

# MPPT PV Optimization 600 Vdc Solar Charge Controllers

6 kW MPPT 100 600 (Part Number 865-1034)

4.8 kW MPPT 80 600 (Part Number 865-1032)



The MPPT 80 and MPPT 100 600 Vdc Solar Charge Controllers optimize the power from PV arrays for DC coupled solar and storage installations, with easy, flexible installation.

## Optimum System Performance

- High power, 600 Vdc MPPT PV optimization and battery charge control
- Flexibility for oversized PV array power ratings up to 8.5 kW with the MPPT 100 or 6.8 kW with the MPPT 80
- High efficiency from PV to battery to grid, ideal for the self-consumption of solar energy
- Black start 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 XW Pro and SW series hybrid inverters for a complete grid tied or off grid 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

### Energy Management

- Setup and configuration
- Remote monitoring & control with advanced data security
- Web and mobile app
- Multi-site management for installers



Insight Energy Management

# Technical Specifications

	MPPT 80 600	MPPT 100 600
<b>Electrical Specifications</b>		
Max PV array open circuit voltage	600 V	600 V
MPPT voltage range	195 to 510 VDC	195 to 510 VDC
PV array operating voltage	195 to 550 V	195 to 550 V
Max. array short circuit current at STC	28 A	35 A
Max. input operating current	23 A	29 A
Max. output power	4800 W (nominal 48 V systems)	6000 W (nominal 48 V systems)
Nominal battery voltage	24 and 48 VDC	24 and 48 VDC
Battery voltage operating range	16 to 67 VDC	16 to 67 VDC
Max. output charge current	80 A	100 A
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	
<b>Efficiency</b>		
Max. power conversion efficiency	95% (nominal 48 V), 92% (nominal 24 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, 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)	
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 Insight Energy Management	
Warranty	Please refer to our website, <a href="http://SESolar.com">SESolar.com</a> for the latest version of the warranty statement.	
Part number	865-1032	865-1034
<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)	
<b>Compatible Products List</b>		
XW Pro hybrid inverter	XW Pro 6848 120/240 VAC (865-6848-21), XW Pro 8548 230 VAC 865-8548-55)	
XW+ hybrid inverter	XW+ 8548 230 VAC (865-8548-61)	
SW IEC (230 VAC)	SW 4024 230 VAC (865-4024-55), SW 4048 230 VAC (865-4048-55)	
SW UL (120/240 VAC)	SW 4024 120/240 VAC (865-4024-21), SW 4048 120/240 VAC (865-4048-21)	
XW Power Distribution Panels	865-1015-01, 865-1014-01	
XW Mini Power Distribution Panels	865-1013-01	
MPPT Disconnect RS and RS initiator Switch	865-1036, 865-1039	
Insight Energy Management	InsightHome (865-0330), InsightFacility (865-0335), Insight	
Conext System Control Panel	865-1050-01	
Conext Automatic Generator Start	865-1060-01	
Conext Battery Monitor	865-1080-01	