

Smart Module

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

SPV370-R60JWMG, SPV375-R60JWMG

SMART MODULE



PV to grid solution including full service from SolarEdge

- 25-year module warranty and performance warranty
- Easy installation with the Power Optimizer pre-assembled on the PV module
- Optimized energy output by constantly tracking the maximum power point (MPPT) of each module individually
- Built-in SafeDC™ enabling module-level voltage shutdown whenever inverter or AC power is turned off, for maximum installer and firefighter safety
- Specifically designed to work with SolarEdge inverters
- Full visibility of system performance from module to grid
- Excellent mechanical loading and shock resistance performance
- Detects abnormal PV connector behavior, reducing potential safety issues
- Faster installations with simplified cable management

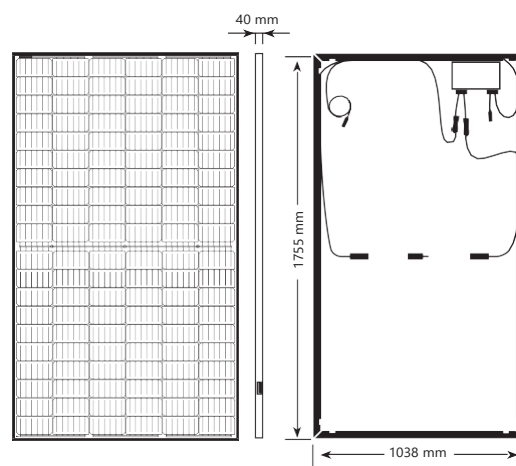
MODULE ELECTRICAL PROPERTIES

STC ⁽¹⁾	SPV370-R60JWMG	SPV375-R60JWMG	
Module Power	370	375	W
Max. Power Voltage (Vmp)	34.08	34.28	V
Max. Power Current (Imp)	10.86	10.95	A
Open Circuit Voltage (Voc)	41.30	41.50	V
Short Circuit Current (Isc)	11.37	11.46	A
Maximum System Voltage		1000	Vdc
Maximum Series Fuse Rating		20	A
Module Efficiency	20.31	20.59	%
NMOT ⁽²⁾			
Module Power	278.5	282.2	W
Max. Power Voltage (Vmp)	32.05	32.22	V
Max. Power Current (Imp)	8.69	8.76	A
Open Circuit Voltage (Voc)	38.99	39.18	V
Short Circuit Current (Isc)	9.15	9.23	A

* Measurement tolerance: Pmax: ±3%, Voc: ±3%, Isc: ±5%

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)	20.2	kg
Front Glass	3.2mm, coated tempered glass	
Frame	Black anodized aluminum	
Junction Box	IP68, three diodes	
Connector Type	MC4 EVO2	
Operating Temperature	-40 to +85	°C
Packaging Information (units per pallet)	26	



CERTIFICATIONS & WARRANTY

Module Certifications	IEC61215:2016, IEC61730:2016, AU listing CEC
Product Warranty	Power Optimizer — 25-year warranty, Module — 25-year warranty
Output Warranty of Pmax	25-year linear module warranty ⁽³⁾

TEMPERATURE CHARACTERISTICS

Temperature Coefficient Power (Pm)	-0.37	% / °C
Temperature Coefficient Voltage (Voc)	-0.29	% / °C
Temperature Coefficient Current (Isc)	0.04	% / °C
Operating Cell Temperature (NMOT)	43 ± 2	°C

