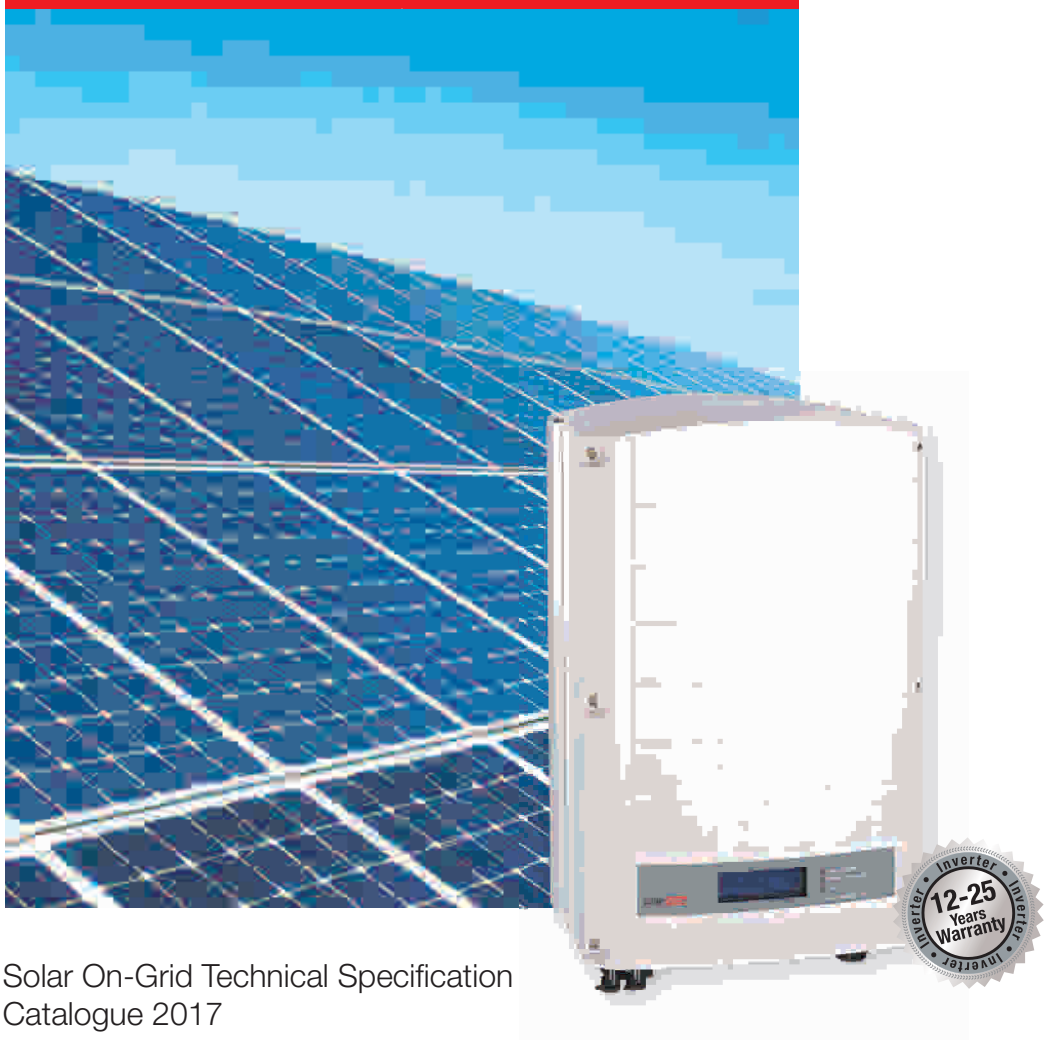
On-Grid String Inverters range with world class Safety Feature



