

# Conext MPPT 80 600 solar charge controller

Install for less, harvest more energy



## Product at a glance

The Conext™ MPPT 80 600 solar charge controller offers integration features and top performance that allow for easy installation of large PV array systems to the battery bank for the lowest overall cost.

Installing one Conext MPPT 80 600 is faster than installing multiple smaller charge controllers and lowers overall costs further by utilizing fewer PV strings, smaller wiring and conduit, and eliminating the need for PV combiner boxes and DC circuit breakers. Longer distances from array site to battery bank are also easier to accommodate than with smaller charge controllers. Advanced Fast Sweep Maximum Power Point Tracking (MPPT) charging technology helps harvest the most energy available from the PV array, even in partial shade conditions.

A battery charge current of 80 A allows for the connection of PV arrays rated up to 600 V STC (2560 W for 24 V systems, 4800 W for 48 V systems).

## Why choose Conext MPPT 80 600?

### Higher return on investment

- Installs faster with fewer costly components
- Improve battery life with selectable multi-stage temperature-compensated charging
- Harvest more energy with shade-tolerant fast sweep MPPT algorithm

### Designed for reliability

- Robust design through rigorous Multiple Environmental Over Stress Testing (MEOST)

### Flexible

- Remote monitoring available
- Compatible with any brand of PV module and any grounding method
- Stand-alone application or full integration with Conext XW Pro / XW+ / SW inverter chargers

### Easy to install

- Fewer string wires
- Smaller AWG wire
- No need for combiner box or GFI circuit breaker

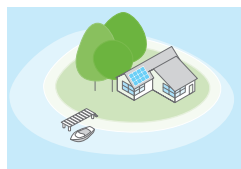
## Product applications



Backup power



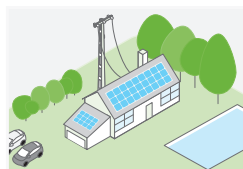
Residential grid-tie solar with backup power



Off-grid solar



Community electrification



Self-consumption

| Device short name                          | MPPT 80 600  |
|--|--|
| <b>Electrical specifications</b>           |  |
| Nominal battery voltage                    | 24 and 48 V (Default is 48 V)  |
| PV array operating voltage                 | 195 to 550 V   |
| Max. PV array open circuit voltage         | 600 V including temperature correction factor  |
| Battery voltage operating range            | 16 to 67 VDC   |
| Array short-circuit current                | 35 A (28 A @ STC)  |
| Max. charge current                        | 80 A   |
| Max. and min. PV wire size in conduit      | #6 AWG to #14 AWG (13.5 to 2.5 mm <sup>2</sup> )   |
| Max. output power                          | 2560 W (nominal 24 V), 4800 W (nominal 48 V)   |
| Charger regulation method                  | Three-stage (bulk, absorption, float) plus manual equalization<br>Two-stage (bulk, absorption) plus manual equalization  |
| Supported battery types                    | Flooded, GEL, AGM, Lithium-ion, Custom   |
| <b>Efficiency</b>                          |  |
| Max. power conversion efficiency           | 94% (nominal 24 V), 96% (nominal 48 V)   |
| <b>General specifications</b>              |  |
| Power consumption, night time              | < 1 W  |
| Battery temperature sensor                 | Included   |
| Auxiliary output                           | Dry contact switching up to 60 VDC, 30 VAC, 8A   |
| Enclosure material                         | Enclosure material: Indoor, ventilated, aluminium sheet metal chassis<br>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                            | 19.5 kg (43 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 45 °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  |
| Warranty                                   | Please refer to our website, SEsolar.com for the latest version of the warranty statement.   |
| Part number                                | 865-1032   |
| <b>Regulatory approvals</b>                |  |
| 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), C-Tick compliant   |
| <b>Compatible products part numbers</b>    |  |
| Conext XW Pro UL (120/240 V)               | XW Pro 6848 NA: 865-6848-21  |
| Conext XW+ IEC (230 V)                     | XW 8548 E: 865-8548-61   |
| Conext XW+ UL (120/240 V)                  | XW 6848 NA: 865-6848-01  |
| Conext SW IEC (230 V)                      | SW 4024: 865-4024-55 / SW 4048: 865-4048-55  |
| Conext SW UL (120 V)                       | SW 4024: 865-4024-21 / SW 4048: 865-4048-21  |
| Conext XW+ Power Distribution Panels       | For XW+ 230V: 865-1014-01 / For XW Pro and XW+ 120/240V: 865-1015-01   |
| 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  |

Specifications are subject to change without notice.