



## SolarRiver-BSS

### SolarRiver 3000 / 5000TL-BSS

#### **SIMPLE. FLEXIBLE.**

- On-Grid Inverter with Energy Storage
- Self-consumption and Feed-in to the grid
- User-adjustable battery charging current suits different types of batteries
- Programmable supply priority for PV panel, Battery or Grid

#### **OPEN. INTERACTIVE.**

- Multiple communication via USB, RS-232, Modbus and SNMP
- Monitoring software for real time display and control
- Built-in timer for various modes of on/off operation

#### **SECURE. EFFICIENT.**

- Highest earnings through prime system efficiency
- Battery backup function for maximum supply security

| MODEL  | SolarRiver 2000TL-BSS-LV                          | SolarRiver 3000TL-BSS   | SolarRiver 5000TL-BSS                             |   |
|--|---|-------------------------|---|---|
| <b>PHASE</b>                                   | 1-phase in / 1-phase out                          |                         | 1-phase in / 1-phase out                          |   |
| <b>RATED OUTPUT POWER</b>                      | 2000 W  | 3000 W                  | 5000 W  |   |
| <b>MAXIMUM CHARGING POWER</b>                  | 1200 W  | 1200 W                  | 4800 W  |   |
| <b>GRID-TIE OPERATION</b>                      |   |                         |   |   |
| <b>PV INPUT (DC)</b>                           |   |                         |   |   |
| Maximum PV Input Power                         | 2250W   | 4500W                   | 10000W  |   |
| Nominal DC Voltage / Maximum DC Voltage        | 300 VDC / 350 VDC                                 | 360 VDC / 500 VDC       | 720 VDC / 900 VDC                                 |   |
| Start-up Voltage / Initial Feeding Voltage     | 80 VDC / 120 VDC                                  | 116 VDC / 150 VDC       | 225 VDC / 250 VDC                                 |   |
| MPP Voltage Range                              | 150 VDC ~ 320 VDC                                 | 250 VDC ~ 450 VDC       | 250 VDC ~ 850 VDC                                 |   |
| Number of MPP Trackers / Maximum Input Current | 1 / 1 x 15 A                                      | 1 / 1 x 18 A            | 2 / 2 x 10.0A                                     |   |
| <b>GRID OUTPUT (AC)</b>                        |   |                         |   |   |
| Nominal Output Voltage                         | 101/110/120/127 VAC                               | 208/220/230/240 VAC     | 230 VAC   |   |
| Output Voltage Range                           | 88 - 127 VAC*                                     | 184 - 264.5 VAC*        | 184 - 265 VAC*                                    |   |
| Nominal Output Current                         | 18 A  | 13 A                    | 21 A  |   |
| Power Factor                                   | > 0.99  |                         | > 0.99  |   |
| <b>EFFICIENCY</b>                              |   |                         |   |   |
| Maximum Conversion Efficiency (DC/AC)          | 95%   | 96%                     | > 96%   |   |
| European Efficiency@ Vnominal                  | 94%   | 95%                     | > 95%   |   |
| <b>OFF-GRID OPERATION</b>                      |   |                         |   |   |
| <b>AC INPUT</b>                                |   |                         |   |   |
| AC Start-up Voltage/Auto Restart Voltage       | 60 - 70 VAC / 85 VAC                              | 120 - 140 VAC / 180 VAC | 120 - 140 VAC / 180 VAC                           |   |
| Acceptable Input Voltage Range                 | 80 - 130 VAC                                      | 170 - 280 VAC           | 170 - 280 VAC                                     |   |
| Maximum AC Input Current                       | 30 A  |                         | 40A (Include Loads and Charging)                  |   |
| <b>PV INPUT (DC)</b>                           |   |                         |   |   |
| Maximum DC Voltage                             | 350 VDC   | 500 VDC                 | 900 VDC   |   |
| MPP Voltage Range                              | 150 VDC ~ 320 VDC                                 | 250 VDC ~ 450 VDC       | 350 VDC ~ 850 VDC                                 |   |
| Number of MPP Trackers / Maximum Input Current | 1 / 1 x 15 A                                      | 1 / 1 x 18 A            | 2 / 2 x 10.0A                                     |   |
| <b>BATTERY MODE OUTPUT (AC)</b>                |   |                         |   |   |
| Nominal Output Voltage                         | 101/110/120/127 VAC                               | 202/208/220/230/240 VAC | 230 VAC   |   |
| Output Waveform                                | Pure Sinewave                                     |                         | Pure Sinewave                                     |   |
| Efficiency (DC to AC)                          | 90%   | 93%                     | 91%   |   |
| <b>HYBRID OPERATION</b>                        |   |                         |   |   |
