

3.7V 4000mAh 21700 High-Drain Cell (NMC) | THOR-21700-40P

Model: THOR-21700-40P Nominal: 3.7 V / 4000 mAh / 14.8 Wh Issued: 2026-09-11

1. Mechanical Characteristics

Model	THOR-21700-40P
Cell Type	Cylindrical Li-ion (INR, steel can)
Cell Format	21700
Dimensions (Ø × H)	Ø21.4 × 70.2 mm (max, bare cell)
Dimension Tolerance	Diameter +0.4 mm; Height +0.2 mm
Weight	Approx. 69 g
Terminal	Flat top (button top on request)
Cathode / Anode	NMC / Graphite
Pack Configuration	1S1P to nSnP (fully custom)
Cell Connection	Nickel strip spot welding / laser welding
BMS	Custom per pack configuration
NTC Thermistor	Optional
Connector	XT60 / JST / Molex (custom available)

2. Electrical Specifications

Nominal Voltage	3.7 V
Rated Capacity	4000 mAh
Energy	14.8 Wh
Charge Voltage	4.20 ± 0.05 V
Standard Charge	0.5C constant current, CV to 4.20 V, cut-off 0.02C
Max. Charge Current	1C
Discharge Cut-off Voltage	2.75 V
Standard Discharge	0.2C
Max. Continuous Discharge	2C (high-rate cells on request)
Internal Impedance	≤ 30 mΩ (AC 1 kHz, fresh cell)
Cycle Life	≥ 500 cycles @ 0.5C, ≥ 80% capacity
Charge Temperature	0°C ~ 45°C
Discharge Temperature	-20°C ~ 60°C
Storage Temperature	-10°C ~ 45°C (1 month)
Self-Discharge	≤ 3% per month

3. Pack-Level BMS (custom configuration)

Overcharge Detection	4.25 ± 0.05 V per cell
Overcharge Release	4.10 ± 0.05 V
Over-discharge Detection	2.50 ± 0.08 V per cell
Over-discharge Release	2.90 ± 0.10 V
Overcurrent Protection	Configured to pack continuous rating
Short-circuit Protection	Yes, auto-recovery
Cell Balancing	Passive (active balancing on request)
Temperature Protection	NTC monitored, cut-off configurable

Note: Values shown are THOR Power standard specifications for this cell class. Final parameters are confirmed in the engineering datasheet for your configuration. Certifications: UN38.3 / MSDS available; CE, KC, ROHS on request. Custom size, capacity, connector, wire length and PCM/BMS available.