

XW Pro

6.8/8.5 kW Hybrid Inverter for North America

865-6848-21



Protect your home's power supply when the grid goes out. Save on energy costs with utility time of use and demand charge optimization. The XW Pro solar hybrid inverter is the heart of your home power system, connecting solar and battery storage with the grid for backup power and energy security. It can be used for solar and storage, or backup power systems without solar.

Backup power performance

- Reliable operation of backup power and off-grid loads with a high overload power rating (2x)
- Seamless transition to backup power with an integrated high-speed transfer switch
- Grid and Generator input ports
- Field proven product quality and reliability, building on two decades of experience in solar and storage

Flexible

- 120/240 V output with stacking capability up to 4 units
- Configurable for 120 V output for 3 phase systems
- Connects solar with Conext™ MPPT Charge Controllers or PV inverters for DC-coupled or AC-coupled systems
- Lithium Ion battery integration
- Grid tied and off-grid systems, Rule 21, HECO Rule 14H and PREPA compliant

Easy to install

- Configures quickly using Insight
- AC Out port for backuploads
- Full ecosystem and accessories for single unit or scalable systems

Smart energy management

- Optimize energy consumption for time of use rates or demand charges
- Self-consumption of solar energy

Compatible with Insight

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



Technical Specifications

| | XW Pro 6848 NA 120/240 V | XW Pro 6848 NA 120 V |
|---|---|--|
| Inverter AC Output (Standalone) | | |
| Output power (continuous) at 25°C | 6800 W | 5760 W |
| Overload 30 min/60 sec at 25°C | 8500 W/12000 W | 7200 W/12000 W |
| Output power (continuous) at 40°C | 6000 W | 5760 W |
| Maximum output current 60 seconds (rms) | 52 A (240 V) | 104 A (120 V) |
| Output frequency | 50/60 Hz | 50/60 Hz |
| Output voltage | Split phase 120/240 V +/- 3% | 120 V +/- 3% |
| Total harmonic distortion at rated power | < 5 % | < 5 % |
| Idle consumption search mode | < 8 W | < 8 W |
| Input DC voltage range | 40 to 64 V (48 V nominal) | 40 to 64 V (48 V nominal) |
| Maximum input DC current | 180 A | 180 A |
| Charger DC Output | | |
| Maximum output charge current | 140 A | 120 A |
| Output charge voltage range | 40 – 64 V (48 V nominal) | |
| Charge control | Three stage, two stage, boost, external BMS, custom | |
| Charge temperature compensation | Battery temperature sensor included | |
| Power factor corrected charging | 0.98 | |
| Compatible battery types | Flooded (default), Gel, AGM, Lithium ion, custom | |
| AC Input | | |
| AC 1 (grid) input current (selectable limit) | 3 – 60 A (60 A default) | 3 – 60 A (60 A default) |
| AC 2 (generator) input current (selectable limit) | 3 – 60 A (60 A default) | 3 – 60 A (60 A default) |
| Automatic transfer relay rating/typical transfer time | 60 A / 8 ms | 60 A / 8 ms |
| AC input voltage limits (bypass/charge mode) | L-L: 156 - 280 V (240 V nominal) | L-N: 78 - 140 V (120 V nominal) |
| AC input frequency range (bypass/charge mode) | 52 – 68 Hz (allowable) | 52 – 68 Hz (allowable) |
| AC Grid-Tie Output | | |
| Grid sell power | 6000 W | 5760 W |
| Grid sell current (selectable limit) | 0 to 27 A (240 V) | 0 to 48 A (120 V) |
| Efficiency | | |
| Peak | 95.1% | 94.8% |
| CEC weighted efficiency | 94.1% | 93.6% |
| General Specifications | | |
| Part number | 865-6848-21 | |
| Product/shipping weight | 55.2 kg (121.7 lb)/ 76.7 kg (169.0 lb) | |
| Product dimensions (H x W x D) | 58 x 41 x 23 cm (23 x 16 x 9 in) | |
| Shipping dimensions (H x W x D) | 71.1 x 57.2 x 39.4 cm (28.0 x 22.5 x 15.5 in) | |
| IP degree of protection | NEMA Type 1 Indoor | |
| Operating air temperature range | -25°C to 70°C (-13°F to 158°F) (power derated above 25°C (77°F)) | |
| Features | | |
| System monitoring and network communications | Available (through Insight) | |
| Intelligent features | Grid sell, peak load shave, generator support, solar self-supply | |
| Auxiliary port | 0 to 12 V, maximum 250 mA DC output, selectable triggers | |
| Off-grid AC coupling | Frequency shifting | |
| Regulatory Approval | | |
| Safety | UL1741, CSA 107.1 | |
| EMC directive | FCC and Industry Canada Class B | |
| Interconnect | IEEE 1547, UL 1741-SA, Rule 21, Rule 14H, PREPA, and CSA 107.1 | |
| Compatible Products Part Numbers | | |
| Power Distribution Panels | XW Mini PDP (865-1013-01), XW PDP (865-1015-01) | XW PDP without AC Breakers (865-1014-01), 60 A Three Phase Breaker Kit (865-1315-01) |
| MPPT Charge Controllers | MPPT 100 600 (865-1034), MPPT 80 600 (865-1032), MPPT 60 150 (865-1030-1) | |
| Monitoring | InsightHome (865-0330), InsightFacility (865-0335) | |
| Accessories | Automatic Generator Start (865-1060), Battery Monitor (865-1080-01), Configuration Tool (865-1155-01) | |