Solar On-Grid Technical Specification
Catalogue 2017

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HAVELLS

Single Phase Inverters

SE2200-SE5000

	SE2200	SE3000	SE5000	
OUTPUT				
Rated AC Power Output	2200	3000	5000[1]	VA
Maximum AC Power Output	2200	3000	5000[1]	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	12	16.5[2]	27	A
Residual Current Detector / Residual Current Step Detector		300 / 30		mA
Utility Monitoring, Islanding Protection, Country Configurable Thresholds		Yes		
INPUT				
Maximum DC Power (Module STC)	2950	4050	6750	W
Transformer-less, Ungrounded		Yes		
Maximum Input Voltage		500		Vdc
Nominal DC Input Voltage		350		Vdc
Maximum Input Current	8.5	11.5	19.5	Adc
Reverse-Polarity Protection		Yes		
Ground-Fault Isolation Detection		600kΩ Sensitivity		
Maximum Inverter Efficiency		97.6		%
European Weighted Efficiency	97.6	97.6	97.4	%
Nighttime Power Consumption		< 2.5		W
ADDITIONAL FEATURES				
Supported Communication Interfaces[3]	RS485, Ethernet, ZigBee (optional), Wi-Fi (optional), Built-in GSM (optional)			
Smart Energy Management	Export Limitation, StorEdge applications			
STANDARD COMPLIANCE				
Safety	IEC-62103 (EN50178), IEC-62109			
Grid Connection Standards	VDE 0126-1-1, VDE-AR-N-4105, AS-4777, RD-1663 , DK 5940			
Emissions	IEC61000-6-2, IEC61000-6-3, IEC61000-3-11, IEC61000-3-12, FCC part15 class B			
RoHS	Yes			
INSTALLATION SPECIFICATIONS				
AC Output		Cable Gland - diameter 9-16		mm
DC Input	1 MC4 pair		2 MC4 pairs	
Dimensions (HxWxD)	540 x 315 x 172		540 x 315 x 191	mm
Weight	20.2		21.7	kg
Cooling		Natural Convection		
Noise		<25		dBA
Operating Temperature Range		-20 - +50 (M40 version -40 - +50)		°C
Protection Rating		IP65 - Outdoor and Indoor		
Bracket Mounted (Bracket Provided)				

[1] Limited to 4600VA when inverter is set to South Africa
[2] For inverters with an AC current limit of 16A please refer to the "SE3000-4000-16A Inverter" datasheet
[3] Refer to Datasheets -> Communications category in Downloads page for specifications of optional communication options: http://www.solaredge.com/groups/support/downloads

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SolarEdge Three Phase Inverters

SE5K-SE7K

	SE5K	SE7K	
OUTPUT			
Rated AC Power Output	5000	7000	VA
Maximum AC Power Output	5000	7000	VA
AC Output Voltage - Line to Line / Line to Neutral (Nominal)	380 / 220 ; 400 / 230		Vac
AC Output Voltage - Line to Neutral Range	184 - 264.5		Vac
AC Frequency	50/60 ± 5		Hz
Maximum Continuous Output Current (per Phase)	8	11.5	A
Residual Current Detector / Residual Current Step Detector	300 / 30		mA
Grids Supported - Three Phase	3 / N / PE (WYE with Neutral)		V
Utility Monitoring, Islanding Protection, Configurable Power Factor, Country Configurable Thresholds	Yes		
INPUT			
Maximum DC Power (Module STC)	6750	9450	W
Transformer-less, Ungrounded	Yes		
Maximum Input Voltage	900		Vdc
Nominal DC Input Voltage	750		Vdc
Maximum Input Current	8.5	12	Adc
Reverse-Polarity Protection	Yes		
Ground-Fault Isolation Detection	700kΩ Sensitivity		
Maximum Inverter Efficiency	98		%
European Weighted Efficiency	97.3	97.3	%
Nighttime Power Consumption	< 2.5		W
ADDITIONAL FEATURES			
Supported Communication Interfaces[3]	RS485, Ethernet, Zigbee (optional), Wi-Fi (optional), Built-in GSM (optional)		
STANDARD COMPLIANCE			
Safety	IEC-62103 (EN50178), IEC-62109		
Grid Connection Standards[4]	VDE 0126-1-1, VDE-AR-N-4105, AS-4777, G83 / G59		
Emissions	IEC61000-6-2, IEC61000-6-3 , IEC61000-3-11, IEC61000-3-12, FCC part15 class B		
RoHS	Yes		
INSTALLATION SPECIFICATIONS			
AC Output	Cable Gland - diameter 15-21		mm
DC Input	2 MC4 pairs		
Dimensions (HxWxD)	540 x 315 x 260		mm
Weight	33.2		kg
Operating Temperature Range	-20 - +60 (M40 version -40 - +60)		˚C
Cooling	Fan (user replaceable)		
Noise	< 50[5]		dBA
Protection Rating	IP65 - Outdoor and Indoor		
Bracket Mounted (Bracket Provided)			

[1] For higher power models refer to: http://www.solaredge.com/files/pdfs/products/inverters/se-three-phase-inverter-extended power-datasheet.pdf
[2] Available in some countries; refer to Certifications category in Downloads page: http://www.solaredge.com/groups/support/downloads
[3] Refer to Datasheets -> Communications category in Downloads page for specifications of optional communication options: http://www.solaredge.com/groups/support/downloads
[4] For all standards refer to Certifications category in Downloads page: http://www.solaredge.com/groups/support/downloads
[5] For inverters with a noise level suitable for residential environments refer to: http://www.solaredge.com/files/pdfs/products/inverters/se-three-phase-indoor-inverter-datasheet.pdf

