SolarEdge Home Hub Inverter

Single Phase, for Europe

SE2500H / SE3000H / SE3680H / SE4000H / SE5000H / SE6000H / SE8000H / SE10000H

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*, and smart energy devices
- Record-breaking up to 99% weighted efficiency with up to 200% DC oversizing
- Integrates seamlessly with the complete SolarEdge Home ecosystem, through SolarEdge Home Network
- Small, lightweight, and easy to install
- Advanced safety features with integrated arc fault protection
- Enables module-level monitoring and full visibility of battery status, PV production, and self-consumption data
- A scalable solution that supports future homeowner needs through easy connection to a growing ecosystem of products

*Requires additional hardware and firmware version upgrade.

SolarEdge Home Hub Inverter

Single Phase, for Europe

SE2500H / SE3000H / SE3680H / SE4000H / SE5000H / SE6000H

Applicable to inverters with part number	SEXXXXH-RWBMNBF54						Units
	SE2500H(1)	SE3000H	SE3680H	SE4000H	SE5000H	SE6000H	
OUTPUT – AC ON GRID							
Rated AC Power	2500	3000	3680	4000	5000(2)	6000	VA
Maximum AC Power Output	2500	3000	3680	4000	5000(2)	6000	VA
AC Output Voltage (Nominal)	220 – 230						Vac
AC Output Voltage (Range)	184 – 264.5						Vac
AC Frequency Range (Nominal)	50 ± 5						Hz
Maximum Continuous Output Current RMS	12.0	14.0	16.0	18.5	23.0	27.5	A
Fault Current Protection (100ms)	40						A
Total Harmonic Distortion (THD)	< 3						%
Power Factor	1, adjustable -0.9 to 0.9						
Utility Monitoring, Islanding Protection, Country Configurable Thresholds	Yes						
Charge Battery from AC (if allowed)	Yes						
Typical Nighttime Power Consumption	< 2.5						W
OUTPUT – AC BACKUP							
Rated AC Power in Backup Operation	6000						W
AC Output Voltage (Nominal)	220 – 230						Vac
AC Output Voltage (Range)	184 – 264.5						Vac
AC Frequency	50/60 ± 5						Hz
Maximum Continuous Output Current in Backup Operation	27.5						A
Fault Current Protection (100ms)	40						A
INPUT – DC (PV AND BATTERY)							
Transformer-less, Ungrounded	Yes						
Maximum Input Voltage	480						Vdc
Nominal DC Input Voltage	380						Vdc
Ground-Fault Isolation Detection	600kΩ Sensitivity per Unit						
Maximum DC PV Power	5000	6000	7360	8000	10,000	12,000	W
Maximum Input Current	7.0	9.0	10.5	11.5	13.5	16.5	Adc
Isc PV	7.0	9.0	10.5	11.5	13.5	16.5	Adc
Maximum Inverter Efficiency	99.2						%
European Weighted Efficiency	98.3	98.8			99		%
Reverse-Polarity Protection	Yes						
BATTERY STORAGE							
Supported Battery Models	SolarEdge Home Battery 400V						
Number of Batteries per Inverter	Up to 3						
Continuous Power	5000W per battery, total continuous discharge power is limited up to the inverter rated AC power for on-grid and backup applications						W
SMART ENERGY CAPABILITIES							
Backup and Battery Storage	With Backup Interface (purchased separately) for service up to 100A; up to 3 SolarEdge single phase inverters(3)						
ADDITIONAL FEATURES							
Supported Communication Interfaces	RS485, Ethernet, Wi-Fi (optional), LTE (optional), SolarEdge Home Network						
Integrated AC, DC and Communication Connection Unit	Built-in						
Inverter Commissioning	Inverter Commissioning with the SetApp mobile application using built-in Wi-Fi Access Point for local connection						
Arc Fault Protection	Integrated, user configurable (according to UL 1699B:2018)						
STANDARD COMPLIANCE							
Safety	IEC 62109						
Grid Connection Standards	VDE-AR-N 4105; Tor Erzeuger Typ A; EN 50549-1; CEI 0-21, G98 Type A; G98 NI Type A; RD 1699 / RD 413 / NTS; VDE-V 0126-1-1; VFR 2019; C10/11; EN 50438; G100						
Electromagnetic Compatibility (EMC)	IEC 61000-6-2; IEC 61000-6-3; IEC 61000-3-11; IEC 61000-3-12; EN 55011						
INSTALLATION SPECIFICATIONS							
AC Output – Supported Cable Diameter	9 – 16						mm
AC – Supported Wire Cross Section	1 – 13						mm^2
Dimensions with Connection Unit (H x W x D)	459 x 370 x 154						mm
DC Input	2 x MC4 pairs for PV input; 1 x MC4 pair for battery input						
Weight	12						kg
Cooling	Natural convection						
Noise	< 25						dBA
Operating Temperature Range	-40 to +60						ºC
Protection Rating	IP65 – outdoor and indoor						

