The dawn of a new era in solar

Introducing the new range of REDARC solar blankets

THE POWER OF REDARC® SOLAR

There's a new generation, state-of-the-art solar blanket range from REDARC that heralds an exciting new period in charging 12 volt batteries from solar power.

The range includes a flexible 112 watt red Solar Blanket Amorphous Cell and three black Solar Blanket SunPower® Cells in 115, 150 and 190 watt power ratings.

Portable and lightweight they can be easily moved around to capture the best energy output from the sun. The range is also smaller and lighter than a comparable wattage portable glass panel.

Our range also includes genuine industry standard Anderson™ SB™50 plug connectors making installation easier – just plug and play.

REDARC Solar, best under the sun.

Look at all the benefits...

- Designed for portability and strength
- Compact and lightweight
- High power output equivalent to glass folding aluminium panels
- Use solar power to charge 12 volt automotive, marine, and recreational vehicle battery systems
- Genuine industry standard Anderson™ SB™50 plug connectors

SOLAR READY

AUSTRALIAN DESIGNED

TWO YEAR WARRANTY

The solar range... a new era

Solar Blanket Amorphous Cells

The 112 watt Solar Blanket Amorphous Cells offers superior flexibility in a light weight, convenient sized package. Its flexible design reduces risk of cell breakage and cracks and performs better in low light conditions compared to crystalline panels. The amorphous cell blanket comes with Uni-Solar® cells which incorporates a triple layer system. These cells are optimised to capture the full spectrum of light compared to conventional mono and poly cells.

Designed to charge 12 volt automotive, marine and recreational vehicle battery systems, the 112 watt Solar Blanket Amorphous Cells are designed to provide high performance, particularly at high ambient temperatures.

Using an anti-reflective, scratch-resistant ETFE coating, the 112 watt Solar Blanket Amorphous Cells features a high melting temperature, UV resistance, chemical resistance, non-stick and self-cleaning properties.

What's more, setup is now even easier thanks to genuine industry standard Anderson™ SB™50 connectors – just plug and play!

These high quality Anderson™ plugs are simple and fast to connect with no screw terminals and no risk of poor connections from frayed wired or loose terminals – just play and play!

SAF1112

Solar Blanket SunPower® Cells

The Solar Blanket SunPower® Cells range available in 115, 150 and 190 watt power ratings have been designed for portability and strength. The unique design of SunPower® cells reduces cell failure from corrosion and breakage. They feature no grid lines, a solid copper backing and thick connectors for higher efficiency.

Designed to charge 12 volt automotive, marine and recreational vehicle battery systems, these blankets are compact and lightweight, making them highly portable and easy to store. With a high power output, they are about a third of the weight of an equivalent glass folding panel.

Highly reliable and efficient using an anti-reflective, scratch-resistant ETFE coating, the blanket range features a high melting temperature, UV resistance, chemical resistance, non-stick and self-cleaning properties.

What's more, setup is now even easier thanks to genuine industry standard Anderson™ SB™50 connectors.

SSF1115

SSF1150

SSF1190

Solar Regulator and Remote Monitor

Solar Regulator

REDARC's newly designed solar regulators with Anderson™ SB™50 connectors are available in 10, 20 and 30 amp models.

Featuring multistage charging; boost, absorption and float, REDARC's Solar Regulators ensure that correct charge is supplied safely and efficiently and protects batteries from over charging. REDARC's Solar Regulators work with multiple chemistry batteries including AGM, standard and calcium, are ideal for permanent installation or portable systems, and have multiple levels of protection including over temperature, over charge and reverse polarity.

Solar Remote Monitor

REDARC's new 12/24 volt solar monitor with a large 3" backlit LED display allows you to monitor the solar panels, battery and system information.

It provides panel charging information, real-time system monitoring and allows battery setting and configuration setting changes to the solar regulator.

SRPA0120

SRPA0240

SRPA0360

SRPA-RM

How much solar will I need?

The new REDARC solar blanket range allows you to get away from traditional camp sites and mains power sources. However, a little homework is required to know exactly how much power each load consumes so you can choose the right battery bank size and combine this with efficient battery use and smart charging to achieve the best results. Use the following as a guide in your calculations.

