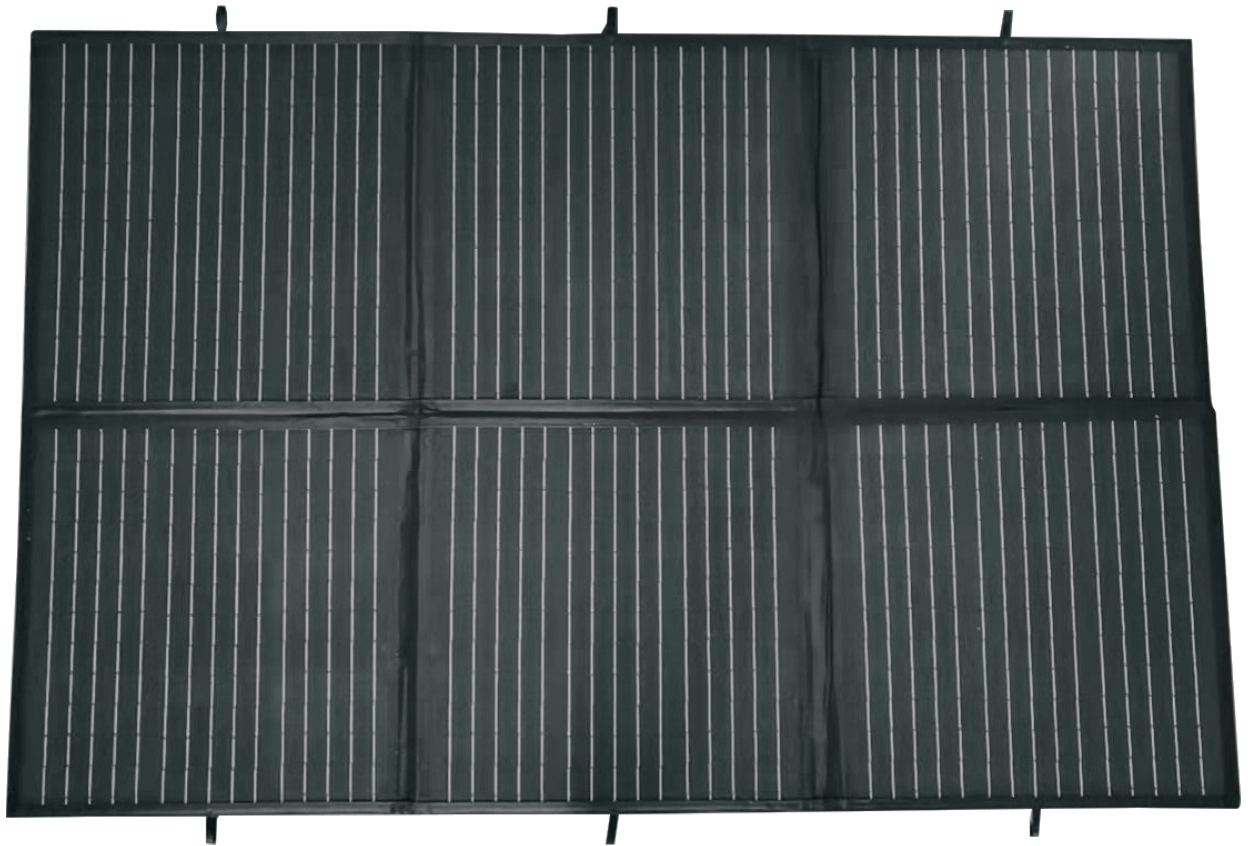




300W Solar Blanket

AP300MS-B

USER MANUAL



ABOUT US

ATEM POWER, born in June 2017, as a synonym for exciting outdoor experience, is an Australian company with dedication and passion for the R&D of high quality products in the field of renewable energy products, batteries and related accessories.

Since the company was founded, we have committed to innovation that aims to make your life infinitely more convenient. And the belief in our conviction for quality and commitment allows us to innovate in developing products that are optimally tailored to the needs of our amazing customers.

