

## TECHNICAL SPECIFICATION

### MODEL - PRIME+ SERIES SPECIFICATIONS (MPPT BASED)

<b>DOC REF NO.</b>	RD/MPPT/48V/50A/R.01	
<b>PRODUCT FG CODE</b>	SCD-PR-048-050-01	
<b>Model</b>	<b>MPPT 24-48 automatic</b>	
	24V	48V
<b>ELECTRICAL</b>		
Battery Type	LA/Tubular/SMF	
Technology	Digital Processor Based High Efficiency Design	
Max. BATTERY Current Rating	50AMP.	
Max. PV Voltage Rating	85V±1V	130V±2V
High PV Voltage	>85V	>130V
Max. Panel Install	up to 1500W	up to 3000W
Battery Qty.12V 100-220AH	2	4
Boost Charging Voltage For Tubular And SMF Battery	29V±0.2V	58V±0.2V
Boost Charging Voltage For LA Battery	28V±0.2V	56V±0.2V
Bulk/ Absorption Voltage	29.6V±0.2V	59.2V±0.2V
DOD level	20%- if battery voltage is 25.0v±0.2V	20%- if battery voltage is 50.0v±0.2V
	30%- if battery voltage is 24.0v±0.2V	30%- if battery voltage is 48.0v±0.2V
	40%- if battery voltage is 23.0v±0.2V	40%- if battery voltage is 46.0v±0.2V
	50%- if battery voltage is 22.0v±0.2V	50%- if battery voltage is 44.0v±0.2V
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 2S 3P/ 330W 5P	250W 3S 4P/ 330W 2S 4P
Panel configuration VOC (NTC)	74V/ 48V	111V/94V
<b>PROTECTIONS</b>		
Reverse Battery	Yes	
Reverse PV Protection	Yes	
Reverse Current Flow to PV	Yes	
High PV Voltage	Yes	
Over Current	Yes, Provided Battery current >50Amp	
Thermal Protection	Yes	
MCB	MCB ensures your UPS and connected loads stay protected from short circuits	
<b>DISPLAY PARAMETERS</b>		
Display Type	LCD Display	
Display Messages	Welcome, Smarten Website Address, System Capacity, Mains available, battery priority, PV Current, Battery current, PV Voltage, Battery Voltage	
SCC Fault/Protection Status	Reverse PV/High PV voltage /High Temp.	
<b>ENVIRONMENT</b>		
Operating Temperature	0°C To 40°C	
Storage Temperature	0°C To 50°C	
Fixing	Wall Mounted	
Operating Relative Humidity	90% Non-Condensing	
Dimensions	410x350x170	
Weight	5.6Kg	