RFI

solar catalogue

WELCOME TO THE RFI RENEWABLE ENERGY CATALOGUE

For more than two decades RFI has been Australia's leading distributor of renewable energy products, as well as representing major companies in the DC and AC power markets. RFI also supports clients throughout rural and regional Australia through the Power Partners dealer program - the largest dealer network of its kind in the Australian renewable energy market.

As BP Solar's largest distributor in the region, RFI offers solar power products from BP Solar's wide range as well as from other local and international suppliers. These include:

- solar modules from 2 watts to 175 watts
- solar regulators
- deep-cycle solar batteries
- a wide range of stand-alone inverters
- grid connect systems

RFI can also offer complete solar power solutions which integrate these products to suit communications and telemetry systems, or for any application which requires power in remote or challenging locations.

Our range covers all aspects of solar electricity from basic solar modules and balance of systems components to fully optioned grid connect or RAPS packages. RFI have formed partnerships with "best of breed" manufacturers of solar modules, inverters, controllers, batteries and accessories to provide a comprehensive solution no matter what the application.

Our products are utilized across a number of industries with applications in domestic and remote power, recreational use and many and varied industrial applications.

And the RFI team is the most experienced in the business with well over 200 combined years working in the solar renewables industry.

So, if you're looking for the logical partner for your solar electricity needs look no further than RFI.

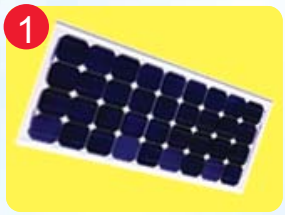
CONTENTS

As our policy, and that of our partners, is one of continual improvement, product materials and specifications are subject to change without notice.

WHAT IS SOLAR POWER?

The Primary Components for Producing Solar Electricity are:

1



Solar module

1. Solar Panels

Solar modules, or solar panels capture the sun's energy and convert it to electricity. Solar panels are made up of photovoltaic (PV) cells. When sunlight strikes a PV cell, it transfers part of the sun's energy to the electrons in the atoms of the cell. The new found energy allows some of those electrons to escape from their normal position. The electrons then travel along the metal contacts in the solar panels creating a current of electricity. This electricity is collected and used.

2

Charge controller or regulator

2. Charge Controller

The charge controller or regulator prevents overcharge which results in out-gassing of the batteries as well as keeping electrical storage in the batteries from discharging to the solar modules at night.

3

Battery

3. Battery

Batteries store the solar power generated and discharge the power as needed. The battery bank consists of one or more solar deep-cycle type batteries. The type of battery needed is specific to the type of application.

4

Inverter

4. Inverter

The inverter changes the DC solar power into usable 240 volt AC electricity which is the most common type used by most household appliances and lighting.

Typical Systems

Remote Area Power

In a stand-alone Remote Area Power System (RAPS), the house has no connection to the utility grid and often relies on a bank of batteries to store power for use at night and during periods of limited sun.

Remote Area (RAPS) installation, Daintree QLD, Australia.

Industrial Systems

Industrial solar applications are virtually endless. Photovoltaic powered communication systems, rural payphones, satellite ground stations, radio transceivers, lighting in local suburban parks and even road signs and school crossing signs.

Industrial Application – outback, Northern Territory, Australia

Grid-connect System

In a grid-connect system, the house receives electricity from both the PV array and the utility grid. Surplus electricity from the PV array is exported to the utility grid and `bought back' when the PV system is not generating.

Grid Connected solar installation Sydney, Australia.

SMALL AREA MODULES

- Caravans, campervans, boats
- Electric fence energisers
- Battery maintenance
- Outdoor lighting
- Water pumping

BP365J

- High efficiency 65W MultiCrystalline module.
- Provides superior value and performance for commercial and industrial use.
- **65W output – 12 Volt**
- Available only in junction box version.

BP350J

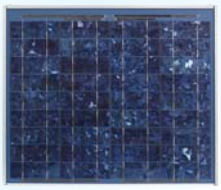
- High efficiency 50W MultiCrystalline module.
- Provides superior value and performance for industrial and rural electrification use.
- **50W output – 12 Volt**
- Available only in junction box version.

BP340J

- 40W MultiCrystalline module.
- Cost-effective photovoltaic power for DC loads with moderate energy requirements.
- **40W output – 12 Volt**
- Available only in junction box version.

SX330J

- 30W MultiCrystalline module.
- Cost-effective photovoltaic power for DC loads with moderate energy requirements.
- **30W output – 12 Volt**
- Available only in junction box version.

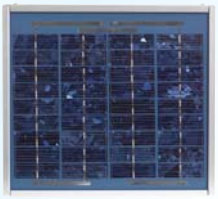


SX320

- 20W MultiCrystalline module.
- Cost-effective photovoltaic power for DC loads with moderate energy requirements.
- **20W output – 12 Volt**
- Available in either low-profile junction box and cable, or junction box versions.

SX310M

- 10W MultiCrystalline module.
- Operate DC loads with small to moderate energy requirements.
- **10W output – 12 Volt**
- Available only in low-profile junction box and cable version.
- Also available in 6 volt as HX10M6V



SX305M

- 5W MultiCrystalline module.
- Operate DC loads with small to moderate energy requirements.
- **5W output – 12 Volt**
- Available only in low-profile junction box.

* Also available in 6 Volt as HX5M6V.

HX2M

- Specialist 2W MultiCrystalline module for small loads, ideal for the hobby enthusiast.
- **2W output - 12 Volt**
- Available only in low-profile junction box and cable version.

Model	BP365J	BP350J	BP340J	SX330J	SX320	SX310M	SX305M	HX2M
PV technology	MultiCrystalline							
Warranty & Guarantee	25 Years 80% Power Guarantee / 12 Years 90% Power Guarantee / 5 Years Materials & workmanship Warranty			12 Years 90% Power Guarantee / 2 Years Materials & Workmanship Warranty				
Rated Power	65W	50W	40W	30W	20W	10W	5W	2W
Warranted Min	60W	45W	36W	27W	18W	9W	4W	1.8W
Vmp (volts)	17.6V	17.5V	17.3V	16.8V			16.5V	16V
Imp (amps)	3.69A	2.9A	2.31A	1.78A	1.19A	0.59A	0.27A	0.135A
Isc (amps)	3.99A	3.17A	2.54A	1.94A	1.29A	0.65A	0.3A	0.16A
Voc (volts)	22.1V	21.8V		21.0V			20.5V	
Size (mm) LxWxD	1111x502x50	839x537x50	655x537x50	595x502x50	425x502x50	425x273x23	269x251x23	275x145x23
Weight (kg)	7.2	6.0	5.7	3.9	3.0	1.9	0.8	0.612
Frame type	Universal				Universal or Multimount	Multimount		
Backsheet Color	White							

LARGE AREA MODULES

- Remote stand-alone systems
- Grid connect systems
- Telemetry
- Telecommunications
- Roadside signage

BP3175 / BP3170

- High efficiency 175W/170W MultiCrystalline module.
- Anti-reflective coated glass for high output.
- Provides superior value and performance for grid-connected residential and commercial systems, operating AC loads through an inverter, or DC loads directly.
- **175W/170W – 24 Volt**
- Available in either multi-contact connector or junction box versions.

