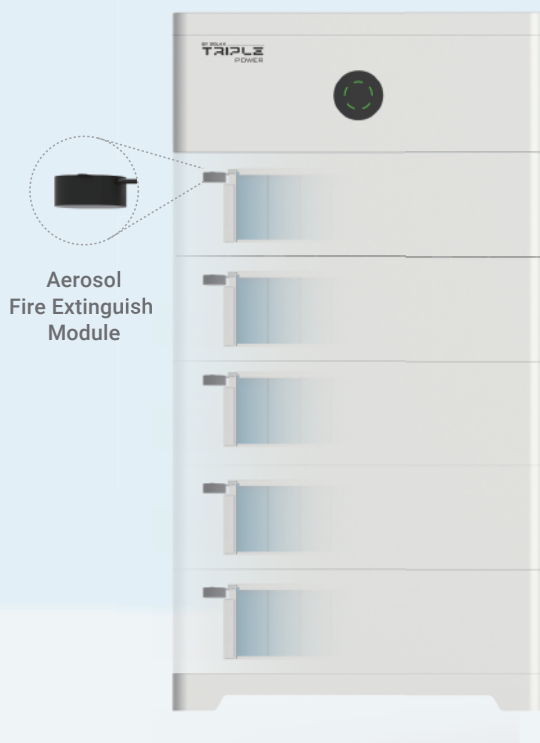


# High-Voltage Battery System



## TSYS-HS51

10.2kWh ~ 66.5kWh



### Smart Management

- Remote fault diagnosis, upgrade and maintenance
- Unique battery heating tech and wide temperature tolerance
- Optional parallel connection using a two-in-one cable for easy capacity expansion and extend battery lifespan
- Maximum 10% expansion of effective power over the entire life cycle to increase cycle life (optimizer version)<sup>①</sup>
- 3-hour rapid equalization (optimizer version)<sup>②</sup>



### High Performance

- 10.2 - 66.5 kWh wide capacity range
- Max. 70A charging / discharging current
- Cycle life > 6000 cycles



### Assured Reliability

- IP66 ingress protection
- LFP battery cell & high-performance processors
- Aerosol fire suppression for precise protection



### Flexible Adaptability

- Compatible with TCBox-70, up to 3 towers of batteries<sup>③</sup>
- Compact and stackable for easy installation
- Supporting direct battery expansion
- Supporting mixed use of new and old batteries, supports rapid capacity expansion, plug and play, no energy loss (optimizer version)

<sup>①</sup> Lab conditions

<sup>②</sup> Lab data, quick equalization of 20% power difference in 3 hours

<sup>③</sup> Coming soon

|                                         | T-HS10.2           | T-HS15.3           | T-HS20.4           | T-HS25.6            | T-HS30.7            | T-HS35.8            |
|-----------------------------------------|--------------------|--------------------|--------------------|---------------------|---------------------|---------------------|
| GENERAL INFORMATION                     |                    |                    |                    |                     |                     |                     |
| Number of modules                       | 2                  | 3                  | 4                  | 5                   | 6                   | 7                   |
| Rated energy                            | 10.2 kWh           | 15.3 kWh           | 20.4 kWh           | 25.6 kWh            | 30.7 kWh            | 35.8 kWh            |
| Usable energy (90% DOD) <sup>①</sup>    | 9.1 kWh            | 13.7 kWh           | 18.3 kWh           | 23.0 kWh            | 27.6 kWh            | 32.2 kWh            |
| Rated voltage                           | 102.4 V            | 153.6 V            | 204.8 V            | 256.0 V             | 307.2 V             | 358.4 V             |
| Operation voltage range                 | 85 ~ 116 V         | 128 ~ 174 V        | 170 ~ 232 V        | 212 ~ 289 V         | 255 ~ 347 V         | 297 ~ 405 V         |
| Rated operation current <sup>③</sup>    | 60 A               |                    |                    |                     |                     |                     |
| Maximum operation current <sup>②③</sup> | 70 A               |                    |                    |                     |                     |                     |
| Rated power <sup>③</sup>                | 6.1 kW             | 9.2 kW             | 12.3 kW            | 15.4 kW             | 18.4 kW             | 21.5 kW             |
| Max. power <sup>③</sup>                 | 7.2 kW             | 10.8 kW            | 14.3 kW            | 17.9 kW             | 21.5 kW             | 25.1 kW             |
| Depth of discharge                      | 90%                |                    |                    |                     |                     |                     |
| Communication interfaces                | CAN + RS485        |                    |                    |                     |                     |                     |
| Dimensions (W x H x D)                  | 600 × 621 × 376 mm | 600 × 789 × 376 mm | 600 × 957 × 376 mm | 600 × 1125 × 376 mm | 600 × 1293 × 376 mm | 600 × 1461 × 376 mm |

