

## Features

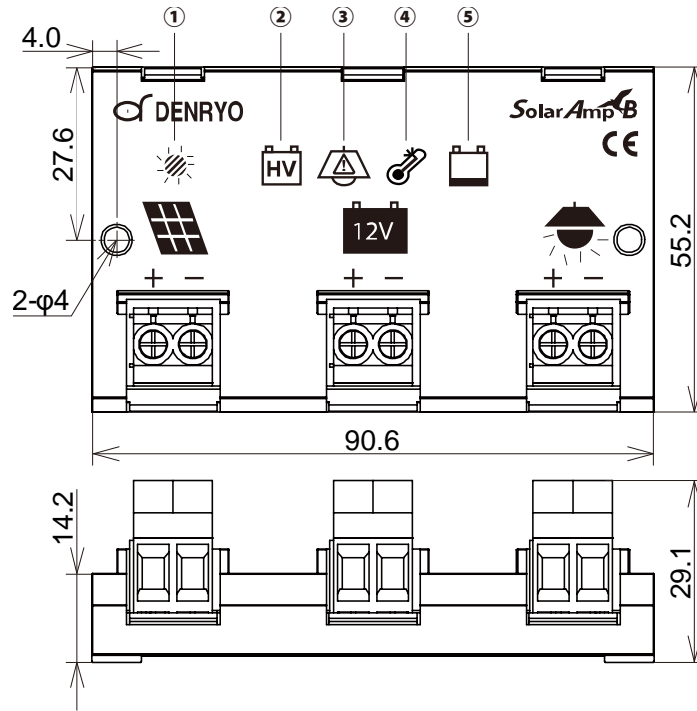
- The world's most compact design
- Low self-consumption
- Full electronic protections
- Over discharged battery recovery
- Easy installation
- LED indication
- Patented



## Specification

MODEL	SA-BA10	SA-BA20	SA-BB10	SA-BC10	SA-BC20	SA-BD10
System Voltage	12V		24V	12V		24V
Max. Input Voltage	25Vdc		50Vdc	25Vdc		50Vdc
Min. Input Battery Voltage	6Vdc		8Vdc	6Vdc		8Vdc
Max. Input Current	10A	20A	10A	10A	20A	10A
Max. Load Current	10A	20A	10A	10A	20A	10A
Self-consumption Current	2mA (Typical)					
Load Operation	Always on			Dusk to dawn		
Charging Algorithm	3-stage (Bulk, Absorption, Float)					
Charging Voltage	14.4Vdc		28.8Vdc	14.4Vdc		28.8Vdc
Float Charging Voltage	13.7Vdc		27.4Vdc	13.7Vdc		27.4Vdc
High Voltage Protection	18Vdc		36Vdc	18Vdc		36Vdc
Over Discharge Protection	Warning	11.8Vdc	23.6Vdc	11.8Vdc	23.6Vdc	
	Error	11.5Vdc	23Vdc	11.5Vdc	23Vdc	
	Recovery	12.5Vdc	25Vdc	12.5Vdc	25Vdc	
High Temp. Protection	Warning	60°C				
	Error	80°C				
	Recovery	60°C				
Battery Type	Lead acid battery					
Wire Size	#18~12 AWG	#12~10 AWG	#18~12 AWG	#18~12 AWG	#12~10 AWG	#18~12 AWG
Grounding	Positive ground					
Temperature Coefficient	-30mV/°C		-60mV/°C	-30mV/°C		-60mV/°C
Operation Temperature	-20~60°C					
Storage Temperature	-30~70°C					
Humidity	5~95%RH non-condensing					
Dimensions (DxWxH)	29x91x55mm					
Weight	65g	70g	65g	65g	70g	65g

## ■ Dimensions



Unit [mm]

## ■ LED Indicators

### • State of Charging LED

LED/Color			Indication		Status
①		Charging	Green	Flashing	Charging
				Solid	Full Battery(Charging)

### • Warning and Error LED

LED/Color			Indication	Charging Status	Load Status	
②		High Voltage	Red	Solid	OFF	OFF
③		Over load	Red	Flashing	OFF	OFF <sup>*1</sup>
				Solid	OFF	OFF
④		High Temperature	Yellow	Flashing	ON <sup>*2</sup>	ON
				Solid	OFF	ON
⑤		Low Voltage	Yellow	Flashing	ON	ON
				Solid	ON	OFF

\*1 The load is reconnected automatically by every 3 seconds in 10 minutes. If the overload remains after 10 minutes, LED becomes solid and disconnects the load.

\*2 The bulk charging current is limited to 80%.