

Three Reasons to Choose the FLEXmax 100 Charge Controller from OutBack Power:

1. DESIGNED FOR PERFORMANCE

- **Raises the bar** from the originators of multiple voltage MPPT charge controllers
- Updated MPPT software algorithm improves energy harvest vs other controllers
- 100A output for up to 5kW of charging
- Compatible with 24, 36 and 48VDC battery banks
- Up to 99% efficiency

2. ENGINEERED FOR RELIABILITY

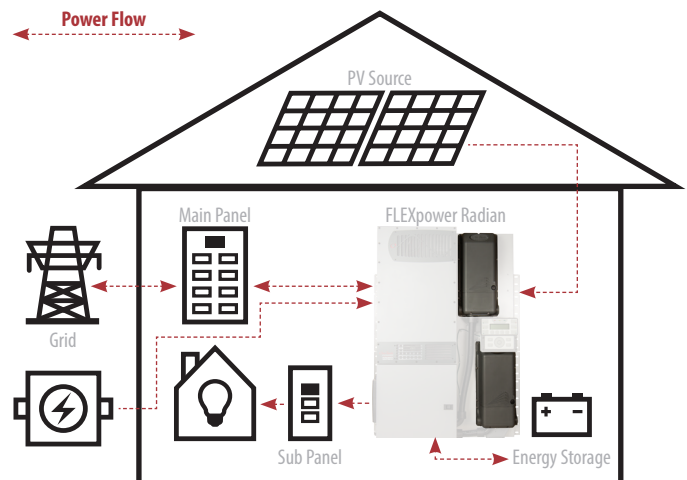
- **Extensive quality and reliability testing**, including Highly Accelerated Life Testing (HALT)
- Outdoor-rated enclosure keeps dust and moisture from damaging internal components
- 15 years of experience manufacturing products for fault intolerant, mission-critical applications
- Standard 5 year warranty

3. EASY-TO-INSTALL, MONITOR AND CONTROL

- **System configures quickly** with smart programming wizards (MATE3s required)
- 300VDC open-circuit voltage limit enables 2-string configuration that minimizes BOS
- Built-in ground-fault protection and rapid shutdown capacitor discharge for easy code-compliant installation
- Monitor, command and control over the Internet with OPTICS RE
- Fully OutBack network integrated and programmable
- Programmable auxiliary control output for smart load controls
- Built-in 128 days of data logging



OutBack FLEXmax 100 Typical System Integration (w/ FLEXpower Radian):



OUTBACK POWER — MASTERS OF THE OFF-GRID. FIRST CHOICE FOR THE NEW GRID.



MAKE THE POWER

- FLEXpower Integrated Systems
- Inverter/Chargers & Charge Controllers



STORE THE ENERGY

- EnergyCell Batteries
- Battery Enclosures and Racking



MANAGE THE SYSTEM

- Access your system anytime and control over 600 parameters with OPTICS RE

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)	3000W / 4500W / 6000W (charging output limited to 100A at battery voltage)
Maximum PV System Voltage ¹	300VDC
Operating Input Voltage Range ²	30VDC 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 Range ³	Ambient, -25°C to 60°C (-13°F 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

¹Highest open-circuit voltage before equipment damage. ²Operational limits. ³Derates to 50A at 60°C in a 48VDC system with 220VDC input. Lower input voltage improves thermal performance.