



# BANYAN MODULE

The ideal electrification solution for the commercial vehicle industry, BANYAN is a modular building block consisting of lithium-ion cells in a 21700 format that are connected in series and parallel to achieve the desired voltage, energy and power capability. Its high packaging efficiency, high energy density and structurally integrated cooling system makes it an ideal battery system for many automotive powertrain applications.

### DESIGNED TO

- ◆ ISO 26262
- ◆ SAE J2380
- ◆ SAE J2464
- ◆ UN 38.3
- ◆ UL 2580

### FEATURES:

- ◆ Modular design with a 21700 cell format
- ◆ High packaging efficiency
- ◆ Designed according to SAE J2380, SAE J2464, UL 2580 and UN 38.3 requirements
- ◆ Scalable and configurable design
- ◆ Cell voltage and temperature monitoring through an built-in battery monitoring device
- ◆ Cell balancing to maximize the usable capacity
- ◆ Isolated communication between stacks and individual modules and the central control device
- ◆ Integrated manifolds for superior thermal performance



10k Wh

Total Energy Capacity



208 Wh/kg

Energy Density



60%

Charge capacity in less than 30 minutes

### CONFIGURATIONS

- ◆ 16s
  - ◆ 24s
  - ◆ 32s
- Gravimetric Density  
208 Wh/kg



Configuration	16s	24s	32s
Capacity	170Ah	115Ah	86Ah
Voltage	40 V to 67.2V	60 V to 100.8 V	80 V to 134.4 V
Energy	10kWh		
Continuous Discharge	1.5C		
Continuous Charge	1C		
Peak Power Discharge	4C (10 sec @ 30% State of Charge)		
Peak Power Charge	2C (10 sec @ 70% State of Charge)		
Discharge Operating Temperature	-20 to 60 degrees Celsius		
Charge Operating Temperature	0 to 50 degrees Celsius		
Reinforced Insulation	3.3kV DC for 60 seconds		
Dimensions (overall)	393 mm x 800 mm x 81 mm		
Volume	25.8 L		
Weight	48 kg		
Gravimetric Density	208 Wh/kg		
Volumetric Density	387 Wh/L		