

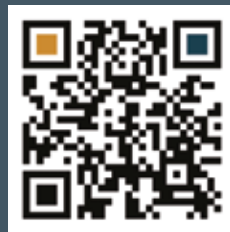
# CATALOG

**BEST MARINE POWER SYSTEM**



**BEST  
MARINE**





“ For Electronic Catalog Visit our website ”

# BEST MARINE BATTERY—"BM 5KW"

( WHY YOU DON'T NEED A GENERATOR ANYMORE!!! )

“

Whether you are out cruising on your boat or fishing, you want to spend as much time on the water as possible. Many of your electrical powered devices operates directly from your boat's 12 Volts battery; however, other devices like air conditioners require 220 Volts. For those, you need a generator. A generator means: Fuel, Smoke, Vibration, Noise, and Expensive Maintenance.

How to avoid all that? Our Best Marine Lithium batteries with our Hybrid Inverter will do the trick! Simply, our battery will store 5,000 Watts while charging on shore.

When you are out on the water, the Inverter will silently transfer the voltage from the "BM 5KW" Battery to 220 Volts to operate your appliances, Air Conditioner, Coffee maker, ...etc.  
Quiet, calm, no fuel, and no service required! ”

Discover the peace of mind on your boat!



# WHY A BATTERY AND NOT A GENERATOR?

Choosing the right power source on your boat is an important decision. A generator can be a major investment. After the main engine, the most expensive single piece of equipment aboard is often the generator. Whether a marine generator or a regular generator, you will need a generator that's reliable, offers longevity, and delivers a comfortable time on board! A bit tricky!

With regular generators you will need to choose between gas or diesel! Exhaust location! Continuous service and checkups! With marine generators, you will need to decide between three configurations: keel cooled, heat exchanger, or direct sea water!

In all the cases, generators are loud, expensive to run, require regular tests to ensure proper operation, and an annoying source of vibration and gases.

To state the obvious, the best choice is the Best Marine Power System, that consists of Best Marine Battery and Best Marine Invertor!

In other words, Continuous quiet Power with no smoke neither vibration that requires zero fuel and zero service.





**Our power system has moved from the "Future" to the "Technology of Today".**

**Additional Benefits:**

- Increase in your boat's value.
- Reduced carbon foot prints and environmental impact.
- Protection from power outages.
- Greatly reduced energy costs.

*We design for you the right sizing, customized for your needs. The maximum system setup can generate up to 90 kWh, with a peak consumption of 5kW or 12kW through our hybrid inverter.*

# WHAT MAKES “BM 5KW” BATTERY SPECIAL?

## The two main features

Marine: lighter weight and high-density capacity. So there will be no effect on your boat's speed.

Smart: Balanced Function ensures consistent battery balance per cell and maximizes battery life.

## Key Features:

Longer Cycle Life. Up to 3,500 times.

High Power.

Wide Temperature Range: -20°C –60°C

Super Safety Performance, Lithium Iron Phosphate eliminates the risk of explosion due to high impact, overcharging or short circuit situations.

Supports parallel function up to 16 units.

Balanced Function ensures consistent battery balance per cell and maximizes battery life.

***“Best Marine Battery “BM 5KW” was designed to last and built to perform”.***

# SPECIFICATIONS

	MODEL	BM 5KW
<b>Electrical</b>	Rated Voltage	51.2 V
	Rated Capacity	105 AH
	Energy	5376 Wh
	Internal Resistance	$\leq 40 \text{ m}\Omega$
	Cycle Life	$\geq 3500$ cycles
	Design Life	$\geq 10$ Years
	Self-Discharge Per Month	$\leq 2\%$ at $35^{\circ}\text{C}$
	Efficiency of Charge	$\geq 98\%$
	Efficiency of Discharge	$\geq 99\%$
<b>Charge</b>	Charge Cut-off Voltage	$59.2 \text{ V} \pm 0.1 \text{ V}$
	Charge Current	50 A
	Max. Charge Current	55 A
	Continuous Current	50 A
	Limit Charge Current	10 A / 20 A Optional

Discover the peace of mind on your boat!

