PCU Series
Solar Controller

II 2G D

The range of Solar Controller s are an integral component of the JCE SPP Solar Pod. Used in conjunction with other JCE supplied products such as SP Solar Voltaic Panels and BC Battery Enclosures then a complete renewable energy power source can be constructed to provide a cost effective power source for remote locations where sunshine prevails and areas where traditional power infrastructure is uneconomical due to high costs and logistical issues.

The controller monitors the incoming power from the SPA panels and provides the power to the selected load as well as maintaining that the BC battery enclosure on the system is fully charged to enable it to provide the full voltage required for the desired autonomy.

With suitably rated distribution and short circuit components contained within, the solar controller enclosure provides total protection for the system as well as providing constant voltage and current indication via the panel mounted meters.

To maintain the life of the batteries within the BC, the controller also controls battery charging and prevents battery deep discharge.

A DC to DC convertor can also be contained within the enclosure which converts 12Vdc to 24Vdc, provides constant 24Vdc battery voltage (battery voltage varies with charge and discharge, 9-13.7Vdc) and for AC applications the DC/DC convertor can be replaced by a DC/AC Invertor.

For systems that don't require a stable supply, this can be powered direct from the solar controller enclosure.

Materials and Finish

Body & Cover - Copper free aluminium alloy 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 finishes available on request.

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.

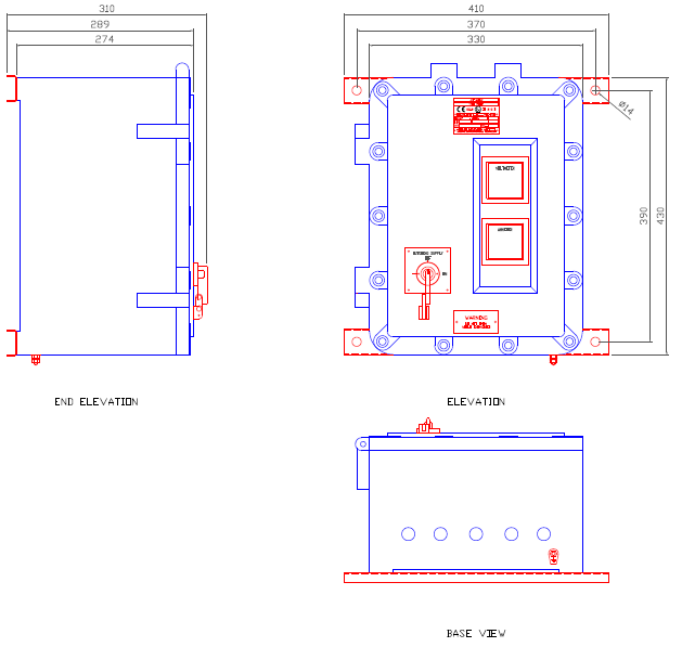
Protection Grade

Enclosure lid incorporate a gasket providing Ingress Protection to IP66. Application of a non hardening grease to flamepaths and entries is recommended.

Certification

- ISSeP03ATEX029
- Exd - IIB T6

Typical 30A ESCE Dimensions



Specifications

Rating	:	Exd IIB T6
IP Rating	:	IP66
PV Input Voltage	:	12V
Output voltage	:	12 or 24Vdc
Capacity	:	36 Ah
Rated load	:	Typically 6A (regulated output) protected by suitable MCB.
Output connections	:	Cable entry to suit or Bulkhead Socket
Display	:	0-30A, Ammeter 6-300V, Voltmeter
Battery Connections	:	16mm² Terminals
Weight	:	40Kg
20 hr Discharge Current	:	1.8A
Max load	:	400A
Temperature Range	:	-20C to +40C

Typical features :

- Solar Power LED Indication
- Battery Type Selector Switch
- Temperature Compensation Circuit
- Battery Level LED Indication
- Drainage Hole Encapsulated Battery Terminals

Ordering information : ESCE Series Solar Control Enclosure

Customised variations available on request.

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

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

JCE (Asia Pacific) Pte Ltd., *51 Bukit Batok Crescent, #05-04 Unity Centre, Singapore 658077 Tel +65 63162604 Fax +65 63162609*
E-Mail:info.asia@jcegroup.com

* Electrical values under standard test conditions(STC): irediation of 1000 W/m², airmass AM 1.5 and all temperature of 25 ˚C

** Electrical values under normal operating all temperature (NOCT):irediation of 800 W/m², airmass AM 1.5 wind speed os 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)