



Premium Series

DATASHEET

Premium High Density 6S Series



PRODUCT OVERVIEW

The Premium High Density 6S Series is engineered for advanced UAVs and professional drones requiring extended flight times and lightweight packs. This series leverages ultra-high-energy cells (Amprius SA112 or Molicel M65A) to deliver exceptional gravimetric energy density, optimized for long-endurance operations.

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

TN6S1P-SA112-01

TN6S1P-M65A-01

TN6S3P-SA112-01

TN6S3P-M65A-01

ELECTRICAL SPECIFICATIONS

Cell Configuration	6S 1P	6S 1P	6S 3P	6S 3P
Nominal Voltage	20.8V	21.6 V	20.8V	21.6V
Nominal Capacity	6.5Ah	6.5Ah	19.5Ah	19.5Ah
Energy	135Wh	140Wh	405Wh	420 Wh
Charge Voltage	25.2V	25.2V	25.2V	25.2V
Cut-off Voltage	15V	15V	15V	15V
Energy Density	308 Wh/kg	322 Wh/kg	308 Wh/kg	322 Wh/kg

CURRENT PARAMETERS

Max Continuous Discharge Current	13A (2C)	26 A (4C)	39A (2C)	78 A (4C)
Max Pulse Discharge Current ($\leq 30s$)	26 A (4C)	39A (6C)	78A (4C)	117A (6C)
Max Charge Current	4.55A (0.7C)	6.5A (1C)	13.65 A (0.7C)	19.5A (1C)

PHYSICAL SPECIFICATIONS

Dimensions (L x W x H)	25 x 80 x 150 mm 25 x 72 x 150 mm (no BMS)	25 x 80 x 150 mm 25 x 72 x 150 mm (no BMS)	75 x 80 x 150 mm 75 x 72 x 150 mm (no BMS)	75 x 80 x 150 mm 75 x 72 x 150 mm (no BMS)
Weight	0.5 kg	0.5 kg	1.4 kg	1.4 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	Cycle Life	~600 cycles @0.5C/1C ~500 cycles @1C/1C
	Discharge: -20°C to 60°C	Designed to Meet	CE, UN 38.3, RoHS, IEC 62133
Storage Temperature	Short-term (< 1 month): -20°C to 45°C	Warranty	12 months
	Long-term (> 1 month): 0°C to 25°C		
Humidity	$\leq 85\%$ RH		

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

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