



MPPT 80 600 Solar Charge Controller

The Conext XW™ Series is one solution for a wide range of applications including grid-tie, off-grid, and backup power. It is comprised of manageable building blocks for single- or three-phase systems ranging from 4 kW to 36 kW. Within the system, the MPPT 80 600 solar charge controller regulates the proper charging voltage of the system's batteries.

The MPPT 80 600 offers an industry-first set of features to lower installation costs — fewer PV strings, longer home runs, smaller wiring and conduit, and virtual elimination of PV combiner boxes and circuit breakers (CBs). It accepts array voltages up to 600 V making it the most flexible solar charge controller on the market.

> Features:

Powerful

- 600 Vdc maximum input
 - Full power range: 230 to 550 Vdc
 - Operating range: 195 to 550 Vdc
 - MMPT range: 195 to 510 Vdc
 - PV array start voltage: 230 Vdc
- 80 A output
- Full output power at 45 °C without derating
- Charges 24 V or 48 V battery banks
- Fast Sweep™ MPPT Algorithm negates the impacts of shading on power production
- High efficiency: 96% nom @ 48 V and 94% nom @ 24 V
- Input overvoltage and undervoltage protection, output overcurrent and backfeed protection
- Over-temperature protection and power derating when ambient temperatures are high

Cost-efficient

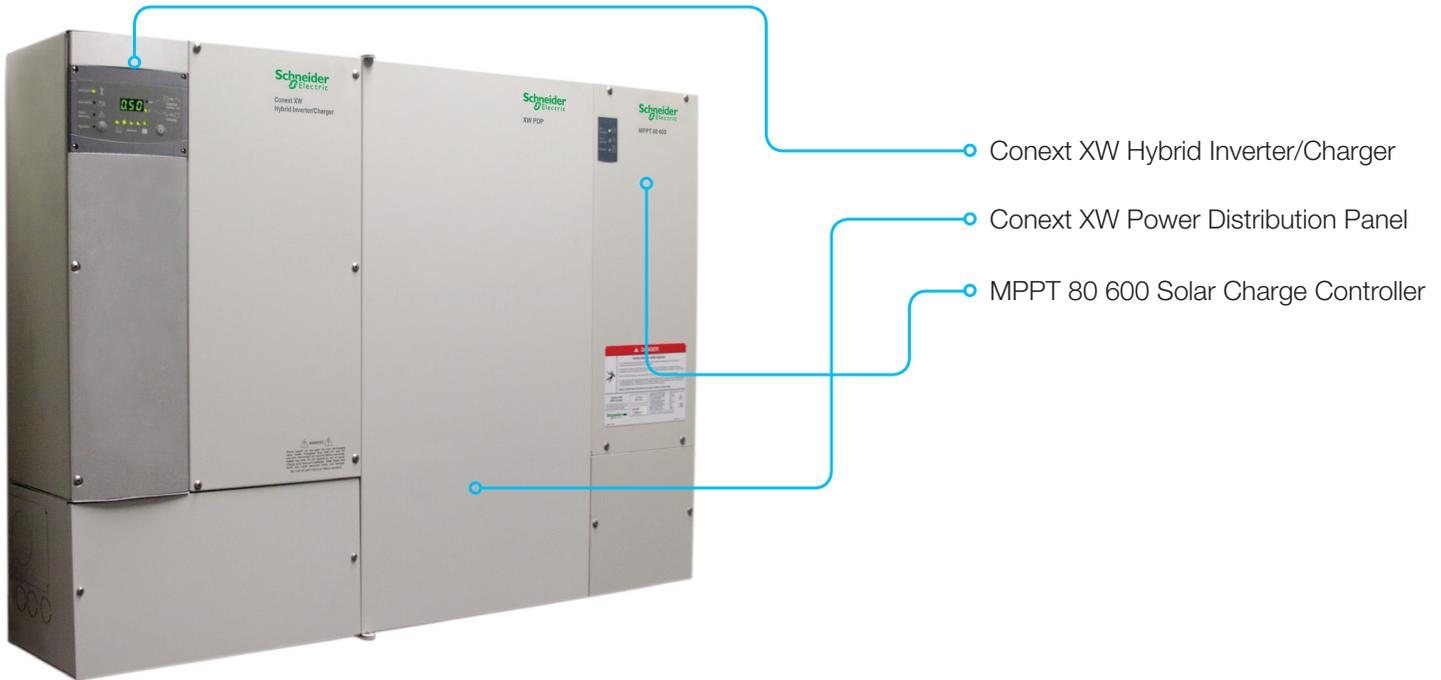
- Facilitates smaller AWG wire on runs due to higher voltage and lower losses
- Fewer parts and simpler system reduce design and installation costs
- Combiner box and CBs eliminated
- Built-in GFP and indicator
- Battery temperature sensor included

Flexible

- Configurable for positive, negative, and ungrounded PV systems
- Long PV strings allow for optimal module configuration and performance
- PDP Mounting Compatible
- Used with both the Conext XW and Conext SW inverter/charger systems
- Five-year standard warranty



Typical system configuration



MPPT 80 600

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
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)
Charger regulation method	Three-stage (bulk, absorption, float) plus manual equalization Two-stage (bulk, absorption) plus manual equalization

General specifications

Power consumption, night time	< 1 W
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
Product weight	13.5 kg (29.8 lb)
Shipping weight	17.4 kg (38.3 lb)
Product dimensions (H x W x D)	76 x 22 x 22 cm (30 x 8.625 x 8.625 in.)
Shipping dimensions (H x W x D)	87 x 33 x 27 cm (34.3 x 13 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 2,000 m (6,562 ft)
Warranty	Five-year standard
Part number	865-1032

Regulatory approvals

CSA Certified (UL 1741, CSA 107.1)

Specifications are subject to change without notice.

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