# **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



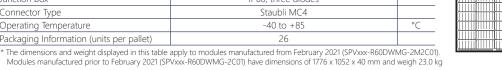
### / Smart Module

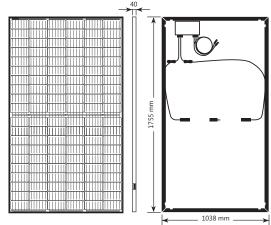
## Monocrystalline PERC Module with Half-Cut Cell Technology and Integrated Power Optimizer

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| STC <sup>(1)</sup>          | SPV370-R60DWMG | SPV375-R60DWMG |   |  |
|-----------------------------|----------------|----------------|---|--|
| Module Power                | 370            | 375            | W |  |
| Max. Power Voltage (Vmp)    | 33.95          | 34.10          | V |  |
| Max. Power Current (Imp)    | 10.91          | 11.01          | А |  |
| Open Circuit Voltage (Voc)  | 41.72          | 41.89          | V |  |
| Short Circuit Current (Isc) | 11.32          | 11.43          | А |  |
| Maximum System Voltage      | 100            | 1000           |   |  |
| Maximum Series Fuse Rating  | 20             | 20             |   |  |
| Module Efficiency           | 19.80          | 20.07          | % |  |
| Power Measurement Tolerance | 0 ~            | 0 ~ +5         |   |  |
| NOCT <sup>(2)</sup>         |                |                |   |  |
| Module Power                | 277            | 281            | W |  |
| Max. Power Voltage (Vmp)    | 31.17          | 31.30          | V |  |
| Max. Power Current (Imp)    | 8.90           | 8.98           | А |  |
| Open Circuit Voltage (Voc)  | 38.86          | 39.02          | V |  |
| Short Circuit Current (Isc) | 9.30           | 9.39           | 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)            | 21.3*                        | 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                           |    |



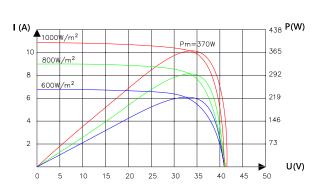


| CERTIFICATIONS & WARRANTY              |  |      |
|--|--|------|
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| Module Certifications                  | IEC61215:2016, IEC61730:2016, AU listing CEC, Ammonia, PID       |      |
| Product Warranty                       | Power Optimizer — 25-year warranty,<br>Module — 15-year warranty |      |
| Output Warranty of Pmax                | 25-year linear module warranty <sup>(3)</sup>                    |      |
| 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** 15-Year Product Warranty + 25-Year Linear Power Warranty Output power 100% 90% Output power 80% 15-year product warranty 70% 15 25

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



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| 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  |                   |
| <b>OUTPUT DURING OPERATION (POWER</b>                      | OPTIMIZER CONNECTED TO OPERATING SOLAREDGE INVERTI  | ER)               |
| Maximum Output Current                                     | 15  | Adc               |
| Maximum Output Voltage                                     | 60  | Vdc               |
| OUTPUT DURING STANDBY (POWER O INVERTER OFF)               | PTIMIZER DISCONNECTED FROM SOLAREDGE INVERTER OR SO | DLAREDGE          |
| Safety Output Voltage per Power Optimizer                  | 1 ± 0.1   | Vdc               |
| 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   |                   |
|  | -40 to +85 / -40 to +185                            |                   |
| Operating Temperature Range                                | -40 to +85 / -40 to +185                            | , ,               |
| Operating Temperature Range Protection Rating              | -40 to +85 / -40 to +185<br>IP68 / NEMA6P           | m / ft<br>°C / °F |

| PV System Design Using a SolarEdge Inverter            | Single Phase<br>HD-Wave | Single Phase | Three Phase          | Three Phase for 277/480 Grid |   |
|--|-------------------------|--------------|----------------------|------------------------------|---|
| Minimum String Length (Power Optimizer) <sup>(4)</sup> | 8                       | 1            | 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  |                         | \            | /es                  |                              |   |

<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 diference 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 diference between each string is 2,000W