(1) Only available in Poland, France, and Hungary. For details about the inverters approved for installation in your country, see here.
(2) 4600VA AC / 7130VA DC in Germany.
(3) Firmware update required.

SolarEdge Home Hub Inverter

Single Phase, for Europe

SE8000H[4] / SE10000H[4]

Applicable to inverters with part number	SEXXXXH-RWBMNBF54		Units
	SE8000H	SE10000H	
OUTPUT – AC ON GRID			
Rated AC Power	8000	10,000	VA
Maximum AC Power Output	8000	10,000	VA
AC Output Voltage (Nominal)	220 – 230		Vac
AC Output Voltage (Range)	184 – 264.5		Vac
AC Frequency Range (Nominal)	50/60 ± 5		Hz
Maximum Continuous Output Current RMS	36.5	45.5	A
Fault Current Protection (100ms)	70		A
Total Harmonic Distortion (THD)	< 3		%
Power Factor	1, adjustable -0.8 to 0.8		
Utility Monitoring, Islanding Protection, Country Configurable Thresholds	Yes		
Charge Battery from AC (if allowed)	Yes		
Typical Nighttime Power Consumption	< 2.5		W
OUTPUT – AC BACKUP			
Rated AC Power in Backup Operation	10,000		W
AC Output Voltage (Nominal)	220 – 230		Vac
AC Output Voltage (Range)	184 – 264.5		Vac
AC Frequency	50/60 ± 5		Hz
Maximum Continuous Output Current in Backup Operation	45.5		A
Fault Current Protection (100ms)	70		A
INPUT – DC (PV AND BATTERY)			
Transformer-less, Ungrounded	Yes		
Maximum Input Voltage	480		Vdc
Nominal DC Input Voltage	380		Vdc
Ground-Fault Isolation Detection	600kΩ Sensitivity per Unit		
Maximum DC PV Power	16,000	20,000	W
Maximum Input Current	20.5	25.5	Adc
Isc PV	20.5	25.5	Adc
Maximum Inverter Efficiency	99.2		%
European Weighted Efficiency	99		%
Reverse-Polarity Protection	Yes		
BATTERY STORAGE			
Supported Battery Types	SolarEdge Home Battery 400V		
Number of Batteries per Inverter	Up to 3		
Continuous Power	5000W per battery[5]		W
SMART ENERGY CAPABILITIES			
Backup and Battery Storage	With Backup Interface (purchased separately) for service up to 100A; up to 3 SolarEdge single phase inverters[6]		
ADDITIONAL FEATURES			
Supported Communication Interfaces	RS485, Ethernet, Wi-Fi (optional), LTE (optional), SolarEdge Home Network		
Integrated AC, DC and Communication Connection Unit	Built-in		
Inverter Commissioning	Inverter Commissioning with the SetApp mobile application using built-in Wi-Fi Access Point for local connection		
Arc Fault Protection	Integrated, user configurable (according to UL 1699B:2011)		
STANDARD COMPLIANCE			
Safety	IEC 62109		
Grid Connection Standards	VDE-AR-N 4105; Tor Erzeuger Typ A; EN 50549-1; CEI 0-21; G98 Type A; G98 NI Type A; RD 1699 / RD 413 / NTS; VDE-V 0126-1-1; VFR 2019; C10/11; EN 50438; G100		
Electromagnetic Compatibility (EMC)	IEC 61000-6-2; IEC 61000-6-3; IEC 61000-3-11; IEC 61000-3-12; EN 55011		
INSTALLATION SPECIFICATIONS			
AC Output – Supported Cable Diameter	9 – 16		mm
AC – Supported Wire Cross Section	1 – 13		mm^2
Dimensions with Connection Unit (H x W x D)	535 x 370 x 185		mm
DC Input	3 x MC4 pairs for PV input; 1 x MC4 pair for battery input		
Weight	19.6		kg
Cooling	Natural convection		
Noise	< 50		dBA
Operating Temperature Range	-40 to +60		ºC
Protection Rating	IP65 – outdoor and indoor		

(4) Only available in the United Kingdom, Spain, and France. For details about the inverters approved for installation in your country, see here.
(5) The total continuous discharge power is limited up to the inverter rated AC power for on-grid and backup applications.
(6) Firmware update required.

