

# Smart Module

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

SPV355-R60DBMG, SPV360-R60DBMG, SPV370-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 years module warranty and performance warranty
- Specifically designed to work with SolarEdge inverters

[solaredge.com](https://solaredge.com)

**solar**edge

\*Applicable for P/N SPV3xx-R60DBMG-6M4Cxx

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

SPV355-R60DBMG, SPV360-R60DBMG, SPV370-R60DBMG

### MODULE ELECTRICAL PROPERTIES

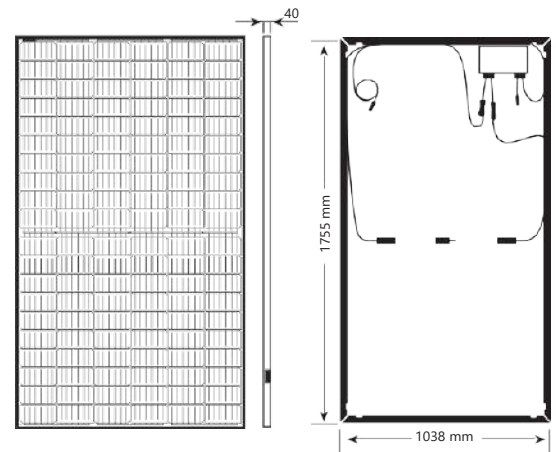
| Applicable to SPV with P/N  | SPV355-R60DBMG-6M4Cxx | SPV360-R60DBMG-6M4C | SPV370-R60DBMG-6M4Cxx |     |
|-----------------------------|-----------------------|---------------------|-----------------------|-----|
| <b>STC<sup>(1)</sup></b>    |                       |                     |                       |     |
| Module Power                | 355                   | 360                 | 370                   | W   |
| Max. Power Voltage (Vmp)    | 33.74                 | 33.87               | 34.17                 | V   |
| Max. Power Current (Imp)    | 10.53                 | 10.63               | 10.83                 | A   |
| Open Circuit Voltage (Voc)  | 41.51                 | 41.66               | 41.96                 | V   |
| Short Circuit Current (Isc) | 10.96                 | 11.07               | 11.29                 | A   |
| Maximum System Voltage      |                       | 1000                |                       | Vdc |
| Maximum Series Fuse Rating  |                       | 20                  |                       | A   |
| Module Efficiency           | 19.0                  | 19.27               | 20.31                 | %   |
| Power Measurement Tolerance |                       | 0 ~ +5              |                       | W   |
| <b>NOCT<sup>(2)</sup></b>   |                       |                     |                       |     |
| Module Power                | 266                   | 270                 | 277                   | W   |
| Max. Power Voltage (Vmp)    | 30.97                 | 31.09               | 31.37                 | V   |
| Max. Power Current (Imp)    | 8.59                  | 8.67                | 8.84                  | A   |
| Open Circuit Voltage (Voc)  | 38.66                 | 38.80               | 39.08                 | V   |
| Short Circuit Current (Isc) | 9.01                  | 9.10                | 9.28                  | 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 aluminum      |    |
| 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.

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

### TEMPERATURE CHARACTERISTICS

|                                       | SPV355-R60DBMG / SPV360-E60DBMG | SPV370-E60DBMG |        |
|---------------------------------------|---------------------------------|----------------|--------|
| Temperature Coefficient Power (Pm)    | -0.364                          | -0.328         | % / °C |
| Temperature Coefficient Voltage (Voc) | -0.281                          | -0.265         | % / °C |
| Temperature Coefficient Current (Isc) | 0.039                           | 0.0487         | % / °C |
| Operating Cell Temperature (NOCT)     | 45 ± 2                          |                | °C     |

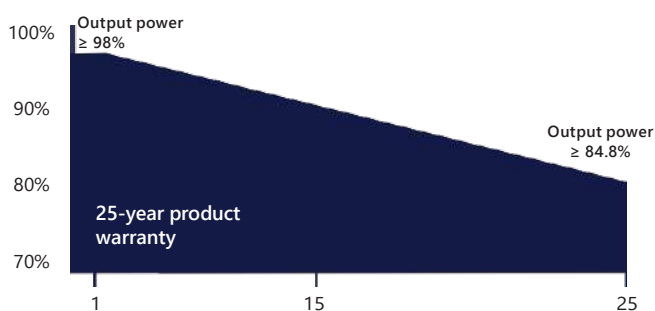
(1) STC: Irradiance 1000 W/m<sup>2</sup>, Cell Temperature 25°C, Air Mass AM1.5

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

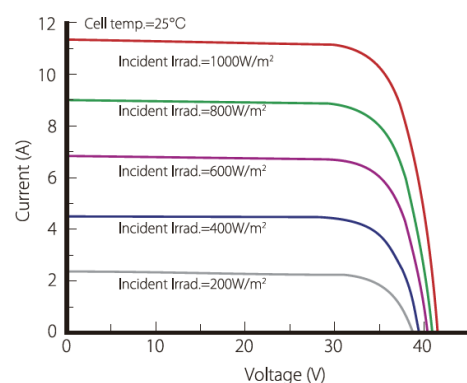
(3) 1st year: 98%, 84.8% power output over 25 years

#### Linear Warranty

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



#### Module I-V Curve (SPV360-R60DBMG)



# Smart Module

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

SPV355-R60DBMG-6M4Cxx, SPV360-R60DBMG-6M4Cxx, SPV370-R60DBMG-6M4Cxx

| POWER OPTIMIZER PROPERTIES  |  |     |
|---|--|-----|
| <b>INPUT</b>  |  |     |
| Rated Input DC Power  | 440  | W   |
| Absolute Maximum Input Voltage (Voc at lowest temperature)  | 60   | Vdc |
| MPPT Operating Range  | 8 - 60   | Vdc |
| Maximum Short Circuit Current (Isc)   | 14.5   | Adc |
| Maximum Efficiency  | 99.5   | %   |
| Weighted Efficiency   | 98.6   | %   |
| Overvoltage Category  | II   |     |
| <b>OUTPUT DURING OPERATION (POWER OPTIMIZER CONNECTED TO OPERATING SOLAREEDGE INVERTER)</b>                     |  |     |
| Maximum Output Current  | 15   | Adc |
| Maximum Output Voltage  | 60   | Vdc |
| <b>OUTPUT DURING STANDBY (POWER OPTIMIZER DISCONNECTED FROM SOLAREEDGE INVERTER OR SOLAREEDGE INVERTER OFF)</b> |  |     |
| Safety Output Voltage per Power Optimizer   | 1 ± 0.1  | Vdc |
| <b>STANDARD COMPLIANCE</b>  |  |     |
| EMC   | FCC Part 15 Class B, IEC61000-6-2, IEC61000-6-3, CISPR11, EN-55011 |     |
| Safety  | IEC62109-1 (class II safety), UL1741                               |     |
| RoHS  | Yes  |     |
| Fire Safety   | VDE-AR-E 2100-712:2013-05  |     |
| <b>INSTALLATION SPECIFICATIONS</b>  |  |     |
| Output Connector  | MC4  |     |
| Output Wire Length  | (+) 2.3, (-) 0.10  | m   |
| Operating Temperature Range   | -40 to +85   |     |
| 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                  |              |                      |                              |   |

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

<sup>(5)</sup> 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

<sup>(6)</sup> 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

\*Its not allowed to mix SPVxxx-R60DBMG-2M2Cxx and SPVxxx-R60DBMG-6M4Cxx in new installations