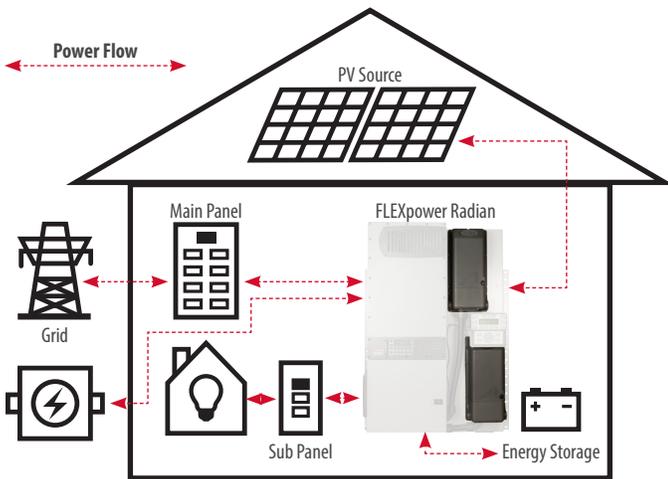


FLEXmax 100

300V MPPT Charge Controller



Typical System Integration



Features:

- 100A output for up to 5kW of charging
- Compatible with 24, 36 and 48VDC battery banks
- Updated MPPT software algorithm improves energy harvest vs other controllers
- 300VDC open-circuit voltage limit enables 2-string configuration that minimizes BOS
- Fully OutBack network integrated and programmable
- Programmable auxiliary control output for smart load controls
- Up to 99% efficiency
- Standard 5 year warranty upgraded to 7,000 W of nameplate solar power at 48V

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. Built-in ground-fault protection and a rapid shutdown capacitor discharge makes the FLEXmax 100 code-compliant and easy to install.

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 OpticsRE, so you can monitor, command, and control from one location. The FLEXmax 100 charges your batteries and achieves a sell-state faster in grid-tied applications, maximizing your return on investment with the best price-to-power ratio on the market.

Model	FLEXmax 100
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 Voltage1	300VDC
Operating Input Voltage Range2	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, silent and equalization
Equalization Charging	Programmable start time, 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 Range3	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	10,000ft
Conduit Knockouts	Bottom and sides
Warranty	5 years
Weight (lb/kg)	Unit: 18.3 / 8.3 Shipping: 22 / 10
Dimensions H x W x D (in/cm)	Unit: 22 x 8.8 x 6 / 55.9 x 22.4 x 15.2 Shipping: 25.5 x 12 x 10 / 64.8 x 30.5 x 25.4
Options	Remote Temperature Sensor (RTS), HUB4, 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 GFCI, field-replaceable cooling fan