SolarEdge Home Hub Inverter

Three Phase, for Europe

SE5K-RWB48 / SE8K-RWB48 / SE10K-RWB48

INVERTERS

Three 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*, and smart energy devices
- Suitable for storage application of residential and small-scale commercial installations
- More energy using DC coupled solution architecture that stores PV power directly to the battery without AC conversion losses
- Quick and easy inverter installation and commissioning directly from a smartphone using the SolarEdge SetApp
- Designed to eliminate high voltage during installation, maintenance or firefighting for enhanced safety
- Enables module-level monitoring and full visibility of battery status, PV production, and self-consumption data

* Backup applications are available for residential installations only and are subject to local regulations. Additional components and a firmware upgrade may be required. For more information regarding commercial deployments where backup power is not supported, please refer to this application note.

SolarEdge Home Hub Inverter

Three Phase, for Europe

SE5K-RWB48 / SE8K-RWB48 / SE10K-RWB48

	SE5K-RWB48	SE8K-RWB48	SE10K-RWB48	UNITS
OUTPUT – AC ON GRID				
Rated AC Power Output (Total/Per Phase)	5000 / 1667	8000 / 2667	10000 / 3333	VA
Maximum AC Power Output (Total/Per Phase)	5000 / 1667	8000 / 2667	10000 / 3333	VA
AC Output Voltage – Line to Line / Line to Neutral (Nominal)	380/220; 400/230			Vac
AC Output Voltage – Line to Neutral (Range)	184 – 264.5			Vac
AC Frequency	50/60 ± 5			Hz
Maximum Continuous Output Current (per phase)	8	13	16	A
Fault Current Protection per Phase (120ms)	11	17.5	22	A
Residual Current Detector / Residual Current Step Detector	300/30			mA
Grids Supported	3 / N / PE Three Phase (WYE with Neutral)			
Utility Monitoring, Islanding Protection, Configurable Power Factor, Country Configurable Thresholds	Yes			
OUTPUT – AC BACKUP(1)				
Maximum AC Power Output (Total/Per Phase)	5000/1667	8000/2667	10000/3333	VA
AC Output Voltage – Line to Line / Line to Neutral (Nominal)	380/220; 400/230			Vac
AC Output Voltage – Line to Neutral Range	184 – 264.5			Vac
AC Frequency	50/60 ± 5			Hz
Maximum Continuous Output Current (per phase)	8	13	16	A
Fault Current Protection per Phase (120ms)	11	17.5	22	A
Residual Current Detector / Residual Current Step Detector	300/30			mA
Grids Supported	3 / N / PE Three Phase (WYE with Neutral)			
Transformer-less, Ungrounded	Yes			
Utility Monitoring, Ensure Safe Disconnection from Utility Grid in Backup Operation(1), Configurable Power Factor, Country Configurable Thresholds	Yes			
Automatic Switchover Time	≤ 6			Sec
Max Allowed Imbalanced Between Phases	1.66	2.66	3.33	Kw
INPUT PV				
Maximum DC Power (Module STC)	10,000	16,000	20,000	W
Input Voltage Range	750 – 900			Vdc
Maximum Input Current	13.3	17.3	20	Adc
Reverse-Polarity Protection	Yes			
Ground-Fault Isolation Detection	700 kΩ Sensitivity			
INPUT/OUTPUT BATTERY				
Supported Battery Types	SolarEdge Home Battery BAT-05K48 (1 – 5 battery modules)			
Maximum Charge/Discharge Power	5000			W
Input Voltage Range	40 – 62			Vdc
Maximum Continuous Input/Output Current	125			Adc
Battery to Inverter Communication	CAN			
PEAK EFFICIENCY				
PV to Grid	98			%
PV to Battery DC	98.4			%
Battery DC to Grid	96.1			%
European Weighted Efficiency	97.3	97.6		%
ADDITIONAL FEATURES				
Supported Communication Interfaces	Built-in: 2 x RS485, Ethernet, SolarEdge Home Network			

(1) Backup applications are available for residential installations only and are subject to local regulations. Additional components and a firmware upgrade may be required. For more information regarding commercial deployments where backup power is not supported, please refer to this application note.

