# Phoenix Inverters

180VA – 1200 VA  230V/50Hz and 110V/60Hz

www.victronenergy.com

**Phoenix Inverter 12/750**

**Phoenix Inverter 12/800 with Schuko socket**

### SinusMax – Superior engineering

Developed for professional duty, the Phoenix range of inverters is suitable for the widest range of applications. The design criteria have been to produce a true sine wave inverter with optimized efficiency but without compromise in performance. Employing hybrid HF technology, the result is a top quality product with compact dimensions, light in weight and capable of supplying power, problem-free, to any load.

### Extra start-up power

A unique feature of the SinusMax technology is very high start-up power. Conventional high frequency technology does not offer such extreme performance. Phoenix inverters, however, are well suited to power up difficult loads such as computers and low power electric tools.

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

For our lower power models we recommend the use of our Filax Automatic Transfer Switch. The Filax features a very short switchover time (less than 20 miliseconds) so that computers and other electronic equipment will continue to operate without disruption.

### LED diagnosis

Please see manual for a description.

### Remote on/off switch

Connector for remote on off switch available on all models.

### Remote control panel (750VA model only)

Connects to the inverter with a RJ12 UTP cable (length 3 meter, included).

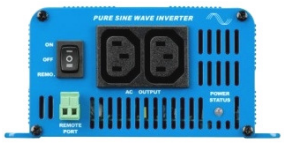
### DIP switch for 50/60Hz selection (750VA model only)

### DIP switches for Power Saving Mode (750VA model only)

When operating in Power Saving Mode, the no-load current is reduced to 1/3 of nominal. In this mode the inverter is switched off in case of no load or very low load, and switches on every two seconds for a short period. I f the output current exceeds a set level. The inverter will continue to operate. If not, the inverter will shut down again. The on/off level can be set from 15W to 85W with DIP switches.

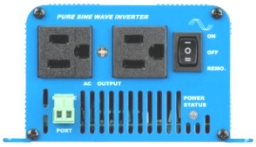
### Available with three different output sockets

Please see pictures below.



**Phoenix Inverter 12/350 with IEC-320 sockets**

**Phoenix Inverter 12/180 with Schuko socket**

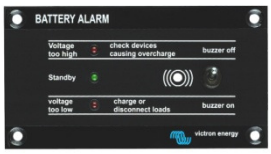


**Phoenix Inverter 12/180 with Nema 5-15R sockets**

| Phoenix Inverter 12 Volt / 24 Volt / 48 Volt | 12/180<br>24/180 | 12/350<br>24/350<br>48/350 | 12/750<br>24/750<br>48/750 | 12/800<br>24/800<br>48/800 | 12/1200<br>24/1200<br>48/1200 |
|---|---|---|---|---|---|
| Cont. AC power at 25 °C (VA) (3) | 180 | 350 | 750 | 800 | 1200 |
| Cont. power at 25 °C / 40 °C (W) | 175 / 150 | 300 / 250 | 700 / 650 | 700 / 650 | 1000 / 900 |
| Peak power (W) | 350 | 700 | 1400 | 1600 | 2400 |
| Output AC voltage / frequency (4) | 110VAC or 230VAC +/- 3% 50Hz or 60Hz +/- 0,1% | | | | |
| Input voltage range (V DC) | 10,5 - 15,5 / 21,0 - 31,0 / 42,0 - 62,0 | | | 9,2 - 17,3 / 18,4 - 34,0 / 36,8 - 68,0 | |
| Low battery alarm (V DC) | 11,0 / 22 / 44 | | | 10,9 / 21,8 / 43,6 | |
| Low battery shut down (V DC) | 10,5 / 21 / 42 | | | 9,2 / 18,4 / 36,8 | |
| Low battery auto recovery (V DC) | 12,5 / 25 / 50 | | | 12,5 / 25 / 50 | |
| Max. efficiency (%) | 87 / 88 | 89 / 89/ 90 | 91 / 93 / 94 | 91 / 93 / 94 | 92 / 94 / 94 |
| Zero-load power (W) | 2,6 / 3,8 | 3,1 / 5,0 / 6,0 | 14 / 14 / 13 | 6 / 6 / 6 | 8 / 9 / 8 |
| Zero-load power in search mode | n. a. | n. a. | 3 / 4 / 5 | 2 | 2,3 |
| Protection (2) | a - e | | | | |
| Operating temperature range | -40 to +50°C (fan assisted cooling) | | | | |
| Humidity (non condensing) | max 95% | | | | |
| ENCLOSURE | | | | | |
| Material & Colour | aluminium (blue Ral 5012) | | | | |
| Battery-connection | 1) | 1) | Screw terminals | 1) | 1) |
| Standard AC outlets | 230V: IEC-320 (IEC-320 plug included), CEE 7/4 (Schuko)<br>120V: Nema 5-15R | | | | |
| Other outlets (at request) | BS 1363 (United Kingdom)<br>AN/NZS 3112 (Australia, New Zealand) | | | | |
| Protection category | IP 20 | | | | |
| Weight (kg / lbs) | 2,7 / 5,4 | 3,5 / 7,7 | 2,7 / 5,4 | 6,5 / 14.3 | 8,5 / 18.7 |
| Dimensions (hxwxd in mm)<br>(hxwxd in inches) | 72x132x200<br>2.8x5.2x7.9 | 72x155x237<br>2.8x6.1x9.3 | 72x180x295<br>2.8x7.1x11.6 | 108x165x305<br>4.2x6.4x11.9 | 108x165x305<br>4.2x6.4x11.9 |
| ACCESSORIES | | | | | |
| Remote control panel | n. a. | n. a. | Optional | n. a. | n. a. |
| Remote on-off switch | Two pole connector | | RJ12 plug | Two pole connector | |
| Automatic transfer switch | Filax | | | | |
| STANDARDS | | | | | |
| Safety | EN 60335-1 | | | | |
| Emission Immunity | EN55014-1 / EN 55014-2/ EN 61000-6-2 / EN 61000-6-3 | | | | |

1) Battery cables of 1.5 meter (12/180 with cigarette plug)
2) Protection key:
a) output short circuit
b) overload
c) battery voltage too high
d) battery voltage too low
e) temperature too high

3) Non linear load, crest factor 3:1
4) Frequency can be set by DIP switch (750VA models only)





**Battery Alarm**
An excessively high or low battery voltage is indicated by an audible and visual alarm, and a relay for remote signalling.

**Remote Control Panel**
(750VA models only)
RJ12 UTP cable to connect to the inverter is included (length: 3 meter).

**BMV 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 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.

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