

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

SE30KUS / SE40KUS

INVERTERS



The best choice for SolarEdge enabled systems

- Specifically designed to work with power optimizers
- Quick and easy inverter commissioning directly from a smartphone using the SolarEdge SetApp
- Fixed voltage inverter for superior efficiency (98.5%) and longer strings
- Built-in type 2 DC and AC Surge Protection, to better withstand lightning events
- Small, lightest in its class, and easy to install outdoors or indoors on provided bracket
- 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, wireless or cellular communication for full system visibility
- Integrated Safety Switch
- UL1741 SA certified, for CPUC Rule 21 grid compliance

Three Phase Inverters for the 277/480V Grid⁽¹⁾

For North America

SE30KUS / SE40KUS

MODEL NUMBER	SE30KUS	SE40KUS	UNITS
APPLICABLE TO INVERTERS WITH PART NUMBER		SEXXX-USX8XXXX	
OUTPUT			
Rated AC Power Output	30000	40000	W
Maximum apparent AC output power	30000	40000	VA
AC Output Line Connections	3W + PE, 4W + PE		
AC Output Voltage Minimum-Nominal-Maximum ⁽²⁾ (L-N)	244 - 277 - 305		Vac
AC Output Voltage Minimum-Nominal-Maximum ⁽²⁾ (L-L)	422.5 - 480 - 529		Vac
AC Frequency Min-Nom-Max ⁽²⁾	59.3 - 60 - 60.5		Hz
Maximum Continuous Output Current (per Phase)	36.25	48.25	Aac
GFDI Threshold	1		A
Utility Monitoring, Islanding Protection, Country Configurable Set Points	Yes		
Total Harmonic Distortion	≤ 3		%
Power Factor Range	+/- 0.85 to 1		
INPUT			
Maximum DC Power (Module STC)	45000	60000	W
Transformer-less, Ungrounded	Yes		
Maximum Input Voltage DC+ to DC-	1000		Vdc
Operating Voltage Range	840 - 1000		Vdc
Maximum Input Current	36.25	48.25	Adc
Maximum Input Short Circuit Current	55		Adc
Reverse-Polarity Protection	Yes		
Ground-Fault Isolation Detection	167kΩ Sensitivity ⁽³⁾		
CEC Weighted Efficiency	98.5		%
Night-time Power Consumption	<4		W
ADDITIONAL FEATURES			
Supported Communication Interfaces	2 x RS485, Ethernet, Cellular (optional)		
Inverter Commissioning	With the SetApp mobile application using built-in access point for local connection		
Arc Fault Protection	Integrated, User Configurable (According to UL1699B)		
Rapid Shutdown	NEC2014, NEC2017 and NEC2020 compliant/certified		
RS485 Surge Protection Plug-in	Supplied with the inverter, Built-in		
DC Surge Protection	Type II, field replaceable, Built-in		
AC Surge Protection	Type II, field replaceable, Built-in		
DC Fuses (Single Pole)	25A, Built-in		
Smart Energy Management	Export Limitation		
DC SAFETY SWITCH			
DC Disconnect	Integrated		
STANDARD COMPLIANCE			
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 Part 15 class A		
INSTALLATION SPECIFICATIONS			
AC output conduit size / AWG range	¾" or 1" / 6 - 10 AWG		
DC input conduit size / AWG range	¾" or 1" / 6 - 12 AWG		
Number of DC inputs pairs	4		
Dimensions with Safety Switch (H x W x D)	31.8 x 12.5 x 11.8 / 808 x 317 x 300		in / mm
Weight with Safety Switch	78.2 / 35.5		lb / kg
Cooling	Fans (user replaceable)		
Noise	< 62		dBA
Operating Temperature Range	-40 to +140 / -40 to +60 ⁽⁴⁾		°F / °C
Protection Rating	NEMA 3R		
Mounting	Bracket provided		

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