BP3165

- High efficiency 165W MultiCrystalline module.
- Provides superior value and performance for grid-connected residential and commercial systems, operating AC loads through an inverter, or DC loads directly.
- **165W – 24 Volt**
- Available in either multi-contact connector or junction box versions.

BP3125

- High efficiency 125W MultiCrystalline module.
- Provides superior value and performance for commercial and industrial use, operating DC loads directly or, in an inverter-equipped system, AC loads.
- **125W output – 12 Volt**
- Available in either multi-contact connector or junction box versions.

BP380

- High efficiency 80W MultiCrystalline module.
- Provides superior value and performance for commercial and industrial use, operating DC loads directly or, in an inverter-equipped system, AC loads.
- **80W output – 12 Volt**
- Available in either multi-contact connector or junction box versions.

Model	BP3175	BP3170	BP3165	BP3125	BP380
PV technology	MultiCrystalline				
Warranty & Guarantee	25 Years 80% Power Guarantee / 12 Years 90% Power Guarantee / 5 Years Materials & Workmanship Warranty				
Rated Power	175W	170W	165W	125W	80W
Warranted Min	170W	165W	160W	119W	76W
VMP (volts)	36.1V	35.6V	35.2V	17.3V	17.6V
Imp (amps)	4.9A	4.8A	4.7A	7.23A	4.55A
Isc (amps)	5.3A	5.2A	5.1A	8.02A	4.8A
Voc (volts)	44.2V	44.2V	44.2V	22.1V	22.1V
Size (mm) LxWxD	1595 x 790 x 50			1510 x 674 x 50	1209 x 537 x 50
Weight (kg)	15.4			12.0	7.7
Frame type	Universal				
Backsheet Color	White				

REGULATORS & CONTROLLERS

Plasmatronics

Plasmatronics regulators are Australian designed and manufactured.”Smart’ Regulators feature Pulse Width Modulation, back up generator control and some models can charge a second battery. The monitoring devices allow remote access and provide unparallelled information about the system.

PR Series

A simple two stage regulator. Uses rugged power mosfet and switches on the negative side.

PL Series

Advanced controller is an intelligent regulator that switches power on and off and displays battery voltage and charge.

PLM

Remote monitor allows remote access using one PL Series. One button operation and audible alarm.

PLA

Allows up to 3 PL Series controllers to work together.

Series	PR Series				PL Series		
Model No.	**PR1210**	**PR2410**	**PR1210L**	**PR2410L**	**PL20**	**PL40**	**PL60**
Nominal Voltage	12	24	12	24	12,24,32,36,48 Selectable		
Maximum charge current (amps)	10				20	40	60
Load Control (amps)	No				20	7	30
Low Voltage Disconnect (LVD)	No				Yes, adjustable		
Regulation Type	Two stage				PWM/ Quiet switching selectable		
Battery type/s	Flooded lead acid		Sealed or gel		All types		
Adjustable regulation set-points	No				4 set programs + software adjustable		
End of charge voltage (12V/24V/48V)	14.7	29.4	14.25	28.8	13.5-16.5/ 27-33/ 54-66		
Boost					13.5-16.5/ 27-33/ 54-66		
Equalisation	No				14-17/ 28-34/ 56-68		
LVD voltage	N/A				10/12.5		
Temperature Compensation	No				Optional external sensor		
Display	No				LCD		
Wire size (fine/strand)	4.5mm²				33mm²		
Mounting	Wall						
Dimensions (mm) HxWxD	56 x 37 x 21				100 x 109 x 41	130 x 124 x 50	228 x 175 x 62
Weight (g)	50				320	515	1100
IP rating	IP65				IP22		
Operating Temperature range	-20°C to 55°C				-20°C to 55°C		
Warranty	1 year				5 year pro-rata		
Ground	Positive Ground (switches on negative)						
Blocking diode	No				MOSFET Reverse current flow protection		

CONTROLLERS

Morningstar

Morningstar regulators are recognised in international PV markets as one of the most advanced and highest-quality controllers available. They exceed all other PV controllers for protection against lightning surges and the harsh operating temperatures common to remote applications.

SunGuard

SG Series is the most advanced small, economical solar charge controller on the market today.

SunKeeper

SunKeeper mounts directly to the module junction box and provides a low cost regulated output from the solar module to maximise battery life in small solar applications.

SunSaver Series

SS Series is the world's leading small solar controller for consumer and professional applications. The advanced design delivers outstanding performance and value.

SunSaver Duo

SunSaver Duo is an advanced PWM two battery controller for RV's caravans, boats and cottages. This product will charge two separate and isolated batteries at the same time.

SunLight Series

SL Series advanced solar lighting controller combines the SunSaver design with a microcontroller for automatic lighting control functions.

