



# Solar Satcom Pod (SSP)



II 2 G



The Solar Satcom Pod is a compact solar powered remote satellite telemetry system utilising the latest satellite and internet technologies to bring data from a remote location to your computer in near real time. It is available in different power ratings from 120 – 960W peak with output voltages ranging from 12 – 240V ac or dc.

The satellite internet telemetry system includes a data transceiver, a solar panel, a rechargeable battery, a ground to satellite antenna and mounting hardware. The unit facilitates wireless local area network (wlan) interface and portable telephone communications. The solar panel and battery provide power to the satellite communication system and ancillary devices connected to the unit.

## Materials and Finish

Battery Box	316L Stainless Steel
Solar Panel	Aluminium Mounting Frame. Terminal Enclosure made of GRP With 2 Exe ATEX M25 glands.
<b>Solar Panel Controller</b>	
Body & Cover	Copper free aluminium alloys LM25 (BS1490) with less than 0.2% copper content.
Cover Bolts	Stainless Steel (18/8).
Finish	Chromate primed and polyester powder coated. Textured black as standard. Other finished available on request.
Frame	316L Stainless Steel
Antenna	GRP

## Earthing

All enclosures are supplied with a 6mm stainless steel (18/8) internal and external earth stud as standard.

Larger internal earths can be fitted on request.

## Entries and Thread Standards

Standard thread forms are ISO Metric to BS 3643, NPT or GAS can be supplied on request.

## Protection Grade

Ingress Protection IP 23, or IP66 on request

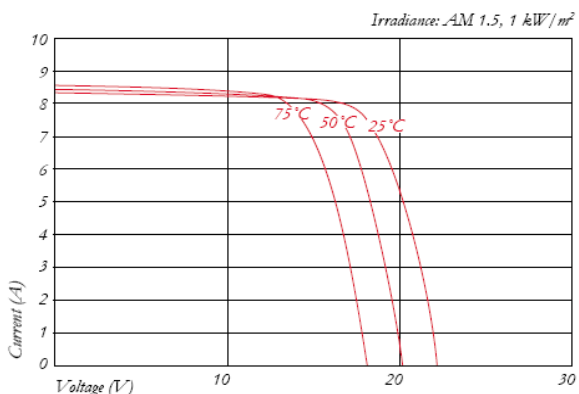
## Ex Rating

Ex nA nR II T5

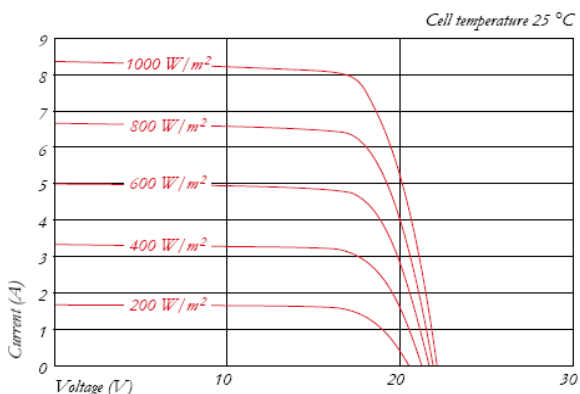
# Solar Satcom Pod Specifications

## ELECTRICAL CHARACTERISTICS

Current-Voltage characteristics at various cell temperatures



Current-Voltage characteristics at various irradiance levels



## ELECTRICAL PERFORMANCE

Pv Module type

**At 1000 W/m<sup>2</sup>(STC)\***

Maximum Power [W]  
Maximum System Voltage [V]  
Maximum Power Voltage [V]

Maximum Power Current [A]  
Open Circuit Voltage (Voc) [V]  
Short Circuit Current (Isc) [A]

**At 800 W/m<sup>2</sup>(NOCT)\*\***

Maximum Power [W]  
Maximum Power Voltage [V]  
Maximum Power Current [A]  
Open Circuit Voltage (Voc) [V]  
Short Circuit Current (Isc) [A]  
NOCT [°C]

Power Tolerance [%]

Maximum Reverse Current IR [A]

Series Fuse Rating [A]

Temperature Coefficient of Voc [V/°C]

Temperature Coefficient of Isc [A/°C]

Temperature Coefficient of Max. Power [W/°C]

Reduction Of Efficiency (from 1000W/m<sup>2</sup> to 200 W/m<sup>2</sup>) [%]

SPA-130A

135

1000

17.7

7.63

22.1

8.37

95

15.6

6.1

19.9

6.82

49

5/-5

15

15

-0.08

0.00501

-0.614

5.8

## DIMENSIONS

Length [mm] 1500(+/-2.5)

Width [mm] 668(+/-2.5)

