SolarEdge Home Hub Inverter

Single Phase, for North America For Inverters Assembled in the USA

SE3800H-US / SE5700H-US / SE7600H-US / SE10000H-US / SE11400H-US



HOME BACKUP

Single phase inverter for storage and backup applications

- The ultimate home energy manager in charge of PV production, battery storage, backup operation during a power outage*, EV Charging, and smart energy devices
- Record-breaking 99% weighted efficiency with up to 300% DC oversizing
- Supports LRA can provide the required energy for HVAC systems starting during backup operation
- Integrates seamlessly with the complete SolarEdge Home Smart Energy Ecosystem, through SolarEdge Home Network
- Module-level monitoring and visibility of battery status, PV production, and selfconsumption data

- Fast and easy installation small and lightweight, with reduced commissioning time
- A scalable solution that supports future homeowner needs through easy connection to a growing ecosystem of products
- Advanced safety features with integrated arc fault protection and rapid shutdown for 690.11 and 690.12
- Advanced reliability with automotive-grade components
- Embedded revenue grade production data, ANSI C12.20 Class 0.5
- IP65-rated, for indoor and outdoor installations



^{*}Requires additional hardware and firmware version upgrade.

/ SolarEdge Home Hub Inverter

Single Phase, for North America

SE3800H-US / SE5700H-US / SE7600H-US / SE10000H-US / SE11400H-US

Model Number ⁽¹⁾⁽²⁾	SE3800H-US	SE5700H-US	SE7600H-US	SE10000H-US	SE11400H-US	Unit	
OUTPUT – AC ON GRID			-		1		
Rated AC Power	3800 @ 240V 3300 @ 208V	5760 @ 240V 5000 @ 208V	7600	10000	11,400 @ 240V 10,000 @ 208V	W	
Maximum AC Power Output	3800 @ 240V 3300 @ 208V	5760 @ 240V 5000 @ 208V	7600	10000	11,400 @ 240V 10,000 @ 208V	W	
AC Output Voltage (Nominal)	208 / 240						
AC Output Voltage (Range)	183 – 264						
AC Frequency Range (min - nom - max)	59.3 - 60 - 60.5 ⁽³⁾						
Maximum Continuous Output Current	16	24	32	42	48	А	
GFDI Threshold	1						
Total Harmonic Distortion (THD)	< 3						
Power Factor	1, adjustable -0.85 to 0.85						
Utility Monitoring, Islanding Protection, Country Configurable Thresholds	Yes						
Charge Battery from AC (if allowed)	Yes						
Typical Nighttime Power Consumption	< 2.5						
OUTPUT – AC STAND-ALONE (BACKUP)(4)(5)							
Rated AC Power in Stand-alone Operation	11,400 ⁽⁶⁾						
Maximum Stand-alone Capacity	11,400						
AC L-L Output Voltage Range in Stand-alone Operation	211 – 264						
AC L-N Output Voltage Range in Stand-alone Operation	105 – 132						
AC Frequency Range in Stand-alone (min - nom - max)	55 – 60 – 65						
Maximum Continuous Output Current in Stand-alone Operation	48						
GFDI	1						
THD	< 5						
OUTPUT – SOLAREDGE HOME EV CHARGER AC							
Rated AC Power	9600						
AC Output Voltage Range	211 – 264					Vac	
On-Grid AC Frequency Range (min - nom - max)	59.3 – 60 – 60.5						
Maximum Continuous Output Current @240V (grid, PV and battery)	40						
INPUT – DC (PV AND BATTERY)							
Transformer-less, Ungrounded			Yes				
Max Input Voltage	480						
Nom DC Input Voltage	380						
Reverse-Polarity Protection	Yes						
Ground-Fault Isolation Detection	600kΩ Sensitivity						
INPUT – DC (PV)			<u> </u>				
Maximum DC Power @ 240V	11,400	11,520	15,200	20,000	22,800	W	
Maximum DC Power @ 208V	6600	10,000	-	-	20,000	W	
Maximum Input Current ⁽⁷⁾ @ 240V	20	30.5	40	53	60	Add	
Maximum Input Current ⁽⁷⁾ @ 208V	17.5	27	-	-	53	Add	
Maximum Input Short Circuit Current	11.5	21	45		, ,,	Add	
Maximum Inverter Efficiency	99.2					%	
CEC Weighted Efficiency	99 @ 240V				99 @ 240V 98.5 @ 208V	%	
2-pole Disconnection	Yes						

⁽¹⁾ These specifications apply to inverters with part numbers SExxxxH-USMNUxxx5 and SExxxxH-USMNFxxx5 and connection unit model number DCD-1PH-US-PxH-F-x.

⁽²⁾ Inverters with part number SExxxxH-USMNFxxx5 are intended for upgrade installations only, as part of the "Re-Energize" program. Use on non-upgrade installations will revoke the product warranty.

⁽³⁾ For other regional settings please refer to the <u>SolarEdge Inverters</u>, <u>Power Control Options Application Note</u>.

⁽⁴⁾ Not designed for non-grid connected applications and requires AC for commissioning. Stand-alone (backup) functionality is only supported for the 240V grid.

⁽⁵⁾ For LRA (Locked Rotor Amperage) values please refer to the <u>LRA for NAM Application Note</u>.

