

Solis-(50-66)K-US-SW

Solis Three Phase US Inverters



Features:

- ▶ Compact and lightweight design inside a corrosion-resistant NEMA 4X enclosure
- ▶ Designed for all commercial, industrial, and utility-scale applications
- ▶ Transformer-less three phase design with 480 Vac output
- ▶ 98.8% efficient (98.4% CEC) with ultra-low start up voltage
- ▶ Industry-leading 4 MPPT designs with fast (<5 sec.) MPPT response times
- ▶ Integrated Arc Fault Circuit Interrupt (AFCI) option
- ▶ RS-485 Modbus communication protocol with Wi-Fi interface
- ▶ 2x20Z LCD Display
- ▶ Web-based data monitoring with downloadable Solis Mobile App
- ▶ 10 years standard warranty with extension options



Model:

Solis-50K-US-SW

Solis-60K-US-F-SW

Solis-50K-US-F-SW

Solis-66K-US-F-SW

Datasheet

| Model | Solis-50K-US-SW | Solis-50K-US-F-SW | Solis-60K-US-F-SW | Solis-66K-US-F-SW |
|-------|-----------------|-------------------|-------------------|-------------------|
|-------|-----------------|-------------------|-------------------|-------------------|

DC Values

| | | | | |
|---|---------|--------|--------|--------|
| Max. DC input power (watts) | 64000 | 75000 | 90000 | 90000 |
| Max. voltage (volts) | 1000 | | | |
| Rated voltage (volts) | 720 | | | |
| Startup voltage (volts) | 200 | | | |
| Operating MPPT voltage range (volts) | 200-850 | | | |
| Max. usable input current per MPPT (amps) | 22*4 | 28.5*4 | 28.5*4 | 28.5*4 |
| Max. short circuit input current (amps) | 55*4 | | | |
| Number of MPPTs/inputs per MPPT | 4/4 | | | |

AC Values

| | | | | |
|---|--|----------|----------|-----------|
| Nominal output power (watts) | 50000 | 50000 | 60000 | 66000 |
| Max. apparent output power (VA) | 50000 | 50000 | 60000 | 66000 |
| Nominal grid voltage (volts) | 480 | | | |
| Nominal grid frequency (hertz) | 60 | | | |
| Operating phase | Three Phase | | | |
| Max. output current (amps) | 60.2 | 60.2 | 72.2 | 79.4 |
| Max. overcurrent protection device (amps) | 80 | 80 | 90 | 100 |
| Max output fault current and duration | 80,200ms | 80,200ms | 90,200ms | 100,200ms |
| Power factor | 1 (default) and 0.8 leading ... 0.8 lagging adjustable | | | |
| Grid current THD | <3% | | | |

Efficiency

| | |
|-------------------------|--------|
| Peak efficiency | 98.8% |
| CEC weighted efficiency | 98.4% |
| MPPT efficiency | >99.9% |

Protection

| | |
|--|-----|
| Ground fault monitoring | Yes |
| Islanding protection | Yes |
| Integrated AFCI(DC arc-fault circuit protection) | Yes |
| Integrated DC switch | Yes |
| Rapid shutdown | Yes |

General Data

| | | |
|---|--|-------------------------------|
| Connections | 4 knockout for 2" conduit at bottom and sides | |
| Surge protection | DC class II and AC class III(optional) | |
| Dimensions (width*height*depth) | 24.9*47.6*14.7in (633*1208*374mm) | |
| Weight (inverter)/weight (wiring box) | 147lbs (66.7kgs)/35.4lbs (16kgs) | |
| Topology | Transformerless | |
| Internal consumption | <1W (night) | |
| Ambient operating temperature range | -13°F to 140°F (-25°C to 60°C) | |
| Storage environment | -13°F to 176°F (-25°C to 80°C) | |
| Enclosure type | NEMA 4X | |
| Noise emission (typical) | <30dB(A) | <60dB(A) |
| Cooling concept | Natural convection | Intelligent redundant cooling |
| Max.operating altitude without derating | 13, 120ft (4000m) | |
| Compliance | UL 1741, UL 1741 SA, Rule 21 Phase I and II compliant (ready for Phase III), Rule 21, UL 1998, UL 1699B, IEEE 1547, FCC Part 15 (Class A&B), CAN/CSA C22.2 107.1-1 | |

Features

| | |
|------------------------|--|
| Communication protocol | Modbus RTU (Sunspec compliant) |
| Communication | Modbus with optional cellular and Wi-Fi |
| Display | LCD-2x20 Z |
| Warranty | 10 Years standard (extendable to 20 years) |