



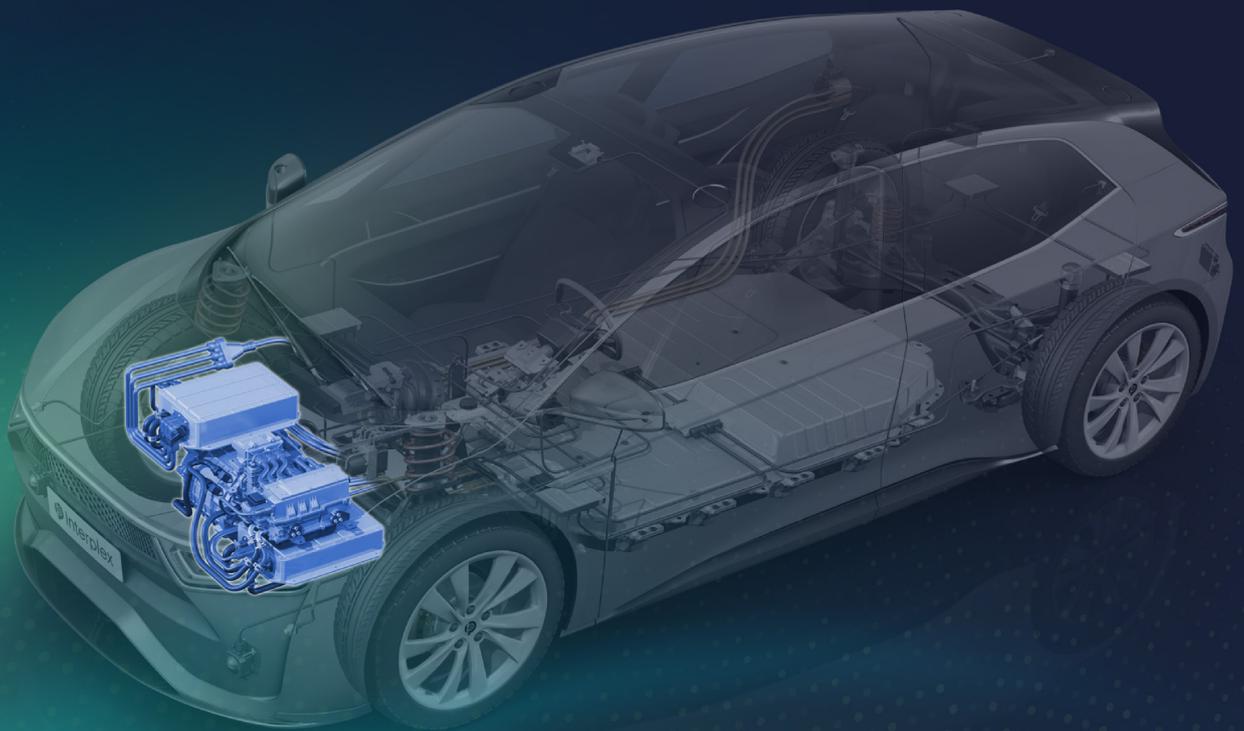
MOBILITY

 Interplex

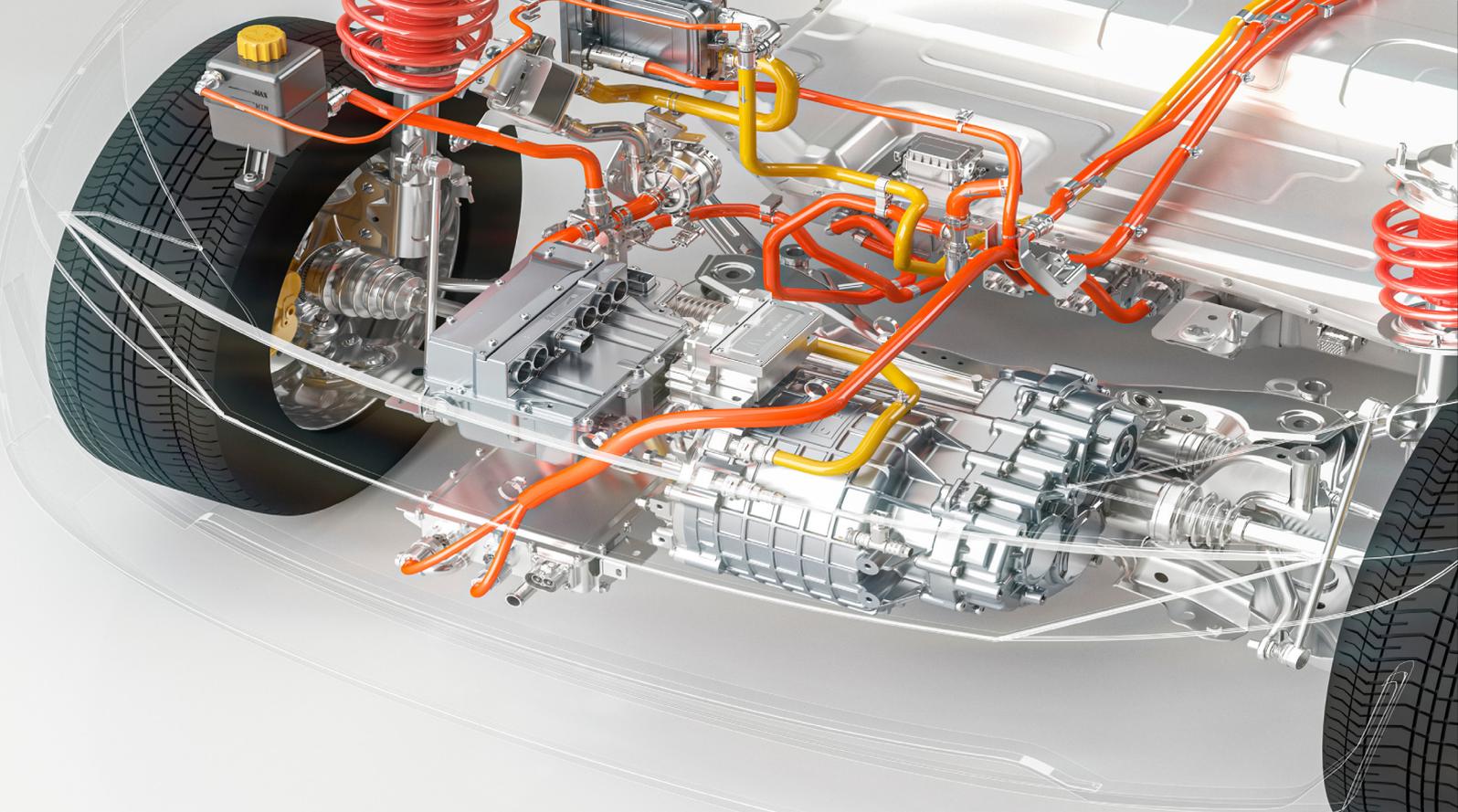
POWER

POWER

BROCHURE



BUSBAR SOLUTION | POWER CONNECTOR SOLUTION | POWER MODULE LEAD FRAME



MOBILITY

FAST-TRACK THE DESIGN CYCLE FOR YOUR POWER COMPONENTS

With new challenges regarding next-gen higher performance power components, it has become clear that OEMs and suppliers need partners with deep production expertise and understand early-stage design requirements and manufacturability beyond a component level.

There is no one-size-fits-all approach in solving complex challenges. As an end-to-end customized interconnect solutions provider, our teams take a holistic approach to **understand the complete functional and application requirements of your assembly** and **innovate relentlessly** to address any concerns. Leveraging our **high-precision engineering** with **vertically integrated capabilities**, we deliver reliable solutions that supports today's **short time-to-market** and overall high-volume production goals.



Interplex Power solutions are designed to address:

- › Increasing power densities.
- › Tight size and weight constraints.
- › High and low voltage powertrain options.
- › Integrated thermal management capabilities.
- › End-to-end partnering from design to volume production.