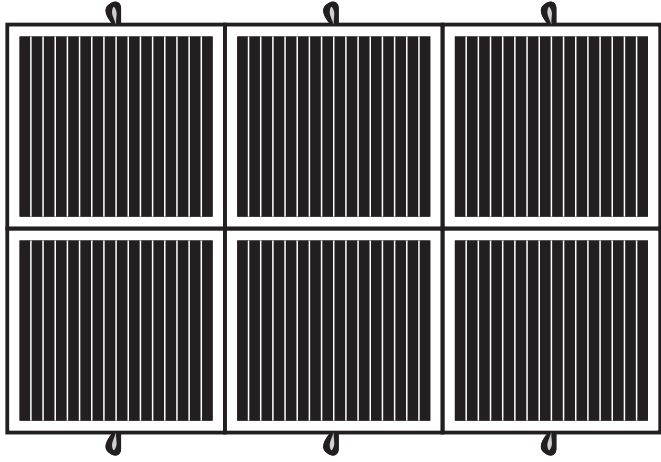
We engineer and supply solar products for homes, 4x4s, recreational vehicles and virtually any application you can think of. And we also develop reliable, high performing deep-cycled batteries and lithium batteries for standby or daily power needs. Accessories include battery chargers and inverters that are ideal for RV's, commercial vehicles, boats, yachts and many more applications!

At ATEM POWER, we stay true to our DNA by prioritizing technological innovation designed to improve our products and striving to provide excellent customer care. Because we are motivated to explore the limits of solar power!

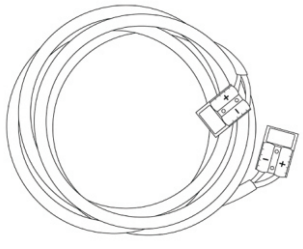
WARNINGS & SAFETY INFORMATION

- Please bear in mind that the solar panel, MPPT controller and battery should be kept away from liquids and chemical solvents.
- Keep the solar blanket and controller clean and check whether the connectors are clean before use.
- Children, adults with reduced physical or mental abilities, or those who are under the influence of drugs or alcohol are not allowed to use this product.
- This solar blanket is not intended to charge non-rechargeable batteries, which may cause injuries to the user or damage the blanket and the controller.
- Battery should be mounted in well-ventilated area without potential ignition sources, because lead acid batteries might produce harmful and explosive gases. And you are not allowed to smoke when the battery is charging.
- Any modifications to the product will void the warranty.
- Please store the solar blanket in a cool and dry place.
- Please keep the solar blanket away from sharp or heavy objects, which might cause damages to the blanket during transportation.
- This solar blanket is intended to charge 12v rechargeable batteries.
- The MPPT controller is only suitable for LiFePO4 batteries and lead-acid batteries: calcium, AGM & GEL. The controller should not be used with nickel metal hydride batteries.
- The MPPT controller is engineered to charge one battery only.
- Good ventilation is important for the controller, as it will generate much heat during operation.

