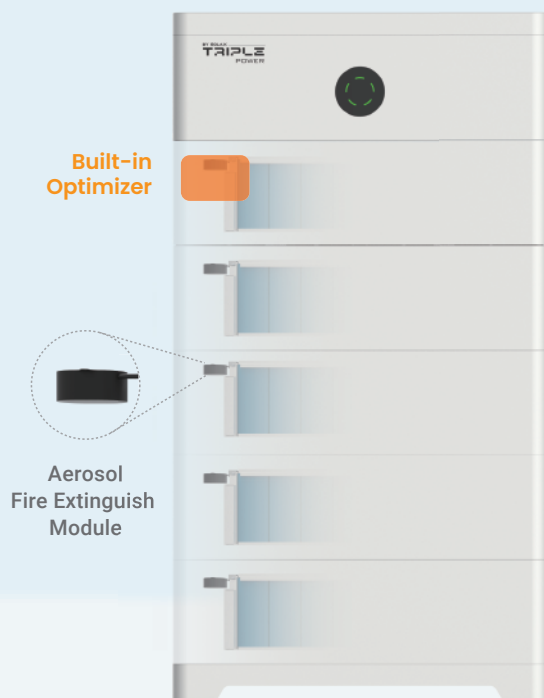


High-voltage Battery System



HS51

10.2 kWh - 66.5 kWh



- Support Mixed **New and Old** Batteries
- Adaptive energy solutions with **No delays**



Smart Management

- Remote fault diagnosis, upgrade and maintenance
- Unique battery heating tech and wide temperature tolerance
- Maximum 10% expansion of effective power over the entire life cycle to increase cycle life (optimizer version)^①
- 3-hour rapid equalization (optimizer version)^②



Assured Reliability

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



High Performance

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



Flexible Adaptability

- With TCBBox-70, supports up to three battery towers; with battery expansion cables, supports up to two battery towers^③
- Stackable modules, plug and play design
- Supports mixing new and old batteries for rapid capacity expansion with minimal energy loss. (Optimizer Version)

^① Lab conditions

^② Lab data, quick equalization of 20% power difference in 3 hours

^③ Coming soon

	T-HS10.2	T-HS15.3	T-HS20.4	T-HS25.6	T-HS30.7	T-HS35.8
Number of modules	 2	 3	 4	 5	 6	 7
GENERAL INFORMATION						
Nominal voltage	102.4 d.c. V	153.6 d.c. V	204.8 d.c. V	256.0 d.c. V	307.2 d.c. V	358.4 d.c. V
Operating voltage range	85 - 116 d.c. V	128 - 174 d.c. V	170 - 232 d.c. V	212 - 289 d.c. V	255 - 347 d.c. V	297 - 405 d.c. V
Nominal energy	10.2 kWh	15.3 kWh	20.4 kWh	25.6 kWh	30.7 kWh	35.8 kWh
Usable energy(90% DOD) ^①	9.1 kWh	13.7 kWh	18.3 kWh	23.0 kWh	27.6 kWh	32.2 kWh
Rated charge / discharge power	6.1 kW	9.2 kW	12.3 kW	15.4 kW	18.4 kW	21.5 kW
Max. charge / discharge power	7.2 kW	10.8 kW	14.3 kW	17.9 kW	21.5 kW	25.1 kW
Dimensions (WxHxD)	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
Number of modules	 8	 9	 10	 11	 12	 13
GENERAL INFORMATION						
Nominal voltage	409.6 d.c. V	460.8 d.c. V	512.0 d.c. V	563.2 d.c. V	614.4 d.c. V	665.6 d.c. V
Operating voltage range	340 - 463 d.c. V	382 - 520 d.c. V	424 - 578 d.c. V	467 - 636 d.c. V	509 - 694 d.c. V	552 - 750 d.c. V
Nominal energy	40.9 kWh	46.0 kWh	51.2 kWh	56.3 kWh	61.4 kWh	66.5 kWh
Usable energy (90% DOD) ^①	36.8 kWh	41.4 kWh	46.0 kWh	50.6 kWh	55.2 kWh	59.8 kWh
Rated charge / discharge power	24.6 kW	27.6 kW	30.7 kW	33.8 kW	36.9 kW	39.9 kW
Max. charge / discharge power	28.7 kW	32.3 kW	35.8 kW	39.4 kW	43.0 kW	46.6 kW
Dimensions (WxHxD)	600 × 1629 × 376 mm	600 × 1797 × 376 mm	600 × 1965 × 376 mm	600 × 1293 × 376 mm + 600 × 1125 × 376 mm	600 × 1293 × 376 mm + 600 × 1293 × 376 mm	600 × 1461 × 376 mm + 600 × 1293 × 376 mm

GENERAL INFORMATION	
Depth of discharge(DOD)	90%
Recommend charge / discharge current	60 A
Max. charge / discharge current ^②	70 A
Cycle life (90% DOD) ^③	> 6000 cycles

ENVIRONMENTAL REQUIREMENTS	
Charge temperature	-30 - +53°C (with heating function) 0 - +53°C (without heating function)
Discharge temperature	-30 - +53°C (with heating function) -20 - +53°C (without heating function)
Storage temperature	-20 - +30°C (12 months) +30 - +50°C (6 months)
Relative humidity	4 - 100% RH (condensing)
Max. operating altitude	3000 m
Ingress protection	IP66

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

BATTERY MODEL	
Battery model	TB-HS51 / TB-HS510
Battery type	LFP
Module capacity	5.1 kWh
Dimensions (WxHxD)	600 × 168 × 376 mm
Net weight	47 kg / 47.1 kg (with optimizer)

SERIES BOX	
Dimensions (WxHxD):	600 × 225 × 376 mm
Net weight	15 (±0.5) kg

COMMUNICATION	
Communication interfaces	CAN2.0 / RS485

STANDARD	
Certifications	CE, RCM, IEC62619, IEC62620, IEC62477 - 1, IEC60730, Annex H, IEC62040, VDE - AR - E2510, IEC60529, UN38.3, UL9540A

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

② Current is affected by the number of batteries connected in parallel as well as temperature and SOC

③ Test conditions: 25±2°C, 0.5C charge & discharge, 70% EOL