

Three Phase Inverter with Synergy Technology

for the 208V Grid for North America

SE43.2KUS



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, NEC 2017 and NEC 2020 per article 690.11 and 690.12
- / Fixed voltage inverter for superior efficiency (97%) and longer strings
- / Integrated DC Safety Switch
- / Built-in RS485 surge protection, to better withstand surges caused by lightning or other events
- / Built-in module-level monitoring with Ethernet or cellular GSM
- / 150% DC oversizing, enabling higher energy production

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OUTPUT

Rated AC Power Output	43200	VA
Maximum AC Power Output	43200	VA
AC Output Line Connections	4-wire WYE (L1-L2-L3-N) plus PE or 3 wire Delta	
AC Output Voltage Minimum-Nominal-Maximum ⁽¹⁾ (L-N)	105-120-132.5	Vac
AC Output Voltage Minimum-Nominal-Maximum ⁽¹⁾ (L-L)	183-208-229	Vac
AC Frequency Min-Nom-Max ⁽¹⁾	59.3 - 60 - 60.5	Hz
Maximum Continuous Output Current (per Phase) @208V	120	A
GFDI Threshold	1	A
Utility Monitoring, Islanding Protection, Configurable Power Factor, Country Configurable Thresholds	Yes	

INPUT

Maximum DC Power (Module STC), Inverter / Unit	64800 / 21600	W
Transformer-less, Ungrounded	Yes	
Maximum Input Voltage DC to Gnd	300	Vdc
Maximum Input Voltage DC+ to DC-	600	Vdc
Nominal Input Voltage DC to Gnd	200	Vdc
Nominal Input Voltage DC+ to DC-	400	Vdc
Maximum Input Current	38 x 3	Adc
Maximum Input Short Circuit Current	135	Adc
Reverse-Polarity Protection	Yes	
Ground-Fault Isolation Detection	350kΩ Sensitivity per Unit	
CEC Weighted Efficiency	97	%
Nighttime Power Consumption	< 12	W

ADDITIONAL FEATURES

Supported Communication Interfaces	RS485, Ethernet, Cellular GSM (optional)	
Rapid Shutdown	NEC2014, NEC2017 and NEC2020 compliant/certified, upon AC Grid Disconnect	
RS485 Surge Protection	Built-in	

DC SAFETY SWITCH

DC Disconnect	1000V / 3 x 40A	
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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	3	
AC Output Conduit Size / Max AWG / Max PE AWG	2" / 4/0 / 4	
DC Output Conduit Size / Terminal Block AWG Range / Number of Strings ⁽²⁾	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	Brackets provided	

(1) For other regional settings please contact SolarEdge support

(2) Single input option per unit (up to 3AWG) available

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