CHALLENGES

- > Demand for **increasing power density** and **faster switching speed** in today's power inverter applications.
- > These applications with higher voltages need **better insulation and robust dielectric materials**.



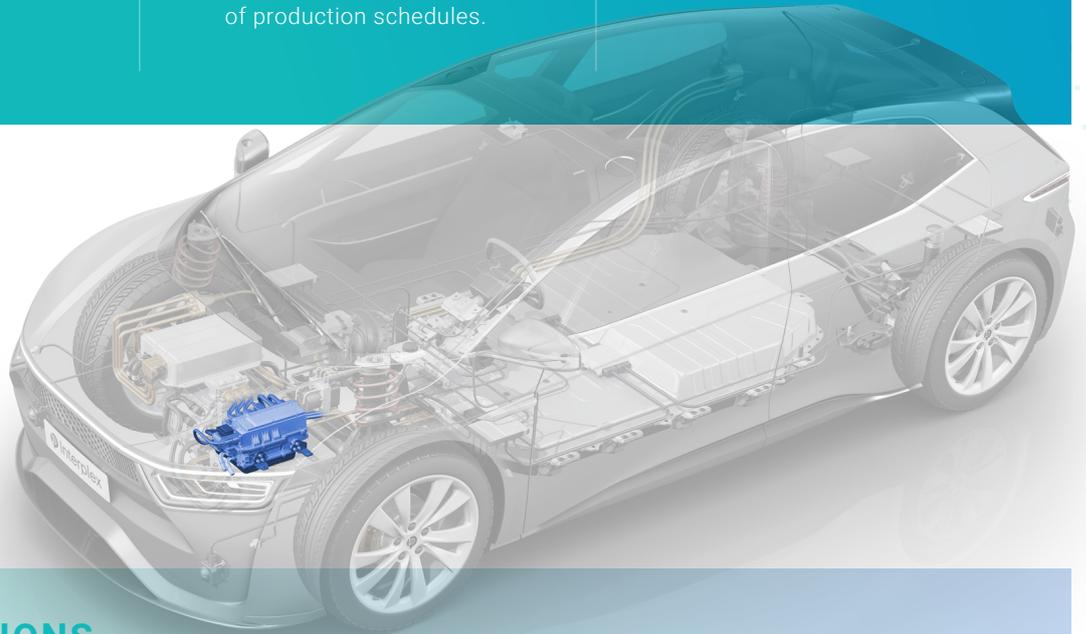
SOLUTIONS

- > Our solutions are **thermal and chemical resistant**, delivering optimal electrical performance and power efficiency.
- > We resolve design challenges and help **fast-track the design cycle**.
- > Our **vertically-integrated capabilities** and **global footprint** ensure meeting of production schedules.



BENEFITS

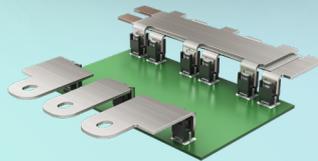
- > Solutions customized to end applications enable **smaller and faster DC-AC inverters** that are robust and thermally efficient.
- > **High production volumes that meet stringent quality standards** for longer product lifecycles and reduced Total Cost of Ownership.



OUR SOLUTIONS



Power Module Lead Frame



BusMate® Power Busbar Connector System

[LEARN MORE](#)



High Power Connector



Flexible Busbar

[LEARN MORE](#)



Power Filter Module



AC & DC Molded Busbar



Phase Busbar

[LEARN MORE](#)



CHALLENGES

- > **Reliability is a key concern** due to the proliferation of devices that need converters for power.
- > Application requirements include **stringent size and weight constraints and high standards for durability.**



SOLUTIONS

- > Our solutions preserve space and weight and assure **reliable, robust operation in harsh conditions.**
- > We resolve design challenges and help **fast-track the design cycle.**
- > Our **vertically-integrated capabilities and global footprint** ensure meeting of production schedules.



