

## SUKHILA'S CHARGE CONTROLLER AND SOURCE SELECTOR

(An ISO 9001-2008 & 14001-2004 Certified Company)

## Solar Photovoltaic (SPV) Charge Controller: SPE -SCC-SS -2X- xxV - xxA

## Reliable alternative energy applications

- Microcontroller based MPPT to get maximum SPV Array power
- Three stage charging: bulk, absorption & float
- Temperature Compensation to extend the battery life
- LCD display with Voltage, Current, Watt, WH measurements
- LED Status indicators and Source Selection for optimization
- •Ground Fault detector to minimize the electric shock hazard
- •High Efficiency and high Reliability
- High life cycle, durable and rugged, Powder coated MS enclosure
- Protections: High Temperature, Reverse Polarity, Over voltage,
  Under voltage, Over Load, Back feed, Ground Fault & No Battery
- RS 232 communication interface (optional)



## **Key Market Segments & Applications**

- Roof top solar applications
- Battery charger for small power requirements
- Reduces power bills and provides independence
- Compatible with existing inverters, to add solar (SPV) power for small homes and businesses in rural & urban areas.
- Best alternative during power failures.

Specification - SPV Charge Controller and Source Selector					
Model	12V-30A	24V-30A	36V-30A	48V-20A	96V-15A
Nominal Solar PV Voltage, DC	12V	24V	36V	48V	84V
Maximum charging current	30A	30A	30A	20A	15A
Max. PV array open circuit V	22VDC	44VDC	66VDC	88VDC	176VDC
Battery voltage (Nominal), DC	12V	24V	36V	48V	96V
Maximum voltage drop	0.8V	0.8V	0.8V	0.8V	1.0V
VRLA Battery Float Voltage	13.5V	27V	40.5V	54V	108V
LMLA/Flooded Battery Float V	13.8V	27.6V	41.4V	55.2V	110.4V
VRLA Battery Boost Voltage	13.8V	27.6V	41.4V	55.2V	110.4V
LMLA/Flooded Battery Boost V	14.2V	28.4V	42.6V	56.8V	113.6V
Flooded Battery Equalize Voltage	15.2V	30.4V	45.6V	60.8V	121.6V
Battery Temp. Compensation	3 mV per °C per Cell (For VRLA, between 2.15V to 2.33V only)				
Efficiency	>97%	>97%	>98%	>98%	>98%
Protections	Under voltage, Over voltage, Battery high/Low, Output high, Over load, Battery Reverse polarity, Over temperature, Back feed, Ground Fault Detection				
Status indication	LCD: Voltage, Current, Wattage & WH of PV, Battery Voltage & Charge Current, Faults, Temp.				
	LED: Output (Red), SPV (Amber), Alternate Source (Red), Battery Charge (Green), Temp. (Red)				
Cooling	Natural / Convection				
Operating temperature	0 – 50°C ambient				
Operating humidity	95% (+1% -5%)				
Over current protection	> 105%				
Over-temperature protection	> 80°C				
Over Load protection	Circuit breaker/Fuse at Input /output				
SPV/Load /Battery Connections	Terminal Block				
Cable entry	Bottom / Front end				
Surge Immunity	Level 4 as per IEC 61000-4-5				
Weight in Kg. (approximately)	0.5	0.5	0.5	0.5	0.5
Dimensions in mm H x W x L	52x98.5x125	52x98.5x125	52x98.5x125	52x98.5x125	52x98.5x125
Construction	Powder coated mild steel enclosure				
Color	Black with matt finish				
Mounting	Panel / Wall mount				

Compatible with various types of batteries like Flooded, Sealed (Gel), Absorbed glass mat, Maintenance free (RV or Marine) , Lead-Calcium (Pb-Ca), Nickel-Cadmium and Nickel-Iron.

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Plot No. D-9, Industrial Park, Moula-Ali, Hyderabad, AP - 500 040, Tel: +91-40-27243208

Fax: +91-40-27242617 E-Mail:sales@sukhila.com Website:www.sukhila.com

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