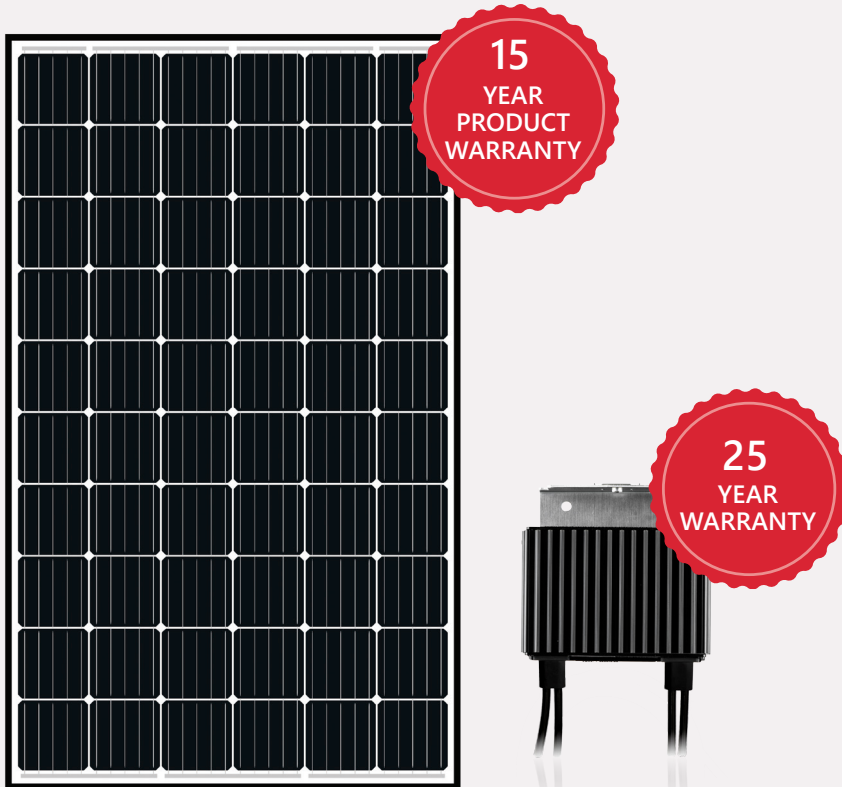


# Smart Panel

60-Cell Monocrystalline PERC Panel with  
Integrated Power Optimiser  
For Australia

SPV300-60MMJ / SPV310-60MMJ

SMART PANEL



## PV to grid solution including full service from SolarEdge

- Easy installation with panel pre-assembled optimiser
- Optimised energy output by constantly tracking the maximum power point (MPPT) of each panel individually
- Panel-level voltage shutdown for installer and firefighter safety
- Full visibility of system's performance from panels to grid
- Superior quality control with full automatic production line and 100% EL triple inspection
- Excellent mechanical loading and shock resistance performance
- Elegant design with black frame
- 15-year panel warranty and 25-year performance warranty
- Specifically designed to work with SolarEdge inverters

# Smart Panel 60-Cell Monocrystalline PERC Panel with Integrated Power Optimiser For Australia

SPV300-60MMJ / SPV310-60MMJ

| PANEL ELECTRICAL PROPERTIES |              |              |     |
|-----------------------------|--------------|--------------|-----|
|                             | SPV300-60MMJ | SPV310-60MMJ |     |
| <b>STC<sup>(1)</sup></b>    |              |              |     |
| Panel Power                 | 300          | 310          | W   |
| Max. Power Voltage (Vmp)    | 32.62        | 33.16        | V   |
| Max. Power Current (Imp)    | 9.2          | 9.35         | A   |
| Open Circuit Voltage (Voc)  | 39.75        | 40.09        | V   |
| Short Circuit Current (Isc) | 9.64         | 9.76         | A   |
| Maximum System Voltage      | 1000         |              | Vdc |
| Maximum Series Fuse Rating  | 15           |              | A   |
| Panel Efficiency            | 18.3         | 18.9         | %   |
| Power Tolerance             | 0 ~ +5       |              | W   |
| <b>NOCT<sup>(2)</sup></b>   |              |              |     |
| Panel Power                 | 223.3        | 230.7        | W   |
| Max. Power Voltage (Vmp)    | 30.34        | 30.84        | V   |
| Max. Power Current (Imp)    | 7.36         | 7.48         | A   |
| Open Circuit Voltage (Voc)  | 37.28        | 37.60        | V   |
| Short Circuit Current (Isc) | 7.78         | 7.87         | A   |