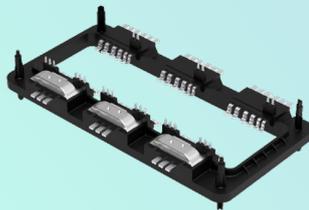
BENEFITS

- > Solutions customized to end applications enable **smaller and faster DC-DC converters** that are robust and thermally efficient.
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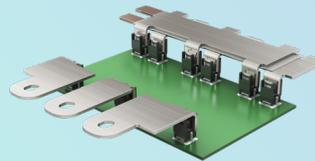
OUR SOLUTIONS



AC & DC Molded Busbar



Power Module Lead Frame

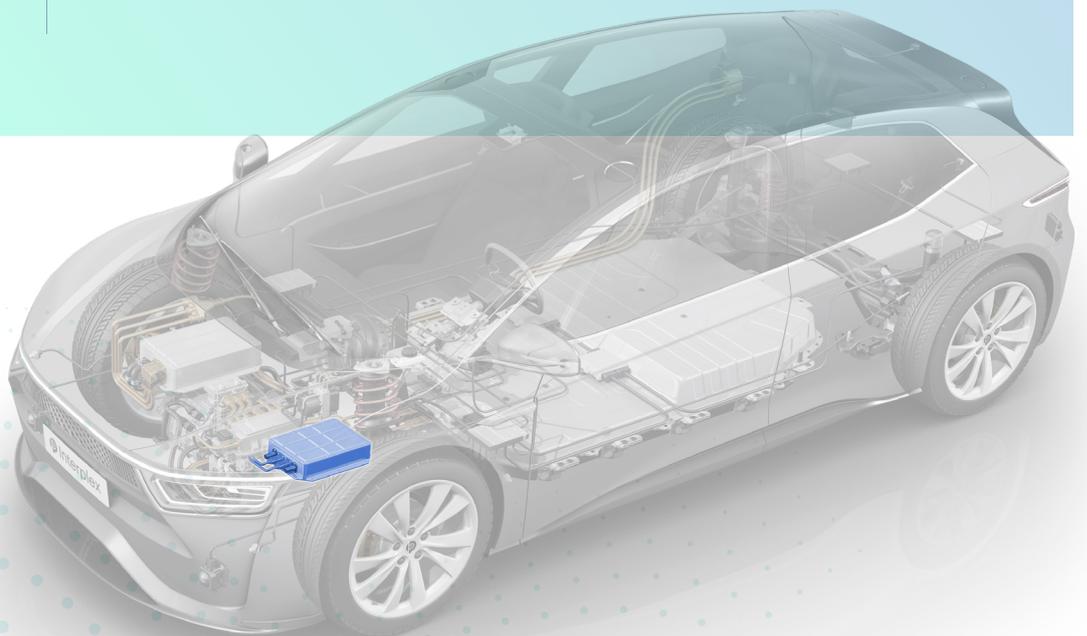


BusMate® Power Busbar Connector System

[LEARN MORE](#)



High Power Connector





CHALLENGES

- > **The ability to handle complex AC phase connections** is key for the transition of DC motors to AC motors which delivers more power and torque.
- > **Bulky and costly windings on motor stators** need to be simplified while delivering top performance in harsh conditions.



SOLUTIONS

- > Our busbar solutions enable **complex AC multi-phase connections** in harsh conditions.
- > **We resolve design challenges** and ensure manufacturability, electrical efficiency and cost effectiveness.
- > Our **vertically-integrated capabilities** and **global footprint** ensure meeting of production schedules.



BENEFITS

- > Solutions customized to end applications enable **smaller, lighter and highly-efficient AC traction motors**.
- > **The busbars have low potential points of failure** resulting in better overall EV performance, range and lifecycle.
- > **Elimination of wiring error and reduction in assembly time** resulted in reduced risk and Total Cost of Ownership.