Series	Sunguard	SunKeeper		SunSaver			SunSaver Duo	Sunlight Lighting Controllers	
Model No.	**SG-4**	**SK-6**	**SK-12**	**SS-6**	**SS-10**	**SS-20**	**SS-DUO**	**SL-10**	**SL-20**
Nominal Voltage	12	12		12	12V or 24V models		12V	12V or 24V models	
Maximum charge current (amps)	4.5	6	12	6.5	10	20	25	10	20
Load Control (amps)	No	No		10A, 6A on L model	10	20	N/A	10	20
Low Voltage Disconnect (LVD)	No	No		On L model			No	Yes	
Battery type/s	Sealed or flooded	Flooded		Sealed or flooded - jumper selectable			Sealed or flooded - jumper selectable		
Adjustable regulation set-points	No	No		No			No	No	
End of charge voltage (12V/24V)	14.1V	14.1V		14.1V/28.2V (sealed), 14.4V/28.8V (flooded)			14.1V (sealed), 14.4V (flooded)	14.1V/28.2V (sealed), 14.4V/28.8V (flooded)	
LVD voltage	N/A	N/A		11.5V/23.0V			N/A	11.7V/23.4V	
Temperature Compensation	Yes	Yes, 3 choices		Yes			Yes	Yes	
Display	No	Bi-colour LED		Two LED's			LED + Remote Meter	Two LED's	
Wire size (fine/strand)	~1.3mm^2 wires fitted	2mm^2		5.2mm^2			16mm^2	5.2mm^2	
Mounting	Wall	Junction box or wall		Wall			Wall	Wall	
Dimensions (mm) LxWxD	70 x 51 x 38	99 x 51 x 13		152 x 55 x 34			170 x 56 x 41	168 x 55 x 34	
Weight (g)	90	110		230			340	260	
IP rating	Epoxy encapsulated	IP65		Epoxy encapsulated			Epoxy encapsulated	Epoxy encapsulated	
Operating Temperature range	-40°C to 60°C	-40°C to 70°C		-40°C to 60°C			-40°C to 45°C	-40°C to 60°C	
Warranty	5 years	5 years		5 years			5 years	5 years	
Ground	Negative ground	Negative ground		Negative ground			Negative ground	Negative ground	
Blocking diode	Not required	Not required		Not required			Not required	Not required	
Notes							Remote meter	10 Lighting control options	

CHARGE CONTROLLERS

Steca

Steca is the worldwide leader in the field of solar charge controllers.
More than one million Steca Controllers are in use in over 100 countries.

Solsum Series (SSR)

Used in smaller home systems with 5 to 10 Amp solar charging and load current capacities.

PRS Series (PRS)

Simple inexpensive range with modern design and convenient display for medium size applications from 10A to 30A.

PR Series (PR)

Premium state of the art LCD Controller - shows the percent of charge and battery gauge symbol.

Series		Solsum Series (SSR)				PRS Series (PRS)				PR Series (PR)			
Model No.		**SSR5C**	**SSR6C**	**SSR8C**	**SSR10.10C**	**PRS1010**	**PRS1515**	**PRS2020**	**PRS3030**	**PR1515**	**PR1515**	**PR2020**	**PR3030**
Nominal Voltage		12/24 Auto				12/24 Auto				12/24 Auto			
Maximum charge current (Amps)		5	6	8	10	10	15	20	30	10	15	20	30
Load Control (Amps)		5	6	8	10	10	15	20	30	10	15	20	30
Low Voltage Disconnect (LVD)		No	Yes			Yes				Yes			
Regulation Type		PWM shunt charging				Series				PWM shunt charging, SOC battery regulation			
Battery type/s		Flooded lead acid				Flooded lead acid or gel/sealed				Flooded lead acid or gel/sealed - user configurable			
Adjustable regulation set-points		No				No				No			
Regulation set-points:	**End of charge voltage (12V/24V)**	13.7V/27.4V				13.9V/27.8V				Liquid 13.9V/27.8V			
	Boost	14.4V/28.8V				14.4V/28.8v				14.4V/28.8v			
	Equalisation	No				14.7V/29.4V (deactivated for gel battery)				14.7V/29.4V (deactivated for gel battery)			
LVD voltage		No LVD	11.1V/22.2V			11.1V/22.2V				11.1V/22.2V			
Temperature Compensation		Yes				Yes				Yes			
Display		Two LED's				1 status, LED, 4 Soc LED's				LCD			
Wire size (fine/strand)		2.5mm²/4mm²				16mm²/25mm²				16mm²/25mm²			
Mounting		Wall				Wall				Wall			
Dimensions (mm) LxWxH		130x88x39				187x96x45.3				187x96x44			
Weight (g)		165				350				350			
IP rating		IP22				IP34				IP22			
Operating Temperature range		-25°C + 50°C				-25°C + 50°C				-10°C + 50°C			
Warranty		2 years				2 years				2 years			
Ground		Positive ground, or negative ground on 1 terminal				Positive ground, or negative ground on 1 terminal				Positive ground, or negative ground on 1 terminal			
Blocking diode		Not required				Not required				Not required			

BATTERIES – DEEP CYCLE FLOODED

SSR Series

Century Yuasa's Enersun SSR Series are designed to provide DC power for RAPS in the harsh. Enersun is the Australian benchmark for RAPS applications.

PVStor

PVStor are BP Solar's premium range of deep cycle batteries. PV Store deliver substantially longer life and charge more efficiently in solar remote applications.

Suncycle

Battery Energy's Suncycle batteries are a premium vented battery for RAPS applications. Suncycle has a working life of more than 10 years, with at least 5000 cycles expected in a typical daily usage application.

SSR Series

- Tubular Positive Plate- repeatable, reliable performance
- Plate construction method confines active material, minimises shedding
- Large top-of-electrolyte reservoir minimises maintenance

PVStor

- Deliver substantially longer life
- Charge efficiently
- Less prone to internal corrosion
- Produce less gassing
- Less maintenance than other batteries

Suncycle

- Ultra thick flat plate grid
- High 120W performance
- Electrolyte reservoir in clear thick walled case, so plates can be seen

Enersun Series	SSR Series					
Model	**SSR450-6**	**SSR535-6**	**SSR700-6**	**SSR875-6**	**SSR1025-4**	**SSR1320-4**
Capacity @ C100 (Ah)	450	535	700	875	1025	1320
Voltage	6				4	
Weight (kg)	81	88	109	133	103	170
Dimension (mm) LxWxH	360x165x645		455x165x645	540x165x645	335x215x645	326x265x645
Warranty	3 year performance warranty					

PVStor Model	2P430	2P570	2P785	2P1110
Capacity @ C100 (Ah)	430	570	785	1110
Battery voltage	2			
Dimensions (mm) LxDxH	213x124x546	213x166x546	213x191x721	213x233x721
Weight (kg)	29	37	53	65
Warranty	5 year full replacement when used in accordance with BP Solar conditions of use.			

Suncycle Models	6AS190	2AS450	2AS620	2AS770	2AS920	2AS1100
Capacity @ C100 (Ah)	195	450	620	840	1000	1100
Voltage	6	2	2	2	2	2
Weight (kg)	32	21	34	53	55	61
Dimension (mm) LxDxH	286x184x286	190x197x286	190x276x286	190x292x482	190x292x482	190x292x482
Warranty	3 years full replacement					

BATTERIES – SEALED

Sungel

Sungel Batteries from Battery Energy use a revolutionary SuperGel long life plate technology designed specifically for solar applications. SuperGel battery technology uses unique chemical and molecular characteristics and differentiated production techniques from regular gel batteries.

