

Conext MPPT 80 600 solar charge controller

Install for less, harvest more energy

The Conext™ MPPT 80 600 solar charge controller offers an industry-first set of integration features and top performance that allows for large PV array systems to be easily installed and connected to the battery bank at the lowest overall cost. Installing one 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 by 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 MPPT charging technology helps harvest the most energy available from the PV array, even in partial shade conditions. 80 A of battery charge current 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

- Available remote monitoring and configuration
- Compatible with any brand of PV module, any grounding method
- Stand-alone application or full integration with Conext XW inverter charger system



Easy to install

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



Product applications



Backup power



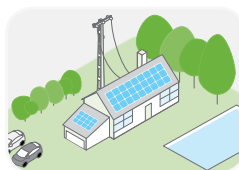
Residential grid-tie solar with backup power



off-grid solar



Community electrification



Self-consumption

| | |
|---|--|
| Device short name | MPPT 80 600 |
| Electrical specifications | |
| Nominal battery voltage | 24 and 48 V (Default is 48 V) |
| Max. PV array voltage (operating) | 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. wire size in conduit | #6 AWG to #14 AWG (13.5 to 2.5 mm ²) |
| Max. output power | 2560 W (nominal 24 V), 4800 W (nominal 48 V) |
| Charger regulation method | Three-stage (bulk, absorption, float) plus manual equalization Two-stage (bulk, absorption) plus manual equalization |
| Supported battery types | Flooded, GEL, AGM, Custom |
| Efficiency | |
| Max. power conversion efficiency | 94% (nominal 24V), 96% (nominal 48V) |
| General specifications | |
| Power consumption, night time | < 1 W |
| Battery temperature sensor | Included |
| Auxiliary output | Dry contact switching up to 60VDC, 30VAC, 8A |
| Enclosure material | Indoor, ventilated, aluminum sheet metal chassis with 22.22 mm and 27.76 mm (7/8 in and 1 in) knockouts and aluminum heat sink |
| IP degree of protection | IP20 |
| Product weight | 13.5 kg (29.8 lb) |
| Shipping weight | 17.4 kg (38.3 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) | 87.0 x 33.0 x 27.0 cm (34.3 x 13.0 x 10.6 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 | Five-year standard |
| Part number | 865-1032 |
| Regulatory approval | |
| 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 |
| Compatible products | |
| Conext XW+ inverter/charger (230 V) | XW 7048 E product no. 865-7048-61 XW 8548 E product no. 865-8548-61 see page 64 for more details |
| Conext XW+ inverter/charger (120/240 V) | XW 5548 NA product no. 865-5548-01 XW 6848 NA product no. 865-6848-01 see page 66 for more details |
| Conext SW (230 V) | SW 2524 product no. 865-2524-61 SW 4024 product no. 865-4024-61 SW 4048 product no. 865-4048-61 see page 60 for more details |
| Conext SW (120 V) | SW 2524 product no. 865-2524 SW 4024 product no. 865-4024 SW 4048 product no. 865-4048 see page 62 for more details |
| Conext System Control Panel | Product no. 865-1050 see page 84 for more details |
| Conext Automatic Generator Start | Product no. 865-1060 see page 86 for more details |
| Conext ComIBox | Product no. 865-1058 see page 82 for more details |

Specifications are subject to change without notice.