

# Three Phase Inverter

SE12.5K - SE27.6K



# INVERTERS

## Specifically designed to work with power optimizers

- /// Superior efficiency (98.3%)
- /// Quick and easy inverter commissioning directly from a smartphone using the SolarEdge SetApp
- /// Small, lightest in its class, and easy to install
- /// Built-in module-level monitoring
- /// Internet connection through Ethernet or Wireless
- /// IP65 – Outdoor and indoor installation
- /// Fixed voltage inverter for longer strings
- /// Smart Energy Management control
- /// Optional integrated DC Safety Unit - eliminates the need for external DC isolators
- /// Advanced safety features - integrated arc fault protection and optional rapid shutdown
- /// Optional DC surge protection and DC fuses

# / Three Phase Inverter

SE12.5K - SE27.6K

|  | SE12.5K   | SE15K | SE16K | SE17K  | SE25K | SE27.6K |                 |
|--|---|-------|-------|--|-------|---------|-----------------|
| <b>Applicable to inverters with part number</b>  | <b>SEXXX-XXXXXBXX4</b>  |       |       |  |       |         |                 |
| <b>OUTPUT</b>  |   |       |       |  |       |         |                 |
| Rated AC Power Output  | 12500   | 15000 | 16000 | 17000  | 25000 | 27600   | VA              |
| Maximum AC Power Output  | 12500   | 15000 | 16000 | 17000  | 25000 | 27600   | 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)  | 20  | 23    | 25.5  | 26   | 38    | 40      | A               |
| Grids Supported - Three Phase  | 3 / N / PE (WYE with Neutral)   |       |       |  |       |         |                 |
| Utility Monitoring, Islanding Protection, Configurable Power Factor, Country Configurable Thresholds | Yes   |       |       |  |       |         |                 |
| THD  | ≤ 3   |       |       |  |       |         |                 |
| <b>INPUT</b>   |   |       |       |  |       |         |                 |
| Maximum DC Power (Module STC)  | 16850   | 20250 | 21600 | 22950  | 33750 | 37250   | W               |
| Transformer-less, Ungrounded   | Yes   |       |       |  |       |         |                 |
| Maximum Input Voltage  | 1000  |       |       |  |       |         | Vdc             |
| Nominal DC Input Voltage   | 750   |       |       |  |       |         | Vdc             |
| Maximum Input Current  | 21  | 22    | 23    | 23   | 37    | 40      | Adc             |
| Reverse-Polarity Protection  | Yes   |       |       |  |       |         |                 |
| Ground-Fault Isolation Detection   | 700kΩ Sensitivity   |       |       | 350kΩ Sensitivity <sup>(1)</sup>   |       |         |                 |
| Maximum Inverter Efficiency  | 98  |       |       | 98.3   |       |         | %               |
| European Weighted Efficiency   | 97.7  | 97.6  | 97.7  | 97.7   | 98    |         | %               |
| Nighttime Power Consumption  | < 2.5   |       |       | < 4  |       |         | W               |
| <b>ADDITIONAL FEATURES</b>   |   |       |       |  |       |         |                 |
| Supported Communication Interfaces <sup>(2)</sup>  | RS485, Ethernet, Wi-Fi (requires antenna) <sup>(3)</sup> , ZigBee (optional), Cellular (optional) |       |       |  |       |         |                 |
| Inverter Commissioning   | With the SetApp mobile application using built-in Wi-Fi access point for local connection         |       |       |  |       |         |                 |
| Smart Energy Management  | Export Limitation   |       |       |  |       |         |                 |
| Arc Fault Protection   | Integrated, User Configurable (According to UL1699B)  |       |       |  |       |         |                 |
| Rapid Shutdown   | Optional <sup>(4)</sup> (Automatic upon AC Grid Disconnect)                                       |       |       |  |       |         |                 |
