



Ex Solar Controller



ATEX



The range of Solar Controllers are an integral component of the JCE Solar Pod. Used in conjunction with other JCE supplied products such as 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.

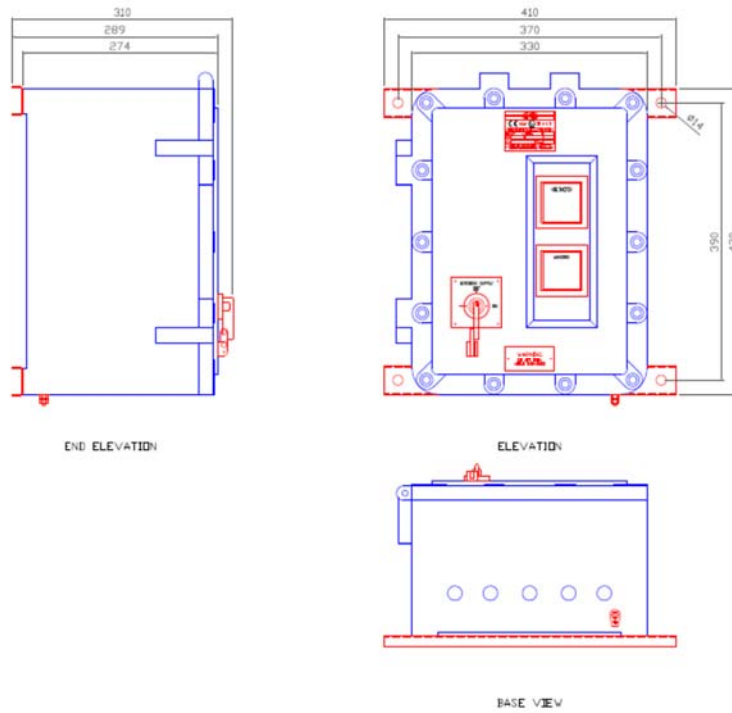
Materials and Finish

- Body & Cover -** Copper free aluminium alloy LM25 (BS1490) with less than 0.2% copper content.
- Cover Bolts -** Stainless steel (304)
- 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 (304) internal and external earth stud as standard. Larger internal earths can be fitted.

Ratings and Approvals

- Categories -**  II 2G D
- Codes -** Ex d IIB T6
- Protection Grade -** IP66
- Certificate Nos -** ISSeP03ATEX029

Typical 30A ESCE Dimensions



Typical specifications for 30A ESCE for example

Rating:	Ex d IIB T6	Typical features: <ul style="list-style-type: none"> - Solar Power LED Indication - Battery Type Selector Switch - Temperature Compensation Circuit - Battery Level LED Indication - Drainage Hole Encapsulated Battery Terminals
IP Rating:	IP66	
PV Input Voltage:	12 / 24 up to 120Vdc	
Output voltage:	12 and 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:	16mm ² Terminals	
Weight:	40Kg	
20 hr Discharge Current:	1.8A	Ordering information: <p>ESCE Series Solar Control Enclosure</p> <p>Customised variations available on request.</p>
Max load:	30A	
Temperature Range:	-20°C to +40°C	



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

** Electrical values under normal operating all temperature (NOCT):irradiation of 800 W/m², airmass 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)