

# Smart Module

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

SPV370-R60DWMG, SPV375-R60DWMG

SMART MODULE



## PV to grid solution including full service from SolarEdge

- Easy installation with module pre-assembled power optimizer
- Optimized 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 black frame
- 15-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

### SPV370-R60DWMG, SPV375-R60DWMG

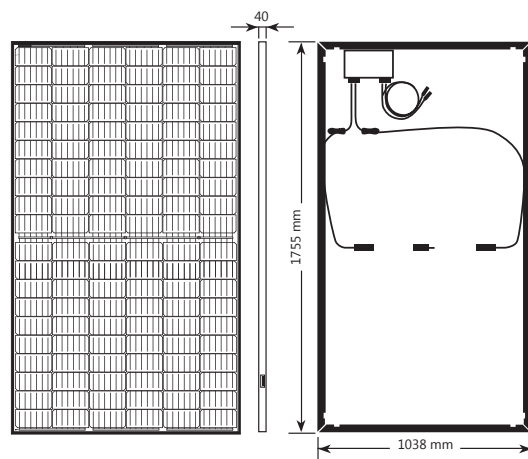
#### MODULE ELECTRICAL PROPERTIES

STC <sup>(1)</sup>	SPV370-R60DWMG	SPV375-R60DWMG	
Module Power	370	375	W
Max. Power Voltage (V <sub>mp</sub> )	33.95	34.10	V
Max. Power Current (I <sub>mp</sub> )	10.91	11.01	A
Open Circuit Voltage (V <sub>oc</sub> )	41.72	41.89	V
Short Circuit Current (I <sub>sc</sub> )	11.32	11.43	A
Maximum System Voltage	1000		V <sub>dc</sub>
Maximum Series Fuse Rating	20		A
Module Efficiency	19.80	20.07	%
Power Measurement Tolerance	0 ~ +5		W
NOCT <sup>(2)</sup>			
Module Power	277	281	W
Max. Power Voltage (V <sub>mp</sub> )	31.17	31.30	V
Max. Power Current (I <sub>mp</sub> )	8.90	8.98	A
Open Circuit Voltage (V <sub>oc</sub> )	38.86	39.02	V
Short Circuit Current (I <sub>sc</sub> )	9.30	9.39	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)	1755 x 1038 x 40*	mm
Front Side Maximum Load (Snow)	5400	Pa
Rear Side Maximum Load (Wind)	2400	Pa
Weight (with Power Optimizer)	22*	kg
Front Glass	3.2mm, coated tempered glass	
Frame	Black anodized aluminium	
Junction Box	IP68, three diodes	
Connector Type	Staubli MC4	
Operating Temperature	-40 to +85	°C
Packaging Information (units per pallet)	26	

\* The dimensions and weight displayed in this table apply to modules manufactured from February 2021 (SPVxxx-R60DWMG-2M2C01). Modules manufactured prior to February 2021 (SPVxxx-R60DWMG-2C01) have dimensions of 1776 x 1052 x 40 mm and weigh 23.0 kg



#### CERTIFICATIONS & WARRANTY

Module Certifications	IEC61215:2016, IEC61730:2016, AU listing CEC, Ammonia, PID, Salt-mist	
Product Warranty	Power Optimizer — 25-year warranty, Module — 15-year warranty	
Output Warranty of P <sub>max</sub>	25-year linear module warranty <sup>(3)</sup>	

#### TEMPERATURE CHARACTERISTICS

Temperature Coefficient Power (P <sub>m</sub> )	-0.364	% / °C
Temperature Coefficient Voltage (V <sub>oc</sub> )	-0.281	% / °C
Temperature Coefficient Current (I <sub>sc</sub> )	0.039	% / °C
Operating Cell Temperature (NOCT)	45 ± 2	°C

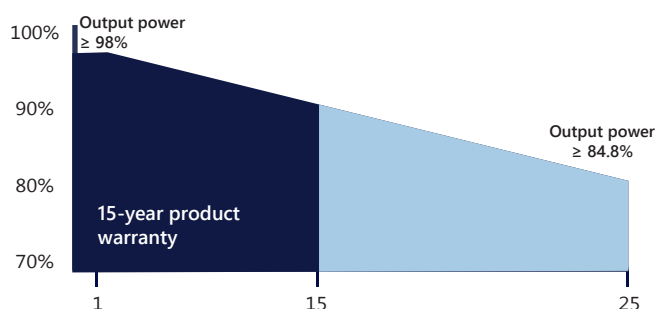
(1) STC: Irradiance 1000 W/m<sup>2</sup>, Cell Temperature 25°C, Air Mass AM1.5

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

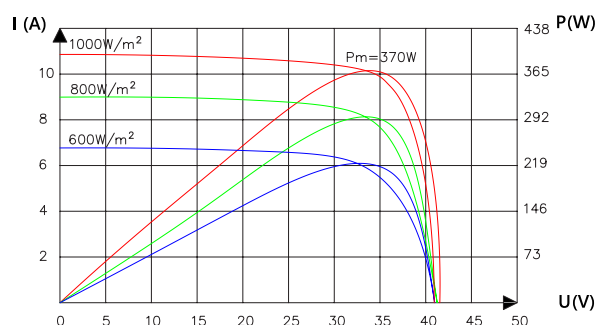
(3) 1st year: 98%, 84.8% power output over 25 years

#### Linear Warranty

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



#### Panel I-V Curve (SPV370-R60DWMG)



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### SPV370-R60DWMG, SPV375-R60DWMG

#### POWER OPTIMIZER PROPERTIES

##### INPUT

Rated Input DC Power	375	W
Absolute Maximum Input Voltage (Voc at lowest temperature)	60	Vdc
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 Part 15 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 to +85 / -40 to +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) <sup>(4)</sup>	8		16	18	
Maximum String Length (Power Optimizers)	25			50	
Maximum Power per String	5700	5250	11250 <sup>(5)</sup>	12750 <sup>(6)</sup>	W
Parallel Strings of Different Lengths or Orientations	Yes				

(4) Smart modules cannot be used with the SE3K three phase inverter (available in some countries; refer to the three phase inverter SE3K-SE10K datasheet)

(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

(6) For the 277/480V grid: it is allowed to install up to 15,000W per string when the maximum power difference between each string is 2,000W