

Single Phase Inverter, Power Optimizer with Compact Technology

Inverters: SE1000M, SE1500M, SE2000M
Power Optimizer: M2640

SINGLE PHASE INVERTERS,
POWER OPTIMIZER



Cost-effective solution for residential systems of 4-8 modules

- Each of the four power optimizer inputs supports one or two 60-cell modules, or one 72/96-cell modules
- Suitable for homes with limited roof space, social housing projects, or for meeting minimum sustainability requirements
- Extremely compact, lightweight, and easy to install
- IP65 rated inverter — suitable for indoor or outdoor installation
- Power optimizer and inverter designed to work exclusively with each other and are ordered with a single part number and supplied in a single box
- Optional communication option for maximum cost effectiveness

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INVERTER SPECIFICATIONS:

	SE1000M	SE1500M	SE2000M	UNIT
OUTPUT				
Maximum AC Power Output	1000	1500	2000	VA
AC Output Voltage (nominal)	220 / 230			Vac
AC Output Voltage Range	184 - 264.5			Vac
AC Frequency (nominal)	50 / 60 ± 5			Hz
Maximum Continuous Output Current	5	7	9.5	A
INPUT				
Maximum DC Power	1350	2025	2640	W
Transformer-less, Ungrounded	Yes			
Maximum Input Voltage	500			Vdc
Operating Voltage	75 - 480			Vdc
Maximum Input Current	11			Adc
Maximum Inverter Efficiency	97			%
European Weighted Efficiency	95.7	96.5	97	%
ADDITIONAL FEATURES				
Supported Communication Interfaces	Basic: No Communication Interfaces			
	Extended: RS485 Interface, communication to SolarEdge monitoring platform via built-in Ethernet or Wi-Fi ⁽¹⁾ connectivity, or additional options purchased separately such as ZigBee or GSM plug-ins			
Smart Energy Management	Basic: No Smart Energy Management			
	Extended: Export Limitation, Home Energy Management			
STANDARD COMPLIANCE				
Safety	IEC-62103 (EN50178), IEC-62109			
Grid Connection Standards	VDE-AR-N-4105, VDE 0126-1-1, AS-4777, RD-1663, DK5940			
Emissions	IEC61000-6-2, IEC61000-6-3, IEC61000-3-11, IEC61000-3-12, FCC part 15 class B			
RoHS	Yes			
INSTALLATION SPECIFICATIONS				
Dimensions (H x W x D)	340 x 239 x 127			mm
Noise	< 25			dBA
Weight	6			kg
Cooling	Natural Convection			
Operating Temperature Range	-40 to +60 ⁽²⁾			°C
Protection Rating	IP65 - Outdoor and Indoor			

(1) Wi-Fi connectivity requires an external antenna. For more information refer to: <https://www.solaredge.com/sites/default/files/se-wifi-zigbee-antenna-datasheet.pdf>

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

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POWER OPTIMIZER SPECIFICATIONS:

M2640 (For 4-8 60-cell modules or 4 72-cell / 96-cell modules)			UNIT
INPUT			
Number of Inputs	4		
Number of MPP Trackers	4 (one per input)		
Rated DC Power per Input ⁽¹⁾	660		W
Absolute Maximum Input Voltage per Input (Voc at lowest temperature)	96		Vdc
MPPT per Input Operating Range	12.5 - 80		Vdc
Maximum Short Circuit Current per Input (Isc)	10.5		Adc
Maximum Efficiency	99.5		%
Weighted Efficiency	98.8		%
OUTPUT DURING OPERATION (POWER OPTIMIZER CONNECTED TO OPERATING SOLAREEDGE INVERTER)			
Maximum Output Current	10.5		Adc
Maximum Output Voltage	340		Vdc
OUTPUT DURING STANDBY (POWER OPTIMIZER DISCONNECTED FROM SOLAREEDGE INVERTER OR SOLAREEDGE INVERTER OFF)			
Safety Output Voltage per Power Optimizer	10 ± 1		Vdc
INSTALLATION SPECIFICATIONS			
Maximum Allowed System Voltage	600		Vdc
Dimensions (H x W x D)	152 x 211 x 60		mm
Weight (including cables)	1.5		kg
Input Connector	4 x MC4 Pairs		
Output Connector	1 x MC4 Pair		
Operating Temperature Range	-40 to +85		°C
Protection Rating	IP68		

(1) Rated STC power of the module. Module of up to +5% power tolerance allowed.

	SE1000M	SE1500M	SE2000M	UNIT
PV SYSTEM DESIGN				
Number of M2640 per Inverter	1			
Maximum DC System Power	1350	2025	2640	W _{DC}