

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) |
| 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 |