

# Smart Module

Monocrystalline PERC Module with Half-cut Cell Technology and Integrated Power Optimizer

SPV345-R60LBMG - SPV365-R60LBMG

SMART MODULE



## PV to grid solution including full service from SolarEdge

- Easy installation with module pre-assembled power optimizer
- Optimised energy output by constantly tracking the maximum power point (MPPT) of each module individually
- Module-level voltage shutdown for installer and firefighter safety
- Full visibility of system performance from module to grid
- Superior quality control with full automatic production line
- Excellent mechanical loading and shock resistance performance
- Elegant design with an all-black module
- 12-year module warranty and 25-year performance warranty
- Specifically designed to work with SolarEdge inverters

# Smart Module

## Monocrystalline PERC Module with Half-cut Cell Technology and Integrated Power Optimizer

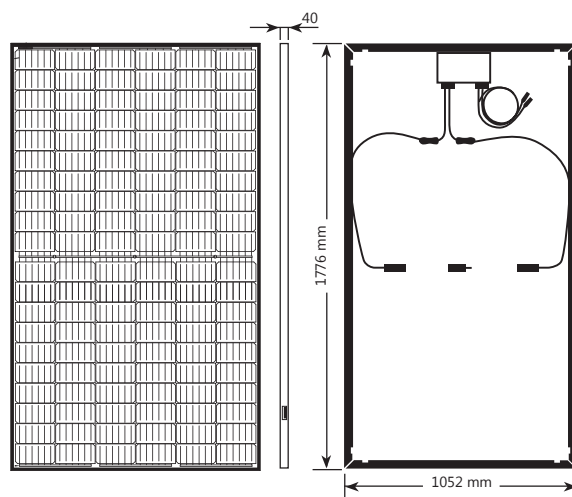
### SPV345-R60LBMG - SPV365-R60LBMG

#### MODULE ELECTRICAL PROPERTIES

STC <sup>(1)</sup>	SPV345-R60LBMG	SPV350-R60LBMG	SPV355-R60BWMG	SPV360-R60LBMG	SPV365-R60LBMG	
Module Power	345	350	355	360	365	W
Max. Power Voltage (Vmp)	34.2	34.4	34.6	34.8	35.0	V
Max. Power Current (Imp)	10.09	10.18	10.27	10.35	10.43	A
Open Circuit Voltage (Voc)	40.2	40.4	40.6	40.8	41.0	V
Short Circuit Current (Isc)	11.06	11.16	11.25	11.33	11.41	A
Maximum System Voltage	1000					Vdc
Maximum Series Fuse Rating	20					A
Module Efficiency	18.5	18.7	19.0	19.3	19.5	%
Power Tolerance	0 ~ +5					W
NOCT <sup>(2)</sup>						
Module Power	255.6	259.3	263.0	266.7	270.4	W
Max. Power Voltage (Vmp)	31.6	31.8	32.0	32.1	32.3	V
Max. Power Current (Imp)	8.09	8.16	8.23	8.3	8.36	A
Open Circuit Voltage (Voc)	37.5	37.7	37.9	38.1	38.3	V
Short Circuit Current (Isc)	8.92	8.99	9.06	9.13	9.20	A

#### MODULE MECHANICAL PROPERTIES

Cells	120 (6 x 20)	
Cell Type	Monocrystalline PERC	
Cell Dimensions	166 x 83	mm
Dimensions (L x W x H)	1776 x 1052 x 40	mm
Front Side Maximum Load (Snow)	5400	Pa
Rear Side Maximum Load (Wind)	2400	Pa
Weight (with Power Optimizer)	20.7	kg
Front Glass	3.2mm, coated tempered glass	
Frame	Black anodized aluminium	
Junction Box	IP68, three diodes	
Connector Type	MC4	
Operating Temperature	-40 to +85	°C
Packaging Information (units per pallet)	26	



#### CERTIFICATIONS & WARRANTY

Module Certifications	IEC 61215:2016, IEC61730:2016	
Product Warranty	Power Optimizer — 25-year warranty, Module — 12-year warranty	
Output Warranty of Pmax	25-year linear module warranty <sup>(3)</sup>	

#### TEMPERATURE CHARACTERISTICS

Temperature Coefficient Power (Pm)	-0.350	% / °C
Temperature Coefficient Voltage (Voc)	-0.270	% / °C
Temperature Coefficient Current (Isc)	0.048	% / °C
Operating Cell Temperature (NOCT)	45 ± 2	°C