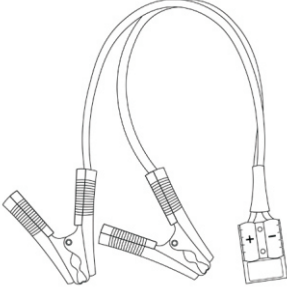
PACKAGE LIST



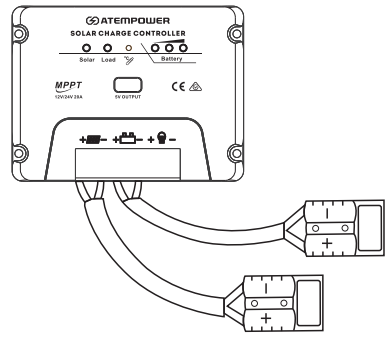
300W Solar Blanket



Extension Cable

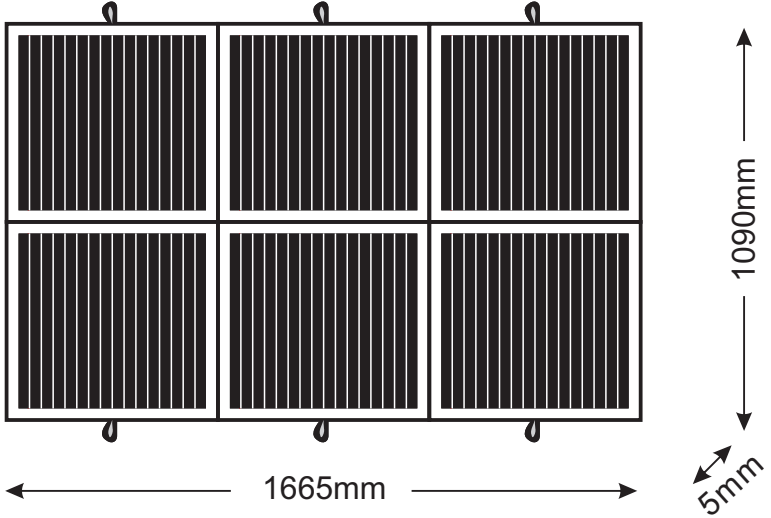


Alligator Clips



MPPT Controller

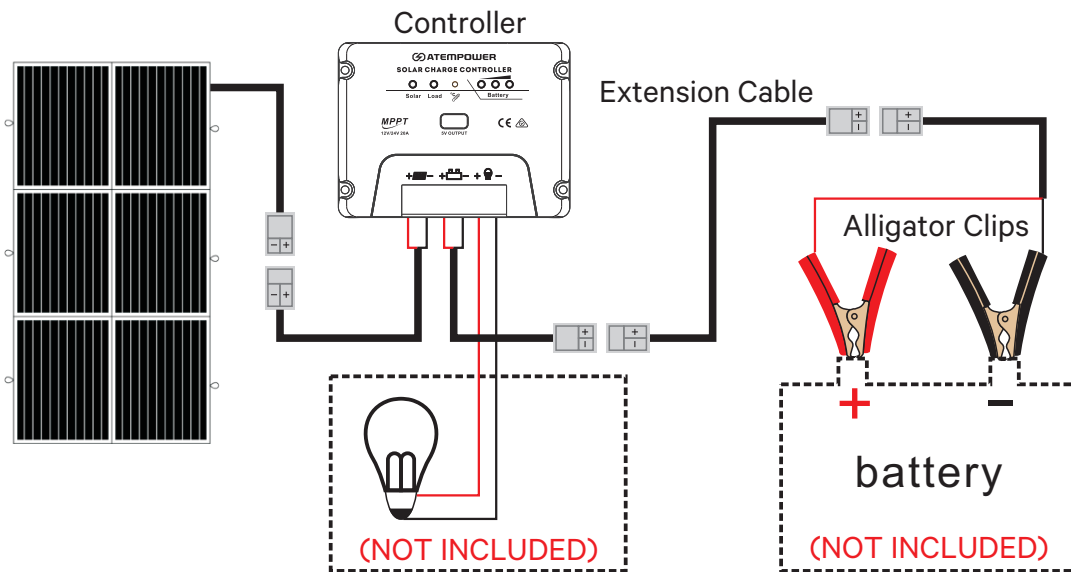
DIMENSIONS



CONNECTING YOUR SOLAR PANEL

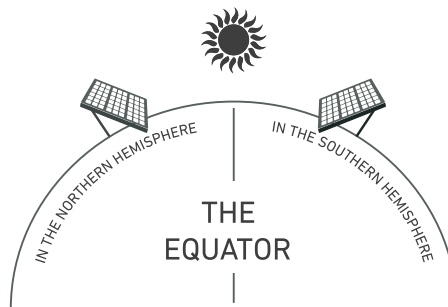
- Connect the Alligator Clips to the battery.
- Connect the controller to the battery with Anderson plugs. Use the extension cable if needed.
- Connect the solar blanket to the controller with Anderson plugs.

