

FLEXmax 100 AFCI™

300V MPPT Charge Controller



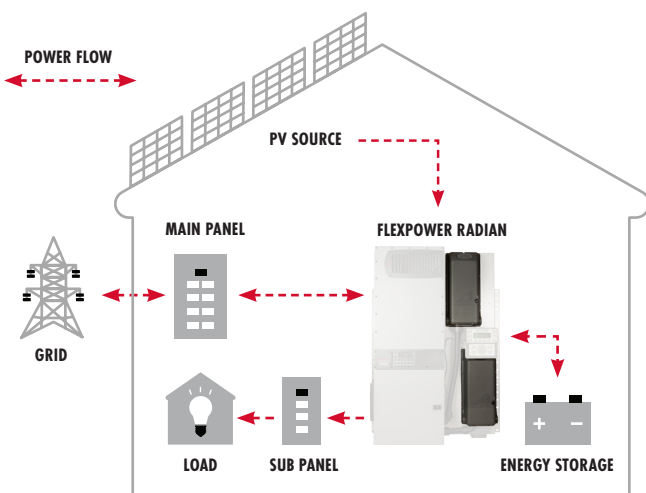
- 100A output for up to 6kW of charging
- Updated MPPT software algorithm improves energy harvest vs other controllers
- 300VDC open-circuit voltage limit enables 2-string configuration to minimize BOS
- Programmable auxiliary control output for smart load controls
- Standard 5 year warranty upgraded to 7,000W of nameplate solar power at 48V
- Integrated arc fault circuit detection and interruption for optimized systems

The FLEXmax 100 from OutBack Power is the most advanced MPPT charge controller technology and power solution.

Designed with 15 years of experience manufacturing products for fault intolerant, mission-critical applications, OutBack's FLEXmax 100 delivers a high quality and reliable MPPT charge controller. The FLEXmax 100 has passed extensive quality and reliability testing, including Highly Accelerated Life Testing (HALT).

The compact, outdoor-rated enclosure keeps dust and moisture from damaging internal components. With the addition of arc and ground fault protection, and rapid shutdown capacitor discharge, the FLEXmax 100 is the most versatile high power MPPT controller on the market. Configuring the FLEXmax 100 in your system is easy with 128 days of built-in data storage, smart programming wizards (MATE3s required), and connectivity with OPTICS RE, so you can monitor, command, and control from one location.

The FLEXmax 100 charges your batteries faster. This allows you to sell energy to the grid faster, and maximize your return on investment. The FLEXmax 100 has the best price to power ratio on the market.



Model:	FLEXmax 100 AFCI
Nominal Battery System Voltage	24VDC / 36VDC / 48VDC
Maximum Continuous Output Current	100A
Maximum Input Current (Short-Circuit)	64A
Maximum Array (STC Nameplate)	3500W / 5250W / 7000W (charging output limited to 100A at battery voltage)
Maximum PV System Voltage	300VDC
Operating Input Voltage Range	30 to 290VDC
Standby Power Consumption	~2.5W
Power Conversion Efficiency	24V: 96% 48V: 97%
Peak Efficiency	24V: 97.5% 48V: 98.8%
Charging Regulation	Three-stage
Voltage Regulation Set Points	Absorption, float and equalization
Low power Consumption Mode	Yes, configurable to maximize energy savings based on voltage, time, and current limits
Equalization Charging	Programmable time intervals, voltage set point and duration, automatic termination when completed
Battery Temperature Compensation	Adjustable from 2mV/cell/°C to 6mV/cell/°C
Voltage Step-Down Capability	Down convert from any acceptable array voltage to any battery voltage (example: 72VDC array to 24VDC battery)
Programmable Auxiliary Control Output	12VDC output signal which can be programmed for different control applications (maximum of 0.25ADC)
Status Display	LED indicators
Remote Display and Controller	MATE3s compatible
Network Cabling	Proprietary network system using RJ-45 modular connectors
Data Logging	128 days
Operating Temperature Range	Ambient, -25° to 60°C (-13° to 140°F), output power reduced above 25°C
Ingress Protection Rating	IP54
Enclosure Type	3R
Maximum Altitude Rating	10000ft
Conduit Knockouts	Bottom and sides
Warranty	5 years
Weight (lb/kg)	Unit: 16.0 / 7.3 Shipping: 19.75 / 8.9
Dimensions H × W × D (in/cm)*	Unit: 23 × 8.8 × 6 / 58.4 × 22.4 × 15.2 Shipping: 26 × 12 × 10 / 66 × 30.5 × 25.4
Options	Remote Temperature Sensor (RTS), HUB10.3, MATE3s
Certifications	UL 1741, CSA C22.2 No. 107.1, IEC 62109-1
Minimum Battery Bank Size	100Ah
Charging Range (Output)	20VDC to 68VDC
Additional Features	Built-in and field replaceable arc fault circuit detection and interruption (AFCI), GFCI, and cooling fan

*Height includes fan, not pictured