



DATASHEET

Premium High Power & Density 6S Series

PRODUCT OVERVIEW

The Premium Molicel 6S Series is engineered for advanced UAVs and professional drones requiring extended flight times and lightweight packs. This series leverages ultra-high-energy cells (Molicel P60B or Molicel M65A) to deliver exceptional gravimetric energy density, optimized for long-endurance operations and high power performance.

APPLICATIONS



Commercial Drones
Agriculture, Cargo, Missions, Tactical



Robotics
Warehouse, Cargo, Missions, Tactical

CONNECTORS

For models with Smart BMS:

- **AS150U** Connector (Power + Communication)

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-P60B-01	TN6S1P-M65A-01	TN6S3P-P60B-01	TN6S3P-M65A-01
ELECTRICAL SPECIFICATIONS				
Cell Configuration	6S 1P	6S 1P	6S 3P	6S 3P
Nominal Voltage	21.6V	21.6 V	21.6V	21.6V
Nominal Capacity	6Ah	6.5Ah	18Ah	19.5Ah
Energy	130 Wh	140 Wh	390 Wh	420 Wh
Charge Voltage	25.2V	25.2V	25.2V	25.2V
Cut-off Voltage	15V	15V	15V	15V
Energy Density	280 Wh/kg	322 Wh/kg	280 Wh/kg	322 Wh/kg
CURRENT PARAMETERS				
Continuous Discharge Current	60 A (10C)	26 A (4C)	180A (10C)	78 A (4C)
Max Continuous Discharge Current (≤30s)	100 A (16.7C)	39 A (6C)	300 A (16.7C)	117 A (6C)
Max Charge Current	30 A (5C)	6.5 A (1C)	90A (5C)	19.5 A (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	0.55 kg	0.5 kg	1.5 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			

GOT QUESTIONS?
GET IN TOUCH WITH US

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