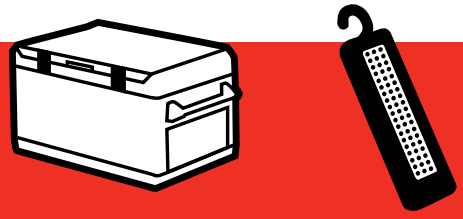
Step 1. List and record all your loads and how many amps they use. Most items have the amps listed on the label.

Step 2. Next multiply current draw (A) of each item by the hours it is used for (h) and add together the results. This will give you the total amp hours (Ah) required per day.

Step 3. Tally up all your items and you will have the total amp hours likely to be consumed in any given day.

Item	Current (A)	Hours used (h)	Amp hours (Ah)
Fridge	2 (average)	24	48
Lights	3	5	15
Total Ah used per day			63

* If the device's energy consumption is provided in watts, simply divide the value by the number of volts to calculate the current draw in amps, e.g. if a fridge is labelled 24 watts, divide 24 by 12 = 2 amps



48Ah + 15Ah

Total consumption over 24 hours is 63Ah

So running a fridge and lights will require 63Ah per day. The question remains... how much solar will I need?

Let's assume that you are using a REDARC solar blanket to charge a 120Ah battery. Generally, most deep cycle batteries will give best cycle life if they are not discharged beyond 50% of their total capacity so, for this battery, we will assume 60Ah is usable.

A REDARC 115 watt SunPower® cell solar blanket can realistically supply 5.8 amps on a sunny day for most of the sunlight hours of the day. Now let's also assume that you get 6 hours of sunlight each day.

Your REDARC 115 watt SunPower® cell solar blanket can supply:

5.8A x 6h = 34.8Ah available charge each day

Therefore the battery is being discharged by:

63Ah consumption – 34.8Ah charge = 28.2Ah discharge each day

So you can run your fridge and lights for:

60Ah battery capacity/28.2Ah discharge = 2.12 days free camping.

In this scenario, the battery is discharged by no more than 50%, ensuring the long-term life of your battery.

This table outlines how long your power can last without any other form of charge, using our complete range of solar blankets, with the same loads.

Solar range	Maximum Power Current (A)	Daily Ah (6 hours sunlight) (A x 6)	Daily discharge (Ah) (63Ah - Daily Ah)	Days without charge/days left until battery is flat (60Ah/Daily discharge)
115 watt SunPower®	5.8	34.8	28.2	2.1
150 watt SunPower®	8.7	52.2	10.8	5.5
190 watt SunPower®	11.6	69.6	0	No limit
112 watt Amorphous	6.3	37.8	25.2	2.3

Factors such as sunlight hours, weather conditions and a number of other variables can affect actual solar panel outputs. REDARC has taken the hassle out of manual calculation with its solar calculator on the REDARC website. The REDARC solar calculator provides an indicative measure on how much power will be needed per day depending on the size of the auxiliary battery bank and appliances used whilst touring.

Cable accessories

REDARC's extensive range of cables and adaptors offer easy connection to the solar blankets using Anderson™ SB™50 connectors. Available from 1.5 metres in length right up to 10 metres, they allow you to set up in a shady area but still get the most out of the sun. What's more, they can be used with REDARC's BCDC range and battery management systems.

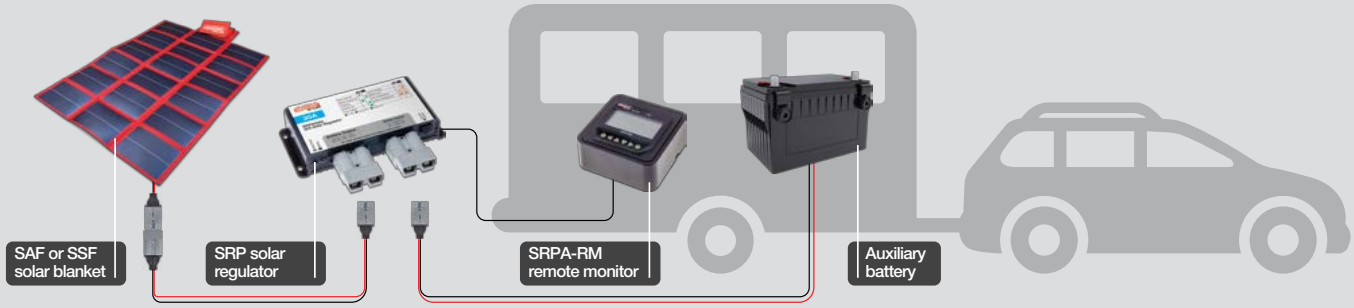
Why Anderson?