| RS485 Surge Protection   | Optional <sup>(5)</sup>   |       |       |  |       |         |                 |
| <b>DC SAFETY UNIT (OPTIONAL)</b>   |   |       |       |  |       |         |                 |
| 2-pole Disconnection   | N/A   |       |       | 1000V / 40A  |       |         |                 |
| DC Surge Protection  | N/A   |       |       | Type II, field replaceable   |       |         |                 |
| DC Fuses on Plus & Minus   | N/A   |       |       | Optional, 20A  |       |         |                 |
| Compliance   | N/A   |       |       | UTE-C15-712-1  |       |         |                 |
| <b>STANDARD COMPLIANCE</b>   |   |       |       |  |       |         |                 |
| Safety   | IEC-62103 (EN50178), IEC-62109, AS3100  |       |       |  |       |         |                 |
| Grid Connection Standards <sup>(6)</sup>   | VDE-AR-N-4105, G99, AS-4777, EN 50438 , CEI-021, VDE 0126-1-1, CEI-016, BDEW                      |       |       |  |       |         |                 |
| Emissions  | IEC61000-6-2, IEC61000-6-3 , IEC61000-3-11, IEC61000-3-12   |       |       |  |       |         |                 |
| RoHS   | Yes   |       |       |  |       |         |                 |
| <b>INSTALLATION SPECIFICATIONS</b>   |   |       |       |  |       |         |                 |
| AC Output Gland Diameter / Wire Cross Section  | 15-21mm / Solid wire 2.5-16 mm <sup>2</sup>   |       |       | 18-25mm / Solid wire 2.5-16 mm <sup>2</sup> , Stranded wire 2.5-10 mm <sup>2</sup> |       |         |                 |
| DC Input   | 2 MC4 pairs   |       |       | 3 MC4 pairs  |       |         |                 |
| DC Input with Safety Unit  | N/A   |       |       | Gland diameter 5 - 10  |       |         | mm              |
|  | N/A   |       |       | Wire cross section 0.5 - 13.5  |       |         | mm <sup>2</sup> |
| Dimensions (HxWxD)   | 540 x 315 x 260   |       |       |  |       |         | mm              |
| Dimensions with Safety Unit (HxWxD)  | N/A   |       |       | 775 x 315 x 260  |       |         | mm              |
| Weight   | 30.7  |       |       | 45   |       |         | kg              |
| Weight with Safety Unit  | N/A   |       |       | 48   |       |         | kg              |
| Operating Temperature Range  | -40 - +60 <sup>(7)</sup>  |       |       |  |       |         | °C              |
| Cooling  | Fan (user replaceable)  |       |       |  |       |         |                 |
| Noise  | < 50  |       |       | < 55   |       |         | dBa             |
| Protection Rating  | IP65 - Outdoor and Indoor   |       |       |  |       |         |                 |
| Mounting   | Bracket Provided  |       |       |  |       |         |                 |

<sup>(1)</sup> Where permitted by local regulations

<sup>(2)</sup> Refer to Datasheets -> Communications category in Downloads page for specifications of optional communication options: <http://www.solaredge.com/groups/support/downloads>

<sup>(3)</sup> Wi-Fi connectivity requires an external antenna. For more information refer to: <https://www.solaredge.com/sites/default/files/se-wifi-zigbee-antenna-datasheet.pdf>

<sup>(4)</sup> Inverter with rapid shutdown part number: SExxK-RWRxxxxx; available for SE25K and SE27.6K

<sup>(5)</sup> Provided with the inverter in India only. For other countries an SPD plug-in can be purchased. Refer to: [https://www.solaredge.com/sites/default/files/se\\_spd\\_plug\\_in\\_for\\_rs485\\_3ph\\_setapp\\_ds.pdf](https://www.solaredge.com/sites/default/files/se_spd_plug_in_for_rs485_3ph_setapp_ds.pdf)

<sup>(6)</sup> For all standards refer to Certifications category in Downloads page: <http://www.solaredge.com/groups/support/downloads>

<sup>(7)</sup> For power de-rating information refer to: <https://www.solaredge.com/sites/default/files/se-temperature-derating-note.pdf>