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
- Dynamically distributes PV production, balancing output across phases up to the maximum power per phase**
- 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, refer to this application note.

** Available in the following selected countries: Hungary, Czech Republic, Lithuania, Latvia, and Estonia. Supports only a single inverter per site. Supports smart loads via simple scheduling.

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	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			
Battery Input (DC/DC) Isolation	Galvanic Isolation			
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, refer to this application note.

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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

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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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.

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