

SolarEdge Commercial Three Phase Inverters for the 277/480V Grid

for North America

SE66.6K-SE100K



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 and optional surge protection & DC fuses (plus & minus)
- Built-in RS485 Surge Protection Device, to better withstand lightning events



SolarEdge Commercial Three Phase Inverters for the 277/480V Grid for North America SE66.6K-SE100K

AC Output Voltage Minimum-Nominal-Maximumin (L-L) AC Frequency Min-Nom-Maxim AC Output Voltage DC to Configurable Power Factor, Country Configurable Power Factor, Country Configurable Protection, Configurable Power Factor, Country Configurable Protection, Configurable Power Factor, Country Cou		SE66.6K SE100K		
Maximum AC Power Output				
AC Output Line Connections AC Output Violage Minimum-Nominal-Maximum ⁽¹⁾ (L1) AC Output Violage Minimum-Nominal-Maximum ⁽¹⁾ (L1) A242-5480-529 Vac AC Frequency Min-Nom-Max ⁽¹⁾ S9.3-60-60.5 Hz AC Frequency Min-Nom-Max ⁽¹⁾ AC FID Threshold I AC Fire Hard Maximum Continuous Output Current (per Phase) @227V S0	Rated AC Power Output	66600	100000	VA
C. Output Voltage Minimum-Nominal-Maximum ⁽¹⁾ (L-N)	Maximum AC Power Output	66600	100000	VA
Coupty Voltage Minimum Nominal Maximum*** (i1)	AC Output Line Connections	4-wire WYE (L1-	-L2-L3-N) plus PE	
Maximum Continuous Output Current (per Phase) @277V 80	AC Output Voltage Minimum-Nominal-Maximum ⁽¹⁾ (L-N)	244 - 277 - 305		Vac
Assimum Continuous Output Current (per Phase) @227V	AC Output Voltage Minimum-Nominal-Maximum ⁽¹⁾ (L-L)	422.5 - 480 - 529		Vac
A A A	AC Frequency Min-Nom-Max ⁽¹⁾	59.3 - 60 - 60.5		Hz
	Maximum Continuous Output Current (per Phase) @277V	80	120	A
New York Section Sec	GFDI Threshold		1	A
NEUT Section		Yes		
Maximum DC Power (Module STC) 90000 135000 W		163		
Transformer-less, Ungrounded Yes				
Maximum Input Voltage DC to Gnd			.4	
Maximum Input Voltage DC+ to DC			•••••	
Nominal Input Voltage DC to Gnd		500		Vdc
Maximum Input Voltage DC+ to DC		· · · · · · · · · · · · · · · · · · ·		Vdc
Maximum Input Current	· · · · · · · · · · · · · · · · · · ·	4.	25	Vdc
Maximum Input Short Circuit Current	Nominal Input Voltage DC+ to DC-	8.	50	Vdc
Reverse Polarity Protection Yes Scround-Fault Isolation Detection 350kΩ Sensitivity per Unit Scround-Fault Isolation Detection 350kΩ Sensitivity per Unit Scround-Fault Isolation Detection 350kΩ Sensitivity per Unit Scround-Fault Isolation Detection Scround-Fault Isolation Detection Scround-Fault Isolation Detection Scround-Fault Isolation Detection Scround-Fault Isolation Interfaces RS485, Ethernet, Cellular GSM (optional) Scapid Shurdown NEC2014 and NEC2017 compliant/certified, upon AC Grid Disconnect Scround-Fault Isolation Scround-Fault Isolati	Maximum Input Current	80	120	Adc
Second - Fault Isolation Detection 350KΩ Sensitivity per Unit 250KΩ Sensitivity	Maximum Input Short Circuit Current	1	20	Adc
Section Sect	Reverse-Polarity Protection	Y	es	
Valphttime Power Consumption < 12 W VADDITIONAL FEATURES	Ground-Fault Isolation Detection	350kΩ Sensitivity per Unit		
ADDITIONAL FEATURES Supported Communication Interfaces RS485, Ethernet, Cellular GSM (optional) Sapid Shutdown NEC2014 and NEC2017 compliant/certified, upon AC Grid Disconnect St8485 Surge Protection Built-in DC SAFETY SWITCH DC Disconnect 1000V / 2 x 40A 1000V / 3 x 40A DC SAFETY SWITCH DC Disconnect 1000V / 2 x 40A 1000V / 3 x 40A DC Surge Protection Optional, Type II, field replaceable DC Fuses on Plus & Minus Optional, 30A DC STANDARD COMPLIANCE® DC Fuses on Plus & Minus Optional, 30A DC STANDARD COMPLIANCE® DC Fuses on Plus & Minus Optional, 30A DC STANDARD COMPLIANCE® DC Fuses on Plus & Minus DC Fuses on Plus & Minus Optional, 30A DC STANDARD COMPLIANCE® DC Fuses on Plus & Minus DC Fuses on Plus & Minus & DC Fuses on Plus &	CEC Weighted Efficiency	98.5		%
