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Product Announcement: New SolarEdge Inverters in North America

Dear SolarEdge Customers,

SolarEdge is happy to announce the expansion of the inverter product line. Beginning **Jan. 20 2012** SolarEdge will begin shipping new inverters to North America. The new inverters have additional features and enhanced performance and lower prices across the line.

The highlights of these new inverters are:

- Expanded power range – from 3kW to 7kW
- 277V grid support, with higher efficiency - up to 98% CEC weighted
- Minimum operating temperature extended to -40°F / -40°C (CAN models)
- Maximum operating temperature extended 120°F / 60°C (all models)
- Improved communication board – wire crimping no longer required
- Simplified installation with larger communication glands that will pass an Ethernet connector
- All inverters are supplied with Ethernet, RS232 and RS485 communication support and can optionally be equipped with ZigBee wireless cards

The New Inverters

The part numbers of the new inverters differ in the grids they support and in their minimum operating temperature. The full specifications are attached at the end of this document:

	Part Number	Peak Power [W]	208V	240V	277V	-4°F/ -20°C	-40°F/ -40°C	120°F/ 60°C	Canada FIT and microFIT
Extended Temp Range	SE3000A-US	3000	√	√		√		√	
	SE3800A-US	3800	√	√		√		√	
	SE5000A-US	5000	√	√	√	√		√	
	SE6000A-US	6000@240,277V 5200@208V	√	√	√	√		√	
	SE7000A-US	7000@277V 6000@240V 5200@208V	√	√	√	√		√	
Highly Extended Temp Range	SE3000A-US-CAN	3000	√	√		√	√	√	√
	SE3800A-US-CAN	3800	√	√		√	√	√	√
	SE5000A-US-CAN	5000	√	√	√	√	√	√	√
	SE6000A-US-CAN	6000@240,277V 5200@208V	√	√	√	√	√	√	√
	SE7000A-US-CAN	7000@277V 6000@240V 5200@208V	√	√	√	√	√	√	√
AC/DC safety switch	DCD-1ph-US-A	-	√	√	√	√		√	√

These PNs **replace** the following PNs: SE3300-ER-US, SE3800-ER-US, SE5000-ER-US, SE6000-ER-US, SE3300-ER-US-CAN, SE3800-ER-US-CAN, SE5000-ER-US-CAN, SE6000-ER-US-CAN, DCD-1ph-US.

SolarEdge Technologies

US: 900 Golden Gate Terrace, Suite E, Grass Valley, CA 95945

Germany: Bretonischer Ring 18, 85630 Grasbrunn (Munich)

Japan: B-9 Ariake Frontier Building, 3-7-26 Ariake, Koto-Ku, Tokyo, 135-0063

Israel: 6 HeHarash St., P.O. Box 7349, Neve Ne'eman, Hod Hasharon 45240

Backward Compatibility between Inverters and Safety Switches

Inverters and AC/DC safety switches should be connected to each other as follows:

		Inverters	
		Old Inverters (SExxxx-ER-…)	New Inverters (SExxxx**A**-ER-…)
AC/DC safety switches	DCD-1ph-US (**)	yes	RMA only (*)
	DCD-1ph-US-A	RMA only (*)	yes

(*) The replacement product will be supplied with a SolarEdge adapting gasket (PN: MCM-MC-00306-A) which must be used during installation according to its attached instructions.
(**) 208V and 240V grids only.

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Technical Details

Improved Communication Interface

The inverter communication board has new connectors for Ethernet and RS485 connection to a terminal block connector. Crimping of RJ45/RJ11 connectors is no longer necessary.

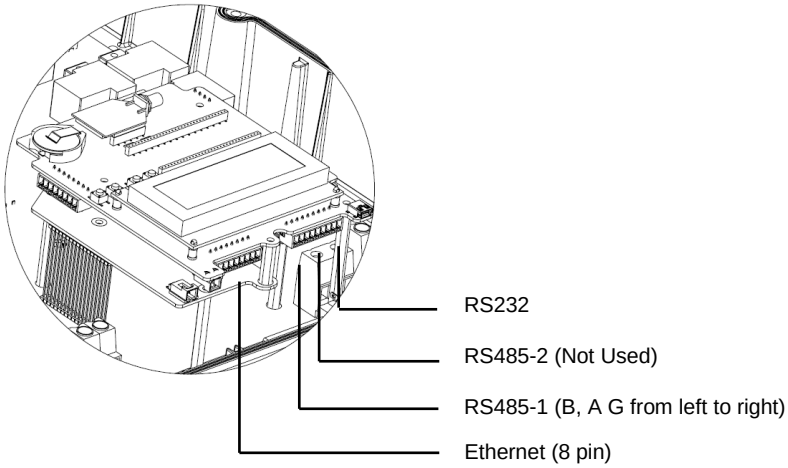

Figure 1 – new communication interface

For full connection instructions please refer to the SolarEdge Installation Guide.
Changes in appearance were made to the inverter power and digital boards. These changes have no effect on functionality or on specifications.

