TeamSustain
Engineering green solutions

OutBack POWER

6 kW Power Pack

FLEXware™ 500

FLEXware™ 1000

12 kW Power Pack

- *Sinewave Inverter / charger*
- *Charge Controller*
- *System display and controller*

OUTBACK SINEWAVE INVERTER / CHARGER

- Next generation advanced power management systems
- Produces true sinewave AC electricity for stand-alone and back-up power needs
- Off Grid Models, Grid Tie / Interactive Models
- Mobile and Marine Models
- Modular system architecture and ability to increase from 2 kW to 30 kW
- Parallel series and 3 phase stacking capabilities
- Three phase configuration - option
- Sealed and vented models
- Non Volatile memory
- Network communication
- High Surge Power – Can handle air conditions and pumps

SYSTEM DISPLAY AND CONTROLLER

- Complete management tools for the Outback power systems
- 8 cm LCD is backlit for dark operating conditions – easy to read
- Four soft keys for easy context based navigation of menus and functions
- Two hot keys for immediate access to AC and inverter functions
- Built-in clock and calendar function enables time based programming of inverter and charger operation

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Inverter – 50 Hz Model Specifications		*Sealed Models*			*Vented Models*		
		FX2012ET	**FX2024ET**	**FX2348ET**	**VFX2612E**	**VFX3024E**	**VFX3048E**
Nominal DC Input Voltage		12 VDC	24 VDC	48 VDC	12 VDC	24 VDC	48 VDC
Continuous Power Rating at 25° C		2000 VA	2000 VA	2300 VA	2600 VA	3000 VA	3000 VA
AC Voltage/Frequency		230 VAC 50 Hz	230 VAC 50 Hz	230 VAC 50 Hz	230 VAC 50 Hz	230 VAC 50 Hz	230 VAC 50 Hz
Continuous AC RMS Output at 25° C		8.7 amps AC	8.7 amps AC	10.0 amps AC	11.3 amps AC	13.0 amps AC	13 amps AC
Idle Power	Full	≈ 20 Watts	≈ 20 Watts	≈ 23 Watts	≈ 20 Watts	≈ 20 Watts	≈ 23 Watts
	Search	≈ 6 Watts	≈ 6 Watts	≈ 6 Watts	≈ 6 Watts	≈ 6 Watts	≈ 6 Watts
Typical Efficiency		90%	92%	93%	90%	92%	93%
Total Harmonic Distortion	Typical	2%	2%	2%	2%	2%	2%
	Maximum	5%	5%	5%	5%	5%	5%
Output Voltage Regulation		± 2%	± 2%	± 2%	± 2%	± 2%	± 2%
Maximum Output Current	Peak	28 amps AC	35 amps AC	35 amps AC	28 amps AC	35 amps AC	35 amps AC
	RMS	20 amps AC	25 amps AC	25 amps AC	20 amps AC	25 amps AC	25 amps AC
AC Overload Capability	Surge	4600 VA	5750 VA	5750 VA	4600 VA	5750 VA	5750 VA
	5 Second	4000 VA	4800 VA	4800 VA	4000 VA	4800 VA	4800 VA
	30 Minutes	2500 VA	3100 VA	3100 VA	3100 VA	3300 VA	3300 VA
AC Input Current Maximum		30 amps AC	30 amps AC	30 amps AC	30 amps AC	30 amps AC	30 amps AC
AC Input Voltage Range (MATE Adjustable)		160 to 300 VAC	160 to 300 VAC	160 to 300 VAC	160 to 300 VAC	160 to 300 VAC	160 to 300 VAC
AC Input Frequency Range		44 to 56 Hz	44 to 56 Hz	44 to 56 Hz	44 to 56 Hz	44 to 56 Hz	44 to 56 Hz
DC Input Voltage Range		10.5 to 17.0 VDC	21.0 to 34.0 VDC	42.0 to 68.0 VDC	10.5 to 17.0 VDC	21.0 to 34.0 VDC	42.0 to 68.0 VDC
Continuous Battery Charge Output		100 amps DC	55 amps DC	35 amps DC	120 amps DC	85 amps DC	45 amps DC
Warranty		Standard 2 year / Optional 5 year			Standard 2 year / Optional 5 year		
Weight	Unit	62 lbs (25 kg)			61 lbs (25 kg)		
	Shipping	67 lbs (30 kg)			64 lbs (28 kg)		
Dimensions (H x W x L)	Unit	13 x 8.25 x 16.25" (33 x 21 x 41 cm)			12 x 8.25 x 16.25" (30 x 21 x 41 cm)		
	Shipping	21.75 x 13 x 22" (55 x 33 x 56 cm)			21.75 x 13 x 22" (55 x 33 x 56 cm)		

• Specifications subject to change without notice. Use appropriate wire size in accordance with NEC.

OUTBACK CHARGE CONTROLLERS

- Industry leading Maximum Power Point Tracking (MPPT) charge controllers
- Increases renewable energy yield by up to 30%
- Innovative solar harvesting and battery charging - maximize systems potential
- Allows higher input voltage up to 120 Volts DC for a balance system voltage of 24, 48 or 60 Volts – Reduction in cable cost and losses
- Warranty – 5 years

