



DATASHEET

Premium High Power 12S Series

PRODUCT OVERVIEW

The Premium High Power 12S Series is engineered for the toughest drone applications demanding extremely high discharge currents at 48V class. Built with Amprius SA124, rated for 180A pulse discharge from a 5Ah cell with just 5mΩ internal resistance, these packs excel in rapid climbs and burst-load maneuvers, maintaining low voltage sag even under extreme 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			
		TN12S3P-SA124-01	TN12S6P-SA124-01
ELECTRICAL SPECIFICATIONS			
Cell Configuration		12S 3P	12S 6P
Nominal Voltage		43.2V	43.2V
Nominal Capacity		15 Ah	30 Ah
Energy		648 Wh	1,296 Wh
Charge Voltage		50.4V	50.4 V
Cut-off Voltage		33.6 V	33.6 V
Energy Density		250 Wh/kg	250 Wh/kg
CURRENT PARAMETERS			
Max Continuous Discharge Current		150 A (10C)	300 A (10C)
Max Pulse Discharge Current (≤30s)		540 A (36C)	1080 A (36C)
Max Charge Current		30 A (2C)	60 A (2C)
PHYSICAL SPECIFICATIONS			
Dimensions (L x W x H)		75 x 80 x 300 mm 75 x 72 x 300 mm(no BMS)	150 x 80 x 300 mm 150 x 72 x 300 mm(no BMS)
Weight		2.8 kg	5.3 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

Dan-Tech Energy GmbH

 www.danenergy.com

 Max-Planck-Str. 7, Berlin 12489 Germany

 +49 (030) 5770-34433

 info@danenergy.com