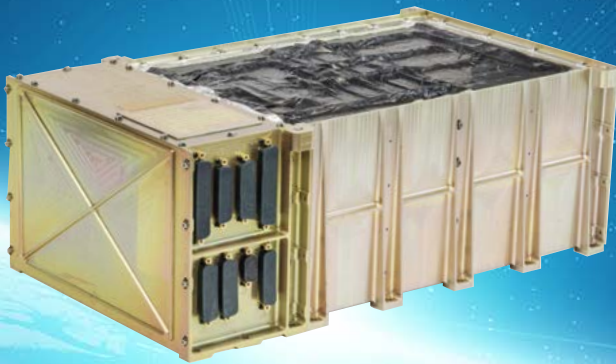


**Li-ion Rechargeable Battery
ABSL[™] 8s44p 28 V 123 Ah**



The ABSL[™] 8s44p battery was designed, built and qualified for NASA's James Webb Space

Telescope (JWST). Since qualification, the design has been updated to accommodate higher capacity 2.8 Ah cells. Beyond JWST, the ABSL 8s44p battery has been utilized for DoD applications.

Switching relays can be an added internal component to the battery as a safety feature that can be utilized leading up to launch without the added mass of an additional box.

ABSL standard spacecraft batteries uniquely eliminate the need for complex cell balancing electronics by leveraging proprietary and flight proven manufacturing processes pioneered by EnerSys.

Facts at a Glance

ABSL [™] Cell	18650 2.8 Ah
Configuration	8s44p
Nameplate Capacity	123 Ah
Nameplate Energy	3690 Wh
Nominal Mass*	23 kg
Footprint	432 x 257 mm
Height	164 mm
Voltage Range	24 - 33.6 V

Leading the industry without failure for over 25 years of continuous in-orbit heritage using ABSL[™] Li-ion battery technology.

* Mass with switching relays

Li-ion Rechargeable Battery ABSL™ 8s44p 28 V 123 Ah

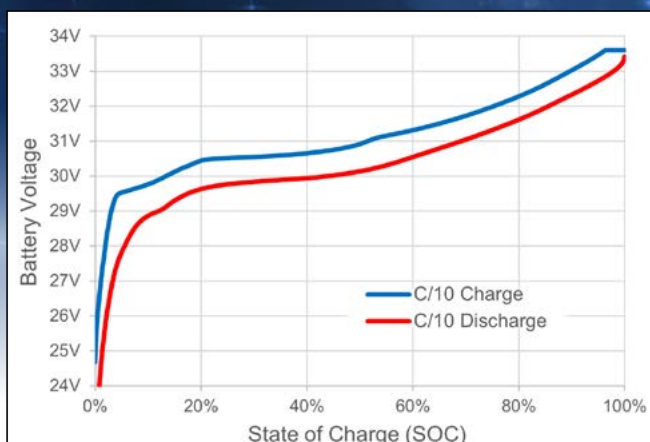
Qualification

Temperature	
Non-Operating (°C)	Operating* (°C)
	Discharge: 0 to 45
	Charge: 0 to 45

* Above 25°C not recommended for extended durations
Recommended operational range of 10°C-25°C for prolonged battery life

Shock	
Frequency (Hz)	PF SRS Level Test Q = 10
100	40 g
1000-10,000	330 g

20°C Charge and Discharge Voltage Profiles



Cell Level Radiation Exposure

Dosage Mrad	Effects
< 1Mrad	Negligible
Up to 20Mrad	~5% of Capacity

Random Vibration

Frequency (Hz)	Qualification†
20	0.038 g ² /Hz
20-50	6 dB/Octave
50-300	0.23 g ² /Hz
300-500	-4.8 dB/Octave
500-1000	0.010 g ² /Hz
1000-2000	-6 dB/Octave
2000	0.025 g ² /Hz
Overall G _{RMS}	13.8 G _{RMS}
Duration	2 min/axis

† Notching utilized within profile

These batteries and controlled technical data are classified under the Commerce Control List and are subject to licensing requirements for any export. Additional export restrictions and regulations may apply depending on their end use. It is the responsibility of the purchasing or receiving party to comply with all requirements of export laws, including ensuring that all required export authorizations are in place prior to exportation or re-exportation.