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 DC Surge Protection Optional, Type II, field replaceable OC Fuses on Plus & Minus Optional, 30A STANDARD COMPLIANCE ⁽²⁾ Safety UL1741, UL1741 SA, UL1699B, UL1998, CSA 2.22 Grid Connection Standards IEEE 1547, Rule 21, Rule 14 (HI) Emissions FCC part15 class A NSTALLATION SPECIFICATIONS Number of units 2 3 AC Output Conduit Size / Max AWG / Max PE AWG DC Output Conduit Size / Terminal Block AWG Range / Number of Strings ⁽³⁾ Dimensions (H x W x D) Primary Unit: 37 x 12.5 x 10.5 / 940 x 315 x 260; In / m Secondary Unit: 21 x 12.5 x 10.5 / 540 x 315 x 260; In / m Primary Unit: 21 x 12.5 x 10.5 / 540 x 315 x 260; In / m Secondary Unit: 12 x 12.5 x 10.5 / 540 x 315 x 260; In / m Poperating Temperature Range -13 to +140 / -25 to +60 ⁽⁴⁾ (-40°F / -40°C option) F / Cooling Fan (user replaceable) Noise	Nighttime Power Consumption	<	12	W
NEC2014 and NEC2017 compliant/certified, upon AC Grid Disconnect	ADDITIONAL FEATURES			
Built-in	Supported Communication Interfaces	RS485, Ethernet, Ce	llular GSM (optional)	
DC SAFETY SWITCH DC Disconnect DC Disconnect DC Surge Protection DC Fuses on Plus & Minus DC Fuses on Plus & Fuse II, field replaceable DC Fuses on Plus & Fuse II, field replaceable DC Fuses on Plus & Fuse II, field replaceable DC Fuses on Plus & Fuse II, field replaceable DC Fuses on Plus & Fuse II, field replaceable DC Fuses II, field replaceable DC F	Rapid Shutdown	NEC2014 and NEC2017 compliant/certified, upon AC Grid Disconnect		
DC Disconnect 1000V / 2 x 40A 1000V / 3 x 40A DC Surge Protection Optional, Type II, field replaceable DC Fuses on Plus & Minus Optional, 30A DC Opti	RS485 Surge Protection	Built-in		
OC Surge Protection Optional, Type II, field replaceable Oc Fuses on Plus & Minus Optional, 30A STANDARD COMPLIANCE ⁽²⁾ Gafety UL1741, UL1741 SA, UL1699B, UL199B, CSA 2.22 Grid Connection Standards IEEE 1547, Rule 21, Rule 14 (HI) Emissions FCC part15 class A NSTALLATION SPECIFICATIONS Number of units 2 3 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 / 2 x 1.25" / 6-14 / 6 strings 2 x 1.25" / 6-14 / 9 strings Dimensions (H x W x D) Secondary 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 Primary Unit: 105.8 / 48; Secondary Unit 99.2 / 45 Ib / k Operating Temperature Range -13 to +140 / -25 to +60 ⁽⁴⁾ (-40°F / -40°C option) °F / ° Cooling Fan (user replaceable) Noise < 60 dBA	DC SAFETY SWITCH			
Optional	OC Disconnect	1000V / 2 x 40A	1000V / 3 x 40A	
Content Computation Comp	OC Surge Protection	Optional, Type II, field replaceable		
UL1741, UL1741 SA, UL1699B, UL199B, CSA 2.22	DC Fuses on Plus & Minus	Optional, 30A		
Serial Connection Standards	STANDARD COMPLIANCE(2)			