# SPECIFICATIONS

<b>Discharge</b>	Max. Continuous Discharge Current	100 A
	Discharge Cut-off Voltage	41.6V $\pm$ 0.2V
	Output Interference	Terminal Block
<b>Other</b>	Protective Function	Over Charge, Over Discharge, Over Current, Over Temperature, Short Circuit
	Communication Interference	RS485/RS232
	Dry Contact	Yes
	Max Parallel Connection	16 PCS
	SOC Light	4 LED
<b>Environmental</b>	Charge Temperature	-5° – 60°C
	Discharge Temperature	-20°C – 60°C
	Storage Temperature	-40°C – 55°C @ 60% Relative Humidity
	Operating Humidity	20 – 90 % (No Condensation)
<b>Weight</b>	Net (Kg)	44 Kg
<b>Dimension</b>	L*W*H (mm)	450 * 494 * 178 mm



# HYBRID INVERTERS

## Hybrid Inverters

An inverter is a power electronic device that converts (DC) voltage to (AC) voltage. In other words, it provides an AC voltage from the battery to operate your 220 Volts appliances on your boat.

## What's hybrid?

We Call our BM Invertors "BM INV 5KW" and "BM INV 12KW" hybrid because they consist of:

Inverter: To convert the stored power.

Charger: To charge the battery.

Intelligent Module: To manage the power system intelligently.

Protective function: Over Charge. Over Discharge. Over Current. Short Circuits.



# SPECIFICATIONS

SPECIFICATIONS		
<b>AC Input</b>	Input Voltage Wave Form	Sinusoidal (Utility or Generator)
	Nominal Input Voltage	120 or 230 / VAC
	Low Line Disconnect	85 Vac $\pm$ 4% (Normal) or 80 Vac $\pm$ 4% (Wide) for 120 Vac 184 Vac $\pm$ 4% (Normal) or 135 Vac $\pm$ 4% (Wide) for 230 Vac
	Low Line Re-connect	95 Vac $\pm$ 4% (Normal) or 85 Vac $\pm$ 4% (Wide) for 120 Vac 194 Vac $\pm$ 4% (Normal) or 145 Vac $\pm$ 4% (Wide) for 230 Vac
	High Line Disconnect	136 Vac $\pm$ 4% (Normal) or 145 Vac $\pm$ 4% (Wide) for 120 Vac 263 Vac $\pm$ 4% (Normal) or 263 Vac $\pm$ 4% (Wide) for 230 Vac
	Max AC Input Voltage	120 Vac for Max 150 Vac, 230 Vac for Max 270 Vac
	Frequency	50Hz: 4154-Hz, 60Hz: 5164-Hz
<b>AC Charger</b>	Over Charge Protection	Bat. V $\geq$ 15.5 VDC for 12V battery; Bat. V $\geq$ 31.0 VDC for 24V battery, Bat. V $\geq$ 62.0 VDC for 48V battery; Beeps 0.5s every 1s & fault after 60s

# SPECIFICATIONS

<b>Charger</b>	Nominal Charger Current	20A / 35A / 50A / 70A / 90A (According to the inverter model), adjustable 5 stages charging current
	Over charge Protection	Bat. V $\geq$ 15.5VDC / 31VDC / 62VDC, Beeps 0.5s every 1s & fault after 60s
<b>Efficiency</b>	Battery Model	>87%
	Line Model	> 98%
<b>Battery Voltage</b>	Nominal DC Input	48 VDC
	Voltage Low Battery Alarm	42 VDC $\pm$ 1.2 VDC for 48 VDC
	Alarm	42 VDC $\pm$ 1.2 VDC for 48 VDC
	Low DC input shut-down	40 VDC $\pm$ 1.2 VDC for 48 VDC
	High DC input Alarm & Fault	64 VDC $\pm$ 1.2 VDC for 48 VDC
<b>Transfer Time</b>	AC to DC	20ms (Max)
	DC to AC	15ms (Max)

# SPECIFICATIONS

<b>System Parameters</b>	Over-Load Protection	110% < Load < 150%, beeps 0.5s every 1s, and Fault after 60s off the output, Load > 150%, beeps 0.5s every 1s, and Fault after 20s
	Output Short Circuit Protection	Current limit (Fault after 10s)
	Surge Rating (10s)	1:3(VA)
	Power Saver	Load ≤ 25W (Enabled on "P/S auto" Setting of Remote control)
	Protections	Low battery, over charging, over load, over temp
	Indicators	LED + LCD Display
<b>General Specifications</b>	Operating Temperature Range	0°C to 60°C
	Storage Temperature	-15°C to 80°C
	Operation Humidity	5% to 95 % (non-condensing)
	Cooling	Forced Air, Variable Speed Fan
	Dimension (L*W*H)	5K Watts: 627 * 416 * 204 mm 12K Watts: 530 * 400 * 190 mm
	Net Weight (Kg)	35.5 Kg for the 5K Watts Invertor 66.5 Kg for the 12K Watts Invertor



