

# CoolMax SRX Charge Controller

Maximum Power Point Tracking (MPPT)



## Why choose the CoolMax?

- High Input Voltages for Ease of Install
- Superior Peak Power Efficiency – Over 98%
- PV Array Oversizing Support (+40%)
- Reverse Polarity and Current Protection
- Built-In Overload and Thermal Protection
- Designed for Long Term Reliability
- Master/ Slave Configuration Options
- Interactive Touch Screen Configuration
- Smart Multi-Stage Battery Charging
- Compatible with most Battery Systems
- Compliant with IEC 62109-1

## HV Models

- SRXMV 300/50
- SRXMV 300/60

## Optional Extras

- GFI Pack (Ground Fault Interruption)
  - a. Adds internal Ground Fault Interruption for (+/-) functionally ground systems.
- Remote Temperature Sensor ( 3-10 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)	480 x 226 x 111 mm
Enclosure Type	Indoor Type 1 / IP20
Input / Output Power Connectors	Screw Terminals (8 mm <sup>2</sup> -> 42mm <sup>2</sup> )

Characteristics	SRXMV 300/50	SRXMV 300/60
Nominal Battery Voltage / Vdc Range	24 V   48 V / 20 - 60	24 V   48 V / 20 - 60
Maximum Charge Current	50 A	60 A
Nominal PV Power	2880 W @ 48 Vnom 1440 W @ 24 Vnom	3456 W @ 48 Vnom 1728 W @ 24 Vnom
Maximum PV Short Circuit Current	32 A	32 A
Maximum PV Voltage Open Circuit	300 Voc (Coldest)	300 Voc (Coldest)
Minimum PV MP Voltage	1.3 * Vnom	1.3 * Vnom
Maximum Conversion Efficiency	98.3%	98.3%
Overload Behavior	Operating Point Shift (Power Limitation)	Operating Point Shift (Power Limitation)
Battery Temperature Compensation	Yes	Yes
Remote Temperature Sensor Option	Yes	Yes
Ambient Operating Temperature Range (Full Rated Output up to 80% Ambient °C)	-20 to 50 °C	-20 to 50 °C
Storage Temperature	-30 to 70 °C	-30 to 70 °C
Self-Consumption (Idle)	100 mA @ 20 V	100 mA @ 20 V
Communications Protocols	CANbus & RS485	CANbus & RS485
Communications Ports	RJ45 & USB (Mini B)	RJ45 & USB (Mini B)
Required Cabinet Air Exchange Rate (Intake @ 40°C)	14 m <sup>3</sup> /hour	16 m <sup>3</sup> /hour
Heatsink Temperature @ Full Power	30°C Rise	35°C Rise
Sealed Inductors & Conformal Coating	Yes	Yes
Conforms to	IEC 62109-1 EN 61000.6.3:2012 EN 61000.6.4:2012	IEC 62109-1 EN 61000.6.3:2012 EN 61000.6.4:2012
Warranty	3 – 5 Years (Conditions Apply)	3 – 5 Years (Conditions Apply)

#### Australian Energy Research Laboratories

##### Head Office

Unit 15, 1015 Nudgee Road  
Banyo, Queensland, Australia  
Tel: +61 (07) 3129 0330  
sales@aerl.com.au