/ SolarEdge Home Hub Inverter

Three Phase, for Europe

SE5K-RWB48 / SE8K-RWB48 / SE10K-RWB48

	SE5K-RWB48	SE8K-RWB48	SE10K-RWB48	UNITS
STANDARD COMPLIANCE				
Safety	IEC 62109			
Grid Connection Standards(2)	VDE-AR-N 4105, Tor Erzeuger Typ A, EN 50549-1, CEI 0-21, G98 Type A, G98 NI Type A, RD1699 / RD413 / NTS, VDE-V 0126-1-1, VFR 2019, C10/11, EN 50438, VDE 2510-2			
Emissions	IEC 61000-6-2, IEC 61000-6-3, IEC 61000-3-11, IEC 61000-3-12, EN 55011			
RoHS	Yes			
INSTALLATION SPECIFICATIONS				
AC Output – Cable Gland Diameter	15 – 21			mm
AC Output – Cable Cross Section	2.5 – 16			mm^2
Battery DC – Cable Gland Outer Diameter	2 x 11 – 16.5			mm
Battery DC – Cable Cross Section	35			mm^2
PV DC Input	2 x MC4 pair			
Dimensions (H x W x D)	907 x 317 x 192			mm
Weight	37			kg
Operating Temperature Range	-40 to +60			˚C
Cooling	Fans			
Noise	< 50			dBA
Protection Rating	IP65 – outdoor and indoor			
Mounting	Brackets provided			
External RCD	Unless a different value is required by the local electric code, SolarEdge recommends a type-A RCD with a value of 100mA, and a minimum Residual Non-Tripping Current ($I_{\Delta no}$) value of 70mA.			

(2) For all standards, see the Certifications category in the Knowledge Center.

SOLAREDGE HOME HUB INVERTER – ACCESSORIES (PURCHASED SEPARATELY)
OPTIONAL COMMUNICATION INTERFACES
Wi-Fi
Cellular

Three Phase Commercial Inverter

For Europe

SE20K / SE25K / SE30K / SE33.3K

INVERTERS

Specifically designed to work with SolarEdge power optimizers

- Fixed voltage inverter for superior efficiency and longer strings
- Quick and easy inverter commissioning directly from a smartphone using the SolarEdge SetApp
- Small, lightest in its class, and easy to install
- Integrated type 2 DC surge protection, to better withstand surges caused by lightning or other events
- Optional RS485 and type 2 AC surge protection
- Built-in module-level monitoring with Ethernet, wireless, or cellular communication for full system visibility
- Advanced safety features - integrated arc fault protection and optional rapid shutdown
- IP65 for outdoor and indoor installations
- Optional integrated DC Safety Unit - eliminates the need for external DC isolators
- Future-proofed for SolarEdge energy storage solutions

