



# Facts at a Glance

ABSL <sup>™</sup> Cell	18650HCM
Configurations	8s10p*
Nameplate Capacity	15 Ah
Energy	432 Wh
Mass	4.4 kg
Footprint	235 x 174 mm
Height	98 mm
Nominal Voltage	28V
Voltage Range	20 - 33.6V

# **Product Data Sheet** Li-ion Rechargeable Battery

ABSL 8s10p 28V 15Ah

The 8s10p 15Ah battery was originally qualified for ASTRIUM to be used with the CNES MICROSAT series of LEO Spacecraft. Since qualification, the design has been utilized for a variety of applications including civilian, military and other commercial applications. This battery does not require cell balancing electronics and is currently operating in both LEO and GEO orbits.

More than 50 flight batteries have been built and delivered.

\*Can be provided in a low magnetic signature configuration

Celebrating customer success with over 2.5 billion cell hours of in-orbit heritage using ABSL Li-ion cell technology



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## **Qualification and Flight History**

#### Temperature

Non-Operating	Operating
-20°C to 60°C	Discharge: -15°C to 55°C
	Charge: 0°C to 55°C

#### Shock

Frequency (Hz)	PF SRS Level Test Q = 10
100	15 g
1000 - 1,500	10 dB/Octave
1,500 - 10,000	1,500 g

# **Cell Level Radiation Exposure**

Dosage	Effects
< 1Mrad	Negligible
Up to 18Mrad	~5% of Capacity

**Random Vibration** 

Frequency (Hz)	Qualification*
20	0.002 g²/Hz
20 - 80	+3 dB/Octave
80 - 450	0.08 g²/Hz
450 - 2000	-3 dB/Octave
2000	0.02 g²/Hz
Overall G <sub>RMS</sub>	9.59 G <sub>RMS</sub>
Duration	2 min/axis

\*Notching utilized within profile

### **Notable Missions**

Mission	Customer	Launch Date
KSLV-1	KARI	August 2009 June 2010
SMAP	NASA JPL	January 2015
DSCOVR	NASA GSFC	February 2015

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