



SOLAR PANEL KIT

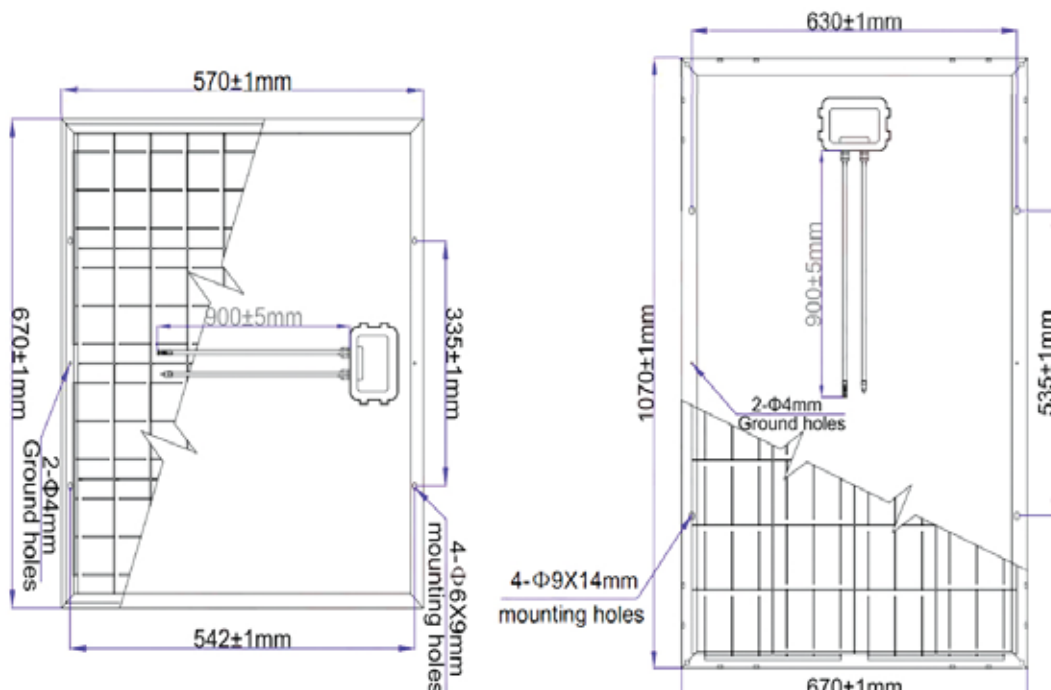
Item code: SOLAR PANEL KIT-CATA

This PETRO Industrial Solar Panel kit is to be used on the PETRO Trailer or PETRO Self Bunded Tank to power a PETRO 12V DC Pump kit.

KIT COMPONENTS:

- 2 x CNPV 50W 12V Solar Panel.
- 1 x Regulator 12V 10amp - PWMLVD.
- 1 x Volt Meter 10V-16V Expanded Scale.
- 1 x Fuse 10amp Plastic Circuit Breaker.
- 4 x Cable Gland 5-10mm Carroll.
- 10 x Connectors.
- 2 x Brackets to suit Solar Panel.
- 4 x Cable 6mm Sq-C25.
- 4 x Convuluted Tube 13mm - CT13.
- 2 x Fuse 10amp.
- 1 x Ritar 12V 120Ahr Deep Cycle Battery.
- 1 x Large Battery Box.
- 1 x 12V Automatic Battery Charger 2/4/8 AMP.

SCORPION SGP-50W POLY SOLAR PANEL:





SCORPION SGP-50W POLY SOLAR PANEL:

Electrical Data		SGP-50W	SGP-100W
Module Size	mm	670 x 540 x 25	670 x 1005 x 35
Weight	kg	4.5	8.5
Nominal Peak Power (WP)	W	50	100
Nominal Voltage	V	18	18
Nominal Current	A	2.78	5.56
Open-Circuit Voltage (Voc)	V	21.6	21.6
Short-circuit Current (I sc)	A	3	6
Cell Conversion Efficiency		17.10%	17.10%
Operating Temperature		-40 to +85°C	-40 to +85°C
Max System Voltage	V	1000V DC	1000V DC

BLUE SMART – IP65 12V BATTERY CHARGER:

With up to 95% efficiency, these chargers generate up to four times less heat when compared to the industry standard. And once the battery is fully charged, power consumption reduces to 0,5 Watt, some five to ten times better than the industry standard.

Durable, safe and silent

- Low thermal stress on the electronic components.
- Protection against ingress of dust, water and chemicals.
- Protection against overheating: the output current will reduce as temperature increases up to 60°C, but the charger will not fail.
- The chargers are totally silent: no cooling fan or any other moving parts.

Features:

- Water, dust and chemical resistant.
- Seven step smart charge algorithm.
- Recovery of fully discharged 'dead' batteries.
- Automatic power supply function.
- Severe cold performance: down to -30°C.
- Several other battery life enhancing features.
- Low power mode to charge smaller batteries.
- Li-ion battery mode.
- Setup and configure, readout of voltage and current by Bluetooth Smart.