Three Phase Commercial Inverter

For Europe

SE20K / SE25K / SE30K / SE33.3K

Applicable to inverters with part number	SEXXK-RWX0IXXXX				Units
	SE20K[1]	SE25K	SE30K	SE33.3K	
OUTPUT					
Rated AC Active Power Output	20,001[2]	25,000	29,990	33,300[3]	W
Maximum AC Apparent Output Power	20,001	25,000	29,990	33,300	VA
AC Output Voltage – Line to Line / Line to Neutral (Nominal)	380 / 220; 400 / 230				Vac
AC Output Voltage – Line to Line / Line to Neutral	304 – 437 / 176 – 253; 320 – 460 / 184 – 264.5				Vac
AC Frequency	50/60 ± 5%				Hz
Maximum Continuous Output Current (per Phase)	29	36.25[4]	43.5[5]	48.25	Aac
AC Output Line Connections	3W + PE, 4W + PE				
Utility Monitoring, Islanding Protection, Configurable Power Factor, Country Configurable Thresholds	Yes				
Total Harmonic Distortion	< 3				%
Power Factor Range	±0.2 to 1				
Maximum Residual Current Injection[6]	100				mA
INPUT					
Maximum DC Power (Module STC)	35,000	43,750	52,500	58,275	W
Transformer-less, Ungrounded	Yes				
Maximum Input Voltage DC+ to DC-	1000				Vdc
Operating Voltage Range	680 – 1000				Vdc
Maximum Input Current	29	36.25	43.5	48.25	Adc
Reverse-Polarity Protection	Yes				
Ground-Fault Isolation Detection	167 kΩ Sensitivity[7]				
Maximum Inverter Efficiency	98	98.3			%
European Weighted Efficiency	97.7	98			%
Nighttime Power Consumption	< 4				W
ADDITIONAL FEATURES					
Supported Communication Interfaces	2 x RS485, Ethernet, Wi-Fi (optional)[8], Cellular (optional)				
Smart Energy Management	Export Limitation				
Inverter Commissioning	With the SetApp mobile application using built-in Wi-Fi access point for local connection				
Arc Fault Protection	Integrated, User Configurable (according to UL 1699B)				
Rapid Shutdown	Optional[9] (automatic upon AC grid disconnect)				
RS485 Surge Protection	Optional				
DC Surge Protection	Type II, field replaceable, integrated				
AC Surge Protection	Type II, field replaceable, optional				
DC SAFETY UNIT (OPTIONAL)					
2-pole Disconnection	N/A	1000 V / 48.25 A			
DC Fuses (Single Pole)	N/A	Optional, 25 A / 30 A			
Compliance	N/A	UTE-C15-712-1			
STANDARD COMPLIANCE					
Safety	IEC-62109, AS 3100				
Grid Connection Standards[10]	VDE-AR-N-4105, VDE-AR-N-4110[11], AS-4777, EN 50438, CEI-021, VDE 0126-1-1, CEI-016, EN 50549-1, EN 50549-2, TOR Erzeuger Typ A, G99, G99 (NI), VFR 2019				
Emissions	IEC 61000-6-2, IEC 61000-6-3 Class A, IEC 61000-3-11, IEC 61000-3-12				
RoHS	Yes				

(1) Not available in all countries. For details about the inverters approved for installation in your country, see here.
(2) In Italy and Hungary, the Rated AC Active Power Output is 19,900 W.
(3) For sites under VDE-AR-N-4110, consider this as a 30 kW (at 90% Unom) inverter for site capacity calculations.
(4) For sites under VDE-AR-N-4110, the Maximum Continuous Output Current per Phase is 40 A.
(5) For sites under VDE-AR-N-4110, the Maximum Continuous Output Current per Phase is 48.25 A.
(6) If an external RCD is required, its trip value must be ≥ 100 mA.
(7) Where permitted by local regulations.
(8) Wi-Fi connectivity requires connection of an additional Wi-Fi component, ordered separately. For more details ask your SolarEdge salesperson or refer to the Communication product page.
(9) Inverters with rapid shutdown part number: SExxK-xxRxxxxxx.
(10) For all standards refer to the Certificates category in the Knowledge Center.
(11) Not applicable for SE20K.

CE RoHS

Three Phase Commercial Inverter

For Europe

SE20K / SE25K / SE30K / SE33.3K

Applicable to inverters with part number	SEXXK-RWX0IXXXX				
	SE20K	SE25K	SE30K	SE33.3K	
INSTALLATION SPECIFICATIONS					
AC Output Gland Diameter / Line cross section / PE cross section	Cable diameter 19 – 28 mm / 4 – 16 mm^2 / 4 – 16 mm^2				
DC Input[12]	4 MC4 pairs				
DC Input with Safety Unit[12][13]	4 MC4 pairs 4 Strings: Gland: Cable outer diameter 5 – 10 mm / Wire cross section 2.5 – 16 mm^2				
Dimensions (H x W x D)	550 x 317 x 273				mm
Dimensions with Safety Unit (H x W x D)	836 x 317 x 300 (DC MC4); 819 x 317 x 300 (DC Gland)				mm
Weight	32				kg
Weight with Safety Unit	36.5				kg
Operating Temperature Range	-40 to +60[14]				˚C
Cooling	Fan (user replaceable)				
Noise	< 62				dBA
Protection Rating	IP65 – outdoor and indoor				
Mounting	Brackets provided				

(12) DC input is available with MC4 or Gland connectors under the inverter part number. For more information, contact SolarEdge.
(13) Only MC4 connectors manufactured by Stäubli are approved for use.
(14) For power derating information refer to the Power Derating technical note.

CE RoHS

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.

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