

Solar Charge Controller

SolarAmp mini

The Smartest Energy Saving Eco Controller

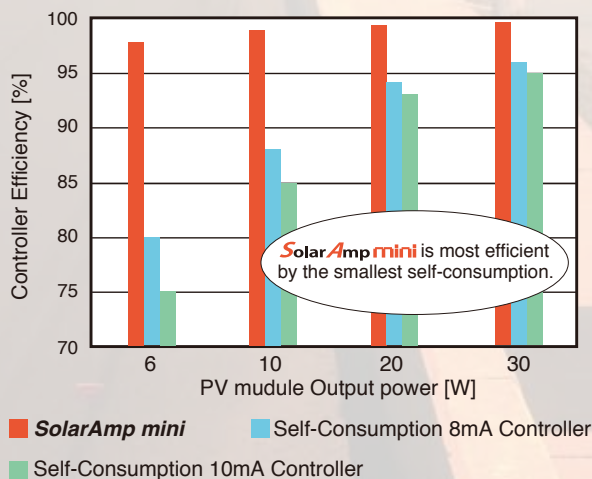
World's Smallest Self-Consumption Current

For Your Compact Off-Grid Solar Applications



World's Smallest Self-Consumption Current

It is very important to reduce self-consumption current of each device for off-grid power system because that is not available for commercial power. The self-consumption current of **SolarAmp mini** is less than 1mA. This contributes to the long-term stabilization of the system. Moreover this controller contributes to greatly increase system performance.



Early Start Lighting Function

The lights with other controllers are not turned on until the sky gets dark. By using night lighting control functions of **SolarAmp mini**, the light is turned on automatically before sunset. This function is effective against traffic accident during sunset.

SolarAmp mini



Day time

Other Controllers



Night

Light on

Light on

Sunset



Multiple Night Lighting Control Function

SolarAmp mini is equipped with night lighting control function that includes four operation modes.

Mode	Description
Night Light OFF	Load is always on (not LVD)
Dusk to Dawn	The light is automatically turned on from dusk to dawn.
Normal Timer	The light is turned on 6, 8, 10, 12, or 14 hours from sunset.
Rate Timer*	The light is turned on 40%, 50%, 60%, 70%, or 80% of the nighttime.

* Rate timer

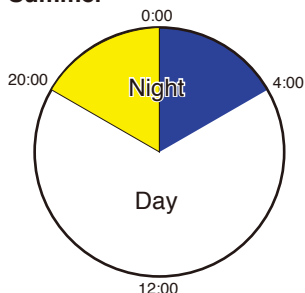
This is a very useful function for solar lighting systems. It allows selecting the rate of nighttime and no necessary to reset when seasons are changing. The light is automatically turned on and off at your desired time.

Unique Rate Timer

Other controllers used to be set hours of lighting time. Of course, **SolarAmp mini** can do so too. Furthermore, **SolarAmp mini** has a unique rate timer that can set the rate of nighttime for lighting time. By using rate timer, the light is turned off almost at the same time whether in summer or winter. It is not necessary to reset lighting time because of seasons changing.

[For Example] Set rate timer 50%

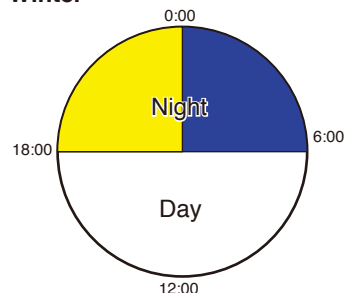
Summer



Sunrise at 4:00 / Sunset at 20:00
The 50% of night time is 4 hours.

Light on at 20:00
Light off at 0:00

Winter



Sunrise at 6:00 / Sunset at 18:00
The 50% of night time is 6 hours.

Light on at 18:00
Light off at 0:00

Over-Discharged Battery Recovery Function

SolarAmp mini has over-discharged battery recovery function that can recover a battery which had been over-discharged. Additionally, Solar Amp mini can operate and start to charge with a little power from the solar modules. This function is convenient for the systems that are placed at remote areas.

Malfunction Preventing Function

Other controllers turn on the lights incorrectly because of the shadow of birds, trees or momentary cloudy. **SolarAmp mini** is equipped with malfunction preventing function. The light is not turned on during the daytime.

SolarAmp mini



The light is not turned on during the daytime.

Other Controllers



The light is turned on because of shadow during the daytime.

Features

- World 's smallest self-consumption current
- Early start lighting function
- Night lighting timer function
- Suitable for Sealed, Flooded, AGM or Gel type battery
- Load disconnect protection for low battery voltage
- Reverse polarity protection
- Discharged battery recovery function
- Short circuit protection
- High reliability and cost performance
- Compact size and light weight

Specifications

Model	SA-MN05-8
System Voltage	12V
Max. Input Voltage	25V
Solar Input Current	8.5A
Load Current	8.5A
Charging method	PWM
Charging Voltage	Sealed : 14.1V, Flooded : 14.4V, AGM : 14.3V, Gel : 14.0V
Load Disconnect	11.5V
Load Reconnect	12.5V
Battery type	Sealed, Flooded, AGM, Gel
Operation Temperature	-20 ~ 60°C
Temperature Compensation	-30mV/°C
Self-Consumption Current	<1mA
Dimensions	50(W) x 120(H) x 20(D) (mm)
Weight	105g

DENRYO CO., LTD.

28-5, Nishinippori 2 Chome Arakawa-ku,
Tokyo 116-0013, Japan

Phone : +81-3-3802-3671

Fax : +81-3-3802-2974

Website : www.denryo.com

E-mail : info-en@denryo.com