Charge Controller FLEXmax™ Specifications

Nominal Battery Voltages			12, 24, 36, 48, or 60 VDC (Single model - selectable via field programming at start-up)		
Maximum Output Current			60 amps @ 104º F (40ºC) with adjustable current limit / 80 amps @ 104º F (40ºC) with adjustable current limit		
Maximum Solar Array STC Nameplate		FLEXmax 60 FLEXmax 80	12 VDC systems 800 Watts / 24 VDC systems 1600 Watts / 48 VDC systems 3200 Watts / 60 VDC Systems 4000 Watts 12 VDC systems 1250 Watts / 24 VDC systems 2500 Watts / 48 VDC systems 5000 Watts / 60 VDC Systems 6250 Watts		
NEC Recommended Solar Array STC Nameplate		FLEXmax 60 FLEXmax 80	12 VDC systems 750 Watts / 24 VDC systems 1500 Watts / 48 VDC systems 3000 Watts / 60 VDC Systems 3750 Watts 12 VDC systems 1000 Watts / 24 VDC systems 2000 Watts / 48 VDC systems 4000 Watts / 60 VDC Systems 5000 Watts		
PV Open Circuit Voltage (VOC)			150 VDC absolute maximum coldest conditions / 145 VDC start-up and operating maximum		
Standby Power Consumption			Less than 1 Watt typical		
Power Conversion Efficiency - Typical		FLEXmax 60	98.1% @ 60 Amps in a 48 VDC System		
		FLEXmax 80	97.5% @ 80 Amps in a 48 VDC System		
Charging Regulation			Five Stages: Bulk, Absorption, Float, Silent and Equalization		
Voltage Regulation Set points			10 to 80 VDC user adjustable with password protection		
Equalization Charging			Programmable Voltage Setpoint and Duration - Automatic Termination when completed		
Battery Temperature Compensation			Automatic with optional RTS installed / 5.0 mV per °C per 2V battery cell		
Voltage Step-Down Capability			Can charge a lower voltage battery from a higher voltage PV array - Max 150 VDC input		
Programmable Auxilary Control Output			12 VDC output signal which can be programmed for different control applications (Maximum of 0.2 amps DC)		
Status Display			3.1" (8 cm) backlit LCD screen - 4 lines with 80 alphanumeric characters total		
Remote Display and Controller			Optional Mate or Mate2 with RS232 Serial Communications Port		
Network Cabling			Proprietary network system using RJ 45 Modular Connectors with CAT 5e Cable (8 wires)		
Data Logging			Last 128 days of Operation - Amp Hours, Watt Hours, Time in Float , Peak Watts, Amps, Solar Array Voltage, Max Battery Voltage Min Battery Voltage and Absorb for each day along with total Accumulated Amp Hours, and kW Hours of production		
Hydro Turbine Applications			Consult factory for approved Turbines		
Positive Ground Applications			Requires two Pole Breakers for switching both positive and Negative Conductors on both Solar Array and Battery Connections (HUB-4 and HUB-10 can not be used in positive ground applications)		
Operating Temperature Range			Minimum -40° to maximum 60° C (Power capacity of the controller is automatically derated when operated above 40° C)		
Environmental Rating			Indoor Type 1 (IP 30)		
Conduit Knockouts			One 1" (35mm)on the back; One1" (35mm) on the left side; Two 1" (35mm) on the bottom		
Warranty			Standard 5 year		
Weight	Unit	FLEXmax 80	11.6 lbs (5.3 kg) /12.20 lbs (5.56 kg)	FLEXmax 60	11.65 lbs (5.3 kg)
	Shipping		14 lbs (6.4 kg) /15.75 lbs (7.10 kg)		14.55 lbs (6.4 kg)
Dimensions	Unit (H x W x D)	FLEXmax 80	13.5 x 5.75 x 4" (40 x 14 x 10 cm) / 16.25" x 5.75" x 4" (41.3 x 14 x 10 cm)	FLEXmax 60	13.5 x 5.75 x 4" (40 x 14 x 10 cm)
	Shipping		18 x 11 x 8" (46 x 30 x 20 cm) / 21" x 10.5" x 9.75" (53 x 27 x 25 cm)		18 x 11 x 8" (46 x 30 x 20 cm)
Options			Remote Temperature Sensor (RTS), HUB 4, HUB 10, MATE, MATE 2		

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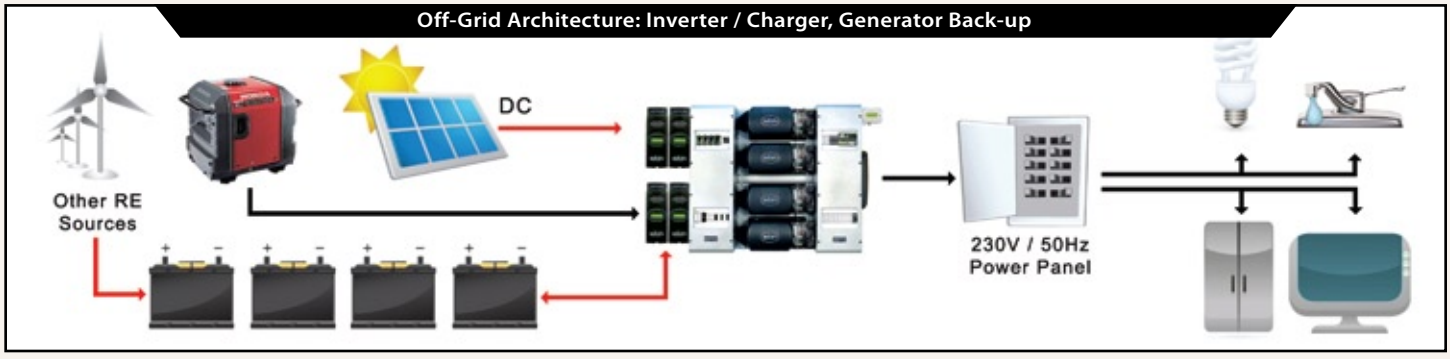

Outback Inverter / Charger, Controller By Outback Power Systems, USA

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