OUR SOLUTIONS



Motor Stator Busbar

[LEARN MORE](#)



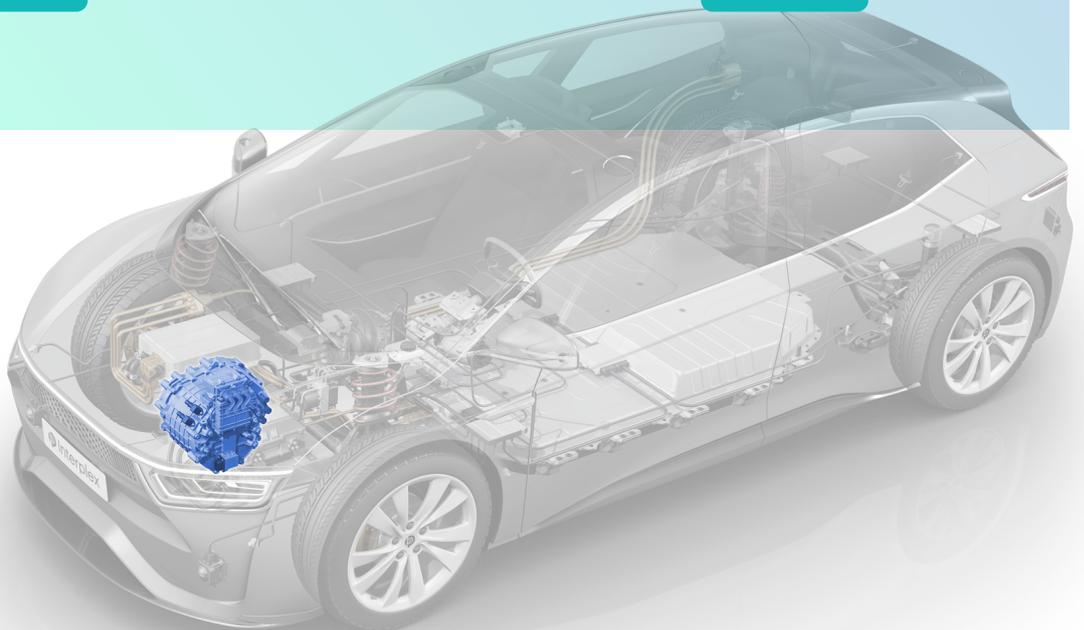
Phase Busbar

[LEARN MORE](#)



Flexible Busbar

[LEARN MORE](#)





CHALLENGES

- › **Slow EV charging processes** are a key concern for end consumers.
- › **The rise of two-way charging and Smart-Charging** are adding complexity due to built-in intelligence.
- › Application requirements have **tight size and weight constraints**.



SOLUTIONS

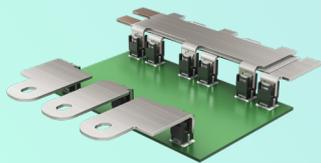
- › Our BusMate® and connectors **reduce size and complexity** while assuring **robust high-power transmission**.
- › **We solve the application design challenges** of complex two-way charging, Smart-Charging and charging from multi-phase AC sources.
- › Our **vertically-integrated capabilities** and **global footprint** ensure meeting of production schedules.



BENEFITS

- › Solutions customized for end applications enable **smaller, lighter and robust on-board chargers**.
- › Connectors for the full range of two-way, Smart-Charging and AC charging are **provided from one supplier**.
- › **High quality standards** enable longer product lifecycles and reduced Total Cost of Ownership.