# PACKAGE CONTENTS

BM 5KW BATTERY

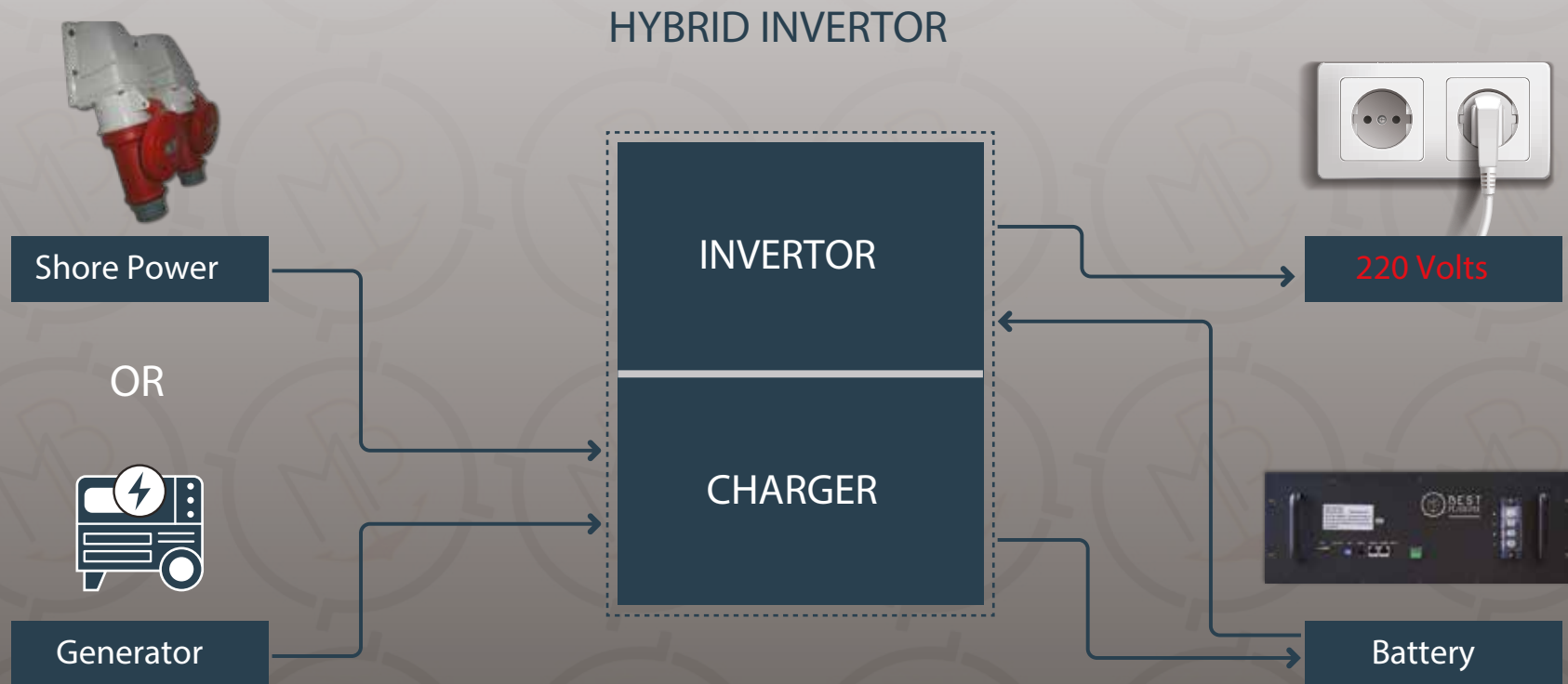


BM INVERTER



Discover the peace of mind on your boat!

# GENERAL LAYOUT



# WARRANTY AND FREE SERVICE

Our Best Marine Battery and inverters come with full two-year warranty.

We offer free service for a year. That includes two free visits to connect your battery to our laptop with the “Best Marine Diagnosis” Software installed on it.

After each visit we will provide you with a detailed report highlighting the status of your system and some tips to make the most out of your BM power system.



Discover the peace of mind on your boat!

