

# Power Optimiser For Australia

S1200



POWER OPTIMISERS

## SolarEdge's most advanced, cost-effective Power Optimiser for commercial and large field installations

### Greater Energy Yields

- High efficiency (99.5%) with module-level MPPT, for maximized system energy production and revenue, and fast project ROI
- Supports high power and bifacial PV modules, and high string current for more power per string

### Maximum Protection with Built-In Safety

- Designed to automatically reduce high DC voltage to touch-safe levels, upon grid/inverter shutdown, with SafeDC™
- Includes SolarEdge Sense Connect, allowing continuous monitoring to detect overheating due to installation issues or connector-level wear and tear

### Lower BOS Costs

- Flexible system design enables maximum space utilization and up to 2x longer string lengths, 50% less cables, fuses and combiner boxes
- Supports connection of two PV modules in series with easy cable management and fast installation times

### Simpler O&M

- Module-level system monitoring enabling pinpointed fault detection and remote, time-saving troubleshooting

# / Power Optimiser

## For Australia

### S1200

|  | S1200  | Unit    |
|--|--|---------|
| <b>INPUT</b>   |  |         |
| Rated Input DC Power <sup>(1)</sup>  | 1200   | W       |
| Absolute Maximum Input Voltage (Voc)   | 125  | Vdc     |
| MPPT Operating Range   | 12.5 – 105   | Vdc     |
| Maximum Short Circuit Current (Isc) of Connected PV Module                       | 15   | Adc     |
| Maximum Efficiency   | 99.5   | %       |
| Weighted Efficiency  | 98.8   | %       |
| Overvoltage Category   | II   |         |
| Overcurrent Protection   | 15.75  | Adc     |
| <b>OUTPUT DURING OPERATION</b>   |  |         |
| Maximum Output Current   | 20   | Adc     |
| Maximum Output Voltage   | 80   | Vdc     |
| <b>OUTPUT DURING STANDBY (POWER OPTIMISER DISCONNECTED FROM INVERTER OR OFF)</b> |  |         |
| Safety Output Voltage per Power Optimiser  | 1  | Vdc     |
| <b>STANDARD COMPLIANCE</b>   |  |         |
| EMC  | FCC Part 15, IEC 61000-6-2, and IEC 61000-6-3 - Class B, EN 55011                                |         |
| Safety   | IEC62109-1 (class II safety)   |         |
| Material   | UL94 V-0, UV Resistant   |         |
| RoHS   | Yes  |         |
| Fire Safety  | VDE-AR-E 2100-712:2013-05  |         |
| <b>INSTALLATION SPECIFICATIONS</b>   |  |         |
| Maximum Allowed System Voltage   | 1000   | Vdc     |
| Dimensions (W x L x H)   | 129 x 155 x 59 / 5.08 x 6.10 x 2.32  | mm / in |
| Weight   | 1106 / 2.4   | gr / lb |
| Input Connector  | MC4 <sup>(2)</sup>   |         |
| Input Wire Length  | Short Input Option: 0.1 / 0.32<br>Long Input Option: 1.6 / 5.24 <sup>(3)</sup>                   |         |
| Output Connector   | MC4  |         |
| Output Wire Length <sup>(4)</sup>  | Option 1: (+) 5.3 (-) 0.10 / (+) 17.38 (-) 0.32<br>Option 2: (+) 2.7 (-) 0.10 / (+) 8.8 (-) 0.32 |         |
| Operating Temperature Range <sup>(5)</sup>                                       | -40 to +85 / -40 to +185   |         |
| Protection Rating  | IP68 / NEMA6P  |         |
| Relative Humidity  | 0 - 100  |         |

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

(2) For other connector types please contact SolarEdge.

(3) For S-Series models with long input cables (1.6m / 5.24ft), the Sense Connect feature is only enabled on the output cable connector.

(4) Option 1 fits best when modules are placed in landscape orientation or in portrait orientation with the power optimisers connected using the leapfrog wiring method.

Option 2 fits best when modules are placed in portrait orientation.

(5) For ambient temperature above +65°C / +149°F power de-rating is applied.

| PV System Design Using a SolarEdge Inverter <sup>(6)(7)(8)(9)</sup>  | 230/400V Grid SE15K, SE16K, SE17K, SE25K* | 230/400V Grid SE27.6K*    | 230/400V Grid SE30K*      | 230/400V Grid SE33.3K*    |    |
|--|---|---------------------------|---------------------------|---------------------------|----|
| Compatible Power Optimisers  | 1200                                      |                           |                           |                           |    |
| Minimum String Length  | Power Optimisers                          | 14                        | 14                        | 14                        | 15 |
|  | PV Modules                                | 27                        | 27                        | 27                        | 29 |
| Maximum String Length  | Power Optimisers                          | 30                        | 30                        | 30                        | 30 |
|  | PV Modules                                | 60                        | 60                        | 60                        | 60 |
| Maximum Continuous Power per String  | 15000                                     | 15500                     | 15000                     | 17000                     | W  |
| Maximum Allowed Connected Power per String <sup>(9)</sup>  | 1 string – 17250                          | 1 string – 17750          | 1 - 2 strings – 17250     | 1 string – 19250          | W  |
|  | 2 strings or more – 20000                 | 2 strings or more – 20500 | 3 strings or more – 20000 | 2 strings or more – 23000 |    |
| Parallel Strings of Different Lengths or Orientations  | Yes                                       |                           |                           |                           |    |
| Maximum Difference in Number of Power Optimisers Allowed Between the Shortest and Longest String Connected to the Same Inverter Unit | 5 Power Optimisers                        |                           |                           |                           |    |

\* The same rules apply for Synergy units of equivalent power ratings, that are part of the modular Synergy Technology inverter.

(6) S1200 cannot be mixed with any other Power Optimisers models in the same string.

(7) For each string, a power optimiser may be connected to a single PV module if 1) each power optimiser is connected to a single PV module or 2) it is the only power optimiser connected to a single PV module in the string.

(8) For SE15K and above, the minimum STC DC connected power should be 11KW.

(9) To connect more STC power per string, design your project using SolarEdge Designer.