

### 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

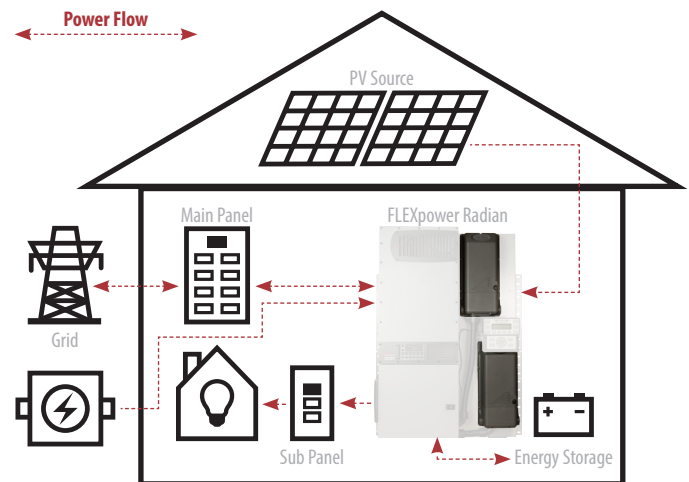
- **Extensive quality and reliability testing**, including Highly Accelerated Life Testing (HALT)
- Outdoor-rated enclosure keeps dust and moisture from damaging internal components
- 15 years of experience manufacturing products for fault intolerant, mission-critical applications
- Standard 5 year warranty

#### 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
<b>Nominal Battery System Voltage</b>	24VDC / 36VDC / 48VDC
<b>Maximum Continuous Output Current</b>	100A
<b>Maximum Input Current (Short-Circuit)</b>	64A
<b>Maximum Array (STC Nameplate)</b>	3000W / 4500W / 6000W (charging output limited to 100A at battery voltage)
<b>Maximum PV System Voltage<sup>1</sup></b>	300VDC
<b>Operating Input Voltage Range<sup>2</sup></b>	30VDC to 290VDC
<b>Standby Power Consumption</b>	~2.5W
<b>Power Conversion Efficiency</b>	<b>24V:</b> 96% <b>48V:</b> 97%
<b>Peak Efficiency</b>	<b>24V:</b> 97.5% <b>48V:</b> 98.8%
<b>Charging Regulation</b>	Three-stage
<b>Voltage Regulation Set Points</b>	Absorption, float, silent and equalization
<b>Equalization Charging</b>	Programmable start time, voltage set point and duration, automatic termination when completed
<b>Battery Temperature Compensation</b>	Adjustable from 2mV/cell/°C to 6mV/cell/°C
<b>Voltage Step-Down Capability</b>	Down convert from any acceptable array voltage to any battery voltage (example: 72VDC array to 24VDC battery)
<b>Programmable Auxiliary Control Output</b>	12VDC output signal which can be programmed for different control applications (maximum of 0.25ADC)
<b>Status Display</b>	LED indicators
<b>Remote Display and Controller</b>	MATE3s compatible
<b>Network Cabling</b>	Proprietary network system using RJ-45 modular connectors
<b>Data Logging</b>	128 days
<b>Operating Temperature Range<sup>3</sup></b>	Ambient, -25°C to 60°C (-13°F to 140°F), output power reduced above 25°C
<b>Ingress Protection Rating</b>	IP54
<b>Enclosure Type</b>	3R
<b>Maximum Altitude Rating</b>	10,000ft
<b>Conduit Knockouts</b>	Bottom and sides
<b>Warranty</b>	5 years
<b>Weight (lb/kg)</b>	<b>Unit:</b> 18.3 / 8.3 <b>Shipping:</b> 22 / 10
<b>Dimensions H x W x D (in/cm)</b>	<b>Unit:</b> 22 x 8.8 x 6 / 55.9 x 22.4 x 15.2 <b>Shipping:</b> 25.5 x 12 x 10 / 64.8 x 30.5 x 25.4
<b>Options</b>	Remote Temperature Sensor (RTS), HUB4, HUB10.3, MATE3s
<b>Certifications</b>	UL 1741, CSA C22.2 No. 107.1, IEC 62109-1
<b>Minimum Battery Bank Size</b>	100Ah
<b>Charging Range (Output)</b>	20VDC to 68VDC
<b>Additional Features</b>	Built-in GFCI, field-replaceable cooling fan

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