SMARTEN®
FUSION IS THE FUTURE

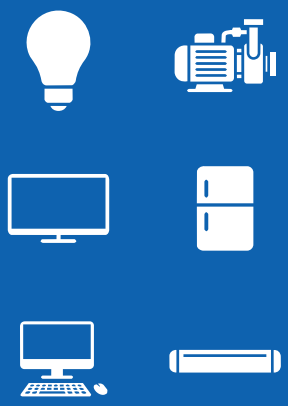
Shine
Solar Power Conditioning Unit

SOLAR PCU (PWM BASED)
5.5KVA TO 10KVA



Key Features

- ADVANCED PWM SOLAR CONTROLLER
- COMPREHENSIVE SAFETY PROTECTION
- LOW-VOLTAGE MAINS SUPPORT
- MULTIPLE BATTERY CONFIGURATION SUPPORT



The SHINE Series is an advanced Solar Power Conditioning Unit (PCU) designed to deliver reliable solar power conditioning for homes and small commercial applications. Available from 5.5KVA to 10KVA, it combines Pure Sine Wave output with an advanced PWM-based solar charge controller for efficient solar energy management.

The unit provides comprehensive protection features including overload, short-circuit, over-temperature and other system protections for reliable operation. Its configurable charging parameters support flexible battery charging requirements, while the PWM solar charge controller provides efficient solar energy utilization.

SHINE supports solar charging and mains charging with built-in protection and intelligent operating functions, making it suitable for applications requiring dependable backup power and solar energy utilization.

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SMARTEN POWER SYSTEMS LIMITED

SHINE SOLAR POWER CONDITIONING UNIT
5.5KVA TO 10KVA

TECHNICAL SPECIFICATIONS					
MODEL NAME	**5.5KVA/48V**	**5.5KVA/96V**	**6KVA/72V**	**7.5KVA/96V**	**10KVA/120V**
MAINS MODE					
Mains AC Input Voltage Range (UPS Mode)	185VAC to 255VAC ± 10VAC				
Mains AC Low Cut/High Cut Voltage (UPS Mode)	175VAC/265VAC ± 10VAC				
Mains AC Low Cut/-High Cut Recovery Voltage (UPS Mode)	185VAC/255VAC±10VAC				
Mains AC Input Voltage Range (WUPS Mode)	110VAC to 285VAC ± 10VAC				
Mains AC Low Cut/High Cut Voltage (WUPS Mode)	90VAC/295VAC ± 10VAC				
Mains AC Low Cut/-High Cut Recovery Voltage (WUPS Mode)	110VAC/285VAC ± 10VAC				
Input Frequency Range	40Hz to 60Hz				
BATTERY					
Battery Type	LA/Tubular/SMF				
Battery deep Discharge Recovery	Yes (Independent Charger to recover Deep Discharge Battery)				
Charging Current	5A-15A +/-3A	15A+/-3A			
BACKUP MODE					
Output Voltage/ Frequency	220VAC+/-10% , 50Hz+/-0.2Hz				
Output Waveform	Pure Sine Wave ≤ 5% THD				
Low Battery Warning	10.8V+/-0.2V Per Battery				
Low Battery Cut	10.4V+/-0.2V Per Battery				
Change Over Time UPS Mode	<10ms				
Change Over Time WUPS Mode	<25ms				
Cooling	Temp. Controlled Fan				
PROTECTIONS					
Overload In Backup Mode	Yes provided , System will give Overload Indication at 101% Load.				
Short Circuit In Backup Mode	System will shutdown after 3 retries in case of Output Short Circuit.				
Short Circuit In Mains Mode	Mains MCB will trip				
Backfeed	System will shutdown & there will be no retry				
Phase To Phase Protection In Mains Mode	Yes, Provided by Electronic means				
Over Temperature	Yes provided, if heat sink temp. goes above 100 degree C. System will shut down.				
Reverse Battery	DC MCB will trip				
SOLAR CHARGE CONTROLLER					
Solar Charge Controller Type	PWM TYPE				
Max Panel wattage can be connected	5500W	6500W	4500W	6500W	8000W
Max PV Voltage	100V	230V	150V	230V	230V
Max PV current	70A	50A			
Reverse PV Protection/ Reverse Current Flow To PV	Yes provided, it will also display on LCD panel				
Sharing Of Current When PV & Grid Both Are Available	If PV power is not sufficient enough to charge the battery, system will start sharing battery charging from PV & grid.				
Mode Option	1. Solar >> Grid >> Battery 2. Solar >> Battery >> Grid	This function is not available			
DOD Definition(Depth Of Discharge)	Mains will be connect when battery voltage reach at defined value of the battery voltage.*				
DOD 20%, If Battery Voltage is :	50V±0.2V*	100v±0.2v	75v±0.2v	100v±0.2v	125v±0.2v
DOD 30%, If Battery Voltage is :	48V+/-0.2V	96v±0.2v	72v±0.2v	96v±0.2v	120v±0.2v
DOD 40%, If Battery Voltage is :	46V+/-0.2V	92v±0.2v	69v±0.2v	92v±0.2v	115v±0.2v
DOD 50%, If Battery Voltage is :	44V+/-0.2V	88v±0.2v	66v±0.2v	88v±0.2v	110±0.2v
Battery Capacity**	upto 260AH				
DISPLAYS & ALARMS					
LCD Status Display	Mains ON, I/P Voltage/Frequency, Battery Voltage/Charging/Charged, Charging Current, Backup Mode, UPS ON/OFF, Battery Voltage, Load %,DOD,ModePriority,Charge Mode, Output Voltage/Frequency, Battery Current, PV Current/ Voltage , Mains Low Cut/High Cut, Mains Not Available, Mains Frequency Cut Etc				
LCD Fault / Protection Status Display	MCB Trip, Short Circuit, Overload, Battery Low, High Temperature, Back feed				
Buzzer					

MAKE IN INDIA

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