



**Fischer Panda®**

# Hybrid Power Module

*Easy Hybrid*



**NEW!**  
**Easy Hybrid**  
**"Plug & Play"**

## Integrated battery control and management

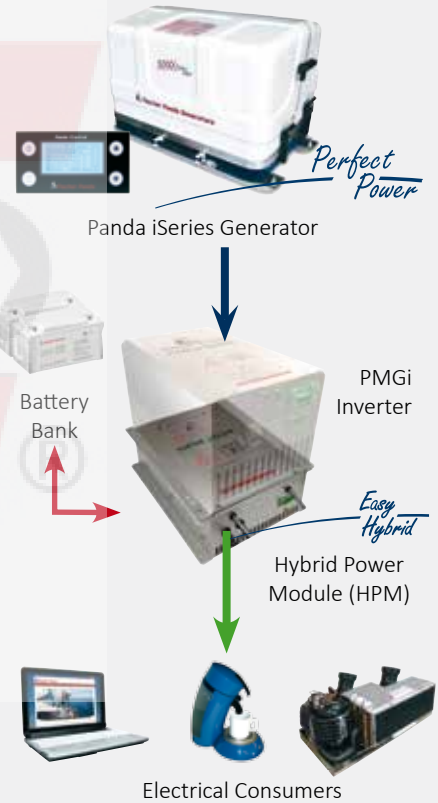
- Easy Hybrid- plug and play connection (no tools required)
- Designed for Fischer Panda Inverter generators
- Available in 2 KW or 4 KW for 12 or 24V batteries
- Bi-directional DC-DC converter
- Integrated battery charger
- Easy mechanical hook up
- BUS control over existing Generator control
- No interface- no protocol change
- Integrated battery control and management
- Automatic start of generator
- Compact , light , low price
- Wide range of DC input battery voltage ( 12V or 24V on board )
- No inverter inside

## "Parallel" iSeries

The HPM contains a Bi-directional DC-DC converter with an adjustable wide range of DC input voltage levels. Any DC on-board battery, especially 12V and 24V or higher can be used with the HPM to upgrade a Fischer Panda variable speed Generator into a hybrid on-board power system. An easy plug and play module provides DC power for the variable speed generator's inverter and recharges the on-board battery if enough power is present. The HPM is connected via the CAN BUS to the generator control. The generator control recognizes when the HPM is present. As well as battery control and management, the control can also start the generator if the battery needs recharging.

## Variable Speed Technology - iSeries Generators

The Panda iSeries generators are characterised by their environmentally friendly inverter technology. The electric load is provided with a constant output voltage of 230V/50Hz or 120V/60Hz via an inverter. The speed of the diesel engine is adjusted according to the user's changing power requirements while the output voltage always remains constant from the inverter. Variable speed control considerably reduces exhaust emissions and fuel consumption in comparison with a traditional fixed-speed generator. The maximum speed of the engine is 2800 RPM. Clean sine wave with exceptional voltage and frequency stability and of course the low noise are just some of the additional benefits.



مركز البراغي والعدد  
**BOLTS & TOOLS CENTER** **BTCO**

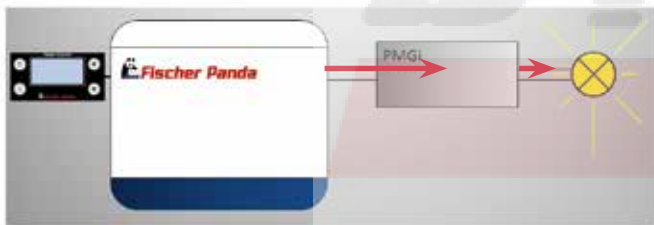
Technical Information

Type		HPM 2012	HPM 2024	HPM 4024
Power		2000 Watt	2000 Watt	4000 Watt

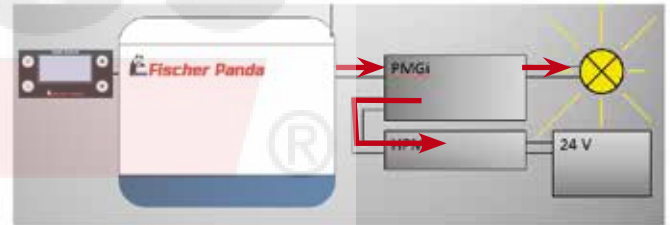
DC / DC Converter		Battery-> Inverter	Battery-> Inverter	Battery-> Inverter
Input voltage	Uin	12V	24V	24V
Input current	Iin	max. 200A	max. 100A	max. 200A
Output voltage	Uout	320V	320V	320V
Output current	Iout	6.25A	6.25A	12.5A

DC / DC Converter		Inverter to Battery	Inverter to Battery	Inverter to Battery
Input voltage	Uin	320V	320V	320V
Input current	Iin	6.25A	6.25A	12.5A
Output voltage	Uout	12V	24V	24V
Output current	Iout	max. 200A	max. 100A	max. 200A

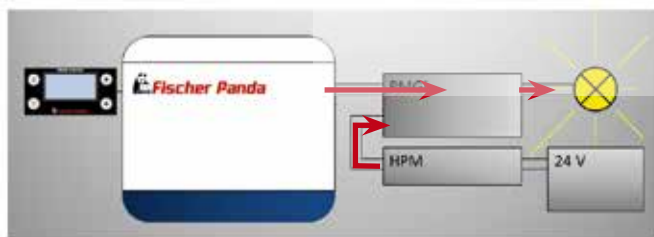
IP Class		IP30	IP30	IP30
Dimensions		335mm * 200mm * 130mm	335mm * 200mm * 100mm	335mm * 200mm * 130mm
Weight		6.5 kg	5.5 kg	7.5 kg



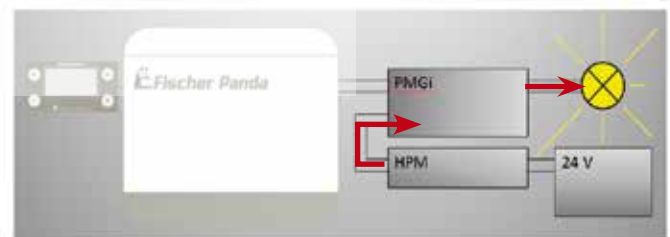
Generator only setup: Power 0-4 kW



Generator and battery charging: 2-4 kW



Generator with battery (via HPM): 4-6 kW



Battery only (no generator) 0-2 kW

Disclaimer:

The information contained here is to the best of our knowledge accurate at the date of publication. Please note that the data in this publication reflects the technical state at time of print. Due to our policy of continual product development, we reserve the right to alter technical specifications without notice.

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