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SolarEdge Extended Power Three Phase Inverters

SE16K-SE27.6K

	SE16K	SE17K	SE25K	SE27.6K	
OUTPUT					
Rated AC Power Output	16000	17000	25000	27600	VA
Maximum AC Power Output	16000	17000	25000	27600	VA
AC Output Voltage - Line to Line / Line to Neutral (Nominal)	380 / 220 ; 400 / 230				Vac
AC Output Voltage - Line to Neutral Range	184 - 264.5				Vac
AC Frequency	50/60 ± 5				Hz
Maximum Continuous Output Current (per Phase)	25.5	26	38	40	A
Residual Current Detector / Residual Current Step Detector	300 / 30				mA
Grids Supported - Three Phase	3 / N / PE (WYE with Neutral)				V
Utility Monitoring, Islanding Protection, Configurable Power Factor, Country Configurable Thresholds	Yes				
INPUT					
Maximum DC Power (Module STC)	21600	22950	33750	37250	W
Transformer-less, Ungrounded	Yes				
Maximum Input Voltage	900				Vdc
Nominal DC Input Voltage	750				Vdc
Maximum Input Current	23	23	37	40	Adc
Reverse-Polarity Protection	Yes				
Ground-Fault Isolation Detection	700kΩ Sensitivity				
Maximum Inverter Efficiency	98		98.3		%
European Weighted Efficiency	97.7	97.7	98	98	%
Nighttime Power Consumption	< 2.5		< 4		W
ADDITIONAL FEATURES					
Supported Communication Interfaces[1]	RS485, Ethernet, Zigbee (optional), Wi-Fi (optional), Built-in GSM (optional)				
DC SAFETY UNIT (OPTIONAL)					
2-pole Disconnection	N/A		1000V / 40A		
DC Surge Protection	N/A		Type II, field replaceable		
DC Fuses on Plus & Minus	N/A		Optional, 20A		
Compliance	N/A		UTE-C15-712-1		
STANDARD COMPLIANCE					
Safety	IEC-62103 (EN50178), IEC-62109, AS3100				
Grid Connection Standards[2]	VDE-AR-N-4105, G59/3, AS-4777,EN 50438 , CEI-021,VDE 0126-1-1, CEI-016[3], BDEW				
Emissions	IEC61000-6-2, IEC61000-6-3 , IEC61000-3-11, IEC61000-3-12				
RoHS	Yes				
INSTALLATION SPECIFICATIONS					
AC Output	Cable Gland - diameter 15 - 21				mm
DC Input	2 MC4 pairs		3 MC4 pairs		
DC Input with Safety Unit	N/A		Gland outer diameter 5 - 10		mm
			Wire cross section 0.5 - 13.5		mm^2
Dimensions (HxWxD)	540 x 315 x 260				mm
Dimensions with Safety Unit (HxWxD)	N/A		775 x 315 x 260		mm
Weight	33.2		45		kg
Weight with Safety Unit	N/A		48		kg
Operating Temperature Range	-20 - +60 (M40 version -40 - +60)				˚C
Cooling	Fan (user replaceable)				
Noise	< 50		< 55		dBA
Protection Rating	IP65 - Outdoor and Indoor				
Bracket Mounted (Bracket Provided)					

[1] Refer to Datasheets -> Communications category in Downloads page for specifications of optional communication options: http://www.solaredge.com/groups/support/downloads

[2] For all standards refer to Certifications category in Downloads page: http://www.solaredge.com/groups/support/downloads