Connection Panel

The inverter has a revised connection panel, as shown in Figure 2.

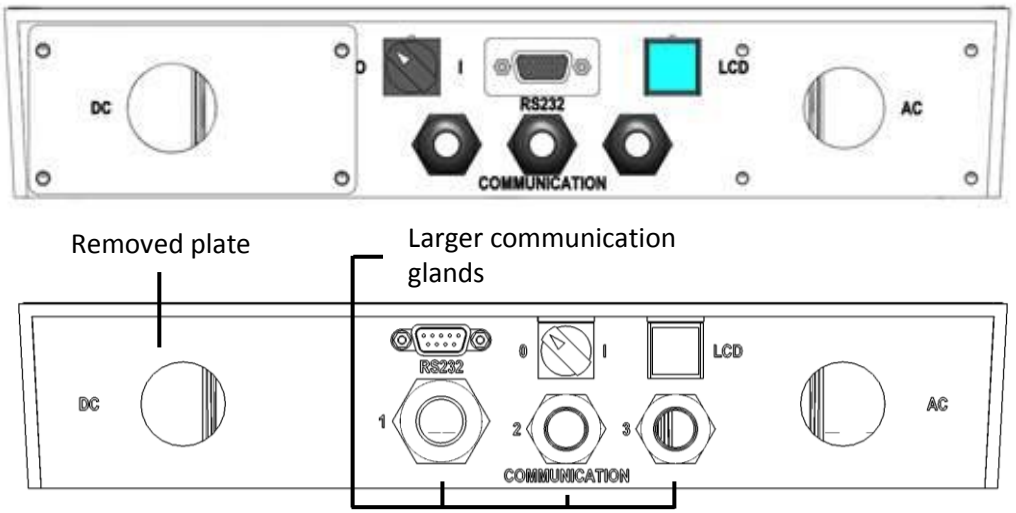

Figure 2 – old (top) and new (bottom) connection panels

The metal sheet on the DC side of the connection plate has been removed.
The communication glands are larger; they are numbered and can be used as follows:

Gland	Size [mm]	Function	Cable diameter
1	20	Ethernet connection (CAT5/6) or ZigBee antenna	4.5-7 mm
2 +3	16	RS485 and ZigBee antenna	2-7 mm

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Grid Connection

When connecting an inverter and an AC/DC Safety Switch to the newly supported 277V grid, wiring is different from that in 208V and 240V connection. The AC terminal blocks in the inverter and in the Safety Switch are clearly labeled, and below them a label instructs what wires to connect to each terminal block, as shown in Figures 3 and 4. Before connecting an inverter or an AC/DC Safety Switch to the grid please refer to the SolarEdge Installation Guide!