(1) STC: Irradiance 1000 W/m<sup>2</sup>, Cell Temperature 25°C, Air Mass AM1.5

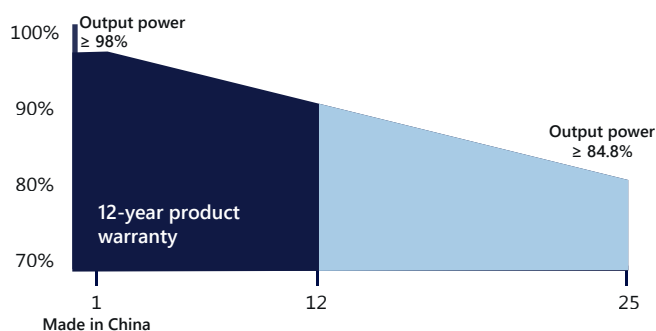
(2) NOCT: Irradiance at 800 W/m<sup>2</sup>, Ambient Temperature 20°C, Wind Speed 1 m/s

(3) 1ST year: 98%, 84.8% power output over 25 years

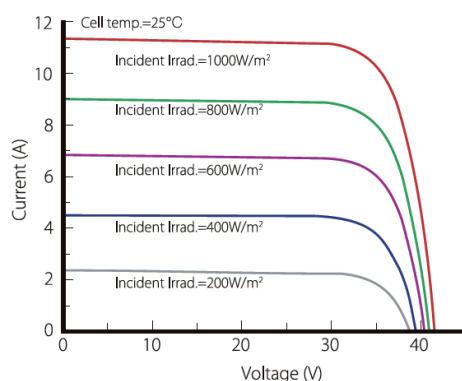
\* The specifications included in this document are preliminary and subject to change

#### Linear Warranty

12-Year Product Warranty  
+ 25-Year Linear Power Warranty



#### Module I-V Curve (SPV360-R60LBMG)



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## Monocrystalline PERC Module with Half-cut Cell Technology and Integrated Power Optimizer

### SPV345-R60LBMG - SPV365-R60LBMG

#### POWER OPTIMIZER PROPERTIES

##### INPUT

Rated Input DC Power	375	W
Absolute Maximum Input Voltage (Voc at lowest temperature)	60	
MPPT Operating Range	8 - 60	Vdc
Maximum Short Circuit Current (Isc)	11.75	Adc
Maximum Efficiency	99.5	%
Weighted Efficiency	98.8	%
Overvoltage Category	II	

##### OUTPUT DURING OPERATION (POWER OPTIMIZER CONNECTED TO OPERATING SOLAREEDGE INVERTER)

Maximum Output Current	15	Adc
Maximum Output Voltage	60	Vdc

##### OUTPUT DURING STANDBY (POWER OPTIMIZER DISCONNECTED FROM SOLAREEDGE INVERTER OR SOLAREEDGE INVERTER OFF)

Safety Output Voltage per Power Optimizer	1 ± 0.1	Vdc
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##### 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

Output Connector	MC4	
Output Wire Length	1.2 / 3.9	m / ft
Operating Temperature Range	-40 - +85 / -40 - +185	°C / °F
Protection Rating	IP68 / NEMA6P	
Relative Humidity	0 - 100	%

PV System Design Using a SolarEdge Inverter	Single Phase HD-Wave	Single Phase	Three Phase	Three Phase for 277/480 Grid	
Minimum String Length (Power Optimizer)	8		16	18	
Maximum String Length (Power Optimizers)	25		50		
Maximum Power per String	5700	5250	11250 <sup>(4)</sup>	12750 <sup>(5)</sup>	W
Parallel Strings of Different Lengths or Orientations	Yes				

(4) Optimisers must be connected in two separate arrays. For complete design guidelines for the three phase residential inverters refer to: [https://www.solaredge.com/sites/default/files/three\\_phase\\_inverter\\_residential\\_design\\_installation\\_addendum\\_aus.pdf](https://www.solaredge.com/sites/default/files/three_phase_inverter_residential_design_installation_addendum_aus.pdf)

(5) For the 230/400V grid: it is allowed to install up to 13,500W per string when the maximum power difference between each string is 2,000W

