



PLAN MY POWER (PTY) Ltd

Solar inverter range

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0861 POWER1

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Power Master SL Combi

Power Master SL Combi is a powerful pure sine wave inverter, a sophisticated battery charger that features adaptive charge technology with a solar panel regulator, and a high-speed AC transfer switch all integrated into a single compact enclosure.

The Power Master SL Series has several advanced features that provide a range of new applications.

In the event of a grid failure, or shore/generator power being disconnected, the inverter is automatically activated in less than 20 millisecond and takes over supply to the connected loads allowing them to continue to operate without disruption.



The Power Master SL Series is very powerful battery charger and can therefore draw considerable power from the generator or shore side supply and so a power sharing controller is incorporated to automatically reduce the charger power when other loads are in use thus preventing shoreline overload trips.

Inverter

- Pure Sine Wave AC output
- Very low total harmonic distortion (< 2 %)
- High surge capacity (+100%) and soft-start design for heavy inductive loads such as air conditioning, motors etc
- Adjustable load detection system for "power saving" mode
- High efficiency using low frequency switching with large Toroidal output transformer.

Battery Charger

The SL Series is built around a bi-directional converter, that operates as an inverter or as a high capacity three-stage battery charger.

- Power factor corrected for maximum efficiency
- Auto desulphation mode to condition battery for longer life
- Multistage charger with programmable voltages and timeout
- Temperature sensitive charging for additional care of all batteries (temperature sensor optional)
- Built in solar charge regulator

Bypass Function

- Automatic 60 A (3000W) / 30 A (1500W) transfer relay turns inverter and charger on / off
- Fast (UPS) mode or delay mode of the bypass switch

Power Sharing

Adjustable power sharing automatically reduces charger power when other loads increase to prevent tripping of shore power breaker.

Auxiliary Relay

Two separate relays with volt free contacts each independently programmable to operate at set conditions e.g. overload, low voltage, bypass operating etc or for auto generator start / stop.

Display

- Front panel mimic display with control switches and LEDs showing selected operation and active



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circuits

- LED 4 digit meter selectable DC voltage, AC Voltage, Charge Amps and Mode and also used during charge voltage programming
- LED bar graph for Charge current or Inverter output % load

Optional Remote Control

- Power output on / off, Function mode select, Programming battery charging voltage, Error message display, Programming auxiliary relay (x2), Programming input current limit for power sharing

Specifications

MODEL	PM-1500SL-12	PM-3000SL-12
Figures for 24V models shown in italics	<i>PM-1500SL-24</i>	<i>PM-3000SL-24</i>

Inverter Section

Nominal battery voltage per model	12V 24V	12V 24V
Input voltage range per model	9.5-16V 19-32V	9.5-16V 19-32V
Output voltage	200~240Vac or 100~120Vac models	
Output frequency	50Hz or 60Hz models	
Total harmonic distortion output THD	< 2% with Toroidal output transformer	
Dynamic behaviour 0→100%	0.5s	
Nominal power (W)	1500W	3000W
Maximum power 30 min (W)	1700W	3500W
Maximum power 3 min (W)	2300W	4500W
Maximum power 5 sec (W)	3000W	6000W
Maximum load	Up to short circuit	
Asymmetrical load max.	Up to nominal output power	
Overload and short circuit protection	Auto disconnect with 5 time restart attempt	
Overheating temperature protection	Acoustic warning before shut-off. Auto restart	
Load power factor range	0.1-1	
Power saving function	1-25W + override	
Maximum efficiency	85-90%	

Battery Charger Section

Maximum input voltage	265 Vac, 350 V peak	
Minimum input voltage	Adjustable 150-230Vac	
Input Frequency range	45-63Hz	
Charging current adjustable	0-50A 0-35A	100A 0-70A
AC Input power sharing control	0 to 15A	

Solar Charge Regulator

Maximum open circuit voltage	25V	45V
Maximum charging current	30A	30A

Battery Charge Monitoring

Low battery disconnection voltage	10.8V 21.6V	
Low voltage	10.8V-12.0V (11.6V) 21.6V-24.0V (23.2V)	
End of charge cycle voltage	14.2V-15.0V (14.4V) 28.4V-30.0V (28.8V)	
Equalization voltage every 25 cycles	15.1V-15.5V (15.3V) 30.2V-31.8V (30.6V)	



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Floating voltage	13.3V~13.7V (13.5V) 26.6V~27.4V (27.0V)
Absorption charge time	0~4h (2h)
Temperature compensation (Option)	-3mV / C / cell

General data

AC By pass time (UPS-Mode)	20ms max	
Volt free auxiliary contact x2	5A-250Vac / 7A-60Vdc	
Max current at transfer relay	30A / AC 220V	60A / AC220V
Operating temperature	-20Cto +55C	
Fan forced ventilation internal sensor	From 45C - over 75C will cause trip	
Protection index IP	IP20	
Net Weight	20.00kg	28.0kg
Dimension L*W*H (mm) Width includes mounting feet. Add 35mm to length for cables	385 x 280 x 185	550 x 280 x 185