



# FXR Renewable Series

230V E-Series Sealed and Vented Grid/Hybrid Inverter/Chargers



- Single-phase, 230V sinewave output in 12V, 24V or 48V versions
- 2000W and 2300W sealed models
- 2600W and 3000W vented models
- Intelligent battery charging
- Programmable for seven different modes, with generator assist
- Modular, stackable design up to nine inverter/chargers for three-phase and 10 inverter/chargers in grid-tied
- High operating efficiency at 93%
- Corrosion resistant internal components
- Field upgradable software
- Power factor corrected battery charging
- Standard 5-year warranty, optional 10-year warranty

The latest, most advanced features on the industry's most trusted and proven platform—that's the essence of OutBack's new FXR Series of Grid/Hybrid inverter/chargers. Capable of off-grid or grid-connected operation in a single model, the FXR Grid/Hybrid inverter/chargers provide system designers with unprecedented flexibility and compatibility for nearly any power conversion scenario.

#### The new FXR features and technologies on the acclaimed FX platform include:

- Both off-grid and grid-tied functionality in one unit
- Seven programmable modes, including GridZero and Support Mode, and built-in networked communications
- Advanced Battery Charging (ABC) with expanded charging voltages and time parameters, enabling system designers to accommodate the specific charging profiles and algorithms of new and emerging energy storage technologies including Lithium Ion, Aqueous Ion and Flow chemistry batteries
- Easy system upgradability in the field

FXR inverter/chargers can be paired with a MATE3 to add OPTICS RE to monitor and control system performance from any location. Available in power ranges from 2000W-3000W, multiple units may be stacked and connected with other OutBack Power electronics for more seamless system integration and the ability to function in a wide variety of applications, and system sizes. In grid-tied applications up to nine inverters can be combined in a three-phase system with the 12V, 24V or 48V models, and up to 36kW in a grid-tied 24V or 48V system. The exclusive modular system architecture means that increased power output is just an additional FXR inverter/charger away.

Available in sealed or vented units with NEMA type 1 die-cast aluminum chassis designed to operate in the harshest environmental conditions such as high temperatures, humidity or corrosive salt air, the FXR's continue in OutBack's tradition of absolute dependability in mission-critical installations no matter how harsh or challenging the conditions.

