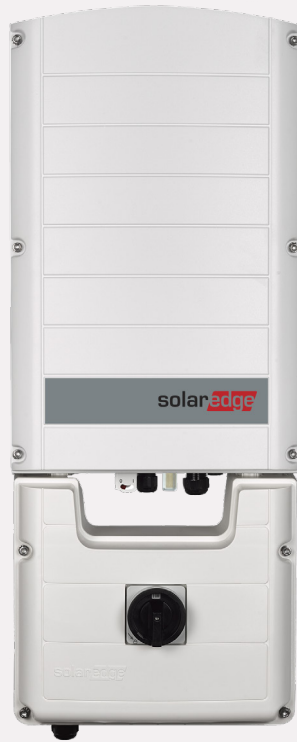


# Three Phase Inverters for the 277/480V Grid for North America

SE20KUS / SE30KUS / SE33.3KUS



INVERTERS

## The best choice for SolarEdge enabled systems

- Quick and easy inverter commissioning directly from a smartphone using the SolarEdge SetApp
- Specifically designed to work with power optimizers
- Superior efficiency (98%)
- Fixed voltage inverter for longer strings
- Integrated Safety Switch
- UL1741 SA certified, for CPUC Rule 21 grid compliance
- Integrated arc fault protection and rapid shutdown for NEC 2014 and 2017, per article 690.11 and 690.12
- Built-in module-level monitoring
- Internet connection through Ethernet or Wireless
- Small, lightweight, and easy to install outdoors or indoors on provided bracket
- Supplied with RS485 Surge Protection Device, to better withstand lightning events

# / Three Phase Inverters for the 277/480V Grid<sup>(1)</sup> for North America

SE20KUS / SE30KUS / SE33.3KUS

|   | SE20KUS   | SE30KUS                          | SE33.3KUS |         |
|---|---|----------------------------------|-----------|---------|
| <b>APPLICABLE TO INVERTERS WITH PART NUMBER</b>                           |   |                                  |           |         |
| <b>SEXXX-XXXXXBXX4</b>  |   |                                  |           |         |
| <b>OUTPUT</b>   |   |                                  |           |         |
| Rated AC Power Output   | 20000   | 30000                            | 33300     | VA      |
| Maximum AC Power Output   | 20000   | 30000                            | 33300     | VA      |
| Output Line Connections   | 3 phase, 3-wire / PE (L1-L2-L3), TN, TT 3 phase, 4-wire / PE (L1-L2-L3-N), TN, TT   |                                  |           |         |
| AC Output Voltage Minimum-Nominal-Maximum <sup>(2)</sup> (L-N)            | 244-277-305   |                                  |           | Vac     |
| AC Output Voltage Minimum-Nominal-Maximum <sup>(2)</sup> (L-L)            | 422.5-480-529   |                                  |           | Vac     |
| AC Frequency Min-Nom-Max <sup>(2)</sup>                                   | 59.3 - 60 - 60.5  |                                  |           | Hz      |
| x. Continuous Output Current (per Phase)                                  | 24  | 36.5                             | 40        | A       |
| GFDI Threshold  | 1   |                                  |           | A       |
| Utility Monitoring, Islanding Protection, Country Configurable Set Points | Yes   |                                  |           |         |
| THD   | ≤ 3   |                                  |           | %       |
| <b>INPUT</b>  |   |                                  |           |         |
| Maximum DC Power (Module STC)   | 27000   | 40500                            | 45000     | W       |
| Transformer-less, Ungrounded  | Yes   |                                  |           |         |
| Maximum Input Voltage DC to Gnd   | 490   |                                  |           | Vdc     |
| Maximum Input Voltage DC+ to DC-  | 1000  |                                  |           | Vdc     |
| Nominal Input Voltage DC to Gnd   | 420   |                                  |           | Vdc     |
| Nominal Input Voltage DC+ to DC-  | 840   |                                  |           | Vdc     |
| Maximum Input Current   | 26.5  | 39                               | 40        | Adc     |
| Maximum Input Short Circuit Current                                       | 45  |                                  |           | Adc     |
| Reverse-Polarity Protection   | Yes   |                                  |           |         |
| Ground-Fault Isolation Detection  | 1MΩ Sensitivity   | 350kΩ Sensitivity <sup>(3)</sup> |           |         |
| CEC Weighted Efficiency   | 98  | 98.5                             |           | %       |
| Night-time Power Consumption  | < 3   | < 4                              |           | W       |
| <b>ADDITIONAL FEATURES</b>  |   |                                  |           |         |
| Supported Communication Interfaces  | RS485, Ethernet, Built-in Cellular (optional)                                       |                                  |           |         |
| Inverter Commissioning  | With the SetApp mobile application using built-in access point for local connection |                                  |           |         |
| Rapid Shutdown – NEC 2014 and 2017 690.12                                 | Automatic Rapid Shutdown upon AC Grid Disconnect <sup>(4)</sup>                     |                                  |           |         |
| RS485 Surge Protection Plug-in  | Supplied with the inverter  |                                  |           |         |
| Smart Energy Management   | Export Limitation   |                                  |           |         |
| <b>STANDARD COMPLIANCE</b>  |   |                                  |           |         |
| Safety  | UL1741, UL1741 SA, UL1699B, CSA C22.2, Canadian AFCI according to T.I.L. M-07       |                                  |           |         |
| Grid Connection Standards   | IEEE1547, Rule 21, Rule 14 (HI)   |                                  |           |         |
| Emissions   | FCC part15 class B  |                                  |           |         |
| <b>INSTALLATION SPECIFICATIONS</b>  |   |                                  |           |         |
| AC output conduit size / AWG range  | 3/4" minimum / 12-6 AWG   | 3/4" minimum / 8-4 AWG           |           |         |
| DC input conduit size / AWG range   | 3/4" minimum / 12-6 AWG   |                                  |           |         |
| Number of DC inputs   | 2 pairs   | 3 pairs <sup>(5)</sup>           |           |         |
| Dimensions (H x W x D)  | 21 x 12.5 x 10.5 / 540 x 315 x 260  |                                  |           | in / mm |
| Dimensions with Safety Switch (H x W x D)                                 | 30.5 x 12.5 x 10.5 / 775 x 315 x 260  |                                  |           | in / mm |
| Weight  | 73.2 / 33.2   | 99.5 / 45                        |           | lb / kg |
| Weight with Safety Switch   | 79.7 / 36.2   | 106 / 48                         |           | lb / kg |
| Cooling   | Fans (user replaceable)   |                                  |           |         |
| Noise   | < 50  | < 55                             |           | dBA     |
| Operating Temperature Range   | -40 to +140 / -40 to +60 <sup>(6)</sup>   |                                  |           | °F / °C |
| Protection Rating   | NEMA 3R   |                                  |           |         |

(1) For 120/208V inverters refer to: <https://www.solaredge.com/sites/default/files/se-three-phase-us-inverter-208v-setapp-datasheet.pdf>

(2) For other regional settings please contact SolarEdge support

(3) Where permitted by local regulations

(4) P/Ns SE20K-US0xxxxx have Manual Rapid Shutdown for NEC 2014 compliance (NEC 2017 compliance with outdoor installaton)

(5) Field replacement kit for 1 pair of inputs P/N: DCD-3PH-1TBK; Field replacement kit for 3 pairs of fuses and holders P/N: DCD-3PH-6FHK-S1

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