

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
- / Built-in RS485 Surge Protection, to better withstand lightning events

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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	2 x 40	3 x 40	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	
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		
Mounting	Bracket 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