



Premium Series

DATASHEET

Premium High Power 14S Series



PRODUCT OVERVIEW

The Premium High Power 14S Series is engineered for the largest, most demanding drone platforms requiring extremely high discharge currents at 50.4V. Built with Amprius SA124, rated for 180A pulse discharge from a 5Ah cell with just 5mΩ internal resistance, these packs deliver burst-load response for heavy-lift cargo drones and multi-rotor platforms under maximum payload, while maintaining low voltage sag under transient loads.

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-SA124-01	TN14S8P-SA124-01
ELECTRICAL SPECIFICATIONS			
Cell Configuration		14S 8P	14S 8P
Nominal Voltage		50.4 V	50.4 V
Nominal Capacity		20 Ah	40 Ah
Energy		1,008 Wh	2,016 Wh
Charge Voltage		58.8 V	58.8 V
Cut-off Voltage		35 V	35 V
Energy Density		250 Wh/kg	250 Wh/kg
CURRENT PARAMETERS			
Max Continuous Discharge Current		200 A (10C)	400 A (10C)
Max Pulse Discharge Current (≤30s)		720 A (36C)	1,440 A (36C)
Max Charge Current		30 A (2C)	60 A (2C)
PHYSICAL SPECIFICATIONS			
Dimensions (L x W x H)		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)
Weight		4 kg	8 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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