



# Smart Connection Solution

## Brief description

While CO<sup>2</sup> emission reduction is a global challenge, the automotive industry is rapidly growing its car models for hybrid and electric vehicles. This mega trend is requiring smart connection solution for the electrically powered systems.

PEX is providing the full range of process competencies with its sensor know-how to meet the challenges of power conversion and thermal management.

PEX busbar solution portfolio varies from customized molded cooper bars to smart connections offering a high level of integration.

## Features

- Small integration space
- Operating temperatures from -40°C to 150°C
- Short temperature peaks up to 200°C possible based on selected molding material
- CTI up to 600
- Flammability class = VO
- Cooper bars up to 4 mm thickness
- Integration of electronics, EMV filter and sensors
- Customization of mechanical integration

## Benefits

- One source solution
- Complete process competencies from concept development to EOL testing
- Size reduction
- Production cost savings
- Supporting thermal management
- High level of integration
- System cost savings

## Available support

- Full customization possible
- Mechanical design support
- System optimization
- Fast prototyping



## Typical applications

- AC/DC inverters for hybrid and electric vehicle
- E-motor connection
- Charger units
- Others



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## Application example

(smart connection / busbar solution for power conversion units or electric motor connections)



Smart connection / busbar solution for power conversion units

Smart connection / busbar solution for electric motor connection

PEX solution portfolio comprises customized molded copper bars up to highly integrated smart connections for hybrid and electric vehicles

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