Depth/ incl. Junction Box [mm] 46

Weight [kg] 12.5

Cable [mm] (+)840 / (-) 840

Connection Type MC PV-KBT3 / MC PV-KST3

Junction Box [mm] 100x108x15

IP Code IP66

## CELLS

Number per Module 36

Cell Technology Polycrystalline

Cell Shape(Square) [mm] 156x156

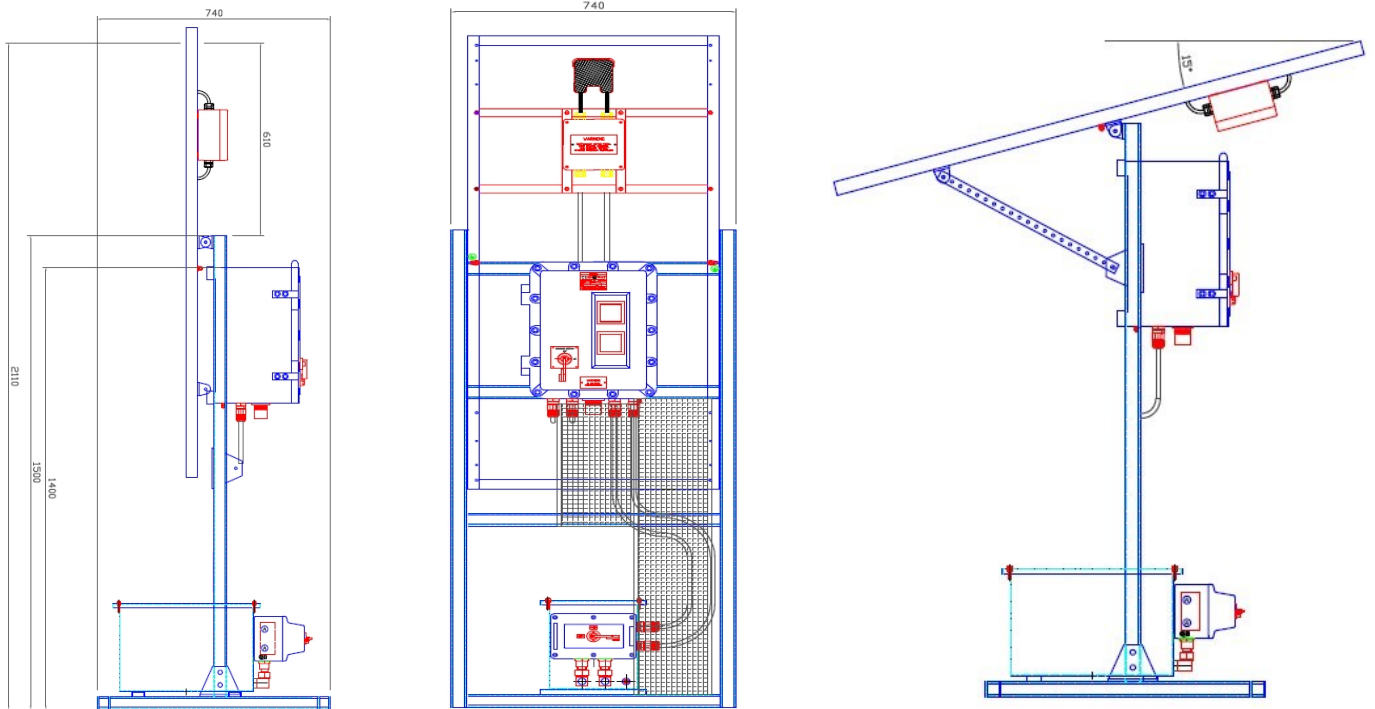
Cell Bonding 3 busbar

## Specifications

Ex Protection	EEX d e mb IIB T5
Output	24Vdc 5.0A max 24Vdc 1.0AContinuous on 1.5 Days battery autonomy.
Battery	12V 72Ah
Solar Panel	12V 10A peak
Ingress Protection	IP 23
Typical features	Battery voltage and charge/ Discharge current meters.

Dimensions	Width when solar panel is at 180° Horizontal is 1500 mm  Height when solar panel is at 15 ° is 1715 mm  Depth 740 mm
Weight	100kg
Ordering information	See table (Customised variations available on request).

## Dimensions



## Ordering Information

Continuous Power (W)		Output Voltage (V)			
		12Vdc	24Vdc	110Vac	230Vac
24W	1 x 120W PV cell	<b>SSP-101</b> Batt 12V 72Ah	<b>SSP-201</b> Batt 12V 72Ah	<b>SSP-301</b> Batt 12V 72Ah	<b>SSP-401</b> Batt 12V 72Ah
48W	2 x 120W PV cell	<b>SSP-102</b> Batt 12V 144Ah	<b>SSP-202</b> Batt 24V 72Ah	<b>SSP-302</b> Batt 24V 72Ah	<b>SSP-402</b> Batt 24V 72Ah
96W	4 x 120W PV cell	<b>SSP-103</b> Batt 12V 288Ah	<b>SSP-203</b> Batt 24V 144Ah	<b>SSP-303</b> Batt 24V 144Ah	<b>SSP-403</b> Batt 24V 144Ah
192W	8 X 120W PV cell	<b>SSP-104</b> Batt 12V 576Ah	<b>SSP-204</b> Batt 24V 288Ah	<b>SSP-304</b> Batt 24V 288Ah	<b>SSP-404</b> Batt 24V 288Ah

Note: The above values are based on 5 hours sun per day @ 1000W/m<sup>2</sup> & 1.5 Days battery autonomy



JCE Group (UK) Ltd, Blackburn Business Park, Aberdeen, AB21 0PS  
Tel. +44 (0) 1224 798600 Fax +44 (0) 1224 798601  
E-Mail: info@jcegroup.com

JCE (Europe) Ltd., East Way, Lee Mill Industrial Estate, Ivybridge, Devon, PL21 9LL  
Tel. +44 (0) 1752 690530 Fax +44 (0) 1752 690531  
E-Mail: info@jcegroup.com

\* Electrical values under standard test conditions (STC): irradiation of 1000 W/m<sup>2</sup>, air mass AM 1.5 and all temperature of 25 °C

\*\* Electrical values under normal operating all temperature (NOCT): irradiation of 800 W/m<sup>2</sup>, air mass AM 1.5 wind speed of 1m/s and ambient temperature of 20 °C

\*\*\* 10 year or 90% of the minimally specified power P under standard test conditions (STC)

\*\*\*\* 20 years on 80% of the minimally specified power P under standard test conditions (STC)