

Cell Contacting System for Cylindrical

Our cell contacting system supports robust connections of individual cylindrical cells with flexibility to create battery modules or new advanced cell-to-pack and cell-to-chassis configurations.

PRODUCT
ENNOVI-
CellConnect-
Round

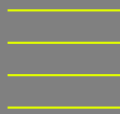
ENNOVI™

THIN, LIGHTWEIGHT AND ROBUST



Precision engineering delivers consistently uniform collector plates for any size module or battery pack.

EXCELLENT CURRENT DENSITY SPREAD



Our patented U-Turn design ensures evenly distributed current to avoid hot-spots and improve performance.

CONFIGURATION FLEXIBILITY



The system adapts to handle any module size, attachment methods, cell types, and special features.

APPLICATIONS

- + Electric vehicles
- + Maritime vessels: Boats, ferries.
- + Commercial transportation: Buses, trucks, trains, subway systems.
- + Personal mobility devices: Motorcycles, electric scooters, bicycles.
- + Energy storage: Wind, solar.

01. DIELECTRIC LAYER

- + UL 94 rated dielectric insulation layer.
- + Different types of materials available, such as PET.
- + Cold and hot lamination options available.

02. CURRENT COLLECTOR

- + High-precision stamped for tight tolerances. Achieves excellent current density spread.
- + Single/multi-layer options.
- + Dielectric insulation layers incorporated.
- + Specific configurations to attain required outputs. Customizable for tight space constraints.
- + Multiple module-to-module connection options.
- + Positive and negative terminals can be formed down to cell level for laser weld or wire bond attachment.

03. DATA COLLECTION MEDIA

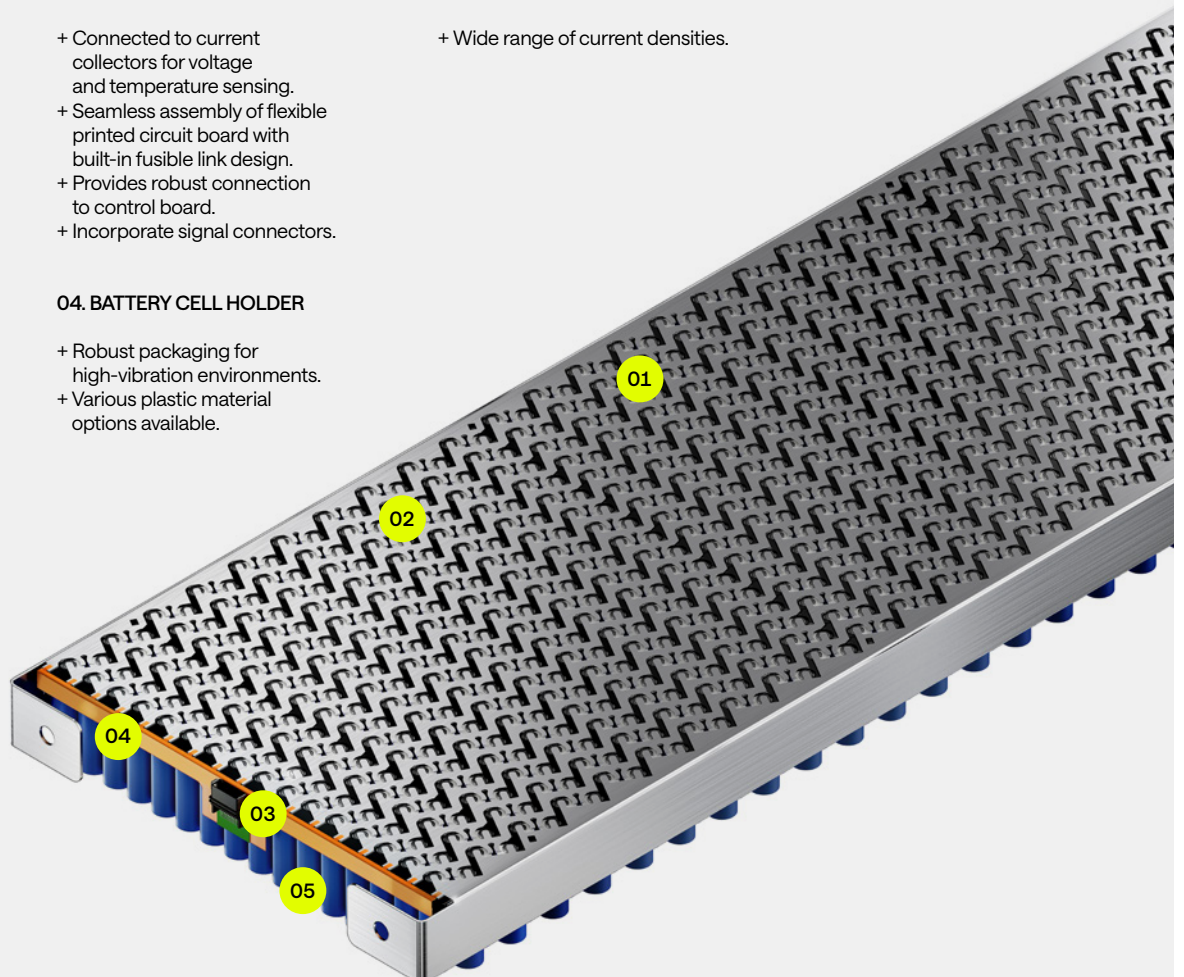
- + Connected to current collectors for voltage and temperature sensing.
- + Seamless assembly of flexible printed circuit board with built-in fusible link design.
- + Provides robust connection to control board.
- + Incorporate signal connectors.