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SolarEdge Power Optimizer

Module Add-On P300 / P350 / P404 / P405 / P500

	P300 (for 60-cell modules)	P350 (for high-power 60-cell and for 72-cell modules)	P500 (for 96-cell modules)	P404 (for 60-cell and 72-cell, short strings)	P405 (for thin film modules)	
INPUT						
Rated Input DC Power[1]	300	350	500	405	405	W
Absolute Maximum Input Voltage (Voc at lowest temperature)	48	60	80	80	125	Vdc
MPPT Operating Range	8 - 48	8 - 60	8 - 80	12.5 - 80	12.5 - 105	Vdc
Maximum Continuous Input Current (Isc)	10	11		10.1		Adc
Maximum Efficiency			99.5			%
Weighted Efficiency			98.8			%
Overvoltage Category			II			
OUTPUT DURING OPERATION (POWER OPTIMIZER CONNECTED TO OPERATING SOLAREDGE INVERTER)						
Maximum Output Current			15			Adc
Maximum Output Voltage		60		85		Vdc
OUTPUT DURING STANDBY (POWER OPTIMIZER DISCONNECTED FROM SOLAREDGE INVERTER OR SOLAREDGE INVERTER OFF)						
Safety Output Voltage per Power Optimizer			1			Vdc
STANDARD COMPLIANCE						
EMC			FCC Part15 Class B, IEC61000-6-2, IEC61000-6-3			
Safety			IEC62109-1 (class II safety), UL1741			
RoHS			Yes			
Fire Safety			VDE-AR-E 2100-712:2013-05			
INSTALLATION SPECIFICATIONS						
Maximum Allowed System Voltage			1000			Vdc
Dimensions (W x L x H)	128 x 152 x 27.5 / 5 x 5.97 x 1.08		128 x 152 x 35 / 5 x 5.97 x 1.37	128 x 152 x 43 / 5 x 5.97 x 1.69	128 x 152 x 50 / 5 x 5.97 x 1.96	mm / in
Weight (including cables)	760 / 1.7		830 / 1.8	994 / 2.1	1064 / 2.3	gr / lb
Input Connector			MC4[2]			
Output Connector			MC4			
Output Wire Length	0.95 / 3.0		1.2 / 3.9			m / ft
Operating Temperature Range			-40 - +85 / -40 - +185			˚C / ˚F
Protection Rating			IP68 / NEMA6P			
Relative Humidity			0 - 100			%

[1] Rated STC power of the module. Module of up to +5% power tolerance allowed.
[2] For other connector types please contact SolarEdge.

PV SYSTEM DESIGN USING A SOLAREDGE INVERTER[3]		SINGLE PHASE	THREE PHASE	
Minimum String Length (Power Optimizers)	P300,P350,P500	8	16	
	P404,P405	6	13	
Maximum String Length (Power Optimizers)		25	50	
Maximum Power per String		5250	11250	W
Parallel Strings of Different Lengths or Orientations		Yes		

[3] It is not allowed to mix P404/P405 with P300/P350/P500/P600/P700 in one string.

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SolarEdge Power Optimizer

Module Add-On for Commercial Installations P600 / P700 / P800s (preliminary)

	P600 (for 2 x 60-cell PV modules)	P700 (for 2 x 72-cell PV modules)	P800p (for parallel connection of 2x 96-cell 5'' PV modules)	P800s (for series connection of 2x high power or bi-facial modules)	
INPUT					
Rated Input DC Power[1]	600	700	800		W
Absolute Maximum Input Voltage (Voc at lowest temperature)	96	125	83	120	Vdc
MPPT Operating Range	12.5 - 80	12.5 - 105	12.5 - 83	12.5 - 120	Vdc
Maximum Short Circuit Current (Isc)	10.1		14	12.5	Adc
Maximum Efficiency	99.5				%
Weighted Efficiency	98.6				%
Overvoltage Category	II				
OUTPUT DURING OPERATION (POWER OPTIMIZER CONNECTED TO OPERATING SOLAREDGE INVERTER)					
Maximum Output Current	15		18		Adc
Maximum Output Voltage	85				Vdc
OUTPUT DURING STANDBY (POWER OPTIMIZER DISCONNECTED FROM SOLAREDGE INVERTER OR SOLAREDGE INVERTER OFF)					
Safety Output Voltage per Power Optimizer	1				Vdc
STANDARD COMPLIANCE					
EMC	FCC Part15 Class B, IEC61000-6-2, IEC61000-6-3				
Safety	IEC62109-1 (class II safety)				
RoHS	Yes				
Fire Safety	VDE-AR-E 2100-712:2013-05				
INSTALLATION SPECIFICATIONS					
Compatible SolarEdge Inverters	Three phase inverters SE15K & larger		Three phase inverters SE16K & larger		Vdc
Maximum Allowed System Voltage	1000				
Dimensions (W x L x H)	128 x 152 x 43 / 5 x 5.97 x 1.69	128 x 152 x 50 / 5 x 5.97 x 1.93	128 x 152 x 59 / 5 x 5.97 x 2.32		mm / in
Weight (including cables)	834 / 1.8	933 / 2.1	1019 / 2.2	1064/2.3	gr / lb
Input Connector[2]	MC4		MC4 (Single or Dual input)[6]	MC4	
Output Connector	MC4				
Output Wire Length	1.2 / 3.9 (portrait orientation) or 1.8 / 5.9 (landscape orientation)	1.2 / 3.9 (portrait orientation) or 2.1 / 6.9 (landscape orientation)	1.2 / 3.9 (portrait orientation) or 1.8 / 5.9 (landscape orientation)[4]	1.2 / 3.9 (portrait orientation) or 2.1 / 6.9 (landscape orientation)	m / ft
Operating Temperature Range[3]	-40 - +85 / -40 - +185				˚C / ˚F
Protection Rating	IP68 / NEMA6P				
Relative Humidity	0 - 100				%

[1] Rated STC power of the module. Module of up to +5% power tolerance allowed.
[2] For other connector types please contact SolarEdge.
[3] For ambient temperature above +70˚C / +158˚F power de-rating is applied. Refer to Power Optimizers Temperature De-Rating Application Note for more details.
[4] Single input version has 1.8m output wires.

