



Premium Series

DATASHEET

Premium High Density 14S Series



PRODUCT OVERVIEW

The Premium High Density 14S Series is built for heavy-duty drones, VTOL UAVs and professional platforms requiring 60V-class systems for optimized power-to-weight and efficiency. This series uses advanced high energy cells (Amprius SA112 & Molicel M65A), pushing boundaries on endurance, payload capacity, and mission distances.

APPLICATIONS



Commercial Drones

Agriculture, Cargo, Missions, Tactical



Robotics

Warehouse, Cargo, Missions, Tactical

CONNECTORS

For models with Smart BMS:

- AS150U Connector (Power + Communication)
- Han® MPC30 Connector (DroneCAN support)
- Han® MPC60 Connector (DroneCAN support)

For models without Smart BMS, providing cell balancing capability:

- XT90 Connector (Power)
- Molex Micro-Fit 16-pin Connector (Balancing)

PROTECTION FEATURES

Overcharge Protection
Over-discharge Protection
Overcurrent Protection
Short Circuit Protection
Temperature Monitoring and Protection

COMMUNICATION INTERFACES

CANBUS
RS485
UART

ADDITIONAL FEATURES

State of Charge (SOC) Estimation
Cell Balancing
Remote Monitoring Capability

** The above features apply only for battery models with smart BMS.

M O D E L

TN14S4P-SA112-01

TN14S4P-M65A-01

TN14S8P-SA112-01

TN14S8P-M65A-01

ELECTRICAL SPECIFICATIONS

Cell Configuration	14S 4P	14S 4P	14S 8P	14S 8P
Nominal Voltage	48.4V	50.4V	48.4V	50.4V
Nominal Capacity	26 Ah	26 Ah	52 Ah	52 Ah
Energy	1,260 Wh	1,310 Wh	2,520 Wh	2,620 Wh
Charge Voltage	58.8V	58.8V	58.8V	58.8V
Cut-off Voltage	35V	35V	35V	35V
Energy Density	308 Wh/kg	322 Wh/kg	308 Wh/kg	322 Wh/kg

CURRENT PARAMETERS

Max Continuous Discharge Current	52A (2C)	104A (4C)	140A (2C)	208A (4C)
Max Pulse Discharge Current ($\leq 30s$)	104A (4C)	156A (6C)	208A (4C)	312A (6C)
Max Charge Current	18.2A (0.7C)	26A (1C)	36.4 A (0.7C)	52A (1C)

PHYSICAL SPECIFICATIONS

Dimensions (L x W x H)	100 x 80 x 350 mm 100 x 72 x 350 mm (no BMS)	100 x 80 x 350 mm 100 x 72 x 350 mm (no BMS)	200 x 80 x 350 mm 200 x 72 x 350 mm (no BMS)	200 x 80 x 350 mm 200 x 72 x 350 mm (no BMS)
Weight	4 kg	4 kg	8 kg	8 kg
Enclosure Material	PVC Shrink Wrap	PVC Shrink Wrap	PVC Shrink Wrap	PVC Shrink Wrap

ENVIRONMENTAL SPECIFICATIONS

PERFORMANCE SPECIFICATIONS

Operating Temperature	Charge: 0°C to 45°C Discharge: -20°C to 60°C	Cycle Life	~600 cycles @0.5C/-1C ~500 cycles @1C/1C
Storage Temperature	Short-term (< 1 month): -20°C to 45°C Long-term (> 1 month): 0°C to 25°C	Designed to Meet Warranty	CE, UN 38.3, RoHS, IEC 62133 12 months
Humidity	$\leq 85\%$ RH		

**GOT QUESTIONS?
GET IN TOUCH WITH US**

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