INVERTERS

# Three Phase Inverter with Synergy Technology

## for the 277/480V Grid for North America

SE66.6KUS / SE100KUS

## Specifically designed to work with power optimizers

- Easy two-person installation – each unit mounted separately, equipped with cables for simple connection between units
- Balance of System and labor reduction compared to using multiple smaller string inverters
- Independent operation of each unit enables higher uptime and easy serviceability
- No wasted ground area: wall/rail mounted, or horizontally mounted under the modules (10˚inclination)
- Integrated arc fault protection and rapid shutdown for NEC 2014 and 2017, per article 690.11 and 690.12
- Built-in module-level monitoring with Ethernet or cellular GSM
- Fixed voltage inverter for superior efficiency (98.5%) and longer strings
- Integrated DC Safety Switch and optional surge protection
- Built-in RS485 Surge Protection, to better withstand lightning events



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## SE66.6KUS / SE100KUS

| | SE66.6KUS | SE100KUS | |
|---|---|---|---|
| **OUTPUT** | | | |
| Rated AC Power Output | 66600 | 100000 | VA |
| Maximum AC Power Output | 66600 | 100000 | VA |
| AC Output Line Connections | 4-wire WYE (L1-L2-L3-N) plus PE | | |
| AC Output Voltage Minimum-Nominal-Maximum[1] (L-N) | 244 - 277 - 305 | | Vac |
| AC Output Voltage Minimum-Nominal-Maximum[1] (L-L) | 422.5 - 480 - 529 | | Vac |
| AC Frequency Min-Nom-Max[1] | 59.3 - 60 - 60.5 | | Hz |
| Maximum Continuous Output Current (per Phase) @277V | 80 | 120 | A |
| GFDI Threshold | 1 | | A |
| Utility Monitoring, Islanding Protection, Configurable Power Factor, Country Configurable Thresholds | Yes | | |
| **INPUT** | | | |
| Maximum DC Power (Module STC) / Unit | 90000 / 45000 | 135000 / 45000 | W |
| Transformer-less, Ungrounded | Yes | | |
| Maximum Input Voltage DC to Gnd | 500 | | Vdc |
| Maximum Input Voltage DC+ to DC- | 1000 | | Vdc |
| Nominal Input Voltage DC to Gnd | 425 | | Vdc |
| Nominal Input Voltage DC+ to DC- | 850 | | Vdc |
| Maximum Input Current | 80 | 120 | Adc |
| Maximum Input Short Circuit Current | 120 | | Adc |
| Reverse-Polarity Protection | Yes | | |
| Ground-Fault Isolation Detection | 350kΩ Sensitivity per Unit | | |
| CEC Weighted Efficiency | 98.5 | | % |
| Nighttime Power Consumption | < 12 | | W |
| **ADDITIONAL FEATURES** | | | |
| Supported Communication Interfaces | RS485, Ethernet, Cellular GSM (optional) | | |
| Rapid Shutdown | NEC2014 and NEC2017 compliant/certified, upon AC Grid Disconnect | | |
| RS485 Surge Protection | Built-in | | |
| **DC SAFETY SWITCH** | | | |
| DC Disconnect | 1000V / 2 x 40A | 1000V / 3 x 40A | |
| DC Surge Protection | Optional, Type II, field replaceable | | |
| **STANDARD COMPLIANCE** | | | |
| Safety | UL1741, UL1741 SA, UL1699B, UL1998, CSA 2.22 | | |
| Grid Connection Standards | IEEE 1547, Rule 21, Rule 14 (HI) | | |
| Emissions | FCC part15 class A | | |
| **INSTALLATION SPECIFICATIONS** | | | |
| Number of units | 2 | 3 | |
| AC Output Conduit Size / Max AWG / Max PE AWG | 1.5" / 2/0 / 6 | 2" / 4/0 / 4 | |
| DC Output Conduit Size / Terminal Block AWG Range / Number of Strings[2] | 2 x 1.25" / 6-14 / 6 strings | 2 x 1.25" / 6-14 / 9 strings | |
| Dimensions (H x W x D) | Primary Unit: 37 x 12.5 x 10.5 / 940 x 315 x 260; Secondary Unit: 21 x 12.5 x 10.5 / 540 x 315 x 260 | | in / mm |
| Weight | Primary Unit: 105.8 / 48; Secondary Unit 99.2 / 45 | | lb / kg |
| Operating Temperature Range | -40 to +140 / -40 to +60[3] | | °F / °C |
| Cooling | Fan (user replaceable) | | |
| Noise | < 60 | | dBA |
| Protection Rating | NEMA 3R | | |
| Bracket Mounted (Brackets Provided) | | | |

[1] For other regional settings please contact SolarEdge support
[2] Single input option per unit (up to 3AWG) available
[3] De-rating from 50°C

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