

GPX-5

## One smart box for homelike power



Revolutionary hybrid  
power solution

Integrated generator,  
charger and inverter

Extremely stable,  
homelike power

Compact dimensions =  
less volume and weight

Easy to install



THE POWER TO BE INDEPENDENT





# Gen Power Box: It's like being at home

Can a two to four times smaller generator still meet your demands concerning on-board power? Can such a generator start your air conditioning, while – at the same time – your dinner is in the oven and you switch on the lights? Like you're used to at home? Yes, it can! Get acquainted with the Mastervolt GPX-5! It is the first hybrid marine power system, housing a generator, an inverter, a battery charger and a generator/inverter/shore transfer system.

Against a 'classic' setup the GPX-5 reduces volume by 40% and weight even by 50%, providing you a pure sine wave 230 V with an absolute stable 50 Hz on-board AC power. The GPX-5 also offers you a high voltage DC connection which can be used for ultra efficient use of wind, solar energy or electric propulsion. To effectively feed all equipment on-board you can even combine power from shore with power from the generator and batteries.

## **Smaller generator, more efficiency, less budget**

With conventional generator setups the size of the generator is dictated by the highest load demand. Although the average load on the generator is much lower, you end up with a generator that is far too big for your power needs. Thus consuming more of your budget, more of your space, and most of time run at an inefficient low load level. The new Mastervolt GPX-5 changes the need for this over-specification, reduces fuel consumption and noise levels.

## **Full automatic operation**

With the Mastervolt GPX-5 you have no more concerns about peak loads. For instance: you don't have to start the generator first when you switch on your air conditioning. The inverter will power this load from the batteries for the first 30 seconds. And after that the generator will start automatically. No attention needed, it's all fully automatic. The GPX-5 will operate according the user profile you have chosen: Eco, Performance or Minimum Generator Running.

## **Easy installation**

Installing a Mastervolt GPX-5 is easy. It's only one compact box with all the essentials for your power needs. Through MasterBus, the intelligent one-cable system, you can connect all components on your boat quickly and without ado. With the MasterView Easy or MasterView System touch screen displays you can operate and monitor your system, even from a distance, with GPRS/SMS text messages.

## **More information?**

Contact your nearest sales agent or visit [www.mastervolt.com/gpx](http://www.mastervolt.com/gpx)



# A green power solution

In combining a variable speed diesel generator with inverter technology Mastervolt has created the first true hybrid electrical power system. The system doesn't need full operation, not even to handle harsh start-up currents like for instance your air conditioning system. The GPX-5 offers 10 kW of start-up power and 2 kW continuously power from the Mastervolt batteries via the GPX. The generator does not run, only when a continuous load exceeds 2 kW.

## **Saving on fuel, material, size and weight**

The revolutionary Mastervolt GPX-5 will improve your fuel efficiency by 30-40%. First: Thanks to the GPX concept you need a smaller generator to power your loads since the battery helps to deliver peak power. Second: The generator will never run with small loads or even idle, thus saving the most uneconomical running time resulting in less maintenance. Third: The high efficiency permanent magnet alternator converts the 'rotating diesel power' into electricity 10 to 20% more efficiently. Fourth: There is no energy loss in the transfer from generator to battery to inverter, saving you another 5-10%. Last but not least, the compact dimensions of the housing also save space and weight.

## 8 different modes

POWER FROM SHORE	BATTERY	GENERATOR	MODE
No shore	Inverting	Standby	Inverter is powering AC loads.
No shore	Inverting	Starting/ Running	AC load is larger than 2 kW or batteries are running low, generator is started automatically.
No shore	Charging	Running	Charging batteries and running AC loads after long period without shore connection.
Shore	Charging	Standby	Charging batteries and running AC loads from shore connections.
Shore	Inverting	Standby	Loads are larger than available shore power; power from batteries is used to support AC loads.
Shore	Charging	Running	Shore power is too limited to run AC loads and charge batteries. Generator is started and supporting shore.
Shore	Inverting	Running	AC loads are heavier than the combined (limited) shore and generator can support, so battery power is support AC output as well.
No shore	No use	Standby	Standby: no AC available.





### State-of-the-art technology

Variable speed generator with ultra high efficient permanent magnet alternator.