Models:	Sealed			Vented		
	FXR2012E	FXR2024E	FXR2348E	VFXR2612E	VFXR3024E	VFXR3048E
<b>Continuous Power Rating at 25° C</b>	12VDC	24VDC	48VDC	12VDC	24VDC	48VDC
<b>AC Output Voltage</b> (selectable)	2000VA	2000VA	2300VA	2600VA	3000VA	3000VA
<b>AC Output Frequency</b> (selectable)	230VAC (200-260VAC)	230VAC (200-260VAC)	230VAC (200-260VAC)	230VAC (200-260VAC)	230VAC (200-260VAC)	230VAC (200-260VAC)
<b>Nominal DC Input Voltage</b>	50Hz (60Hz)	50Hz (60Hz)	50Hz (60Hz)	50Hz (60Hz)	50Hz (60Hz)	50Hz (60Hz)
<b>Continuous AC RMS Output at 25° C</b>	8.7AAC	8.7AAC	10AAC	11.3AAC	13AAC	13AAC
<b>Idle Power</b>	<b>Full:</b> ~34W <b>Search:</b> ~9W <b>Off:</b> ~3W	<b>Full:</b> ~34W <b>Search:</b> ~9W <b>Off:</b> ~3W	<b>Full:</b> ~34W <b>Search:</b> ~9W <b>Off:</b> ~3W	<b>Full:</b> ~34W <b>Search:</b> ~9W <b>Off:</b> ~3W	<b>Full:</b> ~34W <b>Search:</b> ~9W <b>Off:</b> ~3W	<b>Full:</b> ~34W <b>Search:</b> ~9W <b>Off:</b> ~3W
<b>Typical Efficiency</b>	90%	92%	93%	90%	92%	93%
<b>CEC Weighted Efficiency</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>Total Harmonic Distortion</b>	<b>Typical:</b> < 2% <b>Maximum:</b> < 5%	<b>Typical:</b> < 2% <b>Maximum:</b> < 5%	<b>Typical:</b> < 2% <b>Maximum:</b> < 5%	<b>Typical:</b> < 2% <b>Maximum:</b> < 5%	<b>Typical:</b> < 2% <b>Maximum:</b> < 5%	<b>Typical:</b> < 2% <b>Maximum:</b> < 5%
<b>Output Voltage Regulation</b>	± 2.5%	± 2.5%	± 2.5%	± 2.5%	± 2.5%	± 2.5%
<b>Maximum Output Current</b>	<b>Peak:</b> 28AAC <b>RMS:</b> 20AAC	<b>Peak:</b> 35AAC <b>RMS:</b> 25AAC	<b>Peak:</b> 35AAC <b>RMS:</b> 25AAC	<b>Peak:</b> 28AAC <b>RMS:</b> 20AAC	<b>Peak:</b> 35AAC <b>RMS:</b> 25AAC	<b>Peak:</b> 35AAC <b>RMS:</b> 25AAC
<b>AC Overload Capability</b>	<b>Surge:</b> 4600VA <b>5 Sec:</b> 4300VA <b>30 Min:</b> 2500VA	<b>Surge:</b> 5750VA <b>5 Sec:</b> 5175VA <b>30 Min:</b> 3100VA	<b>Surge:</b> 5750VA <b>5 Sec:</b> 5175VA <b>30 Min:</b> 3100VA	<b>Surge:</b> 4600VA <b>5 Sec:</b> 4300VA <b>30 Min:</b> 3100VA	<b>Surge:</b> 5750VA <b>5 Sec:</b> 5175VA <b>30 Min:</b> 3300VA	<b>Surge:</b> 5750VA <b>5 Sec:</b> 5175VA <b>30 Min:</b> 3300VA
<b>AC Input Voltage Range</b> (MATE3 Adjustable)	170 to 290VAC	170 to 290VAC	170 to 290VAC	170 to 290VAC	170 to 290VAC	170 to 290VAC
<b>AC Input Frequency Range</b>	45 to 55Hz (54 to 66Hz)	45 to 55Hz (54 to 66Hz)	45 to 55Hz (54 to 66Hz)	45 to 55Hz (54 to 66Hz)	45 to 55Hz (54 to 66Hz)	45 to 55Hz (54 to 66Hz)
<b>AC Input Tare Loss</b>	0VA	0VA	0VA	0VA	0VA	0VA
<b>Grid-Interactive Voltage Range</b>	N/A	208 to 252VAC	208 to 252VAC	N/A	208 to 252VAC	208 to 252VAC
<b>Grid-Interactive Frequency Range</b>	N/A	47 to 51Hz	47 to 51Hz	N/A	47 to 51Hz	47 to 51Hz
<b>AC Input Current Maximum</b>	30AAC	30AAC	30AAC	30AAC	30AAC	30AAC
<b>Continuous Battery Charge Output</b>	100ADC	55ADC	35ADC	120ADC	80ADC	40ADC
<b>Maximum Battery Charging</b> (AC/DC/power)	7AAC / 100ADC / 1360VA	7AAC / 55ADC / 1500VA	7AAC / 35ADC / 1900VA	9AAC / 120ADC / 1630VA	10AAC / 80ADC / 2180VA	10AAC / 40ADC / 2180VA
<b>DC Input Voltage Range</b>	10.5 to 17VDC	21 to 34VDC	42 to 68VDC	10.5 to 17VDC	21 to 34VDC	42 to 68VDC
<b>Warranty</b>	Standard 5-yr / optional 10-yr	Standard 5-yr / optional 10-yr	Standard 5-yr / optional 10-yr	Standard 5-yr / optional 10-yr	Standard 5-yr / optional 10-yr	Standard 5-yr / optional 10-yr
<b>Weight</b> (lb/kg)	<b>Unit:</b> 62 / 29 <b>Shipping:</b> 67 / 30	<b>Unit:</b> 62 / 29 <b>Shipping:</b> 67 / 30	<b>Unit:</b> 62 / 29 <b>Shipping:</b> 67 / 30	<b>Unit:</b> 61 / 28 <b>Shipping:</b> 67 / 30	<b>Unit:</b> 61 / 28 <b>Shipping:</b> 67 / 30	<b>Unit:</b> 61 / 28 <b>Shipping:</b> 67 / 30
<b>Dimensions H x W x L</b> (in/cm)	<b>Unit:</b> 13 x 8.25 x 16.25 / 33 x 21 x 41 <b>Shipping:</b> 21.75 x 13 x 22 / 55 x 33 x 56			<b>Unit:</b> 12 x 8.25 x 16.25 / 30 x 21 x 41 <b>Shipping:</b> 21.75 x 13 x 22 / 55 x 33 x 56		
<b>Temperature range</b>	<b>Rated:</b> -20 to 5°C <b>Operating:</b> -40 to 60°C <b>Storage:</b> -40 to 60°C	<b>Rated:</b> -20 to 50°C <b>Operating:</b> -40 to 60°C <b>Storage:</b> -40 to 60°C	<b>Rated:</b> -20 to 50°C <b>Operating:</b> -40 to 60°C <b>Storage:</b> -40 to 60°C	<b>Rated:</b> -20 to 50°C <b>Operating:</b> -40 to 60°C <b>Storage:</b> -40 to 60°C	<b>Rated:</b> -20 to 50°C <b>Operating:</b> -40 to 60°C <b>Storage:</b> -40 to 60°C	<b>Rated:</b> -20 to 50°C <b>Operating:</b> -40 to 60°C <b>Storage:</b> -40 to 60°C
<b>Relative Humidity rating</b>	93%	93%	93%	93%	93%	93%
<b>Listings/certifications</b>	IEC 62109-1, CE	IEC 62109-1, CE	IEC 62109-1, CE	IEC 62109-1, CE	IEC 62109-1, CE	IEC 62109-1, CE
<b>RoHS Compliance</b>	Yes	Yes	Yes	Yes	Yes	Yes

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