## Power Optimiser For Australia

S440, S500



## POWER OPTIMISER

## PV power optimisation at the module-level

- Specifically designed to work with SolarEdge inverters
- Detects abnormal PV connector behavior, preventing potential safety issues\*
- Module-level voltage shutdown for installer and firefighter safety
- Superior efficiency (99.5%)
- Mitigates all types of modules mismatchloss, from manufacturing tolerance to partial shading

- Flexible system design and compatible with bifacial PV modulesfor maximum space utilization
- Faster installations with simplified cable management and easy assembly using a single bolt
- Next generation maintenance with module safety



<sup>\*</sup> Functionality subject to inverter model and firmware version

## / Power Optimiser For Australia

S440, S500

|  | S440  | S500          | Unit     |
|--|---|---------------|----------|
| INPUT  |   |               |          |
| Rated Input DC Power <sup>(1)</sup>                        | 440   | 500           | W        |
| Absolute Maximum Input Voltage (Voc)                       | 60  |               | Vdc      |
| MPPT Operating Range                                       | 8 - 60  |               | Vdc      |
| Maximum Short Circuit Current (Isc) of connected PV Module | 14.5  |               | Adc      |
| Maximum Efficiency   | 99.5  |               | %        |
| Weighted Efficiency  | 98  | 98.8          |          |
| Overvoltage Category                                       |   | ll l          |          |
| Input Overcurrent Protection                               | 15  |               | Adc      |
| OUTPUT DURING OPERATION                                    |   |               |          |
| Maximum Output Current                                     | 15  |               | Adc      |
| Maximum Output Voltage                                     | 60  |               | Vdc      |
| OUTPUT DURING STANDBY (POWER OPTIMISER DI                  | SCONNECTED FROM INVERTER OR                     | INVERTER OFF) | <u>.</u> |
| Safety Output Voltage per Power Optimiser                  | 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                                |   |               | ,        |
| Maximum Allowed System Voltage                             | 1000  |               | Vdc      |
| Dimensions (W x L x H)                                     | 129 x 155 x 30                                  |               | mm       |
| Weight (including cables)                                  | 655 / 1.5                                       |               | gr/lb    |
| Input Connector  | MC4(2)  |               |          |
| Input Wire Length  | 0.1   |               | m        |
| Output Connector   | MC4   |               |          |
| Output Wire Length   | (+) 2.3, (-) 0.10                               |               | m        |
| Operating Temperature Range <sup>(3)</sup>                 | -40 to +85                                      |               | °C       |
| Protection Rating  | IP68 / NEMA6P                                   |               |          |
| Relative Humidity  | 0 - 100   |               | %        |

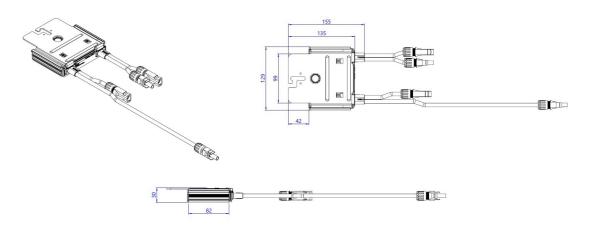
<sup>(1)</sup> Rated power of the module at STC will not exceed the Power Optimiser Rated Input DC Power. Modules with up to +5% power tolerance are allowed

<sup>(3)</sup> For ambient temperature above  $+70^{\circ}\text{C}/+158^{\circ}\text{F}$  power de-rating is applied. Refer to Power Optimisers Temperature <u>De-Rating Technical Note</u> for more details

| PV System Design Using a SolarEdge<br>Inverter  | Genesis / Energy Hub                | Three Phase<br>Residential | Three Phase<br>Commercial |   |  |
|---|-------------------------------------|----------------------------|---------------------------|---|--|
| Minimum String Length                           | 8                                   | 9                          | 16                        |   |  |
| Maximum String Length                           | 25                                  |                            | 50                        |   |  |
| Maximum nominal power per string <sup>(4)</sup> | 5700 (6000 with SE8250H / SE10000H) | 5625                       | 11250 <sup>(5)</sup>      | W |  |

<sup>4)</sup> If the inverters rated AC power ≤ maximum nominal power per string, then the maximum power per string will be able to reach up to the inverters maximum input DC power Refer to: https://www.solaredge.com/sites/default/files/se-single-string-power-optimizer-application-note-aus.pdf

6) It is not allowed to mix S-series and P-series Power Optimisers in new installations



<sup>(2)</sup> For other connector types please contact SolarEdge

<sup>5)</sup> When using more than a single string, it is allowed to install up to 13500W per string when the maximum power difference between each string is up to 2000W