SunXtender

The SunXtender range of batteries from Concorde has been developed for use in renewable energy applications where long life, deep cycle, low internal resistance, superior charge acceptance and energy density are required.

Sungel Series

- SuperGel long life pack technology
- Made in Australia
- Ideal in extreme environmental conditions

PVX Series

- Absorbent Glass Mat (AGM) technology
- Copper alloy terminals for improved connections
- Ideal for telecommunications, village power, remote home and mobile applications

Battery Energy SunGel Series (265mm high)							
Model	**4SG110**	**6SG150**	**6SG200**	**2SG250**	**4SG320**	**2SG450**	**2SG650**
Capacity @ C120 (Ah)	110	157	210	262	338	472	682
Battery voltage	4	6	6	2	4	2	2
Dim. (mm) LxDxH	109x184x265	276x184x265	276x184x265	109x184x265	276x184x265	184x197x265	184x276x265
Weight (kg)	13.5	28	32.5	13	38	23	32
Warranty	3 years full replacement						

Battery Energy SunGel Series (680mm high)										
Model	**2SG875**	**2SG1000**	**2SG1200**	**2SG1400**	**2SG1750**	**2SG2000**	**2SG2600**	**2SG3000**	**2SG3750**	**2SG4500**
Capacity @ C120 (Ah)	874	1048	1223	1398	1747	2097	2795	3145	3844	4542
Battery voltage	2	2	2	2	2	2	2	2	2	2
Dim. (mm L)xDxH	145x206x680	145x206x680	210x191x680	210x191x680	210x233x680	210x275x680	212x487x680			212x576x680
Weight (kg)	49	54	64	71	87	103	138	152	188	220
Warranty	3 years full replacement									

Concord PVX Series									
Model	**PVX340T**	**PVX690T**	**PVX890T**	**PVX1040T**	**PVX2120L**	**PVX2240U**	**PVX5340T**	**PVX6480T**	**PVX9150T**
Capacity @ C120 (Ah)	38	79	102	120	253	263	612	756	1074
Battery voltage	12					6	2		
Dimensions (mm) LxDxH	196x132x175	259x168x227	328x172x228	305x168x227	527x221x248	261x181x260	328x171x228		260x177x355
Weight (kg)	11.4	23.2	28.2	30.0	62.7	30.4	28.2	31.8	38.5
Warranty	1 year warranty								

BATTERY CHARGERS

Woods Battery Chargers

DIALOcharge

- Manually operated
- Variable range of charging voltages provides flexibility
- Precise power control allows fast or trickle charging
- Combined ammeter/ voltmeter

BETACharge II

- Microprocessor controls 6 stage programs
- Four program selections for different battery types
- LED indication of charging status and/or faults
- Ideal for unattended systems

Neptune

The Neptune is a constant-voltage charger with three individually controlled outputs, allowing simultaneous charging of three separate battery banks. The charger is ideal for marine applications with rugged marine-grade powder coating.

DIALOcharge	D1230	D1260	D12120	D2415	D2430	D2460	D24120	D4815	D4830	D4860
Nominal battery voltage	12			24				48		
Max. output current (Amps)	30	60	120	15	30	60	120	15	30	60
Total battery capacity	60-400Ah	100-800Ah	300-1500Ah	30-200Ah	60-600Ah	100-800Ah	300-1500Ah	30-200Ah	60-400Ah	100-800Ah
Warranty	One Year									

BETACharge Series										
BETACharge II	W1230B	W1260B	W12120B	W2415B	W2430B	W2460B	W24120B	W4815B	W4830B	W4860B
BETACharge II Filtered	W1230F	W1260F	W12120F	W2415F	W2430F	W2460F	Not available	W4815F	W4830F	Not available
Nominal battery voltage	12			24				48		
Max. output current (Amps)	30	60	120	15	30	60	120	15	30	60
Total battery capacity	60-400Ah	100-800Ah	200-1200Ah	30-200Ah	60-600Ah	100-800Ah	300-1500Ah	30-200Ah	60-400Ah	100-800Ah
Warranty	One Year									

Neptune	W1230N	W1260N	W12120N	W2415N	W2430N	W2460N	W24120N
Nominal battery voltage	12			24			
Max. output current (Amps)	30	60	120	15	30	60	120
Total battery capacity	60-400Ah	100-800Ah	200-1500Ah	30-200Ah	60-600Ah	100-800Ah	300-1500Ah
Warranty	One Year						

BATTERY CHARGERS

Stanbury Scarf & Lord Battery Chargers

Stanbury Scarf & Lord are Australian manufacturers of battery charging equipment. They specialise only in lead acid battery chargers - this enables them to focus on their craft - continually monitoring and developing improvements to their products.

These chargers are industrial grade in design for the larger domestic systems with large battery banks.

Stanbury Scarf & Lord

SSLNG Series

The SSLNG Series are new generation constant voltage boost battery chargers. They are industrial grade switch mode chargers suited for operation with a generator or a large stand alone systems. They are highly efficient and lightweight.

Quality built in Australia for Australian conditions which are amongst the toughest in the world. Convection cooling means no moving parts and more reliability.

NG chargers are suitable for flooded lead acid batteries while CV model is suitable for sealed cells and flooded cells.

Model Number	SSLNG12-25G	SSLNG12-40G	SSLNG12-50G	SSLNG12-60G	SSLNG12-80G	SSLNG12-100G
Nominal Battery Voltage	24					
Max. Output Current (Amps)	25	40	50	60	80	100
Power	Single phase					
Dimensions (mm) WxDxH	420x400x570					
Weight kg	19					24
Warranty	One Year					

Model Number	SSLNG24-30G	SSLNG24-40G	SSLNG24-55G	SSLN3G24-80G
Nominal Battery Voltage	48			
Max. Output Current (Amps)	30	40	55	80
Power				Three phase
Dimensions (mm) WxDxH				500x400x570
Weight kg	19	22	24	26
Warranty				

BATTERY CHARGERS

Latronics

Latronics fully automatic battery chargers are suitable for most charging applications.