Clamps



M8 Eyelets



BLUE SMART – IP65 BATTERY CHARGER:

	12 V 4/5/7/10/15 A	24 V 5/8 A
Input voltage range	180-265 VAC	
Efficiency	94%	95%
Standby power consumption	0,5 W	
Charge voltage 'absorption'	Normal: 14,4 V High: 14,7 V Li-ion: 14,2 V	Normal: 28,8 V High: 29,4 V Li-ion: 28,4 V
Charge voltage 'float'	Normal: 13,8 V High: 13,8 V Li-ion: 13,5 V	Normal: 27,6 V High: 27,6 V Li-ion: 27,0 V
Charge voltage 'storage'	Normal: 13,2 V High: 13,2 V Li-ion: 13,5 V	Normal: 26,4 V High: 26,4 V Li-ion: 27,0 V
Charge current	4 / 5 / 7 / 10 / 15 A	5 / 8 A
Low current mode	2 / 2 / 2 / 3 / 4 A	2 / 3 A
Temperature compensation (lead-acid batteries only)	16 mV/°C	32 mV/°C
Can be used as power supply	Yes	
Back current drain	0,7 Ah/month (1 mA)	
Protection	Reverse polarity Output short circuit Over temperature	
Operating temp. range	-30 to +50°C (full rated output up to 30°C) (cables retain flexibility at low temperature)	
Humidity (non-condensing)	Max 95%	
ENCLOSURE		
Battery-connection	Black and red cable of 1,5 meter with 20 A DC connector, clamps and M8 eyelets	
230 V AC-connection	Cable of 1,5 meter with CEE 7/17, BS 1363 plug (UK) or AS/NZS 3112 plug	
Protection category	IP65 (splash and dust proof)	
Weight	0,9 kg	0,9 kg
Dimensions (h x w x d)	12/7: 47x95x190mm Other: 60x105x190mm	24/5: 47x95x190mm Other: 60x105x190mm
STANDARDS		
Safety	EN 60335-1, EN 60335-2-29	
Emission	EN 55014-1, EN 61000-6-3, EN 61000-3-2	
Immunity	EN 55014-2, EN 61000-6-1, EN 61000-6-2, EN 61000-3-3	

PETRO INDUSTRIAL



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VICTRON CONNECT APP

Setup, readout and configure your Blue Smart IP65 Charger via your smartphone. You can display the status of your charger and battery and even control the functions of your charger using the VictronConnect app. On your screen the readout of voltage and current is default available. Download your app for iOS and Android here at: <https://www.victronenergy.com/live/victronconnect>.

RA12-1205 RITAR BATTERY (12V1 15Ah)

RA series is a general purpose battery with 10 years design life in float service. It meets with IEC, JIS and BS standards. With up-dated AGM valve regulated technology and high purity raw materials, the RA series battery maintains high consistency for better performance and reliable standby service life. It is suitable for UPS/EPS, medical equipment, emergency light and security system applications.



Specification	
Cells Per Unit	6
Voltage Per Unit	12
Capacity	115Ah@10hr-rate to 1.80V per cell @25°C
Weight	Approx. 32.0 Kg (Tolerance±2%)
Max. Discharge Current	1150A (5 sec)
Internal Resistance	Approx. 4.2 mΩ
Operating Temperature Range	Discharge: -20°C~60°C Charge: 0°C~50°C Storage: -20°C~60°C
Normal Operating Temperature Range	25°C ± 5°C
Float charging Voltage	13.6 to 13.8 VDC/unit Average at 25°C
Recommended Maximum Charging Current	34.5A
Equalization and Cycle Service	14.6 to 14.8 VDC/unit Average at 25°C
Self Discharge	RITAR Valve Regulated Lead Acid (VRLA) batteries can be stored for more than 6 months at 25°C. Self-discharge ratio less than 3% per month at 25°C. Please charge batteries before using.
Terminal	Terminal F5/F12
Container Material	A.B.S. UL94-HB, UL94-V0 Optional.



MORNINGSTAR SUNSAVER SOLAR CONTROLLER:

FEATURES AND BENEFITS:

Extremely High Reliability

- Failure rate of less than 1 per 1,000 shipped (<0.1%).
- 100% solid state. Power MOSFET design.
- Manufactured in an ISO 9000 factory.
- 100% pre-shipment functional testing.

Longer Battery Life

- Advanced PWM charging.
- Series design (not shunt) for cool operation.
- 4-stage charging: bulk, absorption, float, equalize.
- Optimized sealed or flooded battery set points.
- Temperature compensated charging.
- Low voltage load disconnect on several versions.

Designed for Harsh Environments

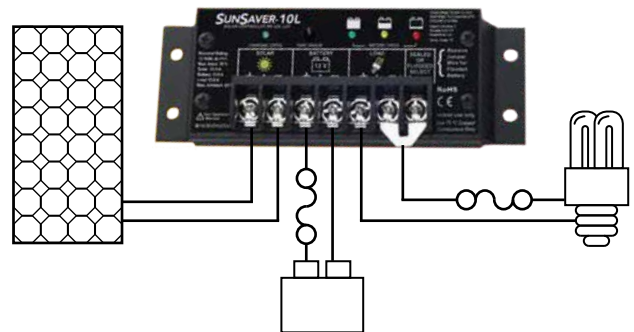
- Temperature rating of -40°C to $+60^{\circ}\text{C}$.
- Epoxy encapsulation for protection against humidity and dust ingress.
- Corrosion protection: marine rated terminals and anodized aluminum case.
- Certified for use in hazardous locations.

Easy to Install and Use

- Factory pre-sets result in no required install settings.
- Electronic protections prevent damage from wiring mistakes.
- Fully automatic operation and fault recovery.
- LED's display extensive information about status, faults and battery condition.



SunSaver Versions				
	Solar Current	Load Current	System Voltage	LVD
SS-6-12V	6A	6A	12V	No
SS-6L-12V	6A	6A	12V	Yes
SS-10-12V	10A	10A	12V	No
SS-10L-12V	10A	10A	12V	Yes
SS-10L-24V	10A	10A	24V	Yes
SS-20L-12V	20A	20A	12V	Yes
SS-20L-24V	20A	20A	24V	Yes



SunSaver shown with wire terminal