# SOLAR ENERGY

Looking for a non-stop power on board? Totally independent?  
Check Out how to update your best marine power system with solar  
panels to transform sunlight into electrical power.

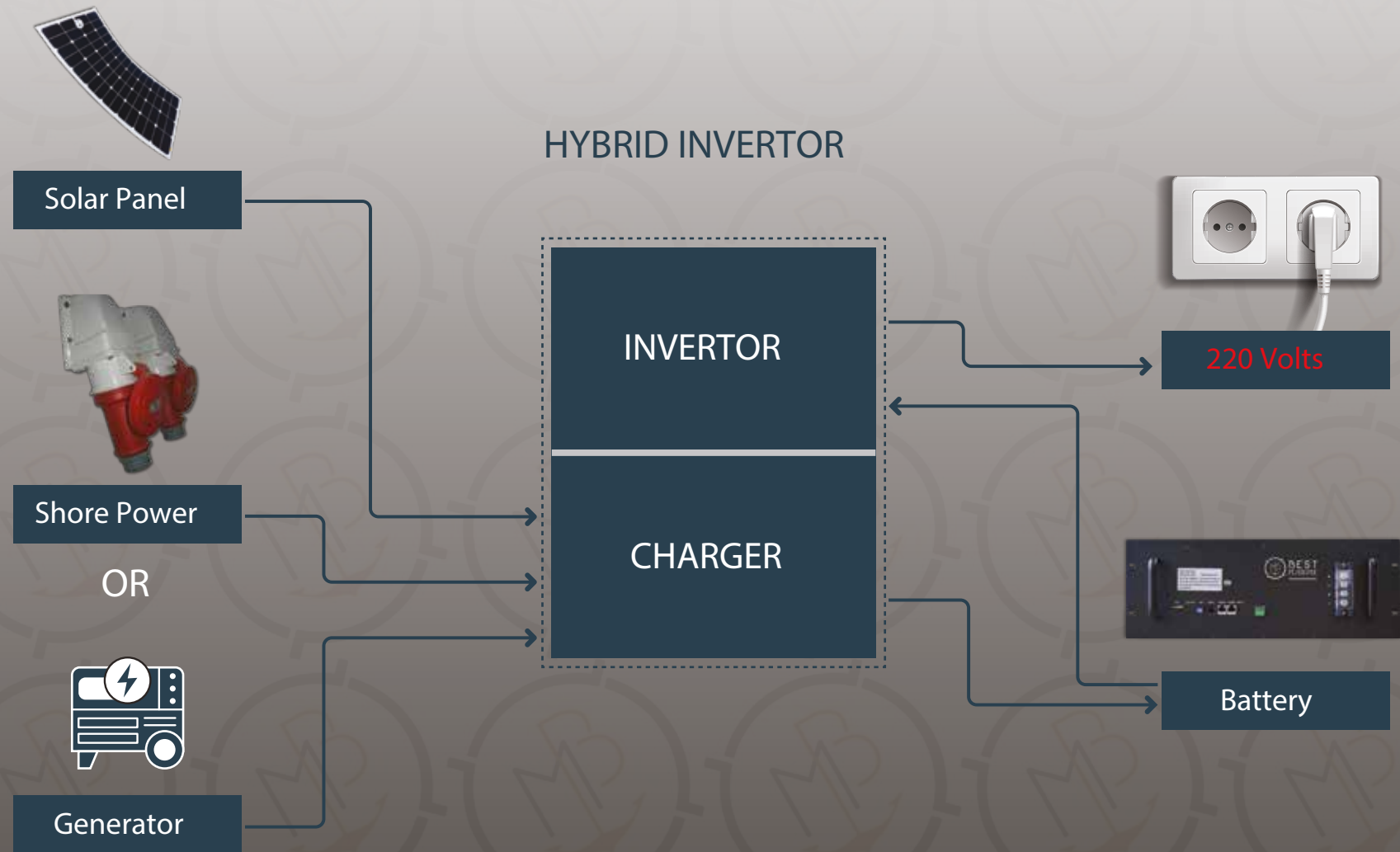
**Contact us today for more details.**

[admin@bestmarine.ae](mailto:admin@bestmarine.ae)





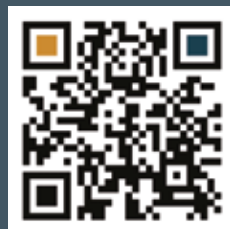
# SOLAR SYSTEM GENERAL LAYOUT



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**Contact us today for more details.**

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