

Product Data Sheet

Li-ion Rechargeable Battery ABSLS 8s10p 28 V 35 Ah

The 8s10p 35Ah battery is the newest variant of ABSL's heritage 8s10p 15Ah design. Since original qualification, the design has been utilized for a variety of applications including civilian, military and commercial applications. This updated capacity 8s10p has been designed to maximize structural performance while retaining minimal mass for the varying stresses found across the current range of launch vehicles.

More than 100 heritage flight 8s10p batteries have been built and delivered, serving a combination of LEO and GEO orbits. The 8s10p 35Ah update to battery is currently under development, therefore all dimensions and testing limits are estimates.

This battery does not require cell balancing electronics.

Facts at a Glance

ABSLS™ Cell	18650 E35
Configuration	8s10p
Nameplate Capacity	35 Ah
Energy	1017 Wh
Maximum Discharge Current (continuous)	13A
Nominal Mass	4.8 kg
Footprint	250 x 205 mm
Height	98 mm
Nominal Voltage	29V
Voltage Range	24 - 33.6V

Leading the industry without failure for over 20 years of continuous in-orbit heritage using ABSL Li-ion battery technology

Qualification

Temperature

Non-Operating	Operating
-20°C to 60°C	Discharge: 0°C to 40°C
	Charge: 0°C to 40°C

Cell Level Radiation Exposure

Dosage	Effects
< 1Mrad	Negligible
Up to 10Mrad	<1% capacity loss

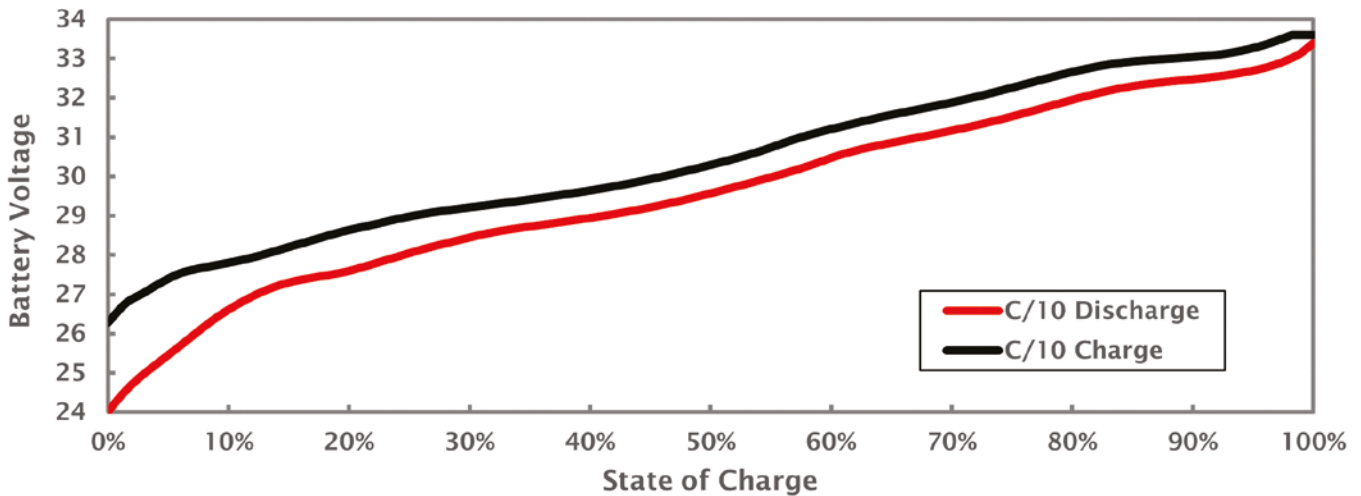
Shock

Frequency (Hz)	PF SRS Level Test $\Omega = 10$
100	160 g
650	1,350 g
1,000	2,000 g
1,800	2,200 g
7,000	3,000 g
10,000	3,000 g

Random Vibration

Frequency (Hz)	ASD (g^2/Hz)
20	0.024
80	0.30
250	0.30
300	0.22
700	0.22
2,000	0.032
Overall G_{RMS}	16.4
Duration	2 min/axis

20°C Charge and Discharge Voltage Profiles



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