

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

SE10KUS / 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⁽¹⁾ for North America

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	SE10KUS	SE20KUS	SE30KUS	SE33.3KUS	
APPLICABLE TO INVERTERS WITH PART NUMBER SEX XK-XXXXXBXX4					
OUTPUT					
Rated AC Power Output	10000	20000	30000	33300	VA
Maximum AC Power Output	10000	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 ⁽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
x. Continuous Output Current (per Phase)	12	24	36.5	40	A
GFDI Threshold	1				A
Utility Monitoring, Islanding Protection, Country Configurable Set Points	Yes				
THD	≤ 3				%
INPUT					
Maximum DC Power (Module STC)	13500	27000	40500	40500	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	13.5	26.5	39	40	Adc
Maximum Input Short Circuit Current	45				Adc
Reverse-Polarity Protection	Yes				
Ground-Fault Isolation Detection	1MΩ Sensitivity		350kΩ Sensitivity ⁽³⁾		
CEC Weighted Efficiency	98		98.5		%
Night-time Power Consumption	< 3		< 4		W
ADDITIONAL FEATURES					
Supported Communication Interfaces	2 x RS485, Ethernet, Built-in GSM (optional)				
Inverter Commissioning	With the SetApp mobile application using built-in Wi-Fi station for local connection				
Rapid Shutdown – NEC 2014 and 2017 690.12	Automatic Rapid Shutdown upon AC Grid Disconnect ⁽⁴⁾				
RS485 Surge Protection	Supplied with the inverter				
Smart Energy Management	Export Limitation				
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 part15 class B				
INSTALLATION SPECIFICATIONS					
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 ⁽⁵⁾		
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 ⁽⁶⁾				°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 SE10K/SE20K-US0xxxxx have Manual Rapid Shutdown for NEC 2014 compliance (NEC 2017 compliance with outdoor installation)

(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-de-rating-note-na.pdf>

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