(1) STC: Irradiance 1000 W/m², Cell Temperature 25°C, Air Mass AM1.5

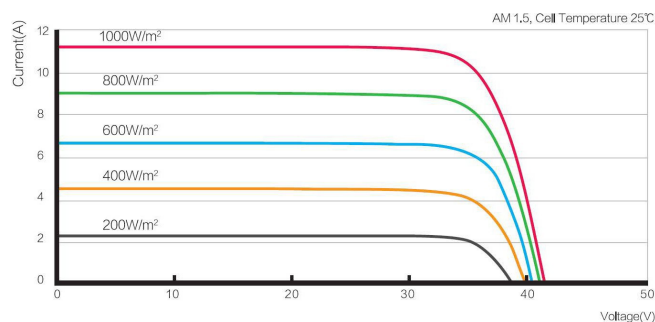
(2) NMOT: Irradiance at 800 W/m², Ambient Temperature 20°C, Wind Speed 1 m/s

(3) 1st year: 97.5%, 83.1% power output over 25 years

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



Panel I-V Curve (SPV370-R60JWMG)



		S440	UNIT
INPUT			
Rated Input DC Power ⁽¹⁾		440	W
Absolute Maximum Input Voltage (Voc)		60	Vdc
MPPT Operating Range		8 - 60	Vdc
Maximum Short Circuit Current (Isc) of Connected PV Module		14.5	Adc
Maximum Efficiency		99.5	%
Weighted Efficiency		98.6	%
Overvoltage Category		II	
OUTPUT DURING OPERATION			
Maximum Output Current		15	Adc
Maximum Output Voltage		60	Vdc
OUTPUT DURING STANDBY (POWER OPTIMIZER DISCONNECTED FROM INVERTER OR INVERTER OFF)			
Safety Output Voltage per Power Optimizer		1	Vdc
STANDARD COMPLIANCE			
EMC		FCC Part 15 Class B, IEC61000-6-2, IEC61000-6-3, CISPR11, EN-55011	
Safety		IEC62109-1 (class II safety), UL1741	
Material		UL94 V-0, UV Resistant	
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)		129 x 153 x 30	mm
Weight (including cables)		655 / 1.5	gr / lb
Input Connector		MC4	
Input Wire Length		0.1	m
Output Connector		MC4	
Output Wire Length		(+) 2.3, (-) 0.10	m
Operating Temperature Range ⁽²⁾		-40 to +85	°C
Protection Rating		IP68 / NEMA6P	
Relative Humidity		0 - 100	%

(1) Rated power of the module at STC will not exceed the Power Optimizer Rated Input DC Power. Modules with up to +5% power tolerance are allowed

(2) For ambient temperature above +70°C / +158°F power de-rating is applied. Refer to Power Optimizers [Temperature De-Rating Technical Note](#) for more details

PV System Design Using a SolarEdge Inverter ⁽³⁾		Single Phase HD-Wave	Three Phase for Short PV Strings (SExxK-RBW)	Three Phase for 230/400V Grid	Three Phase for 277/480V Grid	
Minimum String Length (Power Optimizers)	S440	8	9	16	18	
Maximum String Length (Power Optimizers)		25		50		
Maximum Nominal Power per String		5700 ⁽⁴⁾	5625 ⁽⁴⁾	11250 ⁽⁵⁾	12750 ⁽⁶⁾	W
Parallel Strings of Different Lengths or Orientations		Yes				

(3) It is not allowed to mix SPVxxx-R60DWMG and SPVxxx-R60JWMG in new installations

(4) If the inverters rated AC power ≤ maximum nominal power per string, then the maximum power per string will be able to reach up to the inverters maximum input DC power

Refer to: <https://www.solaredge.com/sites/default/files/se-power-optimizer-single-string-design-application-note.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

(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



SolarEdge is a global leader in smart energy technology. By leveraging world-class engineering capabilities and with a relentless focus on innovation, SolarEdge creates smart energy solutions that power our lives and drive future progress.

SolarEdge developed an intelligent inverter solution that changed the way power is harvested and managed in photovoltaic (PV) systems. The SolarEdge DC optimized inverter maximizes power generation while lowering the cost of energy produced by the PV system.

Continuing to advance smart energy, SolarEdge addresses a broad range of energy market segments through its PV, storage, EV charging, UPS, and grid services solutions.

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