



Premium Series

# DATASHEET

Premium High Density 6S Series



## PRODUCT OVERVIEW

The Premium Series – High Energy Packs are built around Amprius SA08 pouch cells, known for their ultra-high gravimetric energy density (360 Wh/kg) and exceptional discharge power. These models are intended for integration with external BMS or smart chargers, offering performance freedom for system integrators who require maximum flexibility.

## APPLICATIONS



### Commercial Drones

High-performance drones, UAV propulsion systems (backup or main), Military-grade



### Robotics

Compact mobile robots, Military-grade

## CONNECTORS

For models with Smart BMS:

- XT90 Connector (Power)
- Molex Micro-Fit 6/8-pin Connector (Balancing)

## KEY ADVANTAGES

Ultra-lightweight (360Wh/kg gravimetric density)

High discharge performance for mobile platforms

No BMS – ideal for advanced integrators with external BMS needs

Compact pouch form factor

UN38.3 & IEC62133 compliant cells

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

M O D E L

TN6S1P-SA08

TN6S2P-SA08

**ELECTRICAL SPECIFICATIONS**

Cell Configuration	6S 1P	6S 2P
Nominal Voltage	20.4V	20.4V
Nominal Capacity	11.05Ah	22.10Ah
Energy	226.5Wh	453Wh
Charge Voltage	25.2V	25.2V
Cut-off Voltage	15V	15V
Energy Density	360 Wh/kg	360 Wh/kg

**CURRENT PARAMETERS**

Max Continuous Discharge Current	54 A (5C)	108 A (5C)
Max Pulse Discharge Current ( $\leq 30s$ )	86.4 A (8C)	172.8 A (8C)
Max Charge Current	32.4 A (3C)	64.8 A (3C)

**PHYSICAL SPECIFICATIONS**

Dimensions (L x W x H)	42 x 54 x 170 mm	84 x 54 x 170 mm
Weight	0.75 kg	1.5 kg
Enclosure Material	PVC Shrink Wrap	PVC Shrink Wrap

**ENVIRONMENTAL SPECIFICATIONS**

**PERFORMANCE SPECIFICATIONS**

Operating Temperature	Charge: 0°C to 60°C	Cycle Life	~300 cycles @ 100% DOD
	Discharge: -20°C to 60°C		~700 cycles @ 70% DOD
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	Designed to Meet	CE, UN 38.3, RoHS, IEC 62133

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

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