

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

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)
Charger regulation method	Three-stage (bulk, absorption, float) plus manual equalization Two-stage (bulk, absorption) plus manual equalization
Supported battery types	Flooded, GEL, AGM, Lithium-ion, Custom

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