

BRAVO PRO 30 / 40

MPPT SOLAR CHARGE CONTROLLER

30A / 40A FLUSH MOUNT



High-Efficiency MPPT Technology

Advanced MPPT algorithm with multi-peak tracking for superior energy harvesting under varying sunlight or partial shading.

MPPT tracking efficiency $\geq 99.5\%$; overall power conversion efficiency up to 98%.

Wide System & Battery Compatibility

Auto-detecting 12V/24V system support.

Compatible with LCO, LFP, LTO, Crystal, Gel, AGM, Flooded, and Calcium batteries.

Customizable charging profile for user-defined battery settings.

Smart Charging & Real-Time Monitoring

Intelligent multi-stage charging optimized for both lead-acid and lithium chemistries.

Override function activates deeply discharged or BMS-protected Lithium packs.

LCD display provides real-time solar input, battery voltage/current, capacity, and SOC.

Bluetooth connectivity via RICH SOLAR App.

Comprehensive Protection & Durable Design

Built-in protections: over-charge, under-charge, reverse polarity, short circuit, and over-temperature.

IP43-rated enclosure with conformal-coated PCB and common -negative design.

Designed for indoor vertical mounting; operating temperature -13°F to 122°F .

Optional accessories: remote display and external temperature sensor.

SPECIFICATIONS

ELECTRICAL PARAMETERS

Model	RS-MPPT30FB	RS-MPPT40FB
Product Name	BRAVO PRO 30	BRAVO PRO 40
Nominal System Voltage	12V/24V (Auto-Detection)	
Max PV Open-Circuit Voltage	100VDC	
Max PV Input Current	30A	40A
Rated Charge Current	30A	40A
MPPT Tracking Efficiency	≥99.5%	
Conversion Efficiency	Up to 98%	
Nominal PV Power	500W @12V 1,000W @24V	600W @12V 1,200W @24V
MPPT Voltage Range	15–72VDC	

CHARGING CHARACTERISTICS

Soft Start Voltage	5–10VDC
Bulk Charge Current	30A Max
Absorption Voltage @77°F	LFP: 14.2V; AGM: 14.4V; Flooded: 14.7V
Float Voltage @77°F	13.6V
Equalization (Flooded/Calcium only)	15.5V
Charging Algorithms	5-Stage (Lead-Acid), 4-Stage (Lithium)
Battery Types	LCO, LFP, LTO, Crystal, Gel, AGM, Flooded, Calcium, Custom
Temperature Compensation	-24mV/°C
Built-in Protections	Over-Charge, Under-Charge, Reverse Polarity, Short Circuit, Thermal

COMMUNICATION & INTERFACE

Bluetooth	Yes
Terminals	Rated 50A connector
Optional	Remote meter, external temperature sensor

ENVIRONMENTAL, MECHANICAL & CERTIFICATIONS

Operating Temperature	-31°F to 122°F
IP Rating	IP43
Dimensions	8.3 × 6.1 × 2.2 in
Net Weight	1.8 lbs
Certification	ETL, CE, FCC, RoHS