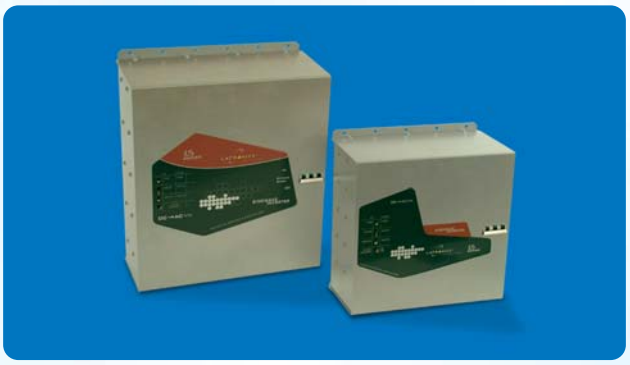
- Microprocessor controlled intelligent chargers
- Accurate 5 stage charging minimises charge time
- Higher efficiency with synchronous rectification using Mosfets.
- Battery type selector
- LED status indicators
- DC circuit breaker
- Australian made

Model	DC-1230	DC-2415
Nominal DC Voltage	12V	24V
Charge Current Continuous	30A	15A
Boost Voltage	13.9 - 15.2V	27.8 - 30.4V
Absorb Voltage	13.9 - 15.2V	27.8 - 30.4V
Float Voltage	13.0 - 14.0V	26.0 - 28.0V
Equalise Voltage	14.8 - 15.4V	29.6 - 30.8V
Input Voltage	240Vac +/- 5%	
Operating Temperature	-10ºC to +50ºC	
Battery Leads	1m long with10mm mounting lugs	
Protection Circuitry	Over Temperature, Overload/Short Circuit, Reverse Polarity	
Dimensions (mm) LxWxH	260x160x100	
Weight	5kg	
Warranty	2 years	

OFF-GRID INVERTERS

Latronics

Latronics inverters convert battery power to a more useable high quality AC mains electricity creating independent mains supply for boats, caravans, motorhomes or remote area power systems. Latronics inverters utilise the most advanced microprocessor algorithms which guarantee your power conversion is pure and stable. Latronics inverters are 100% Australian designed and made.



LS Series

- Unmatched surge power
- Ideally suited for everyday appliances such as washing machines and fridges
- Flexible wall mount design

AC Transfer Switch

- Fast transfer time
- Prioritise switching
- Voltage sensing on primary input

Model	LS512	LS624	LS648	LS1012	LS1224	LS1248	LS1512	LS1824	LS1848	LS2012	LS2324	LS2548	LS3024	LS3548	LS4024	LS5048	LS7048
DC Voltage	12V	24V	48V	12V	24V	48V	12V	24V	48V	12V	24V	48V	24V	48V	24V	48V	48V
Continuous Power	500W	600W		1000W	1200W		1500W	1800W		2000W	2300W	2500W	3000W	3500W	4000W	5000W	7000W
1/2 Hour Rating	550W	750W		1150W	1600W		1600W	2200W		2200W	2800W	3000W	3700W	4100W	4500W	6000W	8500W
Surge Rate - 5 sec	1500W	2000W		3000W	3600W		4500W	5400W		6000W	7000W	7500W	9000W	10500W	12000W	15000W	20000W
Standby Current	27mA	22mA	19mA	37mA	28mA	22mA	42mA	30mA	24mA	75mA	45mA	35mA	50mA	40mA	60mA	55mA	60mA
Output Waveform	True Sinewave < 4% THD																
Output Voltage	230V AC +/- 4% @ 50Hz +/- 0.1%																
Power Factor	All Conditions																
Load Start Sensitivity	0-20W																
DC to AC Isolation	3500V																
Peak Efficiency	90%	92%	93%	91%	92%	94%	91%	94%		90%	94%		93%	94%		95%	
Dimensions (mm) LxWxH	260x160x100			330x296x150						370x386x180					475x458x187		
Weight	5.5kg			11kg			14kg			22kg			24kg		30kg		34kg
Cooling	Thermostatically Controlled 2 Speed Fan																
LED Status Indicators	ON, Standby Mode, Over Temperature, Over Load, Battery Under Voltage, Battery Over Voltage																
Protection Circuitry	Full Electronic Protection against Over Temperature, Over Load, Short Circuit, Battery Under Voltage and Over Voltage																
Warranty	2 years									3 years							

• *Note: Other DC input voltages and AC output voltages are available upon request.*

• *IRM 19" rack mount models available from 500W to 5KW.*

OFF-GRID INVERTERS

SMA

Together with the battery unit, the stand-along inverter Sunny Island creates a standard AC voltage grid into which all components, from electrical appliances to electricity generators, can be integrated. With this AC coupling and the Sunny Island as its system manager, SMA has developed the technological solution for energy supply in remote areas, which are far away from the mains grid, or for emergency power supply in unstable grids.

SI 3324 & SI 4248

- Suitable for 2 to 5.4 kW systems
- AC and DC coupling of energy sources and loads
- Extreme overload capability
- Intelligent Battery Management for maximum battery service life
- Easy, quick installation

SI 5048

- Suitable for 3kW to 100kW systems
- AC and DC coupling of energy sources and loads
- 1-phase, 3-phase parallel connection possible
- Extreme overload capability
- Intelligent Battery Management for maximum battery service life
- System data acquisition via MMC/SD card
- Simple, intuitive interface

Model	SI 3324	SI 4248	SI 5048
Nominal AC voltage (adjustable)	230V (202 - 253V)		
Nominal frequency (adjustable)	50Hz (45 - 55Hz)		50Hz (45 - 65Hz)
Cont. AC output at 25°C/ 45°C	3300/2300 W	4200/ 3400W	5000/ 4000W
Continuous AC output at 25°C for 30/5/1min	4200/ 4400/ 5000W	5400/ 6200/ 7000W	6500/ 7200/ 8400W
Nominal AC current	14.5A	18A	21A
Max current	100A (for 100ms)		
Input voltage	230V (172.5 -250V)		
Input frequency	50Hz (40 - 60Hz)		50Hz (40 - 70Hz)
Max. AC input current	56A (2 - 56A)		
Max. input power	12.8kW		
Battery voltage (range)	24V (21 - 32V)	48V (41 - 63V)	
Max battery charging current	140A	100A	120A
Continuous charging current	104A	80A	100A
Max. efficency (typical)	94.5%	95%	
Consumption with no load (stand by)	22W (<4W)	22W (<4W)	25W (<4W)
Protection rating	IP30		IP40
Width/ height/ depth in (mm)	390/ 590/ 245		467/ 612/ 235
Weight	39kg		63kg
Ambient temperature	-25 to +50°C		
Battery Capacity	100 - 6000AL		100 - 10000AL

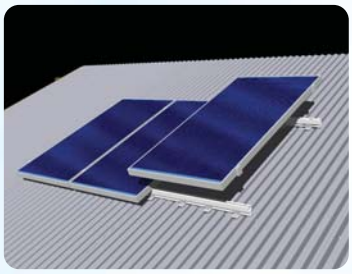
BP SOLAR MOUNTING KITS

BP RM TL& TN Roof Mounting Structures

Designed to simply and neatly attach solar modules to a pitched roof. Supplied as a kit, the system is modular, flexible and easy to install on either corrugated metal or tile roofs.
These kits are ideal for grid connect and RAPS installations. Designed to comply with AS1170 Australian wind loading standard.

