Phoenix Inverters Smart 1600VA & 2000VA

Phoenix Inverter Smart 12/2000

Bluetooth built-in: fully configurable with a tablet or smartphone

- Low battery voltage alarm
- Low battery voltage cut-off and restart levels
- Dynamic cut-off: load dependent cut-off level
- Output voltage: 210 - 245V
- Frequency: 50 Hz or 60 Hz
- ECO mode on/off and ECO mode sense level
- Alarm relay

Monitoring:
- In- and output voltage, load and alarms

VE.Direct communication port

The VE.Direct port can be connected to a computer (VE.Direct to USB interface cable needed) to configure and monitor the same parameters.

Proven reliability

The full bridge plus toroidal transformer topology has proven its reliability over many years.
The inverters are short circuit proof and protected against overheating, whether due to overload or high ambient temperature.

High start-up power

Needed to start loads such as power converters for LED lamps, halogen lamps or electric tools.

ECO mode

When in ECO mode, the inverter will switch to standby when the load decreases below a preset value. Once in standby the inverter will switch on for a short period every 2,5 seconds (adjustable).
If the load exceeds the preset level, the inverter will remain on.

Remote on/off

A remote on/off switch or relay contact can be connected to a two pole connector.
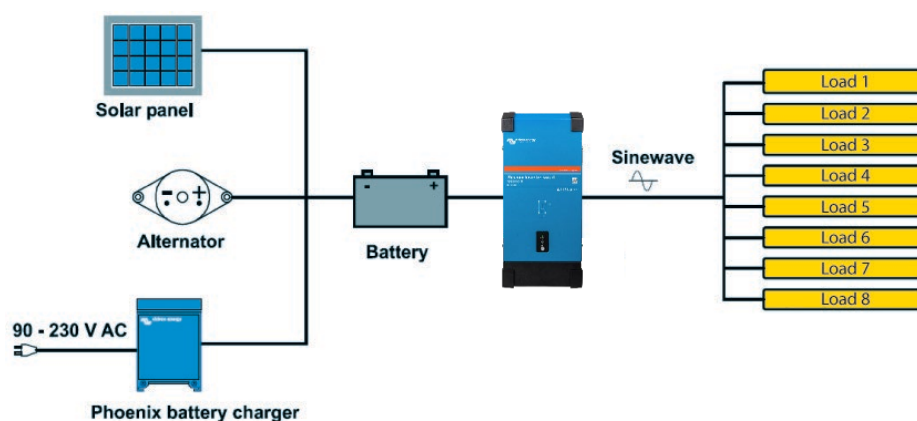Alternatively, the H terminal (left) of the two pole connector can be switched to battery plus, or the L terminal (right) of the two pole connector can be switched to battery minus (or the chassis of a vehicle, for example).

LED diagnosis

Please see manual for a description.

To transfer the load to another AC source: the automatic transfer switch

For our low power inverters we recommend our Filax Automatic Transfer Switch. The Filax features a very short switchover time (less than 20 milliseconds) so that computers and other electronic equipment will continue to operate without disruption. Alternatively use a MultiPlus with built-in transfer switch.

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BLUE POWER

Phoenix Inverter Smart	12/1600 24/1600 48/1600	12/2000 24/2000 48/2000
Parallel and 3-phase operation	No	
INVERTER		
Input voltage range (1)	9,3 – 17V 18,6 – 34V 37,2 – 68V	
Output	Output voltage: 230VAC ±2% 50 Hz or 60Hz ± 0,1% (1)	
Cont. output power at 25⁰C (2)	1600VA	2000VA
Cont. output power at 25⁰C	1300W	1600W
Cont. output power at 40⁰C	1200W	1450W
Cont. output power at 65⁰C	800W	1000W
Peak power	3000VA	4000VA
Dynamic (load dependent) DC low shut down (fully configurable)	Dynamic cut-off, see https://www.victronenergy.com/live/ve.direct:phoenix-inverters-dynamic-cutoff	
Max. efficiency 12/ 24 /48 V	92 / 94 / 94%	92 / 94 / 94%
Zero load power 12 / 24 / 48 V	8 / 9 / 11W	8 / 9 / 11W
Zero load power in ECO mode	0,6 / 1,3 / 2,1W	0,6 / 1,3 / 2,1W
GENERAL		
Programmable relay (2)	Yes	
Stop & start power ECO-mode	adjustable	
Protection (3)	a - g	
Bluetooth wireless communication	For remote monitoring and system integration	
VE.Direct communication port	For remote monitoring and system integration	
Remote on-off	Yes	
Common Characteristics	Operating temperature range: -40 to +65⁰C (fan assisted cooling) Humidity (non-condensing): max 95%	
ENCLOSURE		
Common Characteristics	Material & Colour: steel (blue RAL 5012; and black RAL 9017) Protection category: IP 21	
Battery-connection	M8 bolts	
230 V AC-connection	Screw terminals	
Weight	12kg	13kg
Dimensions (hxwhd)	485x219x125mm	485x219x125mm
STANDARDS		
Safety	EN 60335-1	
Emission Immunity	EN 55014-1 / EN 55014-2/ IEC 61000-6-1 / IEC 61000-6-2 / IEC 61000-6-3	
Automotive Directive	ECE R10-5	

1) Non-linear load, crest factor 3:1
2) Programmable relay that can a.o. be set for general alarm, DC under voltage or genset start/stop function.
   AC rating: 230 V / 4 A
   DC rating: 4 A / 35 VDC, 1A / 60VDC

3) Protection key:
   a) output short circuit
   b) overload
   c) battery voltage too high
   d) battery voltage too low
   e) temperature too high
   f) 230 V AC on inverter output
   g) input voltage ripple too high

Phoenix Inverter Control
This panel is intended for remote on/off control of all VE.Direct Phoenix inverters

Color Control GX
Provides monitor and control. Locally, and also remotely on the VRM Portal.

VE.Direct to USB interface
Connects to an USB port.

Bluetooth wireless communication
Connects to a smart phone (both iOS and Android).
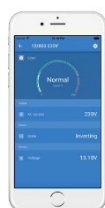
BMV-712 Smart Battery Monitor
The BMV Battery Monitor features an advanced microprocessor control system combined with high resolution measuring systems for battery voltage and charge/discharge current. Besides this, the software includes complex calculation algorithms, like Peukert's formula, to exactly determine the state of charge of the battery. The BMV selectively displays battery voltage, current, consumed Ah or time to go. The monitor also stores a host of data regarding performance and use of the battery.

Several models available (see battery monitor documentation).

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