

# SP PRO SERIES

## SPECIFICATIONS

Since 1981 Selectronic has designed and manufactured inverters for the harsh Australian environment. As a result Selectronic has developed one of the most innovative and flexible inverters in the world today. Off Grid, Utility, Grid Tie with back up, Smart Grid, Marine, Leisure and Industrial markets can all be accessed with this one advanced inverter.

Featuring advanced thermal power management and super high speed digital signal processing, new standards have been set for reliability, features, surge capability, power density plus the inclusion of outstanding configuration flexibility.

The SP PRO series will act as a low voltage grid feeding inverter and will provide back-up power to the load if grid electricity has failed. The unit can also be configured to operate as an Off Grid Interactive Inverter Charger, with fast preset configurations for either mobile or remote power system use.



## Features

- » Low distortion sine wave Interactive Inverter Charger with grid feed ability all in one unit
- » True 100% charge capacity
- » Outstanding surge capacity
- » Superbly quiet
- » Advanced thermal techniques provide excellent high temperature performance
- » Five stage battery charging with dual float points and adjustable temperature compensation
- » Battery mid point monitoring with automatic equalisation
- » Automatic changeover when grid fails without using a second inverter
- » Grid Export
- » Parallel operation with Grid or Generator for increased output
- » Recharge batteries using cheapest utility tariff
- » Automatic AC transfer switch with anti-chatter protection
- » Simple intuitive LED display.
- » Redundant safety disconnect for pluggable operation
- » Plug and play or fully configurable via computer
- » Eighteen months of daily energy totals
- » Detailed performance data with adjustable 30/15/10/5/1 minute sample rate
- » Four months of detailed performance data at 30 minute sample rate
- » Easy to use configuration/ monitoring software supplied free with inverter
- » "Partial state of charge" control to reduce generator run time whilst maximising PV yield
- » Conformal coated PCBs - mil spec silicone
- » AC Coupling configurable
- » Nominal Battery Voltage 24V DC, 48 V DC and 120V DC
- » 3 Phase Compatible
- » 4 x addressable relay outputs and 3 x digital outputs
- » 4 x addressable digital inputs and 2 x analogue inputs
- » 2 x user definable shunt inputs
- » Low battery shutdown override in case of emergency
- » Discretionary load control
- » 2 x serial ports with power for accessories
- » Variable speed fan with service alert
- » Lifetime monitored capacitors with service alert
- » Warranty, 5 years to 8 years (country dependant)
- » 100% Australian designed and manufactured

SP PRO SERIES SPECIFICATIONS		SPMC 240-AU	SPMC 241-AU	SPMC 481-AU	SPMC 482-AU	SPMC 1201-AU	SPLC 1201-AU
Nominal battery voltage		24 V	24 V	48 V	48 V	120V	120V
Continuous, output power	@ 25°C	3,000 W	4,500 W	5,000 W	7,500 W	7,500 W	18,000 W
Continuous, charge current		125 A	188 A	104 A	156 A	63 A	125 A
Continuous grid export power		up to rated output					
20 second load rating	@ 40°C	7,500 W	10,500 W	12,000 W	18,000 W	18,000 W	28,000 W
20 second output current		28 A	40 A	47 A	70 A	70 A	110 A
1 minute output power	@ 40°C	5,400 W	7,600 W	8,700 W	13,000 W	13,000 W	20,000 W
60 minute output power	@ 40°C	3,200 W	4,700 W	5,300 W	8,000 W	8,000 W	20,000 W
DC input voltage range		20 - 34 V	20 - 34 V	40 - 68 V	40 - 68 V	100 - 170 V	100 - 170 V
<b>TRANSFER SWITCH (Synchronous)</b>							
AC transfer current capacity				63 A		125 A	
Max AC input source, (generator/grid)				15 kVA		30 kVA	
Max total output to Load, AC source + inverter				15 kVA		30 kVA	
AC transfer time				no-break			
If grid fails				0 - 0.03 seconds			
Battery charger type				Temperature compensated, 5 stage, power factor corrected with dual stage float			
<b>EFFICIENCY</b>							
DC consumption idle		6 W					
DC consumption standby (Econo Mode)		12 - 20 W				n/a	
ON with no load		31 W	36 W	37 W	40 W	38 W	75 W
Peak efficiency – all modes		95%	95%	95.5%	96%	96.5%	96%
10% load		90%	90.5%	91%	91%	91.5%	91%
20% load		92.5%	93%	94%	94%	94%	94%
50% load		94%	94.5%	95%	95.5%	96%	95.5%
100% load		90%	91%	92.5%	93%	93.5%	93%
<b>AC OUTPUT (standalone)</b>							
Range		210 to 240 V +/- 0.5%					
Regulation		<1% droop 0-100% rated load (<2% @ 150%, <5% @200%)					
THD		<3% @ 0-200% rated load					
Frequency		50 or 60 Hz +/-0.005% standalone					
<b>AC SOURCE (input)</b>							
Nominal voltage		240 V~					
Tolerance on nominal voltage		adjustable 204 to 264 V~					
AC current (Recharge, Bypass & Normal modes)		63 A				125 A	
Nominal input frequency		50/60 Hz					
Tolerance on nominal frequency		installer programmable +/- 1% to 10%					
Generator can be started by		battery SoC, DC voltage, battery load, unit temperature, time & remote control					
<b>FEATURES</b>							
Battery temperature sensor		Included					
Mid point battery voltage sensing		Included					
Inverter display		22 x LEDs with auto adjusting intensity. Display indicates, charger status, remaining useable battery capacity, alarms, AC status. AC status LEDs powered from AC voltage. Generator control button. Output mode button. Alarm silence button.					
Digital Inputs		4 off: Max 60 VDC ( Active > +6V, Inactive < +3 V )					
Shunt Inputs		2 off: +/-75 mV, adjustable 25 A to 500 A					
Analogue Inputs		2 general purpose logged 0-60 V				n/a	
Relay Outputs		4 off: 60 V, 500 mA					
Digital outputs		3 off: 60 V, 5 mA					
Communication ports		2 off RS232 with adjustable baud rate of up to 57600					
Memory retention of settings & data		permanent					
SP LINK configuration and monitoring software		Included, allows configuration of parameters and remote view of LED display and operating parameters.					
Dimensions (mounted)		345 W x 545 H x 215 D					520 W x 870 H x 300 D
Weight		29 kg	34 kg	35 kg	40 kg	40 kg	105 kg
Circuit Breakers AC Source, AC Load		double pole 63 A					single pole 125 A
Battery		n/a					double pole 250 A
Standards		AS 62040.1.1-2003, CE pending					
		AS/NZS 61000-6-3 2007				AS/NZS 61000-6-4 2007	
Grid Protection		AS 4777 2005				AS 4777 2005 pending	
Protection		IP43					
Warranty		5 to 8 years (country dependant)					
Accessories		Grid Tie Kits, Extension Enclosure, AC Coupling, Grid/Generator Backup, Shunts					n/a

Through a policy of continual improvement specifications may differ from this brochure.  
All ratings are at 40°C and nominal battery voltage unless otherwise stated and correct as at April 2011  
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