NSTALLATION SPECIFICATIONS Number of units 2 3 AC Output Conduit Size / Max AWG / Max PE AWG Number of Strings(3) Dimensions (H x W x D) Neight 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 Primary Unit: 105.8 / 48; Secondary Unit 99.2 / 45 Diperating Temperature Range Noise FCC part15 class A FCC part15 class A FCC part15 class A 3 AC Output Conduit Size / Max AWG / Max PE AWG 1.5" / 2/0 / 6 2" / 4/0 / 4 2 x 1.25" / 6-14 / 6 strings 2 x 1.25" / 6-14 / 9 strings 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 Primary Unit: 105.8 / 48; Secondary Unit 99.2 / 45 Ib / k Deparating Temperature Range -13 to +140 / -25 to +60(4) (-40°F / -40°C option) Fan (user replaceable) Noise <a +140="" +60<sup="" -13="" -25="" 0="" 1.25"="" 10.5="" 105.8="" 12.5="" 2="" 2"="" 21="" 260="" 260;="" 315="" 37="" 4="" 45="" 48;="" 540="" 6="" 6-14="" 9="" 940="" 99.2="" deparating="" href="https://www.nit.nit.nit.nit.nit.nit.nit.nit.nit.nit</td><td>Safety</td><td colspan=2>UL1741, UL1741 SA, UL1699B, UL1998, CSA 2.22</td><td></td></tr><tr><td> Number of units 2 3 3 4 4 5 6 6 6 6 6 6 6 6 6</td><td>Grid Connection Standards</td><td colspan=2>IEEE 1547, Rule 21, Rule 14 (HI)</td><td></td></tr><tr><td> Number of units 2 3 3 4 4 5 6 6 6 6 6 6 6 6 6</td><td>Emissions</td><td colspan=2>FCC part15 class A</td><td></td></tr><tr><td>AC Output Conduit Size / Max AWG / Max PE AWG DC Output Conduit Size / Terminal Block AWG Range / Number of Strings<sup>(3)</sup> Dimensions (H x W x D) Weight Deparating Temperature Range Cooling Route AWG / Max PE AWG 1.5" ib="" in="" k="" m="" primary="" range="" secondary="" strings="" temperature="" to="" unit="" unit:="" x="">(4) (-40°F / -40°C option) Fan (user replaceable) Noise < 60 dBA	NSTALLATION SPECIFICATIONS			
AC Output Conduit Size / Max AWG / Max PE AWG DC Output Conduit Size / Terminal Block AWG Range / Number of Strings(3) Dimensions (H x W x D) Weight Departing Temperature Range Cooling Noise 1.5" / 2/0 / 6 2" / 4/0 / 4 2 x 1.25" / 6-14 / 6 strings 2 x 1.25" / 6-14 / 9 strings 3 x 1.25 x 10.5 / 940 x 315 x 260; Secondary Unit: 37 x 12.5 x 10.5 / 540 x 315 x 260 Primary Unit: 105.8 / 48; Secondary Unit 99.2 / 45 Ib / k Departing Temperature Range -13 to +140 / -25 to +60(4) (-40°F / -40°C option) Fan (user replaceable) Noise	Number of units	2	3	
OC Output Conduit Size / Terminal Block AWG Range / Number of Strings ⁽³⁾ 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 / m Weight Primary Unit: 105.8 / 48; Secondary Unit 99.2 / 45 lb / k Operating Temperature Range -13 to +140 / -25 to +60 ⁽⁴⁾ (-40°F / -40°C option) °F / ° Cooling Fan (user replaceable) Noise < 60		. •		
Number of Strings** Primary Unit: 37 x 12.5 x 10.5 / 940 x 315 x 260; in / m Dimensions (H x W x D) Secondary Unit: 21 x 12.5 x 10.5 / 540 x 315 x 260; in / m Weight Primary Unit: 105.8 / 48; Secondary Unit 99.2 / 45 lb / k Operating Temperature Range -13 to +140 / -25 to +60(4) (-40°F / -40°C option) °F / ° Cooling Fan (user replaceable) Noise < 60				
Secondary Unit: 21 x 12.5 x 10.5 / 540 x 315 x 260 In / m	Number of Strings ⁽³⁾			
Weight Primary Unit: 105.8 / 48; Secondary Unit 99.2 / 45 lb / k Operating Temperature Range -13 to +140 / -25 to +60 (4) (-40 °F / -40 °C option) °F / ° Cooling Fan (user replaceable) Noise < 60	Dimensions (H x W x D)			in / mm
Operating Temperature Range -13 to +140 / -25 to +60 ⁽⁴⁾ (-40°F / -40°C option) °F / ° Cooling Fan (user replaceable) Noise < 60	Neight			Ih / ka
Cooling Fan (user replaceable) Noise < 60 dBA		.		
Noise <60 dBA		 		
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TOTECLION RAUNG NEMIA 3K		•	••••••	ary
Bracket Mounted (Brackets Provided)		lNEIV	ΛC ΑΙ	

 $^{^{(1)}}$ For other regional settings please contact SolarEdge support

⁽²⁾ Pending

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

⁽⁴⁾ De-rating from 50°C