ODIN-6040-50 | 6S4P FPV Drone Battery Pack

Product Overview

Part Number	ODIN-6040-50
Application	High-performance FPV drones, UAS, Robotics
Cell Configuration	6S4P (6 series, 4 parallel)
Chemistry	Lithium Ion
Cell Type	21700
Cell	NCC cells; 5 Ah; 60 A continuous per cell
Nominal Voltage	21.6 V
Fully Charged Voltage	25.2 V
Cutoff Voltage	15 V

Electrical Specifications

Capacity	20 Ah
Energy	432 Wh
Continuous Discharge	240 A
Charge Rate	20 A
Pack Weight	1.8 kg
Energy Density	238 Wh/kg

Mechanical and Connector Specifications

Pack Dimensions	76 x 82 x 139 mm; leads / connectors excluded
Power Connector	XT60 (2 pin)
Balance Connector	JST-XH (7 pin)
XT60 Power Lead Length	70 mm
JST / BMS Lead Length	55 mm
Housing	Heat shrink + foam padding

Environmental and Safety Ratings

Operating Temp, Discharge	-40 to +60 deg C
Operating Temp, Charge	-20 to +60 deg C
Discharge Current Cutoff	80 deg C
Charge Current Cutoff	70 deg C
Storage Temp	<35 deg C; <23 deg C long term
Cycle Life	>100 cycles @ <80% DoD under normal operating conditions
Cell Certifications	UN38.3, IEC62133, UL1642
Pack Certification	UN38.3 - Documentation available upon request
BMS / Protection	No BMS or protection integrated



Safety and Handling

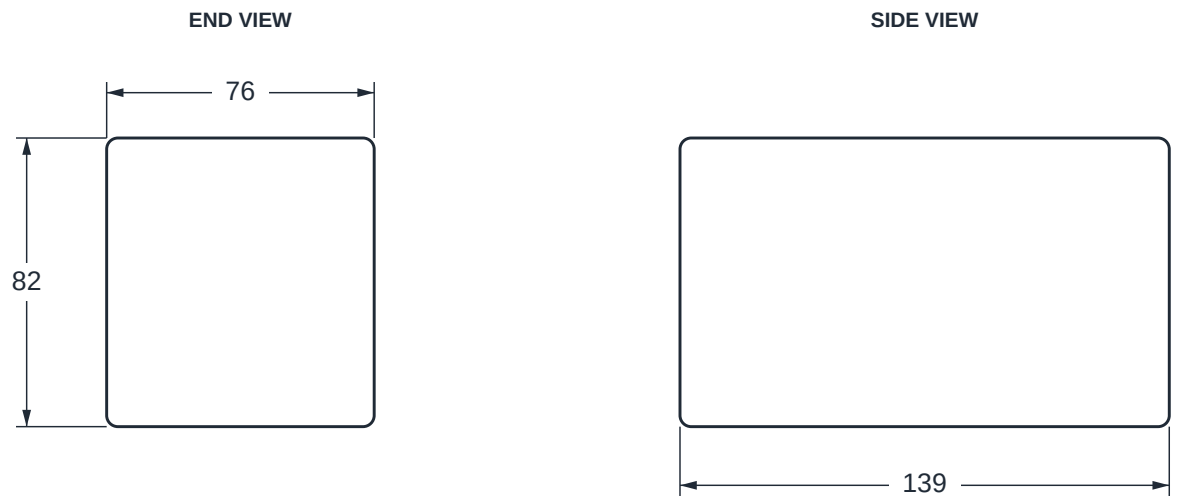
- Pack ships at <30% SOC.
- Store near nominal pack voltage.
- Avoid sustained operation below 3.0 V/cell; datasheet cutoff is 2.5 V/cell.
- Do not puncture, crush, drop, overheat, or short-circuit.
- Use proper cell balance when charging.
- Monitor pack temperature during use.
- Fuse or protect high-current paths.

Warranty and Disclaimers

- Warranty: 1 month from ship date.
- Excludes crash, water, overcurrent damage, and use outside specifications.
- Performance depends on usage, airflow, cell availability, and operating conditions.

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Mechanical Drawing - Pack Dimensions Only



All dimensions in mm. Simplified projected view; external leads and connectors are excluded.

Connector Electrical Specifics

Power	XT60 (2 pin)
Power Pin 1	Pack positive
Power Pin 2	Pack negative / 0 V reference
Balance Connector	JST-XH (7 pin)
Balance Function	6S balance/cell-tap connection
Power Lead Length	70 mm
JST / BMS Lead Length	55 mm

Voltage Reference

Nominal Pack	21.6 V
Fully Charged Pack	25.2 V
Cutoff Pack	15 V
Nominal Cell	3.6 V
Charged Cell	4.2 V
Cutoff Cell	2.5 V

Balance Connector Pinout

Pin	Nominal Tap Voltage
Pin 1	21.6 V
Pin 2	18.0 V
Pin 3	14.4 V
Pin 4	10.8 V
Pin 5	7.2 V
Pin 6	3.6 V
Pin 7	0 V

Nominal tap voltages at 3.6 V/cell; referenced to Pin 7 (0 V).