PV SYSTEM DESIGN USING A SOLAREDGE INVERTER[5][6]		THREE PHASE SE15K AND LARGER	THREE PHASE SE16K AND LARGER		THREE PHASE SE33.3K		
Compatible Power Optimizers		P600	P600, P700	P800	P600, P700	P800	
Minimum String Length	Power Optimizers	13		12	13		
	PV Modules	26		24	26		
Maximum String Length	Power Optimizers		30				
	PV Modules		60				
Maximum Power per String		11250[7]		13500	12750[8]	15300	W
Parallel Strings of Different Lengths or Orientations			Yes				

[5] P600 and P700 can be mixed in one string. It is not allowed to mix P600/P700/P800 with P300/P350/P500/P404/P405 in one string.
[6] In a case of odd number of PV modules in one string it is allowed to install one P600/P700 /P800 power optimizer connected to one PV module. When connecting a single module to the P800 the single input version should be used.
[7] For SE27.6K: It is allowed to install up to 13,500W per string when 3 strings are connected to the inverter and when the maximum power difference between the strings is up to 2,000W; inverter max DC power: 37,250W.
[8] For SE33.3K: It is allowed to install up to 15,000W per string when 3 strings are connected to the inverter and when the maximum power difference between the strings is up to 2,000W; inverter max DC power: 45,000W.

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Although every effort has been made to ensure accuracy in the compilation of the technical detail within this publication, however current details should therefore be checked with Havells Group. Specifications & performance data are constantly changing.

LP/ZHLRC00035/MAY17/SEP17

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HAVELLS

On-Grid String Inverters range with world class Safety Feature

Solar On-Grid Technical Specification
Catalogue 2017

solaredge

HAVELLS

Single Phase Inverters

SE2200-SE5000

	SE2200	SE3000	SE5000	
OUTPUT				
Rated AC Power Output	2200	3000	5000[1]	VA
Maximum AC Power Output	2200	3000	5000[1]	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	12	16.5[2]	27	A
Residual Current Detector / Residual Current Step Detector		300 / 30		mA
Utility Monitoring, Islanding Protection, Country Configurable Thresholds		Yes		
INPUT				
Maximum DC Power (Module STC)	2950	4050	6750	W
Transformer-less, Ungrounded		Yes		
Maximum Input Voltage		500		Vdc
Nominal DC Input Voltage		350		Vdc
Maximum Input Current	8.5	11.5	19.5	Adc
Reverse-Polarity Protection		Yes		
Ground-Fault Isolation Detection		600kΩ Sensitivity		
Maximum Inverter Efficiency		97.6		%
European Weighted Efficiency	97.6	97.6	97.4	%
Nighttime Power Consumption		< 2.5		W
ADDITIONAL FEATURES				
Supported Communication Interfaces[3]	RS485, Ethernet, ZigBee (optional), Wi-Fi (optional), Built-in GSM (optional)			
Smart Energy Management	Export Limitation, StorEdge applications			
STANDARD COMPLIANCE				
Safety	IEC-62103 (EN50178), IEC-62109			
Grid Connection Standards	VDE 0126-1-1, VDE-AR-N-4105, AS-4777, RD-1663 , DK 5940			
Emissions	IEC61000-6-2, IEC61000-6-3, IEC61000-3-11, IEC61000-3-12, FCC part15 class B			
RoHS	Yes			
INSTALLATION SPECIFICATIONS				
AC Output		Cable Gland - diameter 9-16		mm
DC Input	1 MC4 pair		2 MC4 pairs	
Dimensions (HxWxD)	540 x 315 x 172		540 x 315 x 191	mm
Weight	20.2		21.7	kg
Cooling		Natural Convection		
Noise		<25		dBA
Operating Temperature Range		-20 - +50 (M40 version -40 - +50)		°C
Protection Rating		IP65 - Outdoor and Indoor		
Bracket Mounted (Bracket Provided)				

[1] Limited to 4600VA when inverter is set to South Africa
[2] For inverters with an AC current limit of 16A please refer to the "SE3000-4000-16A Inverter" datasheet
[3] Refer to Datasheets -> Communications category in Downloads page for specifications of optional communication options: http://www.solaredge.com/groups/support/downloads

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SolarEdge Three Phase Inverters

