

Solutions for Residential Battery Energy Storage Systems (BESS)

Home battery storage systems capture surplus solar energy for later use and feature Internet of Things (IoT) capability to enhance efficiency. For these systems to operate at peak performance, connectivity is crucial.

Designers face the challenge of balancing high power with low contact resistance and minimal voltage drop, while also addressing constraints like minimizing the physical footprint of components. To help solve these challenges, Molex provides versatile connectors and cable assemblies designed to accommodate diverse system requirements, supporting a range of configurations and circuit sizes. These solutions enhance performance efficiency and simplify assembly processes, facilitating quicker time to market in this rapidly expanding industry.



Residential BESS



Battery



Inverter



Battery Controller



Gateway

Molex offers innovative solutions in the residential battery energy storage systems market.

<u>Wire-to-Board</u>	Signal/Low Power Cables	<u>Busbars</u>	<u>Terminal Blocks</u>	
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Key Features:				
Color-Coded Options	Discrete Wiring Options	Flexible Busbars	Maintenance-Free Operation	
Positive Locking Mechanism	Durable Overmold Design	Rigid Busbars	Durable Construction	
Enhanced Contact Protection	Pre-Crimped Leads	Laminated Busbars	Lever-Activated Design	
Resin Enhancements	Customizable Cable Solutions	Custom Solutions	Spring Termination Technology	



Solutions for Utility Battery Energy Storage Systems (BESS)

Delivering advanced solutions for utilityscale BESS relies on robust connectivity and efficient power management.

Molex solutions are designed to handle the demanding requirements of large-scale energy storage, ensuring reliability and scalability. These solutions support seamless integration with existing infrastructures, enhancing the overall efficiency and longevity of utility battery systems.



Utility BESS

Molex Solutions for Utility BESS

High-Power Connectors	High-Power Cables	<u>Busbars</u>	<u>Terminal Blocks</u>	
Key Features:				
Hybrid Power Solutions	High-Power Cable to Busbar/ Panel	Flexible Busbars	Maintenance-Free Operation	
Positive Locking Feature	Off-the-Shelf Options	Rigid Busbars	Durable Construction	
Self-Aligning Design	Ultrasonic Welding Capabilities	Laminated Busbars	Lever-Activated Design	
High-Temperature Resistance	Customizable Cable Solutions	Custom Solutions	Spring Termination Technology	

Other Molex products to consider:

<u>Solderless Terminals</u> — Quick disconnects, ring and spade terminals, splices and lugs <u>I/O Connectors</u> — USB, Micro USB, HDMI

<u>Printed Circuit Solutions</u> — User interface solutions, interconnect/multi-layer/rigid flex assemblies, custom solutions <u>Phillips Medisize</u> — Plastic and metal injection molding, assembly and custom packaging

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