

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

SE30KUS / SE40KUS



The best choice for SolarEdge enabled systems

- / Specifically designed to work with power optimizers
- / Quick and easy inverter commissioning directly from a smartphone using 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 – 2023, per articles 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 and SB 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	
APPLICABLE TO INVERTERS WITH PART NUMBER	SEX XK-USX8IXXXX			UNITS
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)	52500	70000		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	NEC 2014 – 2023, built-in			
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			
VAR at Night ⁽⁴⁾	Yes			
DC SAFETY SWITCH				
DC Disconnect	Integrated			
STANDARD COMPLIANCE				
Safety	UL 1741, UL 1741 SA, UL 1741 SB, UL 1699B, CSA C22.2, Canadian AFCI according to T.I.L. M-07			
Grid Connection Standards	IEEE 1547-2018, 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 ⁽⁵⁾			°F / °C
Protection Rating	NEMA 3R			
Mounting	Bracket provided			

(1) For 120/208V inverters refer to the [Three Phase Inverters for the 120/208V Grid for North America](#) datasheet.

(2) For other regional settings please contact SolarEdge support.

(3) Where permitted by local regulations.

(4) For details, see [Set Volt-Ampere at Night – Application Note](#).

(5) For power derating information refer to the [Temperature Derating](#) technical note for North America.