



TECHNICAL DATA SHEET

KULR ONE SPACE™ (K1S)

Overview

All KULR ONE SPACE™ (K1S) battery variations are constructed with a passive propagation resistant and flame arresting (PPRFA) design using NASA WI-37A screened lithium-ion cells to ensure the highest possible safety and quality standards are achieved with every pack.

Driven by our world-class engineers, we continually enhance the energy density of our batteries, ensuring that the KULR ONE SPACE™ remains a robust, efficient, and reliable power solution for the most demanding space missions.

Our Story

For 40 years, KULR has been at the forefront of pioneering the next generation of safe energy solutions. Our solutions push the boundaries through a diversity of sectors:

- Space
- Aerospace
- Defense
- Robotics
- Transportation
- Bitcoin

Our innovations extend beyond our base model and into bespoke, engineered-to-spec battery design, production, and testing services — all under one roof.



* Image shows the KULR ONE SPACE™ 300 Series model

Features

- ⊕ Focus on Goddard Space Flight Center (GSFC) General Environmental Verification Standard (GEVS) for environmental testing
- ⊕ Thermal management and thermal runaway mitigation via interstitial aluminum heat sink
- ⊕ Flame arresting ventilation with novel Fibercore Flame Arrestor™
- ⊕ Low mass radiation resistant aluminum housing
- ⊕ Passive propagation resistant design



K1S	100 Series	200 Series	300-LT Series	400 Series	500 Series
Cell Nominal Voltage	3.6 V	3.6 V	3.6 V	3.6 V	3.6 V
Cell Capacity	3.5 Ah	3.5 Ah	3.5 Ah	3.5 Ah	3.5 Ah
Cell Configuration	4P-2S	4P-4S	3P-7S	4P-8S	5P-8S
Battery Capacity	7 Ah	14 Ah	10.5 Ah	14 Ah	17.5 Ah
Battery Nominal Voltage	14.4 V	14.4 V	25.2 V	28.8 V	28.8 V
Battery Maximum Voltage	16.8 V	16.8 V	29.4 V	33.6 V	33.6 V
Battery Energy	100 Wh	200 Wh	260 Wh	400 Wh	500 Wh
1C Current	7 A	14 A	10.5 A	14 A	17.5 A
1C Power	100 W	200 W	260 W	400 W	500 W

Cell Characteristics	MOLICEL P30B	MOLICEL M35A
Capacity	Typical: 3000 mAh / 10.8 Wh	Typical: 3500 mAh / 12.5 Wh
	Minimum: 2900 mAh / 10.4 Wh	Minimum: 3350 Ah / 11.9 Wh
Cell Voltage	Nominal: 3.6 V	Nominal: 3.6 V
	Charge: 4.2 V	Charge: 4.2 V
	Discharge: 2.5 V	Discharge: 2.5 V
Charge Current	Standard: 1.7 A (60°C cut-off)	Standard: 1.7 A (Continuous)
	Maximum: 1.7 A (60°C cut-off)	Maximum: 1.7 A (Continuous)
Charge Time	Standard: 1.5 hr	Standard: 2.5 hr
Discharge Current	Continuous: 30 A (80°C cut-off)	Maximum: 10 A
Ambient Temperature	Charge: 0°C to 60°C	Charge: 0°C to 60°C
	Discharge: -40°C to 60°C	Discharge: -40°C to 60°C
Energy Density	Volumetric: 631 Wh/l	Volumetric: 700 Wh/l
	Gravimetric: 234 Wh/kg	Gravimetric: 250 Wh/kg
Typical Impedance	AC (30% SOC): 8 mΩ	--
	DC (50% SOC): 17 mΩ	--



* Image shows the KULR ONE SPACE™ 200 Series model