| PANEL MECHANICAL PROPERTIES              |                                 |  |
|--|---------------------------------|--|
| Cells                                    | 60 (6 x 10)                     |  |
| Cell Type                                | Monocrystalline PERC            |  |
| Cell Dimensions                          | 156 x 156                       |  |
| Dimensions (L x W x H)                   | 1650 x 992 x 40                 |  |
| Front Design Load (snow)                 | 3600                            |  |
| Front Test Load <sup>(3)</sup>           | 5400                            |  |
| Rear Design Load (wind)                  | 2400                            |  |
| Rear Test Load <sup>(3)</sup>            | 3600                            |  |
| Weight (with Power Optimiser)            | 18.8                            |  |
| Front Glass                              | 3.2mm, coated toughened glass   |  |
| Frame                                    | Black anodized aluminium        |  |
| Junction Box                             | IP67                            |  |
| Connector Type                           | MC4 (PVKST4II-UR, PV-KBT4II-UR) |  |
| Operating Temperature                    | -40 to +85                      |  |
| Packaging Information (units per pallet) | 26                              |  |

| CERTIFICATIONS & WARRANTY |  |  |
|---------------------------|--|--|
| Panel Certifications      | IEC 61215:2016, IEC61730:2016, CEC listing AU, PID: IEC62804, SIL, AS4040.2:1992 (wind pressure) |  |
| Product Warranty          | Power Optimiser — 25-year warranty, Panel — 15-year warranty                                     |  |
| Output Warranty of Pmax   | 25-year linear Panel warranty <sup>(4)</sup>   |  |

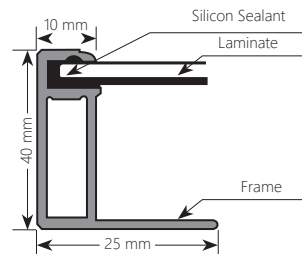
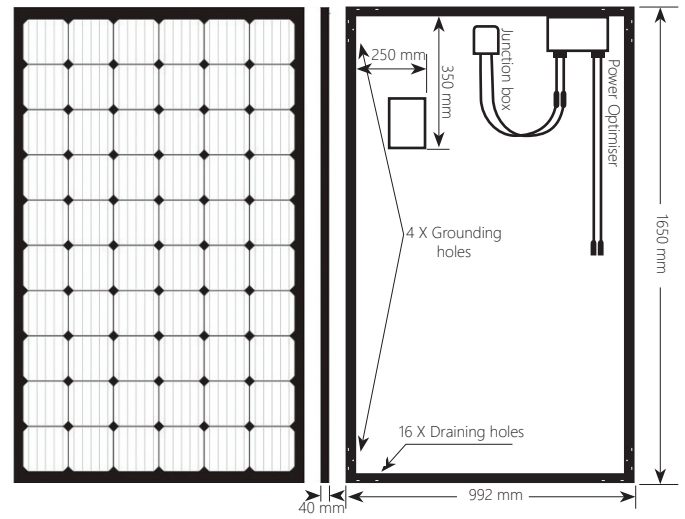
| TEMPERATURE CHARACTERISTICS           |        |        |
|---------------------------------------|--------|--------|
| Temperature Coefficient Power (Pm)    | -0.40  | % / °C |
| Temperature Coefficient Voltage (Voc) | -0.29  | % / °C |
| Temperature Coefficient Current (Isc) | 0.04   | % / °C |
| Operating Cell Temperature (NOCT)     | 45 ± 2 | °C     |

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

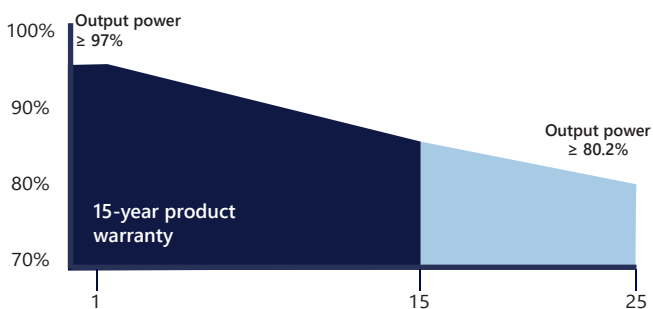
<sup>(2)</sup> NOCT: Irradiance at 800 W/m<sup>2</sup>, Ambient Temperature 20°C, Wind Speed 1 m/s.

