

# CoolMax SRX

## Charge Controller

### Maximum Power Point Tracking (MPPT)



#### Why choose the CoolMax?

- Superior Peak Power Efficiency - 99%
- Ultra-low heat Thermal Design
- Designed for Long Term Reliability
- Array Oversizing Support
- Built-In Overload and Thermal Protection
- Common Positive Wiring Configuration
- Master/ Slave Configuration Options
- Interactive Touch Screen Configuration
- Smart Multi-Stage Battery Charging
- Compatible with most Battery Systems
- Compliant with IEC62109-1

#### Models

- SRX 60 180
- SRX 45 290

#### Optional Extras

- GFI Pack (Ground Fault Interruption)
  - a. Adds internal Ground Fault Interruption for (+/-) functionally ground systems.
- Remote Temperature Sensor (3-15 Metres)
  - a. Allows for utilization of the CoolMax Battery Temperature Compensation.

The CoolMax SRX features over thirty years of AERL's MPPT experience, offering a superior tracking algorithm, an ultra-low loss, high efficiency thermal design, backed by our Australian factory warranty and local support.

With record-breaking conversion efficiencies, intelligent thermal management, and state of the art MPPT tracking, the SRX is a key component of any high-quality DC-Coupled remote power system.

Available options include Ground Fault Detection and Interruption solutions and Remote Temperature Sensing for battery temperature compensation.

General Specifications		
Parameter	Typical	
Weight	6.8 kg	
Dimensions (L x W x H)	460 x 226 x 111 mm	
Enclosure Type	Indoor Type1 / IP20	
Input / Output Power Connectors	Screw Terminals (8 mm <sup>2</sup> -> 42mm <sup>2</sup> )	
Characteristics	SRX 60 180	SRX 45 290
Nominal Battery Voltage - Selectable	32 to 84V	48 to 132V
Maximum Charge Current	60A	45A
Recommended PV Array	5000W @ 84Vout(nom) 4300W @ 60Vout(nom) 3500W @ 48Vout (nom) 2300W @ 32Vout(nom)	7000W @ 132Vout(nom) 6500W @ 120Vout(nom) 5200W @ 96Vout(nom) 2600W @ 48Vout(nom)
Maximum PV Short Circuit Current	35A	35A
Maximum PV Voltage Open Circuit	180V (coldest)	290V (coldest)
Minimum PV MP Voltage	1.3 * Vnom (Battery)	1.3 * Vnom (Battery)
Maximum Conversion Efficiency	98.7%	99%
Overload Behavior	Operating Point Shift (Power Limitation)	Operating Point Shift (Power Limitation)
Battery Temperature Compensation	Yes	Yes
Ambient Operating Temperature Range (Full Rated Output up to 80% Ambient ° C)	-20 to 50 °C	-20 to 50 °C
Remote Temperature Sensor Option	Yes	Yes
Storage Temperature	-30 to 70 °C	-30 to 70 °C
Self-Consumption	100mA @ 20V	75mA @ 40V
Communications Protocol Options	Modbus RTU & CAN bus	Modbus RTU & CAN bus
Communication Ports	RJ45 & USB	RJ45 & USB
Required Cabinet Air Exchange Rate (Intake @ 40°C)	40m <sup>3</sup> /hour	40m <sup>3</sup> /hour
Heatsink Temperature @ Full Power	35°C Rise	35°C Rise
Sealed Inductors & Internal Conformal Coating	Yes	Yes
Conforms to	IEC62109-1  RoHS CE & CTick	IEC62109-1  RoHS CE & CTick
Languages Available	English	English

Note: Specifications are subject to change without notice.

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