OUR SOLUTIONS

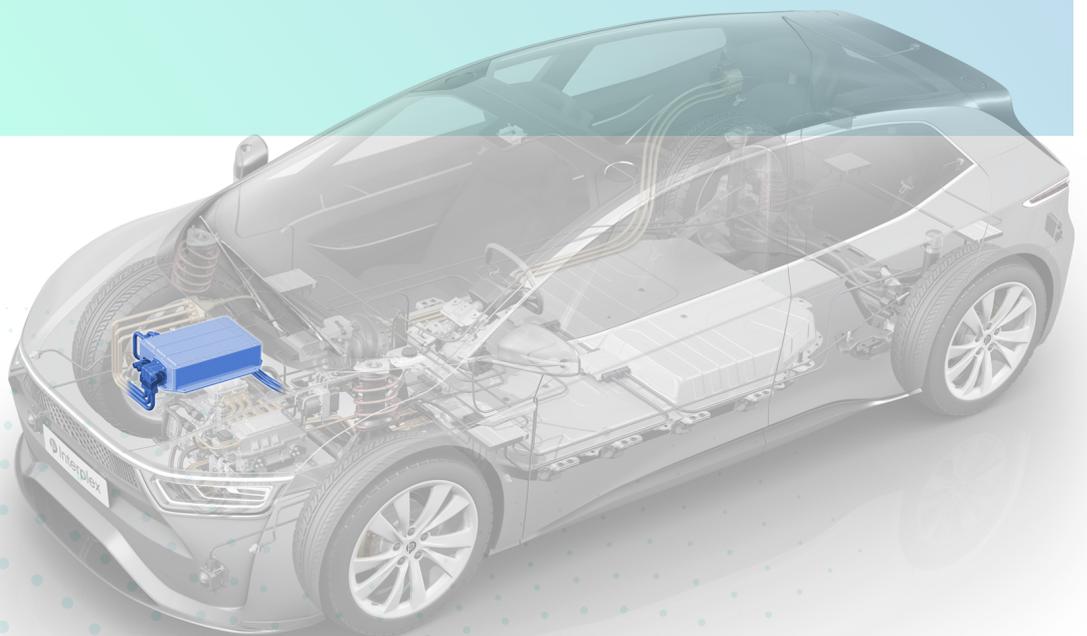


BusMate® Power Busbar Connector System

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High Power Connector





CHALLENGES

- > **Tight integration of complex power and signaling is needed** between multiple modules are required.
- > **Interfaces between power and control PCBs** and external interfaces to power steering motors are critical for success.



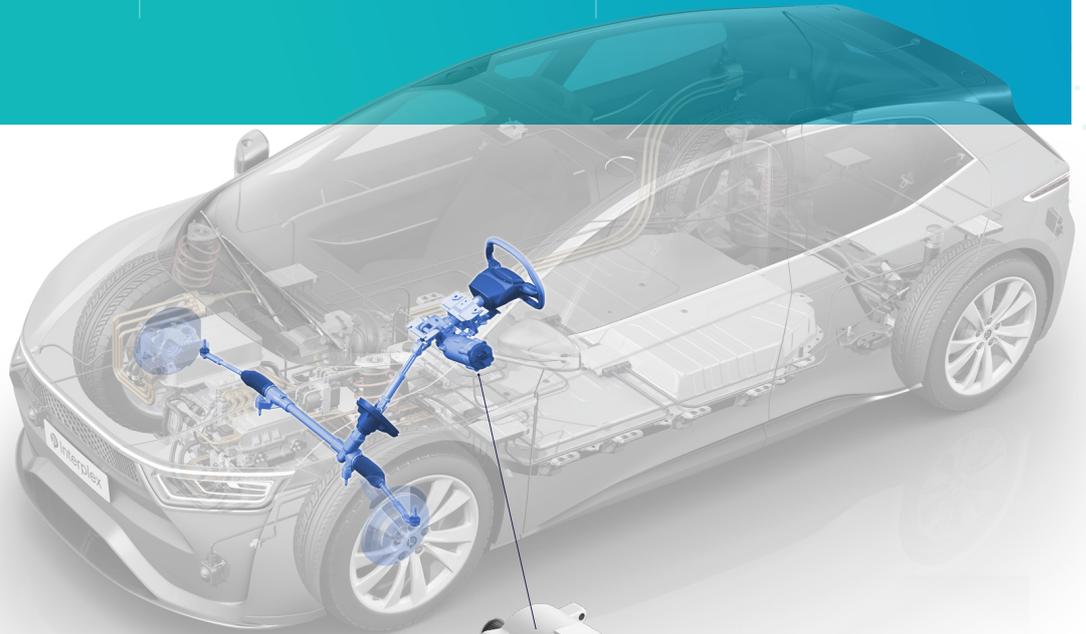
SOLUTIONS

- > Our BusMate®, busbars and custom solutions combine to support **reliable power and signaling**.
- > BusMate® **simplifies the assembly of robust power interfaces**.
- > Our **vertically-integrated capabilities** and **global footprint** ensure achievement of production schedules.



