



PCU Series Hybrid Controller



II 2G D

The range of Hybrid Controllers 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 infrastructure costs.

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 hybrid 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 converter 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 converter can be replaced by a DC/AC Inverter.

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

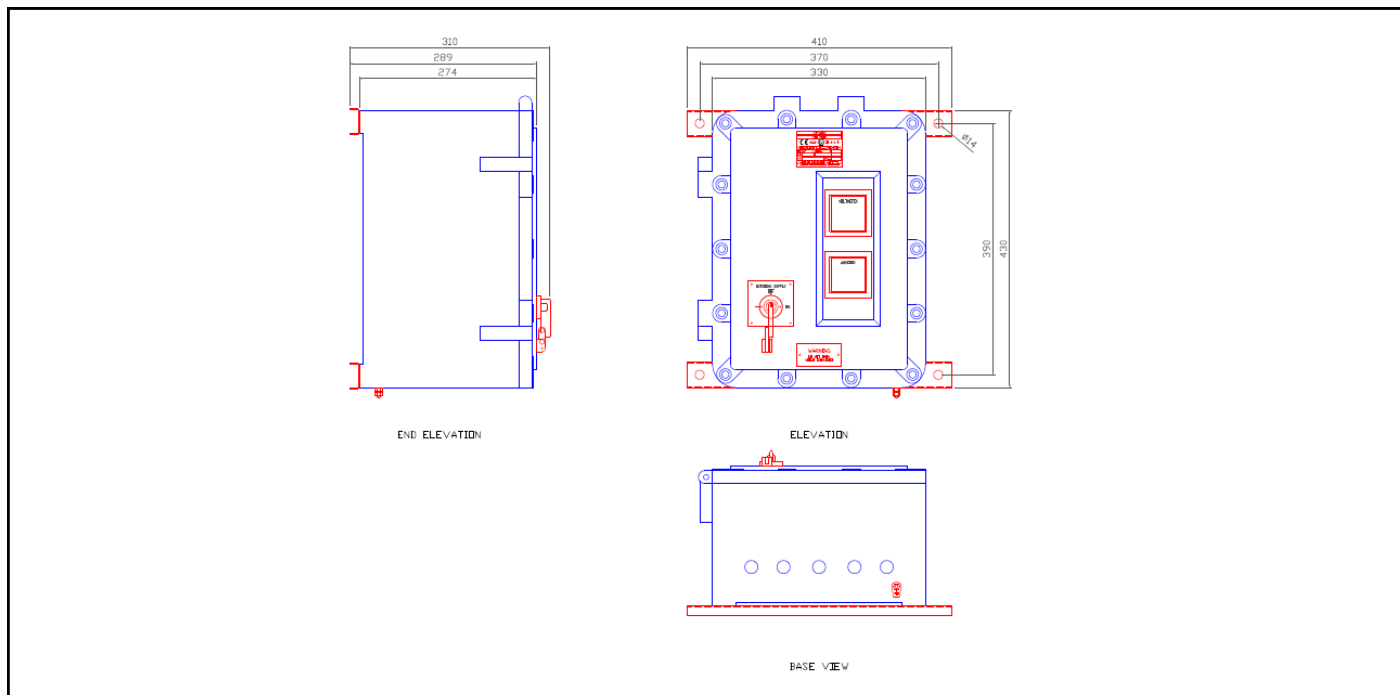
Protection Grade

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

Certification

- ISSeP03ATEX029
- EExd - IIB T6

Typical 30A EHCE Dimensions



Specifications

Rating	:	Exd 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	Ordering information	:	EHCE Series Solar Control Enclosure
PV Input Voltage	:	12V			Customised variations available on request.
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	:	16mm ² Terminals			
Weight	:	40Kg			
20 hr Discharge Current	:	1.8A			
Max load	:	400A			
Temperature Range	:	-20C to +40C			



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

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