

# M-Series

Rugged Mobile Power

**OutBack**  
Power Systems

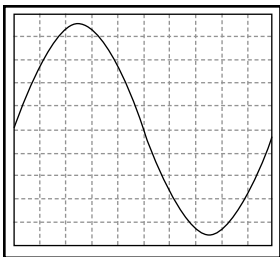


VFX  
Vented Construction



*We believe that OutBack not only has a superior product, but as we've quickly learned, also has a tremendous customer and technical support team.*

– Rick Thompson of Thompson Coach, Knoxville, TN



The OutBack M-Series inverter/charger is an all-in-one mobile power solution. It incorporates a true sinewave inverter, intelligent battery charger and an AC transfer switch which includes a 30 amp pass through and automatic neutral/ground switching.

All M-Series inverter/chargers produce virtually distortion free AC power for all your mobile electrical needs. Industry leading surge power starts multiple heavy loads simultaneously without the need to run your generator. Innovative power factor corrected battery charging uses multiple stages to recharge your batteries quickly so your generator runs less. Ultra fast AC transfer switch with battery charger back off circuitry allows you to seamlessly take full advantage of your shore cord.

OutBack's modular design makes expanding your power system as easy as adding an additional inverter/charger. Integrated network communications makes system setup and monitoring easy through a single MATE2M controller. Very quiet operation allows mounting in noise sensitive areas, even under a bunk. Repairs in the field are easy thanks to a simple three circuit board design.

The OutBack M-Series inverter is the superior choice when you need a reliable, powerful and modular true sinewave inverter/charger.

- True Sinewave AC Output
- Fast Battery Charging
- High Surge Power Capability
- Extremely Rugged
- Easy to Use
- Very Quiet
- "Mount Anywhere" Design
- High Efficiency
- Neutral/Ground Switching
- Networked Communications
- Field Serviceable
- Standard 2 Year Warranty

The *sealed* OutBack M-Series inverter/charger is the most rugged design in the world. Conformal coated circuit boards, powder coated die-cast aluminum chassis with gaskets and o-ring seals keep out water and resist corrosion. Simply put, the sealed M-series is designed to work where other inverter/chargers were never intended to go.

The *vented* OutBack M-Series has the same proven technology and conformal coated circuit boards as the sealed version but offered in a vented chassis for higher power output. The fully screened "bug-proof" openings keep the power conversion components cool in very hot environments even when operated at high power for extended periods in more protected environments.

## M-Series Specifications

	Sealed Models			Vented Models			
	FX2012MT	FX2524MT	FX2532MT	VFX2812M	VFX3524M	VFX3232M	
Nominal DC Input Voltage	12VDC	24VDC	32VDC	12VDC	24VDC	32VDC	
Continuous Power Rating at 25° C	2000 VA	2500 VA	2500 VA	2800 VA	3500 VA	3200 VA	
AC Voltage/Frequency	120 VAC 60 Hz	120 VAC 60 Hz	120 VAC 60 Hz	120 VAC 60 Hz	120 VAC 60 Hz	120 VAC 60 Hz	
Continuous AC RMS Output at 25° C	17.0 amps AC	20.8 amps AC	20.8 amps AC	23.3 amps AC	29.2 amps AC	26.6 amps AC	
Idle Power	Full	≈ 20 Watts	≈ 20 Watts	≈ 20 Watts	≈ 20 Watts	≈ 21 Watts	
	Search	2.6 Watts	2.6 Watts	2.6 Watts	2.6 Watts	2.6 Watts	
Typical Efficiency	90%	92%	92%	90%	92%	92%	
Total Harmonic Distortion	Typical	2%	2%	2%	2%	2%	
	Maximum	5%	5%	5%	5%	5%	
Output Voltage Regulation	± 2%	± 2%	± 2%	± 2%	± 2%	± 2%	
Maximum Output Current	Peak	56 amps AC	70 amps AC	56 amps AC	70 amps AC	56 amps AC	
	RMS	40 amps AC	50 amps AC	40 amps AC	50 amps AC	40 amps AC	
AC Overload Capability	Surge	4800 VA	6000 VA	4800 VA	6000 VA	4800 VA	
	5 Second	4000 VA	4800 VA	4000 VA	4000 VA	4000 VA	
	30 Minutes	2500 VA	3200 VA	2500 VA	3200 VA	4000 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)	80 to 150 VAC	80 to 150 VAC	80 to 150 VAC	80 to 150 VAC	80 to 150 VAC	80 to 150 VAC	
AC Input Frequency Range	54.0 to 66.0 Hz	54.0 to 66.0 Hz	54.0 to 66.0 Hz	54.0 to 66.0 Hz	54.0 to 66.0 Hz	54.0 to 66.0 Hz	
DC Input Range	10.5 to 17.0VDC	21.0 to 34.0VDC	28.0 to 45.3VDC	10.5 to 17.0VDC	21.0 to 34.0VDC	28.0 to 45.3VDC	
Continuous Battery Charge Output	80 amps DC	55 amps DC	35 amps DC	125 amps DC	85 amps DC	45 amps DC	
Minimum Recommended DC Breaker	OBDC-250	OBDC-175	OBDC-125	OBDC-250	OBDC-250	OBDC-175	
Recommended Battery Cable	#4/0 AWG	#2/0 AWG	#2/0 AWG	#4/0 AWG	#4/0 AWG	#2/0 AWG	
Recommended Battery Types	Flooded lead acid, AGM, gel			Flooded lead acid, AGM, gel			
Warranty	Standard 2 year / Optional 5 year			Standard 2 year / Optional 5 year			
Certifications	ETL listed to UL458			ETL listed to UL458			
Weight	Unit	56 lbs (25 kg)			54 lbs (25 kg)		
	Shipping	67 lbs (30 kg)			62.2 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)		



The MATE2M is a complete management tool for your OutBack mobile power conversion system. The onboard CPU coordinates the operation of all your OutBack system components for maximum performance and smooth system integration.

A backlit LCD provides a display for system monitoring while four soft keys allow navigation of the menu system and adjustment of settings. Information for up to 10 inverter/chargers and other OutBack power conversion and control products is available at your fingertips through the communications HUB. Your programmed settings are stored in permanent memory to eliminate the need to reprogram the system in the event of a system shutdown or battery replacement.

The OutBack MATE2M includes a built in clock and calendar which allows timer based programming of power system operation. This enables the user to specify a generator's run time to a specific time period of the day or week.

## MATE2M Specifications

Operation	4 soft keys, dedicated inverter and AC input keys
Input	OutBack Cat5e RJ45 network cable
Output (RS232 model only)	RS232 serial to PC communication for data logging (optional software required)
Display	Back lit 4 line LCD
System Monitoring	AC/DC Voltage and Current Meters, Errors and Warnings
Adjustable Parameters	Shore Cord Amperage, Generator Start/Stop
Settings Memory	32k nonvolatile flash RAM
Dimensions HxWxD	4.5 x 6.25 x 1.5" (11 x 16 x 4 cm)
Weight	1 lbs (454 g)
Warranty	2 Year Standard / 5 Year Optional

# OutBack Power Systems

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