Anderson plugs are common connections for recreational vehicles. REDARC uses genuine industry standard Anderson™ SB™50 plug connectors across the entire solar range. These high quality Anderson™ plugs are simple and fast to connect with no screw terminals and no risk of poor connections from frayed wired or loose terminals. For the most part, no tools are required to connect all your solar products together - just plug and play.

To access the solar calculator visit redarc.com.au

THE POWER OF REDARC® SOLAR

SAF/SSF solar panel setup



	SAF1112	SSF1115	SSF1150	SSF1190
Peak power output*	112W	114.8W	153.1W	191.4W
Maximum power voltage	18.0V	19.8V	17.6V	16.5V
Maximum power current	6.3A	5.8A	8.7A	11.6A
Open circuit voltage	24.0V	23.8V	21.1V	20.0V
Short circuit current	7.6A	6.2A	9.3A	12.3A
Operating temperature range	0 to 85˚C	0 to 85˚C	0 to 85˚C	0 to 85˚C
Cell type	Amorphous	SunPower®	SunPower®	SunPower®
Minimum solar regulator size	SRPA0120	SRPA0120	SRPA0240	SRPA0240
Dimensions opened (L x W)	1860 x 1185mm	1080 x 930mm	1405 x 930mm	1720 x 930mm
Dimensions closed (L x W x H)	400 x 280 x 100mm	310 x 310 x 65mm	310 x 310 x 75mm	310 x 310 x 90mm
Weight	4.8kg	4.5kg	6.0kg	7.2kg

	SRPA0120	SRPA0240	SRPA0360
Battery voltage	12/24V	12/24V	12/24V
Maximum power rating	120/240W	240/480W	360/720W
Current limit	10A	20A	30A
Charge type	PWM 50Hz	PWM 50Hz	PWM 50Hz
Waterproof IP rating	Yes - IP55	Yes - IP55	Yes - IP55
Operating temperature	-35˚ to +55˚C	-35˚ to +55˚C	-35˚ to +55˚C
Dimensions (H x W x D)	28 x 153 x 98mm	28 x 153 x 103mm	28 x 153 x 108mm
Weight	480g	520g	550g

Regulator battery type information (selectable via SRPA-RM)	AGM (default setting) 12V/24V	Standard 12V/24V	Calcium 12V/24V
Battery voltage range	9-16V/18-32V	9-16V/18-32V	9-16V/18-32V
Float voltage	13.6V/27.2V	13.6V/27.2V	13.6V/27.2V
Solar panel input voltage range	19-30V/32-50V	19-30V/32-50V	19-30V/32-50V
Absorption voltage	14.4V/28.8V	14.6V/29.2V	14.8V/29.6V
Equalise charging voltage	N/A	14.8V/29/6V	15.0V/30.0V
Standby current	10.0A/4.5mA	10.0A/4.5mA	10.0A/4.5mA

	SRPA-RM
Monitor communication	RS485
Power consumption - backlight on	<23mA
Power consumption - backlight off	<15mA
Operating temperature	-20˚ to +70˚C
LCD screen size	76.5 x 42.0mm (3.2")
Faceplate screws included/size	Yes - 4 included/M4
Wall bracket screws included	No - 4 required
Remote monitor connection	RJ45
Dimensions - overall	114.0 x 114.0 x 48.2mm
Dimensions - screen faceplate	98.0 x 98.0 x 15.5mm
Dimensions - mounting bracket	114.0 x 114.0 x 45.5mm
Weight	320g

*Actual peak power output will vary according to atmospheric conditions and temperature.

Visit **redarc.com.au** for more information.
The REDARC solar range is available at your nearest auto electrician or 4WD specialty store.

Want to know more?
Scan this QR code with your smartphone to go to the Redarc website

REDARC Electronics
ABN 77 136 785 092
power@redarc.com.au

23 Brodie Road (North)
Lonsdale, South Australia
Australia 5160

Australia
Phone 08 8322 4848
Fax 08 8387 2889

International
Phone +61 8 8322 4848
Fax +61 8 8387 2889

4877-160720

THE POWER OF REDARC® SOLAR