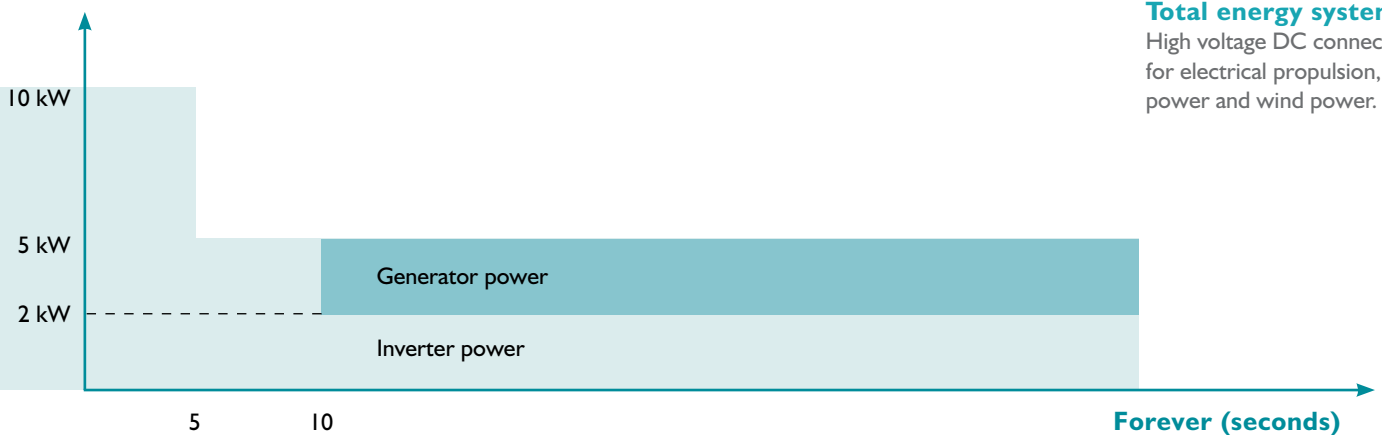
### Perfect 230 V AC and 50 Hz

AC output is conditioned by power electronics so always perfect 50 Hz and 230 V AC. Even while running the generator and turning on and off heavy loads.

## SINE WAVE POWER



### Power to start heavy loads



### Total energy system

High voltage DC connection for electrical propulsion, solar power and wind power.

### Combined power

Combined power of shore, batteries and generator in the most economical way.



# GPX-5 in a system

Following system setup could be a common and reliable system setup for a motoryacht or sailing boat:

- 1 Mastervolt GPX-5 24 V
- 2 Mastervolt Lithium Ion batteries (320 Ah)
- Mastervolt MasterShunt
- Mastervolt MasterView System

A system setup like this will power without problems the following equipment:

- air conditioning
- microwave
- electric cooking
- TV and DVD player
- electric winches



# Technical specifications



**GPX-5**  
51410500



**GPX-5**  
51420500



**GPX-5**  
51440500

Article no.

## GENERAL

Output voltage	230 V	230 V	230 V
Frequency	50 Hz	50 Hz	50 Hz
Peak output (silent)	10 kW (5 seconds)	10 kW (5 seconds)	10 kW (5 seconds)
Output power (silent)	2 kW continuous	2 kW continuous	2 kW continuous
Output power (running)	5 kW continuous	5 kW continuous	5 kW continuous

## LOW VOLTAGE DC SPECIFICATIONS

Battery voltage	12 V	24 V	48 V
Battery charging current	100 A	100 A	100 A
Minimum battery capacity	150 Ah	200 Ah	60 Ah
Battery type settings	open lead / gel / traction / AGM / spiral / Li-Ion		
Charge characteristic	standard Mastervolt 3-step		
Auxiliary outputs	2x	2x	2x

## ALTERNATOR SPECIFICATIONS

Type	brushless permanent magnet alternator		
Continuous rated power	3000 rpm 3.3 kW	3000 rpm 3.3 kW	3000 rpm 3.3 kW

## DIESEL ENGINE SPECIFICATIONS

Number of cylinders	1	1	1
Cylinder capacity	300 cc	300 cc	300 cc
Engine cooling	indirect water cooled	indirect water cooled	indirect water cooled
Governing system	electronic	electronic	electronic

## TRANSFER SYSTEM SHORE POWER

Max. current	50 A	50 A	50 A
Ground relay	yes	yes	yes
Transfer relay & RCD	yes	yes	yes

## ENVIRONMENTAL

Dimensions (hwxwd)	500x450x650 mm / 19.7x17.7x25.6"		
Weight (dry weight)	80 kg / 176.4 lbs		
Temperature range operational	-20 to 40 °C above 40 °C derating of 3%/ °C		
Protection degree	enclosure IP23		
Relative humidity	protected against humidity and condensing air by conformal coating on both sides of all PCB's. max. 95% relative humidity, none condensing.		

## CONNECTIONS

AC connections	terminal block		
DC connections	DC connections screw terminal M10		
Communication ports MasterBus	2x RJ45	2x RJ45	2x RJ45

Subject to alterations. For our complete product range please visit [www.mastervolt.com/gpx](http://www.mastervolt.com/gpx)