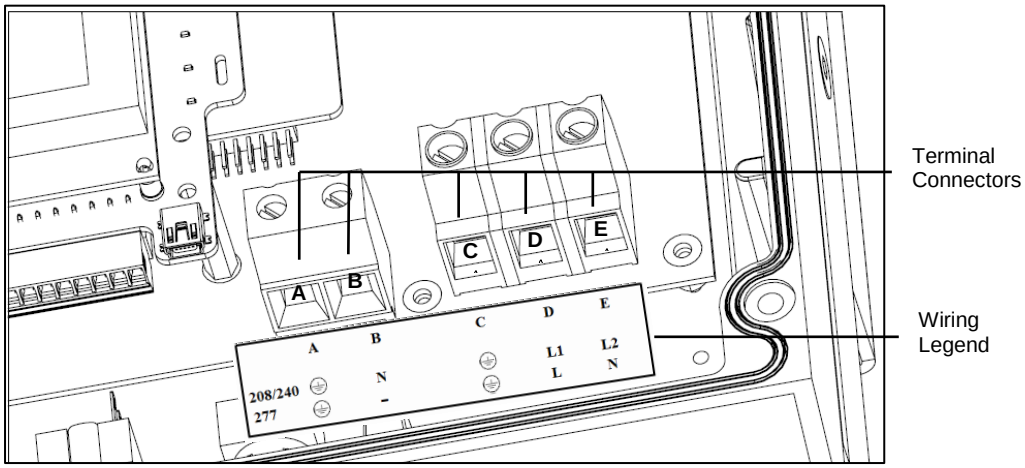

Figure 3 – Inverter AC terminal block labeling and wiring instructions

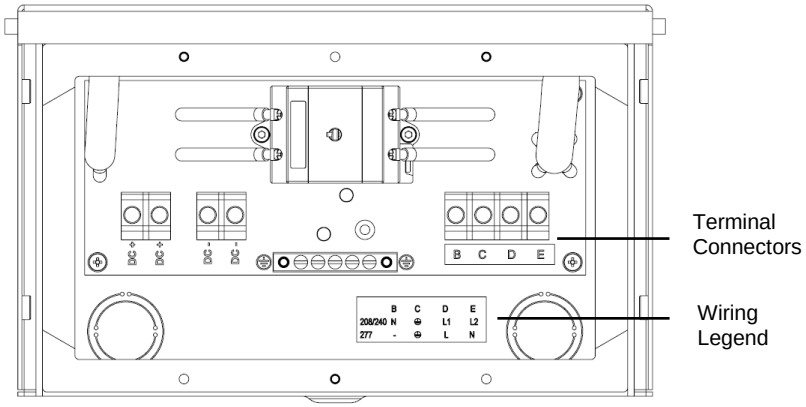

Figure 4 – AC/DC Safety Switch AC terminal block labeling and wiring instructions

Phase Balancer

When connecting multiple single phase inverters in an installation connected to a three phase grid, phase balancing may be required by the utility. Phase balancing is supported in the SolarEdge inverters, via the new communication interface. Please refer to the SolarEdge Phase Balancing Manual for more details.

Inverter Package BOM

- The inverter box no longer includes a separate warranty card. The warranty can now be found at the end of the SolarEdge Installation Guide.
- The inverter box no longer includes a CD. Latest SolarEdge documentation can be found on the SolarEdge website (www.solaredge.com).

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New Inverter Specifications

	SE3000A-US	SE3800A-US	SE5000A-US	SE6000A-US	SE7000A-US	
OUTPUT						
Rated AC Power Output	3000	3800	5000	5200@208V 6000@240V 6000@277V	5200@208V 6000@240V 7000@277V	W
Max. AC Power Output	3000	3800	5000	5200@208V 6000@240V 6000@277V	5200@208V 6000@240V 7000@277V	W
AC Output Voltage Min.-Nom.-Max.	183 - 208 - 229 / 211 - 240 - 264		183 - 208 - 229 / 211 - 240-264 / 244- 277 - 294			Vac
AC Frequency Min.-Nom.-Max.	59.3 - 60 - 60.5					Hz
Max. Continuous Output Current @208V	14.5	18.5	24	25	25	A
Max. Continuous Output Current @240V	12.5	16	21	25	25	A
Max. Continuous Output Current @277V	-	-	18.5	22	25	A
GFDI	1					A
Utility Monitoring, Islanding Protection, Country Configurable Thresholds	Yes					
INPUT						
Recommended Max. DC Power * (STC)	3750	4750	6250	7500	8750	W
Transformer-less, Ungrounded	Yes					
Max. Input Voltage	500					Vdc
Nom. DC Input Voltage	325 @ 208V / 350 @ 240V / 400 @ 277V					Vdc
Max. Input Current	10	12.5	16	18	18.5	Adc
Reverse-Polarity Protection	Yes					
Ground-Fault Isolation Detection	600kΩ Sensitivity					
Maximum Inverter Efficiency	97.8	97.7	98.3	98.3	98.3	%
CEC Weighted Efficiency	97.5	97 @ 208V / 97.5@ 240V	97 @ 208V / 97.5@ 240V / 98 @ 277V			%
Nighttime Power Consumption	< 2.5					W
ADDITIONAL FEATURES						
Supported Communication Interfaces	RS485, RS232, Ethernet, Zigbee (optional)					
STANDARD COMPLIANCE						
Safety	UL1741, IEC-62103 (EN50178), IEC-62109					
Grid Connection Standards	VDE 0126-1-1, AS-4777, RD-1663 , DK 5940, IEEE1547					
Emissions	FCC part15 class B, IEC61000-6-2, IEC61000-6-3, IEC61000-3-11, IEC61000-3-12					
RoHS	Yes					
INSTALLATION SPECIFICATIONS						
AC Output	3/4" Conduit					
DC Input	3/4" Conduit					
Dimensions (HxWxD)	27.5 x 12.5 x 7 / 540 x 315 x 172	27.5 x 12.5 x 7.5 / 540 x 315 x 191				in / mm
Dimensions with AC/DC Switch (HxWxD)	30.5 x 12.5 x 7 / 775 x 315 x 172	30.5 x 12.5 x 7.5 / 775 x 315 x 191				in / mm
Weight	42 / 19	45 / 20.5				lb / kg
Weight with AC/DC Switch	48.5 / 22	52 / 23.5				lb / kg
Cooling	Natural Convection					
Min.-Max. Operating Temperature Range	-4 / -20 ; -40 / -40 to +120 / +60					°F / °C
Protection Rating	NEMA 3R					

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