

Conext™ MPPT 100 600

6 kW 600 Vdc Solar Charge Controller

865-1034



The Conext™ MPPT 100 A 600 Vdc solar charge controller offers optimum system performance for DC coupled solar and storage installations, with easy, flexible installation of large PV arrays.

Optimum System Performance

- High power, 600 Vdc MPPT charge controller for DC coupled solar and storage
- 100A rating for output charging power up to 6 kW
- Flexibility for oversized PV array power ratings e.g. 7 kW or more
- Ideal for grid tied self-supply and off-grid systems with high PV to battery to grid efficiency
- Ability to recharge dead batteries from solar, providing maximum energy resilience for longer duration grid outages
- Harvest more energy with shade tolerant fast sweep MPPT algorithm

Flexible

- Flexible string sizing with a wide MPPT and PV operating voltage range
- Compatible with all brands of PV Modules and wide range of 24 V and 48 V battery technologies
- Stand-alone application or integration with XW Pro, XW+ and SW series storage inverters for a complete solar and storage solution

Easy to Install

- 2 string installations and smaller wire sizing with 600 Vdc PV arrays, allowing faster, lower cost installations
- No need for a combiner box with DC breakers or fuses
- Easy to install PV disconnect and NEC 2017 compliant rapid shutdown transmitter with the MPPT Disconnect RS accessory, UL1741 PVRSS certified

Compatible with Insight & Gateway

- Setup and configuration
- Remote monitoring & control with advanced data security
- Web and mobile app
- Multi-site management for installers

System Control Panel

- The SCP provides a wall mount display for monitoring and fault reporting, as well as setup and configuration



Technical Specifications

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MPPT 100 600

Electrical Specifications

Nominal battery voltage	24 and 48 VDC
PV array operating voltage	195 to 550 V
MPPT voltage range	195 to 510 VDC
Max PV array open circuit voltage	600 V including temperature correction factor
Battery voltage operating range	16 to 67 VDC
Max. array short circuit current at STC	35 A
Max. charge current	100 A
Max. and min. PV wire size in conduit	#6 AWG to #14 AWG (13.5 to 2.5 mm ²)

Max. output power	6000 W (nominal 48 V systems)
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Charger regulation method	Three-stage (bulk, absorption, float) plus manual equalization Two-stage (bulk, absorption) plus manual equalization
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Supported battery types	Flooded, GEL, AGM, Lithium-ion, Custom
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Efficiency

Max. power conversion efficiency	95% (nominal 48 V), 92% (nominal 24 V)
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General Specifications

Power consumption, night time	< 1 W
Battery temperature sensor	Included
Auxiliary output	Dry contact switching up to 60 VDC, 30 VAC, 8 A
Enclosure material	Enclosure material: Indoor, ventilated, aluminium sheet metal chassis
Knockout dimensions	44.0 mm, 35.0 mm, 28.2 mm, and 22.2 mm knockouts for 1-1/4, 1, 3/4, and 1/2 inch trade size fittings
IP degree of protection	IP20
Product weight	13.5 kg (29.8 lb)
Shipping weight	20.4 kg (45 lb)
Product dimensions (H x W x D)	76.0 x 22.0 x 22.0 cm (30.0 x 8.6 x 8.6 in)
Shipping dimensions (H x W x D)	113.39 x 28.68 x 31.90 cm (44.64 x 11.29 x 12.56 in)
Device mounting	Vertical wall mount
Ambient air temperature for operation	-20 °C to 65 °C (-4 °F to 149 °F), power derating above 40 °C
Storage temperature range	-40 °C to 85 °C (-40 °F to 185 °F)
Operating altitude	Sea level to 2000 m (6562 ft)
System network and remote monitoring	Available with Conext Gateway and Insight 2
Warranty	Please refer to our website, SESolar.com for the latest version of the warranty statement.
Part number	865-1034

Regulatory Approvals

Safety	CSA certified (UL1741, CSA 107.1) and CE marked for the Low-voltage Directive (EN50178)
EMC	FCC and Industry Canada (Class B), CE marked for the EMC Directive (EN61000-6-1, -6-3)

Compatible Products List

Conext XW Pro	XW Pro 6848 120/240 VAC (865-6848-21), XW Pro 8548 230 VAC 865-8548-55)
Conext XW+	XW+ 6848 120/240 VAC (865-6848-01), XW+ 8548 230 VAC (865-8548-61)
Conext SW IEC (230 VAC)	SW 4024 230 VAC (865-4024-55), SW 4048 230 VAC (865-4048-55)
Conext SW UL (120 VAC)	SW 4024 230 VAC (865-4024-21), SW 4048 230 VAC (865-4048-21)
Conext XW Power Distribution Panels	865-1015-01, 865-1014-01
Conext XW Mini Power Distribution Panels	865-1013-01
MPPT Disconnect RS and RS initiator Switch	865-1036, 865-1039
Conext Gateway	865-0329
Conext System Control Panel	865-1050-01
Conext Automatic Generator Start	865-1060-01
Conext Battery Monitor	865-1080-01