



PRODUCT DATASHEET

COOLMAX SR MAXIMIZER Wall Mount

AERL

AER07.001 – ver 4

1 June 2013

PRODUCT OVERVIEW

The AERL COOLMAX SR is a high efficiency, buck only, common positive Maximum Power Point Tracker (MPPT). It is the latest development in the AERL MAXIMIZER Range, which was pioneered by AERL in 1985. The COOLMAX SR blends the famously reliable AERL power stage with easy to use digital features such as system performance logging, fully configurable alarms and remote system monitoring and control.

The COOLMAX SR employs a maximum power point tracking strategy which has been proven to be highly robust, resistant to local extremes, and results in power losses of less than 0.5% over the whole operating temperature range of a PV Array.





PRODUCT FEATURES

- 99% Peak Power Conversion Efficiency
- High input voltage for lower install cost
- Superior power advantage and MPPT response
- Common Positive wiring configuration
- Synchronous Rectification
- Front Panel Programmability
- Interactive TFT Touch Screen LCD Display
- Smart Multi-Stage Battery Charging Profile (Bulk, Absorption and Float Stages)
- Support for Active Battery Temperature Compensation
- Adjustable for all types of solar cells and battery arrays
- Support for low battery alarm or automatic low battery switch off circuit
- Master/Slave Configurability for parallel operation
- Modules can be paralleled at the output
- Manual Reset Button
- Auxiliary Output
- Over-voltage and Over-current Shutdown Protection
- CAN OR ModBus communications protocol options
- RS485 and USB comms ports
- Remote monitoring capability allows monitoring of:
 - Output voltage
 - Output current
 - Output charge (Ah/day)
 - PV voltage
 - PV current
 - Battery temperature
 - Fault and Error Conditions



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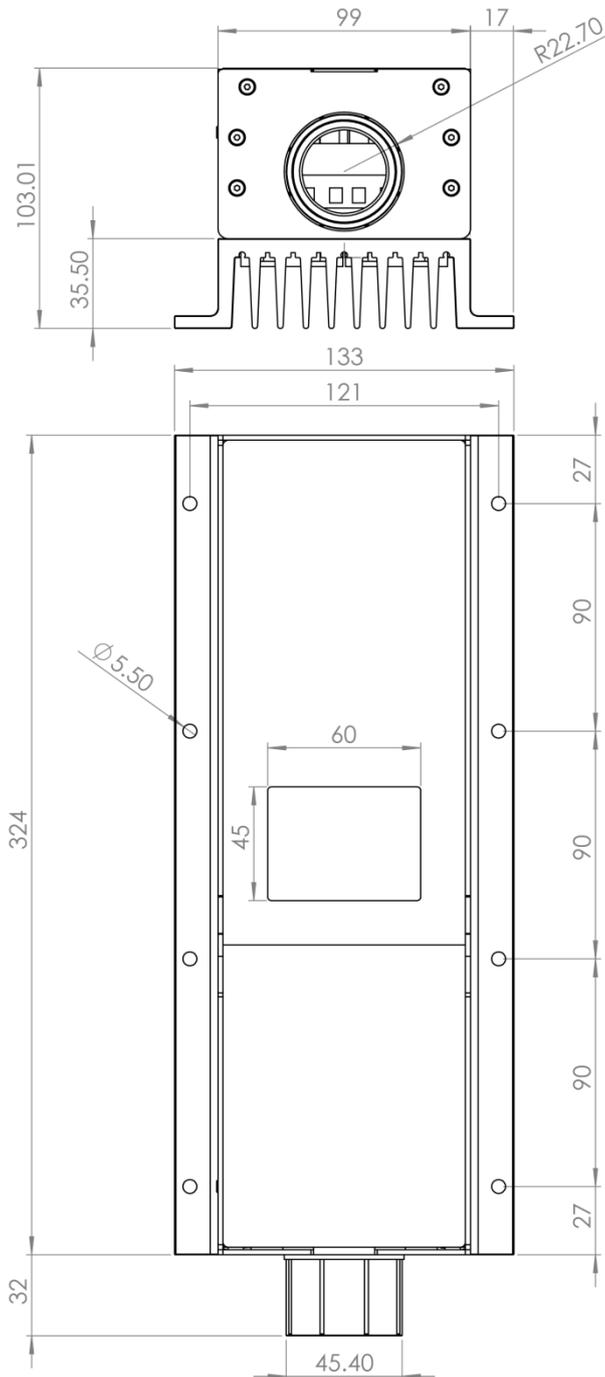
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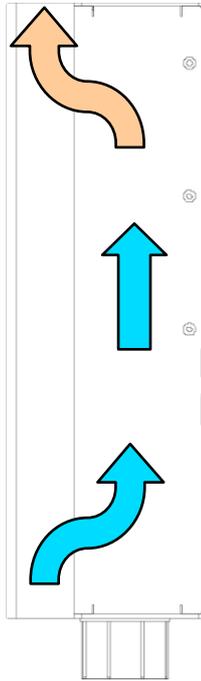
PRODUCT SPECIFICATIONS

CHARACTERISTIC	SRMVW	SRHVW
Nominal Battery Voltage - Selectable	24 to 84V	48 to 132V
Maximum Output Current	60A	45A
Maximum Recommended PV Array	5000W @ 84Vout(nom) 3800W @ 60Vout(nom) 3000W @ 48Vout (nom) 1500W @ 24Vout(nom)	5200W @ 132Vout(nom) 5000W @ 120Vout(nom) 4500W @ 96Vout(nom) 2300W @ 48Vout(nom)
Maximum PV Voltage Open Circuit	180V	290V
Power Conversion Efficiency	99+%	98.5+%
Battery Temperature Compensation	Yes	Yes
Operating Temperature Range	-20° to 50°+C	-20° to 50°+C
Remote Temperature Sensor	Included	Included
Storage Temperature	-30° to 70° C	-30° to 70° C
Self Consumption	100mA @ 20V	75mA @ 40V
Communication Protocol Options	CAN and Modbus RTU	CAN and Modbus RTU
Communication Ports	RS485 & USB	RS485 & USB
Required cabinet air exchange rate (intake at 40°C)	40 m ³ /hour	40 m ³ /hour
Operating temperature of heatsink at full rated power	35°C temperature rise	35°C temperature rise
Cable entry conduit diameter	40mm	40mm
High power wire size	16mm ² Max	16mm ² Max
Enclosure type	Indoor Type1	Indoor Type 1
Weight	3.7kg	3.7kg
Outer dimensions (L x W x H)	356 x 133 x 104 mm	356 x 133 x 104 mm
Languages (other language updates to come)	English	English

PRODUCT DIMENSIONS



PRODUCT AIRFLOW



Notes:

Inlet and outlet into heatsink fins are protected by fine mesh.

Stagnation of hot air in the space above the device will impede cooling of internal components and may reduce the lifetime of the device.

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