20s;		1.25*Inom temperature controlled		
Bulk charge	14.6V(default)	29.2V(default)		29.2V(default)			
Floating charge	13.4V(default)	26.8V(default)		53.6V(default)			
Equalization charge	14.0V(default)	28.0V(default)		56.0V(default)			
Over charge disconnection	14.8V	29.6V		59.2V			
Over charge recovery	13.6V	27.2V		54.4V			
Over charge disconnection	10.8V(default)	21.6V(default)		43.2V(default)			
Over charge reconnection	12.3V	24.6V		49.2V			
Temperature compensation	-13.2mV/C	-26.4mV/C		-52.8mV/C			
Load acid battery setting	Adjustable						
NiCad battery setting	Adjustable						
Load Control Mode	1.Low Voltage Reconnect(LVR):Adjustable; 2.Low Voltage Disconnect(LVD):Automatic disconnection;3.Reconnection:Includes warning flash before disconnect and reconnection						
Low voltage reconnect	12.0-14.0Vdc	26.0-28.0Vdc		48.0-56.0Vdc			
Low voltage disconnect	10.5-11.0Vdc	21.0-22.0Vdc		42.0-50.0Vdc			
Ambient temperature	0 to 40°C(full load) 40-60°C(de-rating)						
Altitude	Operating5000m, Non-Operating 16000m						
Protection class	IP21						
Battery temperature sensor	BTS optional remote battery temperature sensor for increased charging precision						
Terminal size(fine/single wire)	#8 AWG						
Input voltage wave form	Sinusoldar(Utility or Generator)						
Nominal input voltage	230Vac						
Low line disconnect	155Vdc±4%						
High line disconnect	285Dvc±4%						
Max Ac input voltage	270Vrms						
Nominal Input Frequency	50Hz/60Hz(Auto Detection)						
Over load protection	Circuit Breaker						
Output short Circuit Protection	Circuit Breaker						
Efficiency Line Mode	>95%						
Transfer switch rating	30A						
Transfer time(Ac to Dc)	20ma(Typical)						
Output voltage Waveform	Pure Sine Wave						
Rated Output Power(W)	1000W	1500W	2000W	3000W	5000W	6000W	10000W
Power Factor	1						
Nominal Output Voltage	230Vac						
Output Voltage Regulation	±10%rms						
Nominal Efficiency	>80%						
By Pass	Optional						
AC Charger	Optional						
Charge Current Regulation	±5A						
Battery Initial Voltage	0-15.7Vdc/31.4Vdc(can operate with 0V battery)						
Communication	Rj11(Used for Factory Testing, No Customer Interface Available)						
Safety Certification	CE(EN80950)						
EMI Classification	EN50091-2 class A						
Operating Temperature range	0°C to 40°C						
Storage Temperature	-15°C-60°C						
Operation Humidity	5% to 96%						
Audible Noise	60dB Max.						
Cooling	Forced Air Variable Speed Fan						

MPPT
Solar Function

PV Inverter
Battery
Priority

OUTPUT	OUTPUT VOLT	100/110/120/220/230/240VAC			
	CONTINUOUS POWER	300W	500W	600W	800W
	SURGE POWER	600W	1000W	1200W	1600W
	WAVEFORM	PURE SINE WAVE			
FREQUENCY	50Hz/60Hz				
AC REGULATION	LOW & HIGH 10%				
NO LOAD CURENT DRAW	<0.6A				
EFFICIENCY	>88%				
USB OUTPUT	5V				
DC VOLTAGE	LED DISPLAY POWER & FAIL STATUS				
INPUT RANGE	10-15VDC	21-30VDC	40-60VDC		
WORKING INPUT	12VDC	24VDC	48VDC		
FUSE	35A	20A	15A		
LOW BATTERY ALARM	10.5+0.3V	21+0.5V	42±0.5V		
LOW BATTERY SHUT DOWN	10+0.5V	20+0.5V	40±0.5V		
OVER VOLTAGE SHUT DOWN	15.5+0.5V	30.5+0.5V	60±0.5V		
OVER LOAD SHUT DOWN	360W OVER 10 SECOND	600W OVER 10 SECOND	720W OVER 10 SECOND	960W OVER 10 SECOND	
OVER HEATING SHUT DOWN	>75°C				
OVER THERMAL	SHUT DOWN THE OUTPUT				
WORKING TEMPERATURE	BETWEEN -10°C AND +50°C				

INPUT

PROTECTION