04. BATTERY CELL HOLDER

- + Robust packaging for high-vibration environments.
- + Various plastic material options available.

05. BATTERY CELLS

- + Wide range of current densities.



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MATERIAL SPECIFICATIONS

PARAMETER	TYPICAL VALUE RANGE	REMARKS
Current Collectors	AL1000 Series, C1000 Series, Nickel	
Dielectric Layers	PET, PI	
Battery Cell Holder	PPA, PC/ABS, Nylon 6, PA66, PBT	Service temperature of plastics $\leq 130^{\circ}\text{C}$
Surface Treatment of Current Collector	Nickel plating option	For anti-corrosion and welding purposes
Flammability Rating	UL 94 V-0	For battery cell holder and dielectric layers

MECHANICAL SPECIFICATIONS

PARAMETER	TYPICAL VALUE RANGE	REMARKS
Battery Cell Types	Cylindrical	
Battery Module Connection Types	Nut/bolt, pin/socket, custom configurations possible	
Current Collector Sizes (Length)	100mm – 2500mm	
Current Collector Thickness	0.17 – 3mm	
Cell Terminal Thickness	0.125 – 0.3mm	Laser Weld: Terminal thickness $< 0.3\text{mm}$ Wire Bond: Various thicknesses possible
Cell Terminal Positional Tolerance	$\pm 0.127\text{mm}$	
Dielectric Layer Thickness	0.1 – 0.3mm	Pressure-sensitive and thermal-activated adhesive

PERFORMANCE SPECIFICATIONS

PARAMETER	TYPICAL VALUE RANGE	REMARKS
Battery Module Voltage	12 – 800V and higher	
Battery Module Capacity	50 – 400A	
Battery Module Energy	0.60 – 48kWh	
Module-to-module Connections	$< 400\text{A}$, off-shelf or customized	
Current Density	$< 15\text{A}/\text{mm}^2$, maintaining $< 60^{\circ}\text{C}$ with cooling	
Dielectric Strength of Insulation Materials	$< 7.5\text{kV}/0.025\text{mm}$, ASTM D149	
Dielectric Continuous Use Temperature	$< 220^{\circ}\text{C}$	
Voltage Sense Line	$< 2\text{A}$, 50V	Flex printed circuit
Temperature Sensing	$4.7\text{k}\Omega$ at 25°C , thermistor placement	
Overload Condition	$< 200\%$ for 10s without degradation	

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solution?

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