

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
Electrical specifications	
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 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, Lithium-ion, Custom
Efficiency	
Max. power conversion efficiency	94% (nominal 24 V), 96% (nominal 48 V)
General specifications	
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 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
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), C-Tick compliant
Compatible products part numbers	
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.