|                                         | T-HS40.9            | T-HS46.0                                    | T-HS51.2                                     | T-HS56.3                                     | T-HS61.4                                     | T-HS66.5                                     |
|-----------------------------------------|---------------------|---------------------------------------------|----------------------------------------------|----------------------------------------------|----------------------------------------------|----------------------------------------------|
| GENERAL INFORMATION                     |                     |                                             |                                              |                                              |                                              |                                              |
| Number of modules                       | 8                   | 9                                           | 10                                           | 11                                           | 12                                           | 13                                           |
| Rated energy                            | 40.9 kWh            | 46.0 kWh                                    | 51.2 kWh                                     | 56.3 kWh                                     | 61.4 kWh                                     | 66.5 kWh                                     |
| Usable energy (90% DOD) <sup>①</sup>    | 36.8 kWh            | 41.4 kWh                                    | 46.0 kWh                                     | 50.6 kWh                                     | 55.2 kWh                                     | 59.8 kWh                                     |
| Rated voltage                           | 409.6 V             | 460.8 V                                     | 512.0 V                                      | 563.2 V                                      | 614.4 V                                      | 665.6 V                                      |
| Operation voltage range                 | 340 ~ 463 V         | 382 ~ 520 V                                 | 424 ~ 578 V                                  | 467 ~ 636 V                                  | 509 ~ 694 V                                  | 552 ~ 750 V                                  |
| Rated operation current <sup>③</sup>    | 60 A                |                                             |                                              |                                              |                                              |                                              |
| Maximum operation current <sup>②③</sup> | 70 A                |                                             |                                              |                                              |                                              |                                              |
| Rated power <sup>③</sup>                | 24.6 kW             | 27.6 kW                                     | 30.7 kW                                      | 33.8 kW                                      | 36.9 kW                                      | 39.9 kW                                      |
| Max. power <sup>③</sup>                 | 28.7 kW             | 32.3 kW                                     | 35.8 kW                                      | 39.4 kW                                      | 43.0 kW                                      | 46.6 kW                                      |
| Depth of discharge                      | 90%                 |                                             |                                              |                                              |                                              |                                              |
| Communication interfaces                | CAN + RS485         |                                             |                                              |                                              |                                              |                                              |
| Dimensions (W x H x D)                  | 600 × 1629 × 376 mm | 600 × 957 × 376 mm<br>+ 600 × 1125 × 376 mm | 600 × 1125 × 376 mm<br>+ 600 × 1125 × 376 mm | 600 × 1293 × 376 mm<br>+ 600 × 1125 × 376 mm | 600 × 1293 × 376 mm<br>+ 600 × 1293 × 376 mm | 600 × 1461 × 376 mm<br>+ 600 × 1293 × 376 mm |

| BMS                    |                          |
|------------------------|--------------------------|
| Model                  | TBMS-S51-8 / TBMS-S51-80 |
| Dimensions (W × H × D) | 600 × 225 × 376 mm       |
| Net weight             | 18.5 kg                  |

| BATTERY MODEL          |                                  |
|------------------------|----------------------------------|
| Model                  | TB-HS51 / TB-HS510               |
| Battery type           | LFP                              |
| Cycle life (90% DOD)   | > 6000 cycles                    |
| Module capacity        | 5.1 kWh                          |
| Dimensions (W × H × D) | 600 × 168 × 376 mm               |
| Net weight             | 46 kg / 47.1 kg (with optimizer) |
| Installation type      | Stackable                        |

| SERIES BOX             |                    |
|------------------------|--------------------|
| Dimensions (W × H × D) | 600 × 225 × 376 mm |
| Net weight             | 15 kg              |

| ENVIRONMENTAL REQUIREMENTS |                                                                               |
|----------------------------|-------------------------------------------------------------------------------|
| Installation               | Floor mounting                                                                |
| Charge temperature         | -30 ~ +53°C (with heating function)<br>-20 ~ +53°C (without heating function) |
| Discharge temperature      | -30 ~ +53°C (with heating function)<br>-20 ~ +53°C (without heating function) |
| Relative humidity          | 4 ~ 100% RH (condensing)                                                      |
| Max. operation altitude    | 3000 m                                                                        |
| Environment                | Outdoor / indoor                                                              |
| Ingress protection         | IP66                                                                          |

| STANDARD                      |                                       |
|-------------------------------|---------------------------------------|
| Certifications                | IEC62619, IEC62040, EN62477, VDE 2510 |
| Transport testing requirement | UN38.3                                |

① Test conditions: 90% DOD, 0.2C charge & discharge @ 25°C

② Max. charge / discharge current may be variant with different inverter models

③ Rated / maximum operation current and rated / maximum power derating will occur related to temperature or SOC