



## Leading - edge Technology

### User-friendly

- ▶ Local graphic LCD and 4 buttons, easy to operate
- ▶ Compact design for easy installation

### Flexible

- ▶ For retrofit or new systems
- ▶ Charging and discharging power & time are programmable

### Reliable

- ▶ IP65 protection degree
- ▶ Natural cooling, no need additional fans
- ▶ Work as back-up when blackout
- ▶ Online smart service escort system operation

| Datasheet   | SPA1000TL BL               | SPA2000TL BL               | SPA3000TL BL               |
|---|----------------------------|----------------------------|----------------------------|
| <b>AC connection</b>  |                            |                            |                            |
| Rated AC apparent power   | 1000VA                     | 2000VA                     | 3000VA                     |
| Max. AC current   | 6A                         | 10A                        | 16A                        |
| AC nominal voltage (range)                                      | 230V (180V-270V)           | 230V (180V-270V)           | 230V (180V-270V)           |
| AC grid frequency (range)                                       | 50Hz / 60Hz (±5Hz)         | 50Hz / 60Hz (±5Hz)         | 50Hz / 60Hz (±5Hz)         |
| Power factor, configurable                                      | 1, 0.8leading...0.8lagging | 1, 0.8leading...0.8lagging | 1, 0.8leading...0.8lagging |
| THDi  | <3%                        | <3%                        | <3%                        |
| AC connection   | Single phase               | Single phase               | Single phase               |
| <b>AC output power (Back-up)</b>                                |                            |                            |                            |
| Rated AC output apparent power                                  | 1000VA                     | 2000VA                     | 3000VA                     |
| Rated AC output voltage   | 230V                       | 230V                       | 230V                       |
| Rated AC output frequency                                       | 50Hz / 60Hz                | 50Hz / 60Hz                | 50Hz / 60Hz                |
| <b>Battery data</b>   |                            |                            |                            |
| Battery voltage range   | 42~59V                     | 42~59V                     | 42~59V                     |
| Max charging voltage  | 58V                        | 58V                        | 58V                        |
| Max charging and discharging current                            | 24A                        | 44A                        | 66A                        |
| Peak charging and discharging power                             | 1000W                      | 2000W                      | 3000W                      |
| Battery Type  | Lithium /Lead-acid         | Lithium /Lead-acid         | Lithium /Lead-acid         |
| DoD   | 80% /50%                   | 80% /50%                   | 80% /50%                   |
| Capacity of battery   | 2~12 kWh                   | 2~12 kWh                   | 2~12 kWh                   |
| <b>Efficiency</b>   |                            |                            |                            |
| Max. Charge efficiency  | 92.5%                      | 94.0%                      | 94.5%                      |
| Max. Discharge efficiency                                       | 92.0%                      | 93.5%                      | 94.0%                      |
| <b>Protection devices</b>                                       |                            |                            |                            |
| Battery reverse protection                                      | yes                        | yes                        | yes                        |
| Output over current protection                                  | yes                        | yes                        | yes                        |
| Output over voltage protection-varistor                         | yes                        | yes                        | yes                        |
| Ground fault monitoring   | yes                        | yes                        | yes                        |
| Grid monitoring   | yes                        | yes                        | yes                        |
| Integrated all - pole sensitive leakage current monitoring unit | yes                        | yes                        | yes                        |
| <b>General Data</b>   |                            |                            |                            |
| Dimensions (W / H / D) in mm                                    | 428*458*180                | 428*458*180                | 428*458*180                |
| Weight  | 17kg                       | 17kg                       | 17kg                       |
| Operating temperature range                                     | - 25°C ...+60°C            | - 25°C ...+60°C            | - 25°C ...+60°C            |
| Noise emission (typical)  | ≤ 25 dB(A)                 | ≤ 25 dB(A)                 | ≤ 25 dB(A)                 |
| Altitude  | 2000m                      | 2000m                      | 2000m                      |
| Self-Consumption  | <4 W                       | <4 W                       | <4 W                       |
| Inverter Topology   | transformerless            | transformerless            | transformerless            |
| DC/DC topology  | HF transformer             | HF transformer             | HF transformer             |
| Cooling concept   | Natural                    | Natural                    | Natural                    |
| Environmental Protection Rating                                 | IP65                       | IP65                       | IP65                       |
| Relative humidity   | 100%                       | 100%                       | 100%                       |
| <b>Features</b>   |                            |                            |                            |
| AC connection   | connector                  | connector                  | connector                  |
| Battery connection  | Screw                      | Screw                      | Screw                      |
| Display   | LCD                        | LCD                        | LCD                        |
| Interfaces: RS485/ USB /CAN/Wi-Fi/RF                            | yes/yes/yes/opt/opt        | yes/yes/yes/opt/opt        | yes/yes/yes/opt/opt        |
| Warranty:5 years/10 years                                       | yes/opt                    | yes/opt                    | yes/opt                    |

**Certificates and Approvals**

CE, IEC62109, G83, VDE0126-1-1, VDE-AR-N4105, CEI 0-21, IEC62116&amp;IEC61727, EN50438, AS4777, AS/NZS 3100