Smart Module

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

SPV355-R60DBMG, SPV360-R60DBMG



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 an all-black module
- 25-year module and performance warranty
- Specifically designed to work with SolarEdge inverters



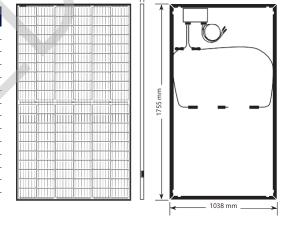
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MODULE ELECTRICAL PROPERTIES				
STC ⁽¹⁾	SPV355-R60DBMG SPV360-R60DBMG			
Module Power	355	360	W	
Max. Power Voltage (Vmp)	33.74	33.87	V	
Max. Power Current (Imp)	10.53	10.63	А	
Open Circuit Voltage (Voc)	41.51	41.66	V	
Short Circuit Current (Isc)	10.96	11.07	А	
Maximum System Voltage	1000			
Maximum Series Fuse Rating	20		А	
Module Efficiency	19.0	19.27	%	
Power Measurement Tolerance	0 ~ +5		W	
NOCT ⁽²⁾				
Module Power	266	270	W	
Max. Power Voltage (Vmp)	30.97	31.09	V	
Max. Power Current (Imp)	8.59	8.67	А	
Open Circuit Voltage (Voc)	38.66	38.80	V	
Short Circuit Current (Isc)	9.01	9.10	А	

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



^{*} The dimensions and weight displayed in this table apply to modules manufactured from February 2021 (SPVxxx-R60DBMG-2M2C01). Modules manufactured prior to February 2021 (SPVxxx-R60DBMG-2C01) have dimensions of 1776 x 1052 x 40 mm and weigh 23.0 kg

CERTIFICATIONS & WARRANTY		
Module Certifications	IEC 61215:2016, IEC 61730:2016, AU listing CEC, Ammonia, PID, Salt-mist	
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)	-0.364	%/°⊂
Temperature Coefficient Voltage (Voc)	-0.281	%/°C
Temperature Coefficient Current (Isc)	0.039	%/°C
Operating Cell Temperature (NOCT)	45 ± 2	°C

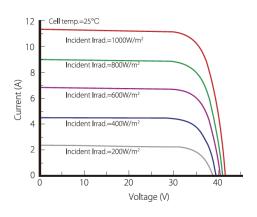
- (1) STC: Irradiance 1000 W/m², Cell Temperature 25°C, Air Mass AM1.5
- (2) NOCT: Irradiance at 800 W/m², Ambient Temperature 20°C, Wind Speed 1 m/s
- (3) 1st year: 98%, 84.8% power output over 25 years

Linear Warranty

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



Module I-V Curve (SPV360-R60DBMG)



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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		
OUTPUT DURING OPERATION	(POWER OPTIMIZER CONNECTED TO OPERATING SOLAREDGE INVERTER)	
Maximum Output Current	15	Adc
Maximum Output Voltage	60	Vdc
OUTPUT DURING STANDBY (PO INVERTER OFF)	WER OPTIMIZER DISCONNECTED FROM SOLAREDGE INVERTER OR SOLAREDGE	
OUTPUT DURING STANDBY (POINVERTER OFF) Safety Output Voltage per Power Optimizer		Vdc
OUTPUT DURING STANDBY (PO INVERTER OFF)	WER OPTIMIZER DISCONNECTED FROM SOLAREDGE INVERTER OR SOLAREDGE	
OUTPUT DURING STANDBY (POINVERTER OFF) Safety Output Voltage per Power Optimizer	WER OPTIMIZER DISCONNECTED FROM SOLAREDGE INVERTER OR SOLAREDGE	
OUTPUT DURING STANDBY (POINVERTER OFF) Safety Output Voltage per Power Optimizer STANDARD COMPLIANCE	WER OPTIMIZER DISCONNECTED FROM SOLAREDGE INVERTER OR SOLAREDGE 1 ± 0.1	
OUTPUT DURING STANDBY (POINVERTER OFF) Safety Output Voltage per Power Optimizer STANDARD COMPLIANCE EMC	WER OPTIMIZER DISCONNECTED FROM SOLAREDGE INVERTER OR SOLAREDGE 1 ± 0.1 FCC Part 15 Class B, IEC 61000-6-2, IEC 61000-6-3	
OUTPUT DURING STANDBY (PO INVERTER OFF) Safety Output Voltage per Power Optimizer STANDARD COMPLIANCE EMC Safety	WER OPTIMIZER DISCONNECTED FROM SOLAREDGE INVERTER OR SOLAREDGE 1 ± 0.1 FCC Part 15 Class B, IEC 61000-6-2, IEC 61000-6-3 IEC 62109-1 (class II safety), UL 1741	
OUTPUT DURING STANDBY (PO INVERTER OFF) Safety Output Voltage per Power Optimizer STANDARD COMPLIANCE EMC Safety ROHS	WER OPTIMIZER DISCONNECTED FROM SOLAREDGE INVERTER OR SOLAREDGE 1 ± 0.1 FCC Part 15 Class B, IEC 61000-6-2, IEC 61000-6-3 IEC 62109-1 (class II safety), UL 1741 Yes VDE-AR-E 2100-712:2013-05	
OUTPUT DURING STANDBY (POINVERTER OFF) Safety Output Voltage per Power Optimizer STANDARD COMPLIANCE EMC Safety RoHS Fire Safety	WER OPTIMIZER DISCONNECTED FROM SOLAREDGE INVERTER OR SOLAREDGE 1 ± 0.1 FCC Part 15 Class B, IEC 61000-6-2, IEC 61000-6-3 IEC 62109-1 (class II safety), UL 1741 Yes VDE-AR-E 2100-712:2013-05	
OUTPUT DURING STANDBY (POINVERTER OFF) Safety Output Voltage per Power Optimizer STANDARD COMPLIANCE EMC Safety ROHS Fire Safety INSTALLATION SPECIFICATION:	WER OPTIMIZER DISCONNECTED FROM SOLAREDGE INVERTER OR SOLAREDGE 1 ± 0.1 FCC Part 15 Class B, IEC 61000-6-2, IEC 61000-6-3 IEC 62109-1 (class II safety), UL 1741 Yes VDE-AR-E 2100-712:2013-05	
OUTPUT DURING STANDBY (POINVERTER OFF) Safety Output Voltage per Power Optimizer STANDARD COMPLIANCE EMC Safety ROHS Fire Safety INSTALLATION SPECIFICATIONS Output Connector	WER OPTIMIZER DISCONNECTED FROM SOLAREDGE INVERTER OR SOLAREDGE 1 ± 0.1 FCC Part 15 Class B, IEC 61000-6-2, IEC 61000-6-3 IEC 62109-1 (class II safety), UL 1741 Yes VDE-AR-E 2100-712:2013-05 MC4	Vdc
OUTPUT DURING STANDBY (POINVERTER OFF) Safety Output Voltage per Power Optimizer STANDARD COMPLIANCE EMC Safety ROHS Fire Safety INSTALLATION SPECIFICATION: Output Connector Output Wire Length	WER OPTIMIZER DISCONNECTED FROM SOLAREDGE INVERTER OR SOLAREDGE 1 ± 0.1 FCC Part 15 Class B, IEC 61000-6-2, IEC 61000-6-3 IEC 62109-1 (class II safety), UL 1741 Yes VDE-AR-E 2100-712:2013-05 MC4 1.2 / 3.9	Vdc

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) ⁽⁴⁾	8	}	16	18	
Maximum String Length (Power Optimizers)	25		50		
Maximum Power per String	5700	5250	11250(5)	12750(6)	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