

# SPH 3-6K & SPH3-6KTL BL-UP

- Smart load management via dry contact(SPH TL BL-UP)
- UPS function, 10ms transition(SPH TL BL-UP)
- Scalable system configuration(SPH TL BL-UP)
- VPP interface ready
- Remote smart O&M
- 2.1 DC/AC Ratio



P O W E R  
- I N G O  
T O M O -  
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| Datasheet   | SPH3000&SPH3000<br>TLBL-UP      | SPH3600&SPH3600<br>TLBL-UP | SPH4000&SPH4000<br>TLBL-UP | SPH4600&SPH4600<br>TLBL-UP | SPH5000&SPH5000<br>TLBL-UP | SPH6000&SPH6000<br>TLBL-UP |
|---|---------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| <b>Input data(PV)</b>   |                                 |                            |                            |                            |                            |                            |
| Max. PV power (for module STC)  | 6000W                           | 7200W                      | 7600W                      | 8200W                      | 10600W                     | 11200W                     |
| Max. DC voltage   | 550V                            |                            |                            |                            |                            |                            |
| Start voltage   | 120V                            |                            |                            |                            |                            |                            |
| MPP voltage range   | 120-550V/360V                   |                            |                            |                            |                            |                            |
| No. of MPP trackers   | 2                               |                            |                            |                            |                            |                            |
| No. of PV strings per MPP tracker   | 1                               |                            |                            |                            |                            |                            |
| Max. input current per MPP tracker  | 13.5A                           |                            |                            |                            |                            |                            |
| Max. short-circuit current per MPP tracker  | 16.5A                           |                            |                            |                            |                            |                            |
| <b>Output data(AC)</b>  |                                 |                            |                            |                            |                            |                            |
| AC nominal power  | 3000W                           | 3600W                      | 4000W                      | 4600W                      | 5000W                      | 6000W                      |
| Rated Apparent Power  | 3000VA                          | 3000VA                     | 4000VA                     | 4600VA                     | 5000VA                     | 6000VA                     |
| Nominal AC voltage (range)  | 230V/(180Vac-270Vac)            |                            |                            |                            |                            |                            |
| AC grid frequency (range)   | 50Hz/60Hz (45Hz-55Hz/55Hz-65Hz) |                            |                            |                            |                            |                            |
| Rated input/output current  | 13.5/13.5A&13.5/13.5A           | 13.5/16A&16/16A            | 13.5/17.5A&17.5/17.5A      | 13.5/20A&20/20A            | 13.5/22A&22A/22A           | 13.5/27A&27/27A            |
| Adjustable power factor   | 0.8leading...0.8lagging         |                            |                            |                            |                            |                            |
| THDI  | <3%                             |                            |                            |                            |                            |                            |
| AC grid connection type   | Single phase                    |                            |                            |                            |                            |                            |
| <b>Battery data (DC)</b>  |                                 |                            |                            |                            |                            |                            |
| Battery voltage range   | 42~59V                          |                            |                            |                            |                            |                            |
| Max charging and discharging current  | 66A                             | 75A                        | 85A                        | 85A                        | 85A                        | 85A                        |
| Continuous charging and discharging power   | 3000W                           | 3600W                      | 4000W                      | 4000W                      | 4000W                      | 4000W                      |
| Type of battery   | Lithium                         |                            |                            |                            |                            |                            |
| <b>Backup power(AC)</b>   |                                 |                            |                            |                            |                            |                            |
| Rated Apparent Power  | 3000VA&3000VA                   | 3000VA&3680VA              | 3000VA&4000VA              | 3000VA&4000VA              | 3000VA&4000VA              | 3000VA&4000VA              |
| Rated output current  | 13A/13A                         | 13A/16A                    | 13A/17.5A                  | 13A/17.5A                  | 13A/17.5A                  | 13A/17.5A                  |
| Nominal AC output voltage   | 230Vac                          |                            |                            |                            |                            |                            |
| Nominal AC output frequency   | 50/60HZ                         |                            |                            |                            |                            |                            |
| THDv  | <3%                             |                            |                            |                            |                            |                            |
| Switch time(SPH TL BL-UP)   | <10ms                           |                            |                            |                            |                            |                            |
| <b>Efficiency</b>   |                                 |                            |                            |                            |                            |                            |
| MAX. efficiency   | 97.20%                          | 97.20%                     | 97.30%                     | 97.40%                     | 97.50%                     | 97.60%                     |
| European efficiency   | 97%                             | 97%                        | 97.10%                     | 97.10%                     | 97.20%                     | 97.20%                     |
| MPPT efficiency   | ≥99.5%                          |                            |                            |                            |                            |                            |
| <b>Protection devices</b>   |                                 |                            |                            |                            |                            |                            |
| DC switch   | Yes                             |                            |                            |                            |                            |                            |
| DC reverse polarity protection  | Yes                             |                            |                            |                            |                            |                            |
| AC/DC surge protection  | Yes                             |                            |                            |                            |                            |                            |
| Battery reverse protection  | Yes                             |                            |                            |                            |                            |                            |
| AC short-circuit protection   | Yes                             |                            |                            |                            |                            |                            |
| Ground fault monitoring   | Yes                             |                            |                            |                            |                            |                            |
| Grid monitoring   | Yes                             |                            |                            |                            |                            |                            |
| Anti-islanding protection   | Yes                             |                            |                            |                            |                            |                            |
| Residual-current monitoring unit  | Yes                             |                            |                            |                            |                            |                            |
| Insulation resistance monitoring  | Yes                             |                            |                            |                            |                            |                            |
| <b>General data</b>   |                                 |                            |                            |                            |                            |                            |
| Dimensions (W / H / D)  | 461/565/188mm                   |                            |                            |                            |                            |                            |
| Weight  | 27kg                            |                            |                            |                            |                            |                            |
| Operating temperature range   | -25°C ... +60°C                 |                            |                            |                            |                            |                            |
| Nighttime power consumption   | < 10 W                          |                            |                            |                            |                            |                            |
| Topology  | Transformerless                 |                            |                            |                            |                            |                            |
| Cooling   | Natural                         |                            |                            |                            |                            |                            |
| Protection degree   | IP65                            |                            |                            |                            |                            |                            |
| Relative humidity   | 0~100%                          |                            |                            |                            |                            |                            |
| Altitude  | 2000m                           |                            |                            |                            |                            |                            |
| Battery DC connection.  | OT Terminal                     |                            |                            |                            |                            |                            |
| AC connection   | Connector                       |                            |                            |                            |                            |                            |
| Display   | LCD+LED                         |                            |                            |                            |                            |                            |
| Interfaces:RS485/CAN/USB  | Yes                             |                            |                            |                            |                            |                            |
| Monitor : RF/WIFI/GPRS  | Optional                        |                            |                            |                            |                            |                            |
| Country of Manufacture  | China                           |                            |                            |                            |                            |                            |
| CE, IEC62109, G98/G99, VDE0126-1-1, AS4777, CEI 0-21, VDE-AR-N4105, UTE C 15-712, EN50549, IEC 61727, IEC 62116, IEC 62040, C10/11, NRS 097-2-1 |                                 |                            |                            |                            |                            |                            |