Note: When uninstalling, you are required to repeat the steps from last to first.



TIP

Solar panels should be installed in a location where there is no constant shading. In the northern hemisphere, panels should ideally face south, and in the southern hemisphere, panels should ideally face north.



SOLAR BLANKET SPECIFICATIONS

Voltage at Pmax (Vmp)	18.2V
Current at Pmax (IMP)	16.5A
Open-Circuit Voltage (Voc)	22.4V
Short-Circuit Current (Isc)	17.7A
Panel Weight	10KG
Dimensions (Closed)	550*550*40 mm
Dimensions (Open)	1665*1090*5 mm

CONTROLLER SPECIFICATIONS

Model	CY1220MT-AP
Rated Charge Current	20A
Rated Discharge Current	20A
Rated Voltage	12V/24V auto work
MPPT Efficiency	Max:99%
Over Load, Short Circuit Protection	≥ 1.5 rated current
No Load Current	< 10mA
Over Voltage Protection	16V; x2/24V
Voltage of Stop Charging	14.7V; x2/24V
Discharge Recovery Voltage	12.0V; x2/24V
Over Discharge Voltage	10.8V; x2/24V
USB Output	5V 1A
Working Temperature	-35°C~+55°C
Dimension of Controller	131 x 99.5 x 29.5(mm) (LxWxH)
Weight	300g

INDICATOR	STATUS	MEANING
SOLAR	Steady ON	Solar panel voltage is higher than the light control voltage
	OFF	Solar panel voltage is less than the light control voltage
BATTERY	Any status	Number of indicators steady on indicates battery power
	The left indicator is flashing	Battery is nearly or already empty.
LOAD	Steady ON	Load receiving power
	OFF	Battery voltage is abnormal.

TROUBLESHOOTING

SYMPTOM	POSSIBLE CAUSE	SOLUTION
Load icon is off	Battery is low, the load will start when the battery voltage is higher than 11.5V	Charge the battery
The MPPT controller will not turn on	Battery is insufficiently charged	Charge the battery
	Battery has been connected improperly	Check, and if necessary alter the battery's connection to the MPPT controller
Solar panel doesn't work despite sufficient sunlight	Battery fault	Change the battery
	Reverse polarity	Reconnect
	Loose connection	Reconnect
	Bad soldering of wires inside the junction box	Contact us
Low power output	Solar panel malfunction	Contact us
	Loose connection	Reconnect
	Wrong tilt angle	Adjust the angle to capture direct sunlight
	Shadow	Remove any shadow covering the panel
	Accumulation of dust	Clean, best on a regular basis
	High operating temperature	Ensure sufficient air circulation beneath the panels; add more panels in series to increase the string voltage



WARRANTY



WARRANTY PERIOD:

Full 12 month warranty from date of purchase against all manufacturing defects.

WHAT DOES THE WARRANTY COVER?

Under normal usage conditions, this warranty covers:

1. Any defect in design or manufacture which results in its failure to perform correctly as described.
2. Damage or loss incurred in transit.
3. We will either replace the product or provide you with a refund at our discretion provided that the fault is found to have been caused by a design or manufacturing defect and not misuse or tampering.
4. Shipping costs of returning the product for a proven defect.
5. The limited warranty is the only one that applies to this unit, and it sets forth all the responsibilities of ATEMPower.

THE WARRANTY DOES NOT COVER:

1. Travel and /or other expenses due to customer's location.
2. Damage caused by adverse weather, extreme temperature, accidents, negligence, daily wear and tear, alteration, incorrect installation, improper use including without limitation keeping the solar blanket near liquids and chemical solvents or making modifications to the solar blanket.
3. This unit is not intended for commercial use.