



Battery Model TNKP-B5.1-LV-B3

Physical	
Battery type	LFP (LiFePO4)
System Weight	58KG
Dimension (WxHxD)	540*490*240mm
IP Protection	IP65
Warranty	10 Years*

Electrical	
Energy Capacity	5.12kwh
Usable Capacity	4.6kwh
Depth of Discharge (DoD)	90%
Nominal Voltage	51.2V
DC Circuit Breaker	125A
Operating Voltage Range	44.8 - 56.5V
Internal Resistance	< 20mΩ

Operation	
Max. Charge / Discharge Current	50A / 80A
Rated DC power	4096W
Max. Charge / Discharge Power	2825W/4096W
Operating Temperature Range	-10 to 50°C charging -10 to 50°C discharging
Humidity	0 ~ 95% (No condensation)

BMS	
Modules Connection	Max. 4
Capacity	100 - 400Ah
Power Consumption	< 2W
Communication	CAN & RS485
Monitoring Parameters	System voltage, current, cell voltage, cell temperature, PCBA temperature measurement

Certificate	
Safety(Cell)	Pack: IEC/EN 62619;UN38.3 Cell: IEC/EN 62619;UN-38.3;UL1973

* For warranty details, please refer to the TNK PRO Battery Limited Warranty
Maximum 4 battery packs in parallel.

PCS Model TNKP-IV3.6-LV-B3 TNKP-IV5.0-LV-B3

PV String Input	TNKP-IV3.6-LV-B3	TNKP-IV5.0-LV-B3
Max. DC Voltage	580V	580V
Nominal Voltage	400V	400V
MPPT Voltage Range	80V - 560V	80V - 560V
Start Voltage	130V	130V
Number of MPPT Tracker	2	2
Strings per MPPT Tracker	1	1
Max. Input Current per MPPT	15A	15A
Max. Short-circuit Current per MPPT	18A	18A

AC Interface (Grid)	TNKP-IV3.6-LV-B3	TNKP-IV5.0-LV-B3
Nominal AC Output Power	3680W	5000W
Max. AC Apparent Power	7360VA (from grid)	7360VA (from grid)
Max. AC Output Power	3680W	5000W ¹
Nominal Voltage	230V ac	230V ac
AC Grid Frequency Range	50 / 60Hz ± 5Hz	50 / 60Hz ± 5Hz
Max. Output Current	16A	22A ²
Max. Input Current	32A	32A
Power Factor (cos θ)	0.8 leading - 0.8 lagging	0.8 leading - 0.8 lagging
THDi	<3%	<3%

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PCS Model	TNKP-IV3.6-LV-B3	TNKP-IV5.0-LV-B3
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Battery Input

Battery Type	LFP (LiFePO4)	LFP (LiFePO4)
Nominal Battery Voltage	48V	48V
Charging Voltage Range	40-60V	40-60V
Max. Charging Current	50A	100A
Max. Discharging Current	80A	100A
Battery Capacity	100-400Ah	100-400Ah
Charging Strategy for Li-ion Battery	Depend on the BMS	Depend on the BMS

AC Output (Backup)

Max. Output Apparent Power	4000 VA	5000 VA
Peak Output Apparent Power	6900VA 10sec	6900VA 10sec
Max. Output Current	16A	20A
Nominal Output Voltage	230V	230V
Nominal Output Frequency	50/60Hz	50/60Hz
Output THDv (@Linear Load)	<3% (Linear Load)	<3% (Linear Load)

Efficiency

Max. PV Efficiency	97.6%	97.6%
Euro. PV Efficiency	97.0%	97.0%

Protection

DC Switch	Bipolar DC Switch (125A/Pole)	Bipolar DC Switch (125A/Pole)
Anti-islanding Protection	Yes	Yes
Output Over Current Protection	Yes	Yes
DC Reverse Polarity Protection	Yes	Yes
String Fault Detection	Yes	Yes
AC/DC Surge Protection	DC Type II;AC Type III	<DC Type II;AC Type III
Insulation Detection	Yes	Yes
AC Short Circuit Protection	Yes	Yes

General Specifications

Dimensions (W x H x D)	540*590*240mm	540*590*240mm
Weight	32 kg	32 kg
Operating Temperature Range	-25°C~+ 60°C	-25°C~+ 60°C
Noise (dB)	< 25	< 25
Cooling Type	Natural Convection	Natural Convection
Max. Operation Altitude	2000 m	2000 m
Operation Humidity	0~95% (No Condensation)	0~95% (No Condensation)
IP Class	IP65	IP65
Topology	Battery Isolation	Battery Isolation
Communication	RS485 / CAN2.0 / WIFI / 4G	RS485 / CAN2.0 / WIFI / 4G
Display	LCD / APP	LCD / APP
Warranty	5 Years	5 Years
Certification & Standard	IEC/EN 62109-1&2;IEC/EN61000-6-1;IEC/EN61000-6-2;EN61000-6-3; IEC/EN61000-6-4;IEC/ EN61000-3-11; EN61000-3-12;IEC60529;IEC 60068;IEC61683;IEC62116;IEC61727; EN50549-1; VDE 0126;VDE-AR-N-4105;CEI0-21;G98;G99;C10/C11	

*1. Nominal AC output power is 4999W for Australia and 4600W for Germany and South Africa.

*2. Maximum output current is 21.7A for Australia and 20A for Germany and South Africa