TL Series
Tile Roof Mounts

- Two models – Mounts 3 or 4 panels
- Kit complete ready for installation



TN Series
Corrugated Metal Roof Mounts

- Two models – Mounts 3 or 4 panels
- Kit complete ready for installation
- Cyclone upgrade available

Model	BP RM 3TL	BP RM 3TN	BP RM 4TL	BP RM 4TN
Roofing Material	Tile	Corrugated metal	Tile	Corrugated metal
No. of solar panels	3 x 165/175		4 x 165/175	
Mounting rail length	2456		3264	
No. roof interface fixing points per rail	3	10	3	13
Approx. structure area (incl. panels)	3.93m2		5.22m2	
Approx. weight on roof (incl. panels)	75kg		97kg	

BP RM TL & TN Series

Roof Mount Structures

- Modular and Expandable
- Quality aluminium mounting profile
- Stainless steel fasteners
- Quick “top clamp” mounting of panels
- Fast and easy to install
- Allows airflow beneath panels
- Robust and a practical length for transport

BP GM 456 Series Ground Mount Structures

BP Solar’s GM 456 range of ground mount structures are designed to minimise installation time without compromising strength and durability. Made from a purpose designed aluminium section, the frames are corrosion resistant, strong and lightweight, making shipping and assembly in remote areas cost effective and simple

Model		BP GM 456 25	BP GM 456 35	BP GM 456 45
Max No. solar panels per structure	65-85W	6	6	6
	115-125W	5	5	5
	140-175W	4	4	4
Mounting Angle		25°	35°	45°
Mounting Rail Length		3500	3500	3500
Rear leg Length		1020	1700	2010

BP GM 456 Series

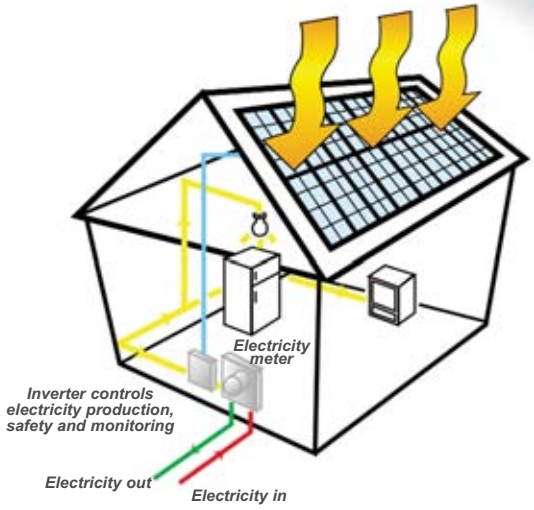
Ground Mount Structures

- Quick top-side mounting
- Modular and expandable
- Minimise installation time
- Strong and durable
- High quality aluminium mounting profile
- Designed to comply with AS1170 Australian wind loading standard
- Cyclone upgrade available

GRID CONNECT KITS

Everything you need to plug into the sun

The Solar Energiser is an all in one solar electricity kit, designed and pre-engineered for homes and small commercial buildings, which are connected to the electricity grid. The systems are modular, flexible, easy to install and include everything needed to silently convert sunlight into clean, green electricity for use in a home or business. Solar Energiser kits are designed to comply with all relevent Australian standards and come in many sizes, so it is easy to find a solar electricity system to suit most requirements.



Everything you need

The Solar Energizer kit includes the following:

- Complete accessory kit, saving you time and money and ensuring safety and code compliance, including warning labels, DC isolators and quick connect ;lugs and sockets.
- A range of power sizes to match your electricity demand and budget
- High quality, certified aluminum mounting structure, which is fast and easy to install to corrugated metal or tile roofs. Optional cyclone rated fixings kits are also available.
- Efficient and fully approved grid connect inverter
- A wireless display (SolarSight), to view your solar systems performance from inside your home
- Detailed manuals, including an easy to read owner's manual and a technical manual for installers.

A typical energy efficient home is defined as consuming 7.5Kwh per day, using 5 appliances with 4-5 star energy efficient rating.

Tin or tile roof fixing kits sold separately.

Solar Energiser "1000"

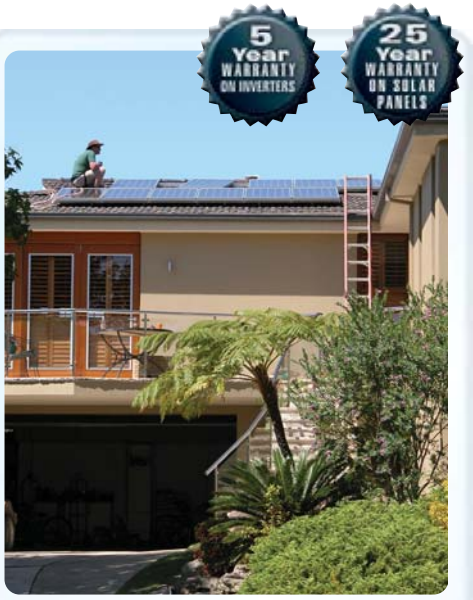
Lights and medium sized appliances in a 2-3 bedroom home OR Up to 60% of electricity bill in typical energy efficient home in summer months

Nominal solar power output	990W
Solar Module type and quantity	BP3155S x 6
Inverter	SMA SB1100
Expandability (maximum)	2 x 3 modules
Approx. area / weight	7.8m^2 / 150kg

Solar Energiser "1000E"

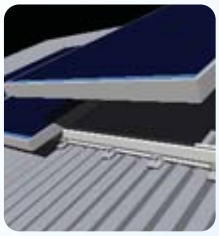
Lights and medium sized appliances in a 2-3 bedroom home OR Up to 60% of electricity bill in typical energy efficient home in summer months