SE5K-SE7K

	SE5K	SE7K	
OUTPUT			
Rated AC Power Output	5000	7000	VA
Maximum AC Power Output	5000	7000	VA
AC Output Voltage - Line to Line / Line to Neutral (Nominal)	380 / 220 ; 400 / 230		Vac
AC Output Voltage - Line to Neutral Range	184 - 264.5		Vac
AC Frequency	50/60 ± 5		Hz
Maximum Continuous Output Current (per Phase)	8	11.5	A
Residual Current Detector / Residual Current Step Detector	300 / 30		mA
Grids Supported - Three Phase	3 / N / PE (WYE with Neutral)		V
Utility Monitoring, Islanding Protection, Configurable Power Factor, Country Configurable Thresholds	Yes		
INPUT			
Maximum DC Power (Module STC)	6750	9450	W
Transformer-less, Ungrounded	Yes		
Maximum Input Voltage	900		Vdc
Nominal DC Input Voltage	750		Vdc
Maximum Input Current	8.5	12	Adc
Reverse-Polarity Protection	Yes		
Ground-Fault Isolation Detection	700kΩ Sensitivity		
Maximum Inverter Efficiency	98		%
European Weighted Efficiency	97.3	97.3	%
Nighttime Power Consumption	< 2.5		W
ADDITIONAL FEATURES			
Supported Communication Interfaces[3]	RS485, Ethernet, Zigbee (optional), Wi-Fi (optional), Built-in GSM (optional)		
STANDARD COMPLIANCE			
Safety	IEC-62103 (EN50178), IEC-62109		
Grid Connection Standards[4]	VDE 0126-1-1, VDE-AR-N-4105, AS-4777, G83 / G59		
Emissions	IEC61000-6-2, IEC61000-6-3 , IEC61000-3-11, IEC61000-3-12, FCC part15 class B		
RoHS	Yes		
INSTALLATION SPECIFICATIONS			
AC Output	Cable Gland - diameter 15-21		mm
DC Input	2 MC4 pairs		
Dimensions (HxWxD)	540 x 315 x 260		mm
Weight	33.2		kg
Operating Temperature Range	-20 - +60 (M40 version -40 - +60)		˚C
Cooling	Fan (user replaceable)		
Noise	< 50[5]		dBA
Protection Rating	IP65 - Outdoor and Indoor		
Bracket Mounted (Bracket Provided)			

[1] For higher power models refer to: http://www.solaredge.com/files/pdfs/products/inverters/se-three-phase-inverter-extended power-datasheet.pdf
[2] Available in some countries; refer to Certifications category in Downloads page: http://www.solaredge.com/groups/support/downloads
[3] Refer to Datasheets -> Communications category in Downloads page for specifications of optional communication options: http://www.solaredge.com/groups/support/downloads
[4] For all standards refer to Certifications category in Downloads page: http://www.solaredge.com/groups/support/downloads
[5] For inverters with a noise level suitable for residential environments refer to: http://www.solaredge.com/files/pdfs/products/inverters/se-three-phase-indoor-inverter-datasheet.pdf

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SolarEdge Extended Power Three Phase Inverters

SE16K-SE27.6K

	SE16K	SE17K	SE25K	SE27.6K	
OUTPUT					
Rated AC Power Output	16000	17000	25000	27600	VA
Maximum AC Power Output	16000	17000	25000	27600	VA
AC Output Voltage - Line to Line / Line to Neutral (Nominal)	380 / 220 ; 400 / 230				Vac
AC Output Voltage - Line to Neutral Range	184 - 264.5				Vac
AC Frequency	50/60 ± 5				Hz
Maximum Continuous Output Current (per Phase)	25.5	26	38	40	A
Residual Current Detector / Residual Current Step Detector	300 / 30				mA
Grids Supported - Three Phase	3 / N / PE (WYE with Neutral)				V
Utility Monitoring, Islanding Protection, Configurable Power Factor, Country Configurable Thresholds	Yes				
INPUT					
Maximum DC Power (Module STC)	21600	22950	33750	37250	W
Transformer-less, Ungrounded	Yes				
Maximum Input Voltage	900				Vdc
Nominal DC Input Voltage	750				Vdc
Maximum Input Current	23	23	37	40	Adc
Reverse-Polarity Protection	Yes				
Ground-Fault Isolation Detection	700kΩ Sensitivity				
Maximum Inverter Efficiency	98		98.3		%
European Weighted Efficiency	97.7	97.7	98	98	%
Nighttime Power Consumption	< 2.5		< 4		W
ADDITIONAL FEATURES					
Supported Communication Interfaces[1]	RS485, Ethernet, Zigbee (optional), Wi-Fi (optional), Built-in GSM (optional)				
DC SAFETY UNIT (OPTIONAL)					
2-pole Disconnection	N/A		1000V / 40A		
DC Surge Protection	N/A		Type II, field replaceable		
DC Fuses on Plus & Minus	N/A		Optional, 20A		
Compliance	N/A		UTE-C15-712-1		
STANDARD COMPLIANCE					
Safety	IEC-62103 (EN50178), IEC-62109, AS3100				
Grid Connection Standards[2]	VDE-AR-N-4105, G59/3, AS-4777,EN 50438 , CEI-021,VDE 0126-1-1, CEI-016[3], BDEW				
Emissions	IEC61000-6-2, IEC61000-6-3 , IEC61000-3-11, IEC61000-3-12				
RoHS	Yes				
INSTALLATION SPECIFICATIONS					
AC Output	Cable Gland - diameter 15 - 21				mm
DC Input	2 MC4 pairs		3 MC4 pairs		
DC Input with Safety Unit	N/A		Gland outer diameter 5 - 10		mm
			Wire cross section 0.5 - 13.5		mm^2
Dimensions (HxWxD)	540 x 315 x 260				mm
Dimensions with Safety Unit (HxWxD)	N/A		775 x 315 x 260		mm
Weight	33.2		45		kg
Weight with Safety Unit	N/A		48		kg
Operating Temperature Range	-20 - +60 (M40 version -40 - +60)				˚C
Cooling	Fan (user replaceable)				
Noise	< 50		< 55		dBA
Protection Rating	IP65 - Outdoor and Indoor				
Bracket Mounted (Bracket Provided)					