| <b>PV INPUT (DC)</b>                           |   |                         |   |   |
| Nominal DC Voltage / Maximum DC Voltage        | 300 VDC / 350 VDC                                 | 360 VDC / 500 VDC       | 720 VDC / 900 VDC                                 |   |
| Start-up Voltage / Initial Feeding Voltage     | 80 VDC / 120 VDC                                  | 116 VDC / 150 VDC       | 320 VDC / 350 VDC                                 |   |
| MPP Voltage Range                              | 150 VDC ~ 320 VDC                                 | 250 VDC ~ 450 VDC       | 350 VDC ~ 850 VDC                                 |   |
| Number of MPP Trackers / Maximum Input Current | 1 / 1 x 15 A                                      | 1 / 1 x 18 A            | 2 / 2 x 10.0A                                     |   |
| <b>GRID OUTPUT (AC)</b>                        |   |                         |   |   |
| Nominal Output Voltage                         | 101/110/120/127 VAC                               | 202/208/220/230/240 VAC | 230 VAC   |   |
| Output Voltage Range                           | 88-127 VAC*                                       | 184 - 264.5 VAC*        | 184 - 265 VAC*                                    |   |
| Nominal Output Current                         | 18 A  | 13 A                    | 21A   |   |
| <b>AC INPUT</b>                                |   |                         |   |   |
| AC Start-up Voltage / Auto Restart Voltage     | 60 - 70 VAC / 85 VAC                              | 120 - 140 VAC / 180 VAC | 120 - 140 VAC / 180 VAC                           |   |
| Acceptable Input Voltage Range                 | 80 - 130 VAC                                      | 170 - 280 VAC           | 170 - 280 VAC                                     |   |
| Maximum AC Input Current                       | 30 A  |                         | 40A   |   |
| <b>BATTERY MODE OUTPUT (AC)</b>                |   |                         |   |   |
| Nominal Output Voltage                         | 101/110/120/127 VAC                               | 202/208/220/230/240 VAC | 230 VAC   |   |
| Efficiency (DC to AC)                          | 90%   | 93%                     | 92%   | 90%                                     |
| <b>BATTERY &amp; CHARGER</b>                   |   |                         |   |   |
| Nominal DC Voltage                             | 48 VDC  |                         | 48 VDC  |   |
| Battery Shutdown Voltage                       | -   |                         | Default 42 VDC ,40-50 VDC(Adjustable)             | Default 42 VDC, 40 - 54VDC(Adjustable)  |
| Maximum Charging Current                       | Default 25A, 5A - 25A (Adjustable)                |                         | Default 60A, 5A - 100A (Adjustable)               | Default 60A, 5A - 100A (Adjustable)     |
| Absorption Charger Voltage                     | -   |                         | Default 56 VDC, 50 - 60 VDC(Adjustable)           | Default 56 VDC, 50 - 64 VDC(Adjustable) |
| Floating Charger Voltage                       | -   |                         | Default 54 VDC, 50 - 60 VDC(Adjustable)           | Default 54 VDC, 50 - 64 VDC(Adjustable) |
| Battery Overcharge Protection                  | -   |                         | 62 VDC  | 66 VDC                                  |
| <b>GENERAL</b>                                 |   |                         |   |   |
| <b>PHYSICAL</b>                                |   |                         |   |   |
| Dimension, W x H x D (mm)                      | 438 x 480 x 107                                   |                         | 438 x 550 x 120                                   |   |
| Net Weight (kgs)                               | 15.5  |                         | 16  |   |
| <b>INTERFACE</b>                               |   |                         |   |   |
| Communication Port                             | RS-232/USB  |                         | RS-232/USB  |   |
| Intelligent Slot                               | Optional SNMP, Modbus, and AS-400 cards available |                         | Optional SNMP, Modbus, and AS-400 cards available |   |
| <b>ENVIRONMENT</b>                             |   |                         |   |   |
| Humidity                                       | 0 ~ 90% RH (No condensing)                        |                         | 0 ~ 90% RH (No condensing)                        |   |
| Operating Temperature                          | 0 to 40°C   |                         | -10 to 55°C                                       |   |
| Altitude                                       | 0 ~ 1000 m**                                      |                         | 0 ~ 1000 m*                                       |   |

\*These figures may vary depending on different AC voltage and country requirements. \*\*Power derating 1% every 100 m when altitude is over 1000m. Product specifications are subject to change without further notice.