Nominal solar power output	990W
Solar Module type and quantity	BP3165N x 6
Inverter	SMA SB1700
Expandability (maximum)	1980W (12 module)
Approx. area / weight	7.8m^2 / 150kg



Solar Energiser 1500

Tile roof mount kit (order separately)



Tin roof mount kit (order separately)

Solar Sight (included)

Inverter

SOLAR ENERGISER GRID CONNECT KITS

Solar Energiser “1500”

Lights and medium sized appliances in a 3-4 bedroom home OR Up to 100% of electricity bill in typical energy efficient home in summer months

Nominal solar power output	1550W
Solar Module type and quantity	BP3155N x 10
Inverter	SMA SB1700
Expandability (maximum)	1860W (12 module)
Approx. area / weight	13m^2 / 250kg

Solar Energiser “2000”

Lights and medium sized appliances in a 3-4 bedroom home OR Up to 100% of electricity bill in typical energy efficient home in summer months

Nominal solar power output	1980W
Solar Module type and quantity	BP3165N x 12
Inverter	SMA SB1700
Expandability (maximum)	No Expandability
Approx. area / weight	15.6m^2 / 300kg

Solar Energiser “3000”

Lights and small appliance in a 4-5 bedroom home OR Up to 100% of electricity bill in typical energy efficient home in summer months

Nominal solar power output	2970W
Solar Module type and quantity	BP3165N x 18
Inverter	SMA SB2500
Expandability (maximum)	No Expandability
Approx. area / weight	23.4m^2 / 450kg

Solar Energiser “4000”

Lights and small appliance in a 4-5 bedroom home OR Up to 100% of electricity bill in typical energy efficient home in summer months

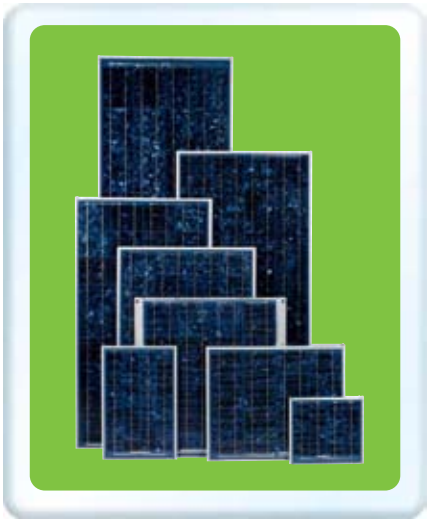
Nominal solar power output	3960W
Solar Module type and quantity	BP3165N x 24
Inverter	SMA SB3800
Expandability (maximum)	4455W (27 modules)
Approx. area / weight	31.2m^2 / 600kg

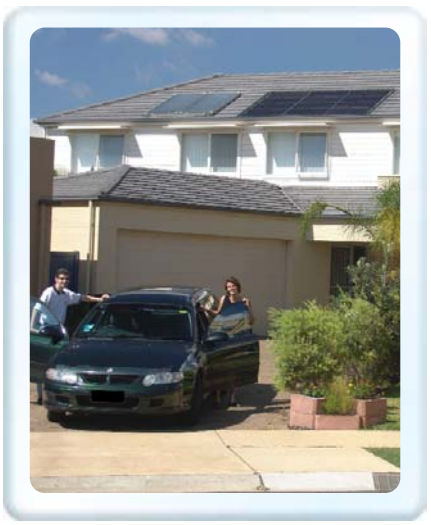
Solar Energiser “5000”

Lights and small appliance in a 4-5 bedroom home OR Up to 100% of electricity bill in typical energy efficient home in summer months

Nominal solar power output	4950W
Solar Module type and quantity	BP3165N x 30
Inverter	SMA SMC6000
Expandability (maximum)	6600 (40 modules)
Approx. area / weight	39m^2 / 750kg

bp solar





* A typical energy efficient home is defined as consuming 7.5Kwh per day, using 5 appliances with 4-5 star energy efficient rating.
* Tin or tile roof fixing kits sold separately

GRID CONNECT INVERTERS

SMA Inverters

SMA inverters and controllers are the world's most popular grid connect inverters. The range includes the SB inverters and the SB Sunny Boy Controller. They can be mounted anywhere, providing maximum flexibility in system design.

- IP65 stainless steel chassis
- Advanced Maximum Power Point Tracking
- Extended temperature range (-25°C to 60°C)
- Unique LCD display, integrated diagnostic functions
- MC© plug and socket DC connectors
- Efficiency greater than 93% even with low input power connection
- PC software to communicate directly to the Sunny Boy Controller
- RS232/ RS485 data communication

SB Series

Model	SB1100	SB1700	SB2500	SB3300	SB3800	SMC5000	SMC6000
Electrical values							
Recommended maximum PV power (Wp)	1210	1850	2700	3820	4040	5750	6300
Maximum DC voltage (V DC)	400		600	500		600	
Input DC voltage range (V DC max)	139-400		224-600	200-500		246-600	
Maximum input current (Ip max) (A)	10	12.6	12	20	20	26	26
Maximum number of parallel strings	2			3		4	
Nominal output power P AC (W)	1000	1550	2300	3300	3800	5000	6000
Peak AC power (W)	1100	1700	2500	3600	3800	5500	6000
General Data							
Maximum efficiency	93%	93.5%	94.1%	95.2%	95.6%	96.1%	96.1%
Weight (approx) (kg)	22	25	30	41	41	62	63
Size (mm) WxHxD	322x320x180	434x295x214	434x295x214	450x352x236	450x352x236	468x613x242	468x613x242
Ambient temperature	-25°C to +60°C						
Enclosure rating	IP65						
Features	Electronic Solar Switch ESS: Integrated DC-disconnect						
Standard Warranty	10 Years						
Note: Check full inverter specifications, system design, maximum PV watts and system wiring configuration prior to connection.							

Latronics Inverters

Latronics stand-alone inverters for a fail safe power system that exports excess energy to the grid and also provides emergency back up power should the grid fail. Your very own solar powered, uninterruptible power supply.

Features:

- Circuit Breakers – AC and DC Circuit Breakers are included for easy operation and to minimize installation time and costs.
- Maximum Power Point Tracking
- The Solar array is held at the optimum voltage and continually monitored in order to achieve the maximum power output.
- Isolation – Galvanic isolation within the PV Edge provides optimal protection for your system and your household.
- Reliability – Over 20 years of experience and continuous adherence to stringent quality standards ensures outstanding reliability.
- Efficiency – the latest low loss switching technology combined with a high efficiency Toroidal Transformer maximized the output of the PV Edge even under conditions or minimal Solar Radiation.

