

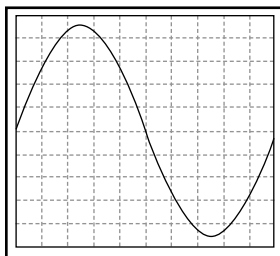
# M-Series

Rugged Marine Power Electronics

**OutBack**  
Power Systems



**Sealed FX**  
Water Resistant



OutBack M-Series inverter/chargers provide true sinewave power output, and intelligent battery charging. They are modularly expandable to your power needs providing a complete power conversion solution. They incorporate a DC to AC inverter, battery charger, and an AC transfer switch, which combines 30 amp pass through and neutral/ground switching.

All OutBack inverter/chargers produce virtually distortion free sinewave AC power for onboard electronics like sensitive home theater equipment and microwaves with minimal RF interference. Industry leading surge power

starts heavy loads like air conditioning. Power factor corrected battery charging gets the most out of your shore cord and generator while maximizing the life and performance of your batteries. Ultra fast AC transfer switch with neutral/ground switching seamlessly transfers shore cord current without dropping loads. Modular expandability is achieved through networked communications, allowing your inverter system to grow with your power consumption needs.

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 resist corrosion. No other inverter/charger can operate in extreme climate conditions, such as highly corrosive salt air, and achieve the same level of reliability and performance as the sealed M-Series.

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.

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

True Sinewave AC Output  
Intelligent Battery Charging  
Modular System  
High Surge Capability  
Easy to Use  
"Mount Anywhere" Design  
Corrosion Resistant  
Circuit Boards  
High Efficiency  
Neutral/Ground Switching  
Networked Communications  
Silent Operation  
Standard 2 Year Warranty  
Optional 5 Year Warranty

## 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	5000 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 17.0 VDC	21.0 to 34.0 VDC	28.0 to 45.3 VDC	10.5 to 17.0 VDC	21.0 to 34.0 VDC	28.0 to 45.3 VDC
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 marine 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 equipment 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 6.15 x 1.7" (11 x 16 x 4 cm)
Weight	1 lbs (454 g)
Warranty	2 Year Standard / 5 Year Optional



"Corrosion resistant aluminum marine PS2 system components are available for larger applications."

**OutBack**  
Power Systems

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