SMARTEN®

FUSION IS THE FUTURE

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MAKE IN INDIA

Smarten Power Systems Ltd.

Plot No -374, Pace City-II, Sector 37, Gurugram, Haryana. India.

SOLAR ENERGY

SMARTEN®

FUSION IS THE FUTURE

COMPLETE ENERGY SOLUTIONS

INNOVATIVE • RELIABLE • SUSTAINABLE


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MANUFACTURING EXCELLENCE

Since 2014, Smarten Power Systems has grown into a globally trusted manufacturer of power backup and renewable energy solutions. Our advanced manufacturing capabilities, supported by in-house R&D, modern production technologies, and rigorous quality standards, enable us to deliver reliable, high-performance products to customers across 31+ countries. Every product reflects our commitment to innovation, precision, and long-term reliability.



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QUALITY & CERTIFICATIONS

Committed to Quality, Compliance & Global Standards

At Smarten Power Systems, our commitment to quality is reflected through recognized certifications, government approvals, export registrations, and industry memberships that support our manufacturing excellence and global business operations.

QUALITY MANAGEMENT

ISO 9001:2015
Quality Management System

IAF
Member of Multilateral Recognition Arrangement

JAS-ANZ
Accredited Certification

ISO 14001:2015
Environmental Management System

PRODUCT STANDARDS & COMPLIANCE

IS 14242
Battery Standard

IEC
International Electrotechnical Commission

CE MARK
European Conformity

BIS / ISI
Standard Mark

GOVERNMENT RECOGNITION & EXPORT REGISTRATION

MSME
Micro, Small & Medium Enterprises

IEC
Importer Exporter Code

MNRE
Approved Channel Partner

RCMC
Registered with MPEDA

INDUSTRY MEMBERSHIPS & RECOGNITION

SON
Standards Organisation of Nigeria

Packaging for Better Living

NSIC
National Small Industries Corporation



Key Features

- GRID CHARGING ENABLE / DISABLE OPTION
- MULTIPLE SOC SETTING
- FASTER CHARGING, MORE BACKUP
- SUPPORTS SOLAR PANELS UP TO 2500W*
- INBUILT 2560Wh* LI-ION BATTERY

Smarten Helio Solar PCU (with In-Built Lithium Battery) is a smart, compact, and reliable solar power backup solution designed for efficient and uninterrupted energy management.

With advanced MPPT technology, Helio maximizes solar power even in low light, ensuring faster charging and higher efficiency. Its in-built lithium battery delivers long life, quick charging, and zero maintenance in a sleek wall-mount design.

Helio provides pure sine wave output for the safe operation of all sensitive appliances. The smart LCD display shows real-time battery, load, and solar status for complete control.

Ideal for homes, shops, offices, schools, clinics, and small businesses, Helio delivers clean, silent, and dependable power every day.

- INBUILT 2560Wh LI-ION BATTERY* For 2500/25.6V model only

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SMARTEN POWER SYSTEMS LIMITED

