

BRAVO AIR 10 / 20 / 30 / 40

PWM SOLAR CHARGE CONTROLLER

10A / 20A / 30A / 40A FLUSH MOUNT



High-Efficiency & Smart Control

High-efficiency PWM charging with MOSFET switching minimizes energy loss.

Common positive grounding simplifies system integration.

LCD + LED dual display shows real-time voltage, current, temperature, kWh, and charging stage.

Rich Solar App with built-in Bluetooth for remote voltage adjustment, equalization cycle control, and custom profile setup.

Compact & User-Friendly

Ultra-thin design suitable for flush mounting.

Memory function remembers last battery settings—no repetitive setup.

Night Mode doubles as a battery voltage meter after sunset.

Intelligent Multi-Stage Charging

Optimized multi-stage charging with time management to extend battery lifespan.

8+1 Battery Profiles: LFP, LTO, LCO, Gel, AGM, WET, Calcium, Crystal, plus one custom profile.

Auto-activation for BMS-protected lithium batteries restores charging without manual reset.

Optional Battery Temperature Sensor (BTS) with $-24 \text{ mV}^{\circ}\text{C}$ compensation for precise charging in all climates.

Comprehensive Protection & Durability

Full protection against over-voltage, reverse polarity, short circuit, and over-temperature.

Spark-free connection design for safe installation.

Moisture-resistant conformal-coated PCB and corrosion-resistant terminals for long-term reliability.

IP22-rated housing resists dust and water splashes—ideal for off-grid systems, RVs, marine vessels, and outdoor solar storage.

SPECIFICATIONS

ELECTRICAL PARAMETERS

Model	RS-PWM10PF	RS-PWM20PF	RS-PWM30PF	RS-PWM40PF
Product Name	BRAVO AIR 10	BRAVO AIR 20	BRAVO AIR 30	BRAVO AIR 40
Nominal System Voltage	12V			
Max PV Input Current	10A	20A	30A	40A
Rated Charge Current	10A	20A	30A	40A
Nominal PV Power	200W	400W	600W	800W

CHARGING CHARACTERISTICS

Charging Algorithms	Multi-Stage
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
Battery Types	LCO, LFP, LTO, Crystal, Gel, AGM, Flooded, Calcium, Custom
Temperature Compensation	-24mV/°C
Built-in Protections	Over-Voltage, Reverse Polarity, Short Circuit, Over-Temperature

COMMUNICATION & INTERFACE

Bluetooth	Yes
Terminals	M4
Optional	External temperature sensor

ENVIRONMENTAL, MECHANICAL & CERTIFICATIONS

IP Rating	IP22
Operating Temperature	-31°F to 122°F
Dimensions	7.1 × 4.3 × 1.2 in
Net Weight	0.7 lbs
Certification	ETL, CE, FCC, RoHS