

Smart Trickle Series



7.5W~30W

Smart Trickle Series (20–30W) uses three-stage charging technology, compatible with multiple battery types including car, solar, lead-acid, and LiFePO₄. With IP68 waterproofing and an intelligent controller, it delivers efficient, durable performance for cars, boats, RVs, and trailers—extending battery life and ensuring reliable power maintenance.



☰ Features

◆ High-Efficiency Solar Cells

Premium A+ monocrystalline cells achieve impressive conversion efficiency.

◆ Smart Solar Controller

The controller equipped with intelligent chip, achieving a high conversion efficiency.

◆ 12V Batteries Compatibility

Special designed for multiple 12V Lithium Ion(LiFePO₄), Lead-acid(AGM, SLA, GEL, FLD, EFB, MF) batteries across automotive, marine, RV, and industrial applications.

◆ Smart Solar Controller with Multi-protection

Features 7 safety functions, including reverse charging protection, reverse connection protection, overcharge protection, overvoltage protection, overcurrent protection, short circuit protection, overtemperature protection.

◆ Extreme Durability

IP68 waterproof rating with ETFE coating withstands harsh weather.

◆ Easy Installation

Plug-and-play setup with 3 connection cables and LED indicators - no technical expertise required.

☰ Electrical Specifications

Model	OB-BQ20C	OB-BQ30W
Operating Temperature Range	14°F ~ 158°F / -10°C ~ 70°C	
Charging Principle	<p>When the battery voltage is below 13 volts, boosting charging occurs.</p> <p>Charging stops if the instantaneous voltage exceeds 14.7 volts.</p> <p>When the average battery voltage falls within the range of 13.5 to 14.2 volts, trickle charging is activated.</p>	An intelligent chip employs an algorithm to maintain the battery voltage within the range of 13.7 to 14.1 volts using a small current. The specific voltage values may vary for different batteries.

☰ Mechanical Parameters

Model	OB-BQ20C	OB-BQ30W
Cell Type	Monocrystalline Silicon	
Cell Efficiency	23.5%	
Surface Material	ETFE	
IP Rating	IP68	
Compatible with	12V LiFePO4, Lithium Ion, AGM, SLA, GEL, FLD, EFB, MF batteries	
Connector Type	O-ring terminal, Car charger, Alligator clip	
Included Components	suction cups × 4, hanging buckles × 2, storage bag × 1, alligator clip cable × 1, 30w solar battery charger × 1, car charging cable × 1, o-ring terminal cable × 1	
Trickle Maintainer Dimensions(mm)	400 × 330 × 17	465 × 415 × 17.1



Smart Trickle Series (with Adjustable Stand) (7.5–30W) adopts three-stage charging technology and supports various 12V battery types, including car starter, solar storage, standard lead-acid, and LiFePO₄ batteries. With an IP68 waterproof rating and intelligent controller, it is efficient, durable, and ideal for use in harsh outdoor environments such as cars, boats, RVs, and trailers—effectively extending battery lifespan and providing a reliable power maintenance solution.



/// Features

◆ High-Efficiency Solar Cells

Premium A+ monocrystalline cells achieve impressive conversion efficiency.

◆ Smart Solar Controller

The controller equipped with intelligent chip, achieving a high conversion efficiency.

◆ Comprehensive Safety Protection

Features 7 safety functions, including reverse charging protection, reverse connection protection, overcharge protection, overvoltage protection, overcurrent protection, short circuit protection, overtemperature protection.

◆ Wide Compatibility

Works with most 12V rechargeable batteries such as LiFePO₄, Lithium Ion, AGM, GEL, SLA, EFB, and MF. Suitable for cars, RVs, trucks, tractors, motorcycles, boats, and more.

◆ Durable & Easy to Install

Made with low-iron tempered glass, anodized aluminum alloy frame, and IP68 waterproof material, resistant to rust and extreme weather. Includes a 360° adjustable mount and corner protectors for secure and flexible installation.

☰ Electrical Specifications

Model	OB-SG7WBC	OB-SG15WBC	OB-SG20WBC	OB-SG30WBC
Maximum Power at STC (Pmax)	7.5W	15W	20W	30W
Maximum Power Voltage (Vmp)	18.42V	20.16V	20.23V	20.16V
Maximum Power Current (Imp)	0.41A	0.75A	0.99A	1.49A
Open-circuit Voltage (Voc)	21.87V	24.30V	24.37V	24.30V
Short-circuit Current (Isc)	0.43A	0.79A	1.04A	1.57A
Operating Temperature Range		14°F ~ 158°F/-10°C ~ 70°C		
Solar Panel Max. Wind Load (Pa)		2400		
Solar Panel Max. Snow Load (Pa)		5400		

☰ Mechanical Parameters

Model	OB-SG7WBC	OB-SG15WBC	OB-SG20WBC	OB-SG30WBC
Cell Type	Monocrystalline Silicon			
Cell Efficiency	23.5%			
Glass	3.2mm Tempered Glass		1.6mm Tempered Glass	
Frame	Anodized Aluminum Alloy			
IP Rating	IP68			
Compatible with	12V LiFePO4, Lithium Ion, AGM, SLA, GEL, FLD, EFB, MF batteries.			
Included Components	Solar Panel			
Trickle Maintainer Dimensions (±2mm)	201.5 × 332.5 × 20	303 × 333 × 20	303 × 408 × 20	403 × 463 × 20

