

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

Solis Three Phase US Inverters



Features:

- ▶ Max. efficiency 98.8% (CEC efficiency 98.4%) with ultra-low start up voltage
- ▶ 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
- ▶ Wide voltage range and low startup 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
- ▶ Web-based data monitoring with downloadable Solis Mobile App
- ▶ 10 years standard warranty with extension options



Ordering: Solis-(50-66K)-US-F

- -LSW-SPRT = Sunspec Transmitter
- -LSW-RSS = Tigo transmitter
- -SW = No Transmitter

Datasheet

Model Name	Solis-50K-US-F-XX*	Solis-60K-US-F-XX*	Solis-66K-US-F-XX*
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Input DC

Recommended max. PV power	75000W	90000W	90000W
Max. input voltage	1000V		
Rated voltage	720V		
Start-up voltage	200V		
MPPT voltage range	200-850V		
Max. input current	4*28.5A		
Max. short circuit current	4*55A		
MPPT number/Max. input strings number	4/16		

Output AC

Rated output power	50000W	60000W	66000W
Max. apparent output power	50000VA	60000VA	66000VA
Max. output power	50000W	60000W	66000W
Rated grid voltage	3Φ/PE, 480V		
Rated grid frequency	60Hz		
Max. output current	60.2A	72.2A	79.4A
Power Factor	>0.99 (0.8 leading - 0.8 lagging)		
THDi	<3%		

Efficiency

Max. efficiency	98.8%
CEC efficiency	98.4%

Protection

DC reverse-polarity protection	Yes
Ground fault monitoring	Yes
Anti-islanding protection	Yes
Integrated AFCI (DC arc-fault circuit protection)	Yes
Integrated DC switch	Yes
Rapid shutdown	Yes

General Data

Dimensions (W*H*D)	SW: 24.9*40.4*14.7 in (633*1027*374 mm), LSW: 24.9*47.5*14.7 in (633*1206*374 mm)
Weight (inverter/wiring box)	SW: 147 lbs (66.7 kgs)/35.4 lbs (16 kgs), LSW: 147 lbs (66.7 kgs)/43.4 lbs (19.7 kgs)
Topology	Transformerless
Self consumption	<1W (night)
Relative humidity	0-100%
Operating ambient temperature range	-13°F to 140°F (-25°C to 60°C)
Storage environment	-13°F to 176°F (-25°C to 80°C)
Ingress protection	NEMA 4X
Cooling concept	Intelligent redundant fan-cooling
Max. operation altitude	13,120 ft (4000 m)
Compliance	UL 1741, UL 1741SA, UL 1998, UL 1699B, IEEE 1547, FCC Part 15 (Class A & B), CAN/CSA C22.2 107.1-1, California Rule 21 phase I,II&III

Features

DC connection	4 knockout for 2" conduit at bottom and side, Fuse screw terminal (Copper 12-6AWG)
AC connection	4 knockout for 2" conduit at bottom and side, OT terminal (Copper or aluminum 8-2AWG) Aluminum requires bi-metallic compatible terminal
Display	LCD
Communication	Modbus RTU (Sunspec compliant), RS485, Optional: Cellular, Wi-Fi

* **Ordering guidelines:** Determine the basic model from above and add your desired features as described on PG1

Ex: Solis-50K-US-F-LSW-SPRT, (inverter internal Sunspec transmitter)