[1] Refer to Datasheets -> Communications category in Downloads page for specifications of optional communication options: http://www.solaredge.com/groups/support/downloads

[2] For all standards refer to Certifications category in Downloads page: http://www.solaredge.com/groups/support/downloads

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SolarEdge Power Optimizer

Module Add-On P300 / P350 / P404 / P405 / P500

	P300 (for 60-cell modules)	P350 (for high-power 60-cell and for 72-cell modules)	P500 (for 96-cell modules)	P404 (for 60-cell and 72-cell, short strings)	P405 (for thin film modules)	
INPUT						
Rated Input DC Power[1]	300	350	500	405	405	W
Absolute Maximum Input Voltage (Voc at lowest temperature)	48	60	80	80	125	Vdc
MPPT Operating Range	8 - 48	8 - 60	8 - 80	12.5 - 80	12.5 - 105	Vdc
Maximum Continuous Input Current (Isc)	10	11		10.1		Adc
Maximum Efficiency			99.5			%
Weighted Efficiency			98.8			%
Overvoltage Category			II			
OUTPUT DURING OPERATION (POWER OPTIMIZER CONNECTED TO OPERATING SOLAREDGE INVERTER)						
Maximum Output Current			15			Adc
Maximum Output Voltage		60		85		Vdc
OUTPUT DURING STANDBY (POWER OPTIMIZER DISCONNECTED FROM SOLAREDGE INVERTER OR SOLAREDGE INVERTER OFF)						
Safety Output Voltage per Power Optimizer			1			Vdc
STANDARD COMPLIANCE						
EMC			FCC Part15 Class B, IEC61000-6-2, IEC61000-6-3			
Safety			IEC62109-1 (class II safety), UL1741			
RoHS			Yes			
Fire Safety			VDE-AR-E 2100-712:2013-05			
INSTALLATION SPECIFICATIONS						
Maximum Allowed System Voltage			1000			Vdc
Dimensions (W x L x H)	128 x 152 x 27.5 / 5 x 5.97 x 1.08		128 x 152 x 35 / 5 x 5.97 x 1.37	128 x 152 x 43 / 5 x 5.97 x 1.69	128 x 152 x 50 / 5 x 5.97 x 1.96	mm / in
Weight (including cables)	760 / 1.7		830 / 1.8	994 / 2.1	1064 / 2.3	gr / lb
Input Connector			MC4[2]			
Output Connector			MC4			
Output Wire Length	0.95 / 3.0		1.2 / 3.9			m / ft
Operating Temperature Range			-40 - +85 / -40 - +185			˚C / ˚F
Protection Rating			IP68 / NEMA6P			
Relative Humidity			0 - 100			%

[1] Rated STC power of the module. Module of up to +5% power tolerance allowed.
[2] For other connector types please contact SolarEdge.

PV SYSTEM DESIGN USING A SOLAREDGE INVERTER[3]		SINGLE PHASE	THREE PHASE	
Minimum String Length (Power Optimizers)	P300,P350,P500	8	16	
	P404,P405	6	13	
Maximum String Length (Power Optimizers)		25	50	
Maximum Power per String		5250	11250	W
Parallel Strings of Different Lengths or Orientations		Yes		

[3] It is not allowed to mix P404/P405 with P300/P350/P500/P600/P700 in one string.