HELIO MPPT SOLAR PCU

1500/12.8V | 2500/25.6V

PRODUCT SPECIFICATIONS

MODEL NAME	1500/12.8V	2500/25.6V
MAINS MODE		
Mains AC Input Range (UPS Mode)	185VAC to 255VAC ± 10VAC	
Mains AC Low Cut/High Cut (UPS Mode)	175VAC/265VAC ± 10VAC	
Mains AC Low Cut/-High Cut Recovery (UPS Mode)	185VAC/255VAC±10VAC	
Mains AC Input Range (WUPS Mode)	110VAC to 285VAC ± 10VAC	
Mains AC Low Cut/High Cut (WUPS Mode)	90VAC/295VAC ± 10VAC	
Mains AC Low Cut/-High Cut Recovery (WUPS mode	110VAC/285VAC ± 10VAC	
Input Frequency Range	40Hz to 60Hz	
BATTERY		
Battery Type	Li-Ion	
Li-Ion Battery Quantity	1 Number * 12.8V/100AH	1 Number * 25.6V/100AH
Battery Deep Discharge Recovery	Yes (Independent Charger to recover Deep Discharge Battery)	
Charging Current	20A+/-3A	
BACKUP MODE		
Output Voltage / Frequency	220VAC+/-10% , 50Hz+/-0.2Hz	
Output Waveform & THD	Pure Sine Wave, ≤ 5% THD	
Low Battery Warning	10.8V+/-0.2V Per Battery	21.6V+/-0.2V Per Battery
Low Battery Cut	10.4V+/-0.2V Per Battery	20.8V+/-0.2V Per Battery
Changeover Time (UPS Mode)	<10ms	
Changeover 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	AC Fuse will blow	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	MPPT TYPE	
Max Panel Wattage Can be Connected	1200W	2500W
Max PV Voltage	60V+/-3V	105V+/-3V
Max PV Current	55A ±3A	70A ±3A
Reverse PV Protection / Reverse Current Flow to PV	Yes provided, it will also display on LCD panel	
Current Sharing When Both PV and Grid Are Available	If PV power is insufficient to charge the battery, the system will charge the battery using both PV and the grid.	
Mode Options	1. Solar >> Grid >> Battery (In this condition, the priority is Solar, followed by Grid and Battery) 2. Solar >> Battery >> Grid (in this condition first priority is solar then Battery and Grid) 3. Grid >> Solar >> Battery (In this condition first priority is Grid then Solar and Battery, Mains will not be disconnected in this condition.)	
Mains Disconnect SOC (State of charge)**	65% of Battery Capacity*	65% of Battery Capacity*
	75% of Battery capacity*	75% of Battery Capacity*
	85% of Battery capacity*	85% of Battery Capacity*
	95%of Battery capacity*	95% of Battery Capacity*
Mains Disconnect SOC definition(State of charge)**	Mains will disconnect if battery will charge defined SOC level	
Mains Connect SOC (State of charge)**	20% of Battery Capacity	30% of Battery Capacity
	30% of Battery Capacity	40% of Battery Capacity
	40% of Battery Capacity	50% of Battery Capacity
	50% of Battery Capacity	60% of Battery Capacity
Mains Connect SOC definition(State of charge)**	Mains will be connect when battery use defined SOC value of full capacity	
DISPLAYS & ALARMS		
LCD Status Display	Mains ON, I/P Voltage/ Frequency, Battery Voltage/ Charging/Charged, Charging Current, Backup Mode, UPS ON/OFF, Battry Voltage, Load %, O/P Voltage/ Frequency, Battery Current, PV Current/ Voltage. Mains Low Cut/High Cut, Mains Not Available, Mains Frequency Cut etc.	
LCD Fault / Protection Status Display	Mains Fuse Blown / MCB Trip, Short Circuit, Overload, Battery Low, High Temperature, Back feed	
Buzzer	Audible beep for Overload , Short Circuit, Back feed, Low Battery, Over Temperature, Mains Fuse blown / MCB Trip	

GLOBAL SUPPORT

POWERING PARTNERSHIPS BEYOND PRODUCTS

At Smarten, we deliver more than advanced energy solutions we build long-term partnerships. Our global support network ensures reliable technical assistance, fast response times, and dependable after-sales service to help distributors, installers, and customers succeed in every market.
Whether you're installing a residential solar system or managing a large commercial project, our experienced team is committed to supporting you at every stage.

31+ COUNTRIES
Trusted in 31+ Countries Worldwide

3200+ CHANNEL PARTNERS
Strong & Growing Distribution Network

10M+ HAPPY USERS
10+ Million Happy Users Globally

EXPERT TECHNICAL SUPPORT
Dedicated Engineering & Technical Assistance

SMART REMOTE MONITORING
Digital Support & Product Diagnostics

INTERNATIONAL QUALITY STANDARDS
Reliable Products with Global Certifications

TRAINING & DOCUMENTATION
Complete Training & Product Guidance

FAST GLOBAL RESPONSE
Quick Response, Wherever You Are

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WITH GLOBAL SALES



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- Spare Parts Support
- Installation Guidance
- Distributor Support
- Warranty Assistance
- Product Training
- Remote Troubleshooting
- Fast Response Team

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