SRX-R

SRX-R 600/60-48 · 3456 W Charge Power



600 Vdc
Max PV input

60 A
Max charge current

3456 W
Nominal @ 48 V

96%
Peak efficiency

Specifications

The CoolMax SRX-R is a Maximum Power Point Tracker (MPPT) and battery charger built on over thirty years of AERL MPPT and charging experience. High conversion efficiency, intelligent thermal management and accurate tracking make it a key component of a high-quality DC-coupled power system.

General

Weight	**6.2 kg**
Dimensions (W × H × D)	**192 × 78 × 432 mm**
Enclosure	**Indoor Type 1 / IP20**
Mounting	**2U Rack**
I/O power connectors	**Backplane Connector**
Communications	**RS485 / CAN / USB**
Cooling method	**Active (serviceable)**
Cabinet air exchange (40 °C)	**25 m³/hour**
Max conversion efficiency	**96%**
MPPT tracking loss	**< 0.5%**
Self-consumption @ idle	**3.5 W**
Warranty	**2 yr · 5 yr registered · 10 yr (Plus 5)**

Battery (output)

Nominal battery voltage	**24 V / 48 V**
Battery voltage range	**18–30 Vdc (24 V) 40–60 Vdc (48 V)**
Max charge current	**60 A**
Nominal charge power @ 24 V	**1728 W**
Nominal charge power @ 48 V	**3456 W**
Charging method	**3-stage CCCV**
Temp. compensation	**50 mV/°C (default)**

PV input

Max PV input power	**Nom × 2.0**
Max PV input voltage (Voc)	**600 V**
Nominal device voltage	**336 V**
MPP voltage range (Vmp)	**170–540 V**
Min PV voltage (MPPT)	**100 V**
Max PV input current (Imp)	**18 A**
Max PV short-circuit (Isc)	**25 A**
Startup voltage	**60 V and ≥ V_{bat} + 10 V**
Total backfeed (Ibf Total)	**0 A**

Safety & environment

Overload behaviour	**Power limitation**
PV reverse-polarity protection	**Yes**
Pre-charge protection	**Yes**
Earth-leakage detection	**Yes**
Overvoltage category	**DC II**
Overvoltage protection	**DC Type II**
Safety protection class	**I**
Pollution degree (int. & ext.)	**II**
Max altitude	**2000 m**
Operating temperature	**−20 to 50 °C**
Storage temperature	**−30 to 70 °C**
Relative humidity	**4–95% NC**

- **2U rack format for easier installation & servicing**
- **Scalable for large storage applications**
- **Remote module control & monitoring**
- **Designed for long-term reliability**
- **PV array oversizing up to 200%**
- **Reverse polarity & current protection**
- **Built-in overload & thermal protection**
- **On-board ground fault detection**

Engineered and supplied by

Australian Energy Research Laboratories
1/75 Bluestone Circuit, Seventeen Mile Rocks
QLD 4073

Designed to meet

IEC 62109-1 (safety)
EN 61000-6-3 (EMC)
EN 61000-6-4 (EMC)

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