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SolarEdge Power Optimizer

Module Add-On for Commercial Installations P600 / P700 / P800s (preliminary)

	P600 (for 2 x 60-cell PV modules)	P700 (for 2 x 72-cell PV modules)	P800p (for parallel connection of 2x 96-cell 5'' PV modules)	P800s (for series connection of 2x high power or bi-facial modules)	
INPUT					
Rated Input DC Power[1]	600	700	800		W
Absolute Maximum Input Voltage (Voc at lowest temperature)	96	125	83	120	Vdc
MPPT Operating Range	12.5 - 80	12.5 - 105	12.5 - 83	12.5 - 120	Vdc
Maximum Short Circuit Current (Isc)	10.1		14	12.5	Adc
Maximum Efficiency	99.5				%
Weighted Efficiency	98.6				%
Overvoltage Category	II				
OUTPUT DURING OPERATION (POWER OPTIMIZER CONNECTED TO OPERATING SOLAREDGE INVERTER)					
Maximum Output Current	15		18		Adc
Maximum Output Voltage	85				Vdc
OUTPUT DURING STANDBY (POWER OPTIMIZER DISCONNECTED FROM SOLAREDGE INVERTER OR SOLAREDGE INVERTER OFF)					
Safety Output Voltage per Power Optimizer	1				Vdc
STANDARD COMPLIANCE					
EMC	FCC Part15 Class B, IEC61000-6-2, IEC61000-6-3				
Safety	IEC62109-1 (class II safety)				
RoHS	Yes				
Fire Safety	VDE-AR-E 2100-712:2013-05				
INSTALLATION SPECIFICATIONS					
Compatible SolarEdge Inverters	Three phase inverters SE15K & larger		Three phase inverters SE16K & larger		Vdc
Maximum Allowed System Voltage	1000				
Dimensions (W x L x H)	128 x 152 x 43 / 5 x 5.97 x 1.69	128 x 152 x 50 / 5 x 5.97 x 1.93	128 x 152 x 59 / 5 x 5.97 x 2.32		mm / in
Weight (including cables)	834 / 1.8	933 / 2.1	1019 / 2.2	1064/2.3	gr / lb
Input Connector[2]	MC4		MC4 (Single or Dual input)[6]	MC4	
Output Connector	MC4				
Output Wire Length	1.2 / 3.9 (portrait orientation) or 1.8 / 5.9 (landscape orientation)	1.2 / 3.9 (portrait orientation) or 2.1 / 6.9 (landscape orientation)	1.2 / 3.9 (portrait orientation) or 1.8 / 5.9 (landscape orientation)[4]	1.2 / 3.9 (portrait orientation) or 2.1 / 6.9 (landscape orientation)	m / ft
Operating Temperature Range[3]	-40 - +85 / -40 - +185				°C / °F
Protection Rating	IP68 / NEMA6P				
Relative Humidity	0 - 100				%

[1] Rated STC power of the module. Module of up to +5% power tolerance allowed.
[2] For other connector types please contact SolarEdge.
[3] For ambient temperature above +70°C / +158°F power de-rating is applied. Refer to Power Optimizers Temperature De-Rating Application Note for more details.
[4] Single input version has 1.8m output wires.

PV SYSTEM DESIGN USING A SOLAREDGE INVERTER[5][6]		THREE PHASE SE15K AND LARGER	THREE PHASE SE16K AND LARGER		THREE PHASE SE33.3K		
Compatible Power Optimizers		P600	P600, P700	P800	P600, P700	P800	
Minimum String Length	Power Optimizers	13		12	13		
	PV Modules	26		24	26		
Maximum String Length	Power Optimizers		30				
	PV Modules		60				
Maximum Power per String		11250[7]		13500	12750[8]	15300	W
Parallel Strings of Different Lengths or Orientations			Yes				

[5] P600 and P700 can be mixed in one string. It is not allowed to mix P600/P700/P800 with P300/P350/P500/P404/P405 in one string.
[6] In a case of odd number of PV modules in one string it is allowed to install one P600/P700 /P800 power optimizer connected to one PV module. When connecting a single module to the P800 the single input version should be used.
[7] For SE27.6K: It is allowed to install up to 13,500W per string when 3 strings are connected to the inverter and when the maximum power difference between the strings is up to 2,000W; inverter max DC power: 37,250W.
[8] For SE33.3K: It is allowed to install up to 15,000W per string when 3 strings are connected to the inverter and when the maximum power difference between the strings is up to 2,000W; inverter max DC power: 45,000W.

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