



DATASHEET

Premium High Power 6S Series

PRODUCT OVERVIEW

The Premium High Power 6S Series is engineered for the most demanding drone applications where burst discharge capability and power delivery are required. Built with Amprius SA124, rated for 180A pulse discharge from a 5Ah cell with just 5mΩ internal resistance, these batteries are tailored for racing drones and power-intensive hybrid UAVs where rapid current delivery matters most.

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-SA124-01	TN6S3P-SA124-01
ELECTRICAL SPECIFICATIONS			
Cell Configuration		6S 1P	6S 3P
Nominal Voltage		21.6V	21.6V
Nominal Capacity		5Ah	15Ah
Energy		108Wh	324Wh
Charge Voltage		25.2V	25.2V
Cut-off Voltage		15V	15V
Energy Density		250 Wh/kg	250 Wh/kg
CURRENT PARAMETERS			
Max Continuous Discharge Current		50 A (10C)	150 A (10C)
Max Pulse Discharge Current (≤30s)		180 A (36C)	540 A (36C)
Max Charge Current		10 A (2C)	30 A (2C)
PHYSICAL SPECIFICATIONS			
Dimensions (L x W x H)		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)
Weight		0.5 kg	1.4 kg
Enclosure Material		PVC Shrink Wrap	PVC Shrink Wrap
ENVIRONMENTAL SPECIFICATIONS		PERFORMANCE SPECIFICATIONS	
Operating Temperature	Charge: 0°C to 45°C	Cycle Life	~900 cycles (+1C/-1C, 100% DoD, to 80% SOH)
	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	≤85% RH		

GOT QUESTIONS?
GET IN TOUCH WITH US

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