



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

SE10KUS / SE20KUS / SE33.3KUS

INVERTERS



The best choice for SolarEdge enabled systems

- Specifically designed to work with power optimizers
- Superior efficiency (98.5%)
- Integrated arc fault protection and rapid shutdown for NEC 2014 and 2017, per article 690.11 and 690.12
- UL1741 SA certified, for CPUC Rule 21 grid compliance
- Built-in module-level monitoring
- Internet connection through Ethernet or Wireless
- Small, lightweight and easy to install outdoors or indoors on provided bracket
- Fixed voltage inverter for longer strings
- Integrated Safety Switch and DC fuses (plus & minus)



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

SE10KUS / SE20KUS / SE33.3KUS

	SE10KUS	SE20KUS	SE33.3KUS	
OUTPUT				
Rated AC Power Output	10000	20000	33300	VA
Maximum AC Power Output	10000	20000	33300	VA
AC Output Line Connections	4-wire WYE (L1-L2-L3-N) plus 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
Max. Continuous Output Current (per Phase)	12	24	40	A
GFDI Threshold		1		A
Utility Monitoring, Islanding Protection, Country Configurable Set Points	Yes			
INPUT				
Maximum DC Power (Module STC)	13500	27000	45000	W
Transformer-less, Ungrounded		Yes		
Maximum Input Voltage DC to Gnd		490		Vdc
Maximum Input Voltage DC+ to DC-		980		Vdc
Nominal Input Voltage DC to Gnd		420		Vdc
Nominal Input Voltage DC+ to DC-		840		Vdc
Maximum Input Current	13.5	26.5	40	Adc
Max. 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	RS485, Ethernet, ZigBee (optional)			
Rapid Shutdown - NEC 2014 and 2017 690.12	Automatic Rapid Shutdown upon AC Grid Disconnect ⁽⁴⁾			
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			
DC input conduit size / AWG range	3/4" minimum / 12-6 AWG			
Number of DC inputs	2 pairs		3 pairs (with fuses on plus & minus) ⁽⁵⁾	
Dimensions (HxWxD)	21 x 12.5 x 10.5 / 540 x 315 x 260			in / mm
Dimensions with Safety Switch (HxWxD)	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			°F / °C
Protection Rating	NEMA 3R			

⁽¹⁾ For 208V inverters refer to: <http://www.solaredge.com/files/pdfs/products/inverters/se-three-phase-us-inverter-208V-datasheet.pdf>

⁽²⁾ For other regional settings please contact SolarEdge support

⁽³⁾ Where permitted by local regulations

⁽⁴⁾ P/Ns SE10K/SE20K-US0xxxxxx 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



RoHS