⁽⁶⁾ For models SE7600H-US and below, the rated AC stand-alone power is configurable between 7600W or 11,400W from CPU version 4.20.xx.

⁽⁷⁾ A higher current source may be used. The inverter will limit its input current to the values stated.

/ SolarEdge Home Hub Inverter

Single Phase, for North America

SE3800H-US / SE5700H-US / SE7600H-US / SE10000H-US / SE11400H-US

Model Number ⁽¹⁾⁽²⁾	SE3800H-US	SE5700H-US	SE7600H-US	SE10000H-US	SE11400H-US	Units		
OUTPUT – DC (BATTERY)								
Supported Battery Types	SolarEdge Home Battery, LG RESU Prime							
Number of Batteries per Inverter	Up to 3 SolarEdge Home Battery, up to 2 LG RESU Prime							
Continuous Power ⁽⁸⁾	11,400 @ 240V 3800 @ 208V	11,400 @ 240V 5000 @ 208V	11400 @240V		11,400 @ 240V 10,000 @ 208V	W		
Peak Power ⁽⁸⁾	11,400 @ 240V 3800 @ 208V	11,400 @ 240V 5000 @ 208V	11/100 (a) 2/100/		11,400 @ 240V 10,000 @ 208V	W		
Maximum Input Current	30							
2-pole Disconnection	Up to the inverter's rated stand-alone power							
SMART ENERGY CAPABILITIES								
Consumption Metering	Built-in ⁽⁹⁾							
Stand-alone & Battery Storage	With Backup Interface (purchased separately) for service up to 200A; up to 3 inverters							
EV Charging	Direct connection to the SolarEdge Home EV Charger							
ADDITIONAL FEATURES								
Supported Communication Interfaces	RS485, Ethernet, Cellular ⁽¹⁰⁾ , Wi-Fi (optional), SolarEdge Home Network (optional)							
Revenue Grade Metering, ANSI C12.20	Built-in ⁽⁹⁾							
Integrated AC, DC and Communication Connection Unit	Yes							
Inverter Commissioning	With the SetApp mobile application using built-in Wi-Fi Access Point for local connection							
DC Voltage Rapid Shutdown (PV and Battery)	Yes, NEC 690.12							
STANDARD COMPLIANCE								
Safety	UL 1741, UL 1741SA, UL 1741SB, UL 1699B, CSA 22.2#107.1, C22,2#330, C22.3#9, ANSI/CAN/UL 9540							
Grid Connection Standards	IEEE1547 and IEEE-1547.1, Rule 21, Rule 14H							
Emissions	FCC Part 15 Class B							
INSTALLATION SPECIFICATIONS								
AC Terminals	L1, L2, N terminal blocks, PE busbar for inverter connection L1, L2 terminal blocks, PE busbar for EV Charger AC connection							
DC Terminals	4 x terminal block pairs for PV input; 1 x terminal block pair for battery input							
AC Output and EV AC Output Conduit Size / AWG Range	1" maximum / 14-4 AWG							
DC Input (PV and Battery) Conduit Size / AWG Range	1" maximum / 14-6 AWG							
Dimensions with Connection Unit (H x W x D)	21.06 x 14.6 x 8.2 / 535 x 370 x 208							
Weight with Connection Unit	44.9 / 20.3							
Noise	< 50							
Cooling	Natural Convection							
Operating Temperature Range	-40 to +140 / -40 to +60 ⁽¹¹⁾							
Protection Rating		NEMA 4X						

⁽⁸⁾ Discharge power is limited up to the inverter's rated AC power for on-grid and stand-alone applications, as well as up to the installed batteries' rating.

⁽⁹⁾ For consumption metering current transformers should be ordered separately: SECT-SPL-225A-T-20 or SEACT1250-400NA-20. Revenue grade metering is only for production metering.

⁽¹⁰⁾ Information concerning the data plan terms & conditions is available in <u>SolarEdge Communication Plan Terms and Conditions.</u>

⁽¹¹⁾ Full power up to at least 50°C / 122°F; for power derating information refer to the Temperature Derating Technical Note for North America.

SolarEdge is a global leader in smart energy technology. By leveraging world-class engineering capabilities and with a relentless focus on innovation, SolarEdge creates smart energy solutions that power our lives and drive future progress.

SolarEdge developed an intelligent inverter solution that changed the way power is harvested and managed in photovoltaic (PV) systems. The SolarEdge DC optimized inverter maximizes power generation while lowering the cost of energy produced by the PV system.

Continuing to advance smart energy, SolarEdge addresses a broad range of energy market segments through its PV, storage, EV charging, UPS, and grid services solutions.

solaredge.com

© SolarEdge Technologies, Ltd. All rights reserved. SOLAREDGE, the SolarEdge logo, OPTIMIZED BY SOLAREDGE are trademarks or registered trademarks of SolarEdge Technologies, Inc. All other trademarks mentioned herein are trademarks of their respective owners. Date: February 19, 2024 DS-000229-NAM Subject to change without notice.

Cautionary Note Regarding Market Data and Industry Forecasts: This brochure may contain market data and industry forecasts from certain third-party sources. This information is based on industry surveys and the preparer's expertise in the industry and there can be no assurance that any such market data is accurate or that any such industry forecasts will be achieved. Although we have not independently verified the accuracy of such market data and industry forecasts, we believe that the market data is reliable and that the industry forecasts are reasonable.



