

TECHNICAL SPECIFICATION

MODEL - PRIME SERIES SPECIFICATIONS (MPPT BASED)

DOC REF NO.	RD/MPPT/24V/50A/R.01		
PRODUCT FG CODE	SCD-PR-024-050-01		
Model	MPPT 12-24 automatic		
	12V		24V
Electrical:			
Battery Type	LA/Tubular/SMF		
Technology	Digital Processor Based High Efficiency Design		
Max. BATTERY Current Rating	50AMP.		
Max. PV Voltage Rating	45V±0.5V		85V±1V
High PV Voltage	>45V		>85V
Max. Panel Install	up to 750W		up to 1500W
Battery Qty.12V 100-220AH	1		2
Boost Charging Voltage For Tubular And SMF Battery	14.5V±0.2V		29V±0.2V
Boost Charging Voltage For LA Battery	14V±0.2V		28V±0.2V
Bulk/ Absorption Voltage	14.8V±0.2V		29.6V±0.2V
DOD level	20%- if battery voltage is 12.5v		20%- if battery voltage is 25.0v
	30%- if battery voltage is 12.0v		30%- if battery voltage is 24.0v
	40%- if battery voltage is 11.5v		40%- if battery voltage is 23.0v
	50%- if battery voltage is 11.0v		50%- if battery voltage is 22.0v
Mains Connect if Solar Power Not Available	At any Stage of Battery Voltage		
MAINS DISCONNECT	if Battery reaches boost level then after <10 min. Mains Will be disconnect.		
D.O.D (Depth of Discharge)	mains will be connect when battery voltage reach at defined value of the battery voltage.		
MPPT to PV Power Connection Time	<15 Sec.		
Peak Efficiency	>94%		
Mains AC low cut WUPS mode	90VAC ± 10VAC		
Mains AC low cut recovery WUPS mode	110VAC ± 10VAC		
Mains AC high cut WUPS mode	295VAC ± 10VAC		
Mains AC high cut recovery WUPS mode	285VAC ± 10VAC		
Input Frequency Range	40Hz to 60Hz		
Voltage Output in Mains Mode	Same as input		
Frequency Output in Mains Mode	Same as input		
Panel configuration (NTC)	250W 2P		250W 2S 2P/330W 3P
Panel configuration VOC (NTC)	37V		74V/ 48V
PROTECTIONS			
Reverse Battery	Yes		
Reverse PV Protection	Yes		
Reverse Current Flow to PV	Yes		
High PV Voltage	Yes		
Over Current	Yes,Provided Battery current >30Amp		
Thermal Protection	Yes		
MCB	MCB ensures your UPS and connected loads stay protected from short circuits		
DISPLAY PARAMETERS			
Display Type	LCD Display		
Display Messages	Welcome, Smarten Website Address,System Capacity,Mains available, battery priority,PV Current,Battery current,PV		
SCC Fault/Protection Status	Reverse PV/High PV voltage /High Temp.		
ENVIRONMENT			
Operating Temperature	0°C To 40°C		
Storage Temperature	0°C To 50°C		
Fixing	Wall Mounted		
Operating Relative Humidity	90% Non-Condensing		
Dimension	310X310X180		
Weight	3kg		