Model	PVE1200	PVE2500
Max Input Power 25°C	1200W	2500W
Max DC Input Current	22A	
Max DC Input Voltage	100V	200V
Max Power Point Range	55VDC - 90VDC	110VDC - 180VDC
Number of Modules Per sting	4 x 12V modules or 2 x 24V modules	8 x 12V modules 4 x 24V modules
Output Power	1000W max (current limit)	2100W max (current limit)
Output Voltage Rage	205 - 285 Vac	
Output Frequency	50Hz tolerance +/- 1Hz	
Peak Efficiently	93%	
Night Time Power Consumption	NIL Automatically Disconnects from AC Grid	
Operating Temperature	-10°C to 50°C	
Status Indicators	Output Power Level, Grid - Stability Check, Solar Input ON, Grid Fault, Overload	
Wall Mount Enclosure	Powder Coated Aluminium	
Dimensions	330x296x150 (mm)	370x386x180 (mm)
Weight	11kg	22kg
Warranty	3 years	

GRID CONNECT ACCESSORIES

BP Solar Accessories

BP Solar's SolarSight allows you to view the performance of the solar electricity system from any room! The SolarSight is a remote compact wireless device that communicates with the inverter.

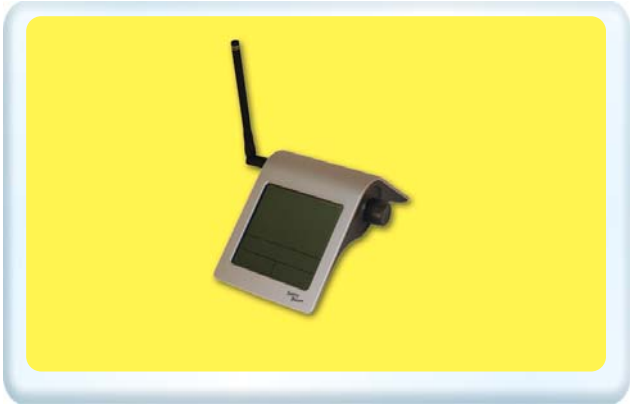
Solar Sight

- Connection status
- More than 100 days memory for power and daily energy totals
- Current power output
- Energy produced today and energy produced to date
- Today's power output and daily energy totals in graphical format
- Connects to SMA SB inverter fitted with RS232 card
- Simple transmitter interface unit connection procedure (only 3 wires to connect) to the inverter
- Attractive desk or wall mount display case
- Large front LCD with push button controls
- Indoor range approx 30m

SMA Accessories

Sunny SensorBox

- Complete performance monitoring for the optimal solar yield
- Comprehensive performance analysis of the PV system
- Acquisition of irradiation, module temperature, ambient temperature and wind speed values
- Easy installation at the solar generator
- Easy to integrate into existing systems via RS485
- Compatible with Sunny WebBox
- Data analysis on a PC or in the Sunny Portal
- Automatic calculation of the performance ratio via Sunny Portal



Sunny Beam

- Wireless plant monitoring
- Wireless communication with the inverters
- USB port for data transfer to the PC
- Power supplied via integrated solar cell

GRID CONNECT ACCESSORIES

Sunny WebBox

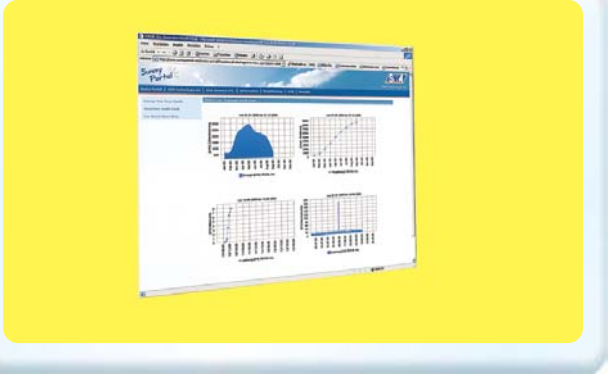
- Monitoring, remote diagnosis and long-term recording of inverter operating data
- Communication with inverters via RS485
- System status can be viewed using any web browser
- Data stored on removable SD card
- Automatic data transfer to Sunny Portal (Ethernet or modem)

Sunny Boy Control

- Monitoring, remote diagnosis and long-term recording of inverter operating data
- Communication with inverters via RS485
- Daily/hourly status report
- Suitable for all systems regardless of size

Sunny Matrix

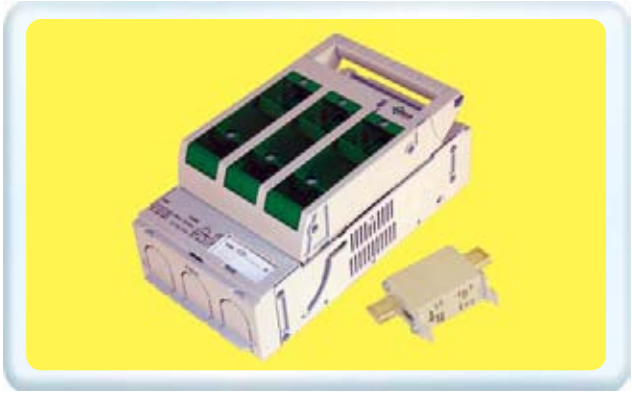
- Large-scale display for PV systems
- Weatherproof, wall mounting
- Ethernet connection to Sunny WebBox
- Custom artwork using customer installation photo
- Day and night function
- Variable display output: energy yield, air temperature, time, scrolling text with message
- Character height 51mm



Sunny Portal

- Free interactive access to your PV data via internet
- Storage and individual display of your system data
- Remote monitoring, status and failure reports

OTHER ACCESSORIES



Fuses and Fuse Switches

New generation Weber SILAS fuse switches available in ratings of 160A, 250A, 400A, 630A with suitable fuses from 2A to 630A.

Battery Accessories

- Battery hydrometer & thermometer
- Low voltage disconnect

Lighting Products

- 12V DC Compact fluorescent lamps 5W, 7W, 11W ES or bayonet fitting
- Low voltage lighting inverters – 12V/20W, 12V/40W, 24V/20W

MC Cables and Connectors

Multi-contact cables to connect solar modules with MC leads

- Lengths from 1m to 15m male/female
- 0.38m male or female only
- MC branch sockets