<sup>(3)</sup> Safety factor of 1.5

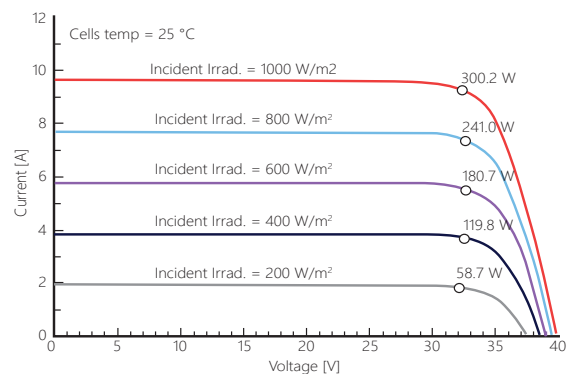
<sup>(4)</sup> 1<sup>st</sup> year: 97%, 80.2% power output over 25 years



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



## Panel I-V Curve (SPV300-60MMJ)



# Smart Panel 60-Cell Monocrystalline PERC Panel with Integrated Power Optimiser For Australia

SPV300-60MMJ / SPV310-60MMJ

## POWER OPTIMISER PROPERTIES

### INPUT

|  |        |     |
|--|--------|-----|
| Rated Input DC Power                                       | 370    | W   |
| Absolute Maximum Input Voltage (Voc at lowest temperature) | 60     |     |
| MPPT Operating Range                                       | 8 - 60 | Vdc |
| Maximum Short Circuit Current (Isc)                        | 11     | Adc |
| Maximum Efficiency   | 99.5   | %   |
| Weighted Efficiency  | 98.8   | %   |
| Overvoltage Category                                       | II     |     |

### OUTPUT DURING OPERATION (POWER OPTIMISER CONNECTED TO OPERATING SOLAREEDGE INVERTER)

|                        |    |     |
|------------------------|----|-----|
| Maximum Output Current | 15 | Adc |
| Maximum Output Voltage | 60 | Vdc |

### OUTPUT DURING STANDBY (POWER OPTIMISER DISCONNECTED FROM SOLAREEDGE INVERTER OR SOLAREEDGE INVERTER OFF)

|   |         |     |
|---|---------|-----|
| Safety Output Voltage per Power Optimiser | 1 ± 0.1 | Vdc |
|---|---------|-----|

### STANDARD COMPLIANCE

|             |  |  |
|-------------|--|--|
| EMC         | FCC Part15 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                    | m       |
| Operating Temperature Range | -40 - +85 / -40 - +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 Residential <sup>(5)</sup> | Three Phase Commercial |   |
|---|------|------------------------------------|--------------|--|------------------------|---|
| Minimum String Length (Power Optimisers)              | P370 | 8                                  |              | 8 per array                            | 16                     |   |
| Maximum String Length (Power Optimisers)              |      | 25                                 |              | 25 per array                           | 50                     |   |
| Maximum Power per String                              |      | 5700 (6000 with SE8000H, SE10000H) | 5250         | 5700                                   | 11250 <sup>(6)</sup>   | W |
| Parallel Strings of Different Lengths or Orientations |      | Yes                                |              |  |                        |   |
| Notes   |      |                                    |              | Connect 2 arrays                       |                        |   |

<sup>(5)</sup> Optimisers must be connected in two separate arrays. For complete design guidelines for the three phase residential inverters refer to: [https://www.solaredge.com/sites/default/files/three\\_phase\\_inverter\\_residential\\_design\\_installation\\_addendum\\_aus.pdf](https://www.solaredge.com/sites/default/files/three_phase_inverter_residential_design_installation_addendum_aus.pdf)

<sup>(6)</sup> It is allowed to install up to 13,500W per string when the maximum power difference between each string is 2,000W