BENEFITS

- > Our customizable solutions enable integrated power steering systems in **small, low weight form factors**.
- > **High production volumes that meet stringent quality standards** provide longer product lifecycles and reduced Total Cost of Ownership.

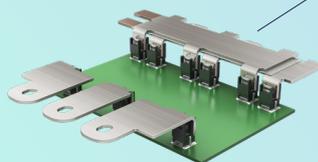


OUR SOLUTIONS



Motor Stator Busbar

[LEARN MORE](#)



BusMate® Power Busbar Connector System

[LEARN MORE](#)



Power Filter Module



APPLICATIONS & CAPABILITIES

Interplex power interconnects, busbar solutions and lead frames are fully customizable across a range of applications within EV power systems. The table below provides a quick reference regarding applications and capabilities for the various Interplex offerings.

SOLUTION	PHASE BUSBAR	AC & DC MOLDED BUSBAR	MOTOR STATOR BUSBAR	FLEXIBLE BUSBAR
IMAGE	LEARN MORE 		LEARN MORE 	LEARN MORE 
APPLICATIONS	<ul style="list-style-type: none"> > Inverter > Electric Traction Motor 	<ul style="list-style-type: none"> > Inverter > Converter 	<ul style="list-style-type: none"> > Electric Traction Motor > Electric Power Steering 	<ul style="list-style-type: none"> > Inverter > Electric Traction Motor
DIFFERENTIATED CAPABILITIES	<ul style="list-style-type: none"> > Dispensing and Curing (Sealant) > Electrical Function & HIPOT Testing > Leak Testing > Brazing > Green Laser Welding > Overmolding > Plating 	<ul style="list-style-type: none"> > Electrical Function & HIPOT Testing > Brazing > Green Laser Welding > Crimp & Weld > Component Attachment > Integration - Current & Temperature Sensors > Overmolding > Plating 	<ul style="list-style-type: none"> > Electrical Function & HIPOT Testing > Brazing > Green Laser Welding > Overmolding > Plating 	<ul style="list-style-type: none"> > Brazing > Diffusion Welding > Dispensing and Curing > Electrical Function & HIPOT Testing
SOLUTION	BUSMATE® POWER BUSBAR CONNECTOR SYSTEM	HIGH POWER CONNECTOR	POWER MODULE LEAD FRAME	POWER FILTER MODULE
IMAGE	LEARN MORE 			
APPLICATIONS	<ul style="list-style-type: none"> > Inverter > Converter > On-board Charger > Electric Power Steering 	<ul style="list-style-type: none"> > Inverter > Converter > On-board Charger 	<ul style="list-style-type: none"> > Inverter > Converter 	<ul style="list-style-type: none"> > Inverter > Electric Power Steering
DIFFERENTIATED CAPABILITIES	<ul style="list-style-type: none"> > Lamination > Mechanical & Electrical Testing > Press-Fit or Surface Mount Configuration 	<ul style="list-style-type: none"> > Electrical Function & HIPOT Testing > Leak Testing > Brazing > Green Laser Welding > Overmolding > Plating > Sealing 	<ul style="list-style-type: none"> > Dispensing and Curing > Electrical Function & HIPOT Testing > Leak Testing > Brazing > Overmolding > Plating 	<ul style="list-style-type: none"> > Dispensing and Curing (Seal and Epoxy) > Electrical Function & HIPOT Testing > Leak Testing > Green Laser Welding > Overmolding > Plating > Integration - Capacitors & Resistors

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