

SUNNY ISLAND CHARGER 50

SIC50-MPT



Flexible

- For 12 / 24 / 48 V
- Parallel connection of up to four devices
- Modular and expandable

Easy to use

- Easy installation and commissioning
- Operation and configuration via Sunny Island (Single Point of Operation)

Efficient

- Active MPP tracking
- Efficiency > 98 %

Durable

- Outdoor installation possible due to IP65
- Without fan
- Nominal power up to 40 °C
- 5-year SMA warranty

SUNNY ISLAND CHARGER 50

SMA DC connection: maximum efficiency and applicable everywhere

AC and DC coupling in perfect interaction and from a single manufacturer: the all-purpose Sunny Island Charger 50 by SMA. Its broad DC input voltage range makes configuration possible for almost any PV module. Thanks to the integrated MPP tracking system, the charger guarantees an energy yield between 15 to 30 percent higher than that of conventional shunt charge controllers. Unique in charge controllers of this power range: the high protection class, fanless operation and broad temperature range enable its use even under extreme climatic conditions. Easy installation and automatic control through the Sunny Island make commissioning super simple.

Technical data	Sunny Island Charger 12 V	Sunny Island Charger 24 V	Sunny Island Charger 48 V
Input (PV array)			
Max. DC input power	630 W	1250 W	2400 W
Max. DC input voltage	140 V DC	140 V DC	140 V DC
Optimal MPP tracking voltage range	25 V - 60 V	40 V - 80 V	70 V - 100 V
Number of MPP trackers	1	1	1
Max. DC input current	40 A	40 A	40 A
Output (battery)			
DC rated power up to 40 °C	600 W	1200 W	2400 W
DC Rated voltage	12 V	24 V	48 V
DC Voltage range (adjustable)	8 V - 15.6 V	16 V - 31.5 V	36 V - 65 V
Battery type	VRLA batteries	VRLA batteries	VRLA batteries
Max. charging current	50 A	50 A	50 A
Rated DC charging current	50 A	50 A	50 A
Charge control	IUoU	IUoU	IUoU
Efficiency			
Max. efficiency	98 %	98 %	98 %
European weighted efficiency	97.3 %	97.3 %	97.3 %
Device protection (PV/Battery)			
DC reverse polarity	●	●	●
Short-circuit current capability	●	●	●
Overload protection	●	●	●
Over- and undervoltage protection	●	●	●
Over- and undertemperature protection	●	●	●
General data			
Dimensions (W / H / D)	421 / 310 / 143 mm	421 / 310 / 143 mm	421 / 310 / 143 mm
Weight	10 kg	10 kg	10 kg
Degree of protection (according to IEC 60529)	IP65	IP65	IP65
Operating temperature range	-25 °C ... +60 °C	-25 °C ... +60 °C	-25 °C ... +60 °C
Humidity	0 % ... 100 %	0 % ... 100 %	0 % ... 100 %
Daytime / nighttime self-consumption	< 5 W / < 3 W	< 5 W / < 3 W	< 5 W / < 3 W
Features / function			
Advertisement	multicolored LEDs	multicolored LEDs	multicolored LEDs
Parameterization	Plug and play in combination with SI 5048, SI2224, SI2012 (Sync Bus Piggy Back required), DIL switch with stand-alone applications	Plug and play in combination with SI 5048, SI2224, SI2012 (Sync Bus Piggy Back required), DIL switch with stand-alone applications	Plug and play in combination with SI 5048, SI2224, SI2012 (Sync Bus Piggy Back required), DIL switch with stand-alone applications
Parallel operation	Up to 4 devices	Up to 4 devices	Up to 4 devices
Communication interface	○	○	○
Battery temperature sensor	○	○	○
Warranty: 5 / 10 / 15 / 20 / 25 years	● / ○ / ○ / ○ / ○	● / ○ / ○ / ○ / ○	● / ○ / ○ / ○ / ○
Certificates and approvals	CE	CE	CE
● Standard feature ○ Optional feature – Not available			
Type designation	SIC50-MPT	SIC50-MPT	SIC50-MPT

