

# FLARE

## MPPT SERIES PCU

### CORE FEATURES



**CONFIGURABLE  
USER SETTINGS**



**PURE  
SINE WAVE**



**TRUE MPPT**



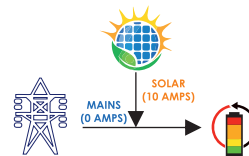
**REMOTE  
MONITORING IoT**



**INTELLIGENT  
MODES**



**ADVANCED  
DSP TECHNOLOGY**



**AI CHARGE  
SHARING**

- Big Data Big Display
- Built-in Energy Meter
- Maximized Solar Usage through Intelligent modes.
- 40% less panel required than other PCUs
- RS-232 (Industrial Standard MODBUS)
- Incorporated with Microchip and ST DSP Engines
- Safety and Protections

- IGBT based design and Fast Charging
- Wide range MPPT Input
- 6 Stage Battery Charging
- Multiple Battery Selection
- Sleek & Aesthetic design
- Works as standalone Solar Inverter in case of No-Grid

FLARE SERIES MPPT SOLAR PCU TECHNICAL SPECIFICATION

Parameters		Rating				
System Model Name		STF-PCUJGP-3548/S11	STF-PCUJGP-5748/S11	STF-PCUJGP-7548/S11	STF-PCUJGP-8596/S11	STF-PCUJGP-10120/S11
Capacity		3000VA	4000VA	5500VA	7500VA	10000VA
Operating DC Voltage		48V			96V	120V
Switching Element		Mosfet			IGBT	IGBT
Charger Topology		Boost Mosfet				
Parameter (Grid)		Default Value				Variable Range
Nominal Grid Voltage		230V				
Nominal Frequency		50Hz				
Frequency Range		45-55 Hz ± 1 Hz				
Battery Charging Method 4 Stage		Bulk/Absorption/Float/Equalize				
Grid - Battery Charging	TUB (Default)	14.4V ± 0.2V (Each Battery)				13.8V-15V
	Boost	13.8V ± 0.2V (Each Battery)				13V-14.2V
Grid - Battery Charging	SMF	14.2V ± 0.2V (Each Battery)				13.5V-14.2V
	Float	13.8V ± 0.2V (Each Battery)				13.5V-14.2V
Grid - Battery Charging Current	Enable	15A ± 1A				5A-18A
	Disable	18A ± 1A				
Grid Reconnect @ Battery Voltage		Charging Current 0.0A				
Grid Low Cut Voltage	UPS Mode Enable	11.7V ± 0.2V (Each Battery)				11V-12.5V
Grid Low Cut Recovery	UPS Mode Enable	170V ± 10V				
	UPS Mode Disable	100V ± 10V				
Grid High Cut Voltage	UPS Mode Enable	180V ± 10V				
	UPS Mode Disable	110V ± 10V				
Grid High Cut Recovery	UPS Mode Enable	265V ± 10V				
	UPS Mode Disable	290V ± 10V				
Changeover (Batt. To Mains)	UPS Mode Enable/Disable	255V ± 10V				
Changeover (Mains To Batt.)	UPS Mode Enable/Disable	280V ± 10V				
DG Mode	Enable/Disable	Disable				
Parameter (Battery Mode)		1 Phase				
Output Phase		Sinewave				
Nominal Output Voltage		220V ± 5%				
Max. Output Current		9.5A	13.5A	17.5A	27A	35A
Discharging Current		50A ± 2A	75A ± 2A	105A ± 2A	50A ± 2A	70A ± 2A
Nominal Frequency		50Hz ± 1%				
Battery Low Buzzer		10.8V ± 0.2V (Each Battery)				BLC +0.3V
Battery Low Cut		10.5V ± 0.2V (Each Battery)				10V - 11.5V
Battery High Cut		16.5V ± 0.2V (Each Battery)				16.5V - 17.5V
Typical Efficiency		≥ 84%				
Voltage Harmonic		< 3% (Linear Load)				
Over Load Capacity	UPS Mode Disable	>110% 3- Times Auto Reset with 30Sec. Delay and 4th Time Shut Down				
	UPS Mode Enable	>110% 1st Time Shut Down after 30 Sec Delay. >150% Output Goes Down				
Protection		Overload, Battery Low, Battery High, Over Temperature, Short Circuit, PV Reverse, PV High, Mains Fuse Trip, Grid Overload				
Switches and LED Indication	S.No.	Switch	Function(s)		Switch Led Status	
	1	POWER	ON/OFF the UPS Output		SYSTEM ON - Led ON SYSTEM OFF - Led OFF	
	2	INV/UPS	When it is short pressed it enables UPS/Inverter Mode Selection. When it is Long pressed Enables the UPS Parameter Setting. The LCD Displays : "Edit Parameters Setting". The Switches function now change to: POWER - Enter/OK Switch.		UPS Mode ON - Led ON UPS Mode OFF - Led OFF	
	3	SMF/TUB	When it is short pressed it enables TUBULAR or SMF Battery Selection.		TUBULAR Battery - Led ON SMF Battery - Led OFF	
	4	HYBRID/PCU	When it is Short pressed it Enables the Hybrid or PCU Mode Selection.		PCU Mode - Led ON HYBRID Mode - Led OFF	
5	ONLY LED	Solar status Green/Red		Green LED ON - Full Solar Used Green LED Blinking - Partial Solar Used Green LED OFF - No Solar Used Red LED ON - PV Reverse Protection Red LED OFF - No Protection Selected		
Display		Battery Voltage, Solar Charging current, Grid Charging current, Solar Load Current, Grid Voltage, Grid Frequency, Output Voltage, Output Frequency, Load in % on Battery, Load in % on Solar, Charging Mode, Protection, Charging Mode, Solar Kwh(Saving), Solar availability Status, Solar Working Mode (HYBRID/PCU LITE/ PCU ULTRA), UPS ON/OFF.				
Photovoltaic Input		80 - 260 VDC				
Input Voltage Range (Min - Max)		3.0 KW			4.0KW	5.5 KW
Maximum PV Power Recommended		140 - 360 VDC			200 - 360 VDC	10 KW
MPPT Based Charging Controller		Mosfet				
Switching Element		ARM- Cortex				
Controller		MPPT				
Type of Charger		95%				
Efficiency		0 - 50°C				
Parameter (Environment)		Fan				
Operating Temperature		95%				
Cooling		50dB				
Max. Relative Humidity @25°C (Non Condensing)		IP20				
Noise @ 1 Meter		28.34	31.2	45	45.8	68.1
Standard Compliance		430X400X500			520X400X640	
Weight (kg)						
Dimension L x W x H (mm)						

\*Due to continuous improvement technical specifications & product image can change without prior notice.