

### Delphi High Voltage Wiring Assemblies

Delphi's High Voltage Wiring Assemblies are part of a vehicle's electrical/electronic (E/E) architecture and are customized for customer applications. Both shielded and unshielded options are available. Every Delphi shielded High Voltage Wiring Assembly is pressure tested to verify the cable sealing, ensuring quality and providing safety.

E/E architecture touches nearly every device in all areas of densely-packaged vehicles, and must survive extremely harsh environments. Hybrid and electric vehicles present unique challenges when it comes to E/E architecture. Delphi addresses these needs by building custom E/E architecture systems for today's hybrid and electric vehicles.

Delphi has years of experience in cable assembly processing for high voltage systems, including:

- Coax cable processing
- Pressure testing
- High potential difference (hipot) testing

Delphi can provide expertise at any stage of hybrid and electric vehicle product development with a full range of product design capabilities. Delphi offers global design and technical support and has strong manufacturing capabilities. The company can also incorporate other technologies from a full line of hybrid components.



**Delphi's High Voltage Wiring Assemblies come in various sizes and complexities for individual customer applications.**

#### ► Benefits

- Shielded and unshielded options available
- Customized for each application
- Robust and reliable performance
- Innovative design helps resolve packaging challenges

#### ► Typical Applications

Delphi's High Voltage Wiring Assemblies can be used for applications that require 36 volts up to 600 volts and potentially higher. Both shielded and unshielded versions are available. Potential applications include the following:

- Electric vehicles
- Complete range of hybrid vehicles
  - Micro hybrid
  - Mild hybrid
  - Full hybrid
  - Plug-in hybrid electric vehicles (PHEV)
- Commercial vehicles
- Specialty vehicles
- Other applications
  - High voltage subsystems
  - Infrastructure

▶ **Performance Advantages**

- Systems perspective and electric and hybrid vehicle E/E architecture technical experience and capabilities to provide products and processes matched to customer requirements
- Strong core technical competencies
  - E/E architecture and product design, development and integration
  - Proven manufacturing processes
    - Molding
    - Stamping
    - Assembly
  - In-house testing and validation in accredited full-service test facilities
- Understanding of electrical and hybrid vehicle system requirements
- Established, expanding portfolio of reliable products and systems
  - Vehicle architecture
  - Subsystems
  - Components
- Global customer base
- Dedicated, global team of engineers with a localized presence
- Constantly updating and developing the Delphi Velocity™ tool suite, products, and processes for optimal electric and hybrid E/E architectures for next-generation vehicles



**Another example of a customer-specific Delphi High Voltage Wiring Assembly**

▶ **The Delphi Advantage**

Delphi has a wealth of experience in hybrid and electric vehicle technology. Delphi's High Voltage Wiring Assemblies have decades of proven field use. The company's global footprint and long history of successfully developing and commercializing automotive electronics and E/EA architecture positions it well to support today's hybrid and electric vehicles.

To improve driver safety in high-power environments, complex factors in the electrical system must be addressed and engineered for reliability and peak performance. Electric and hybrid vehicles have rigorous power requirements and demand robust component performance in a challenging environment. Delphi is an expert in electrical and hybrid vehicle E/E architecture, including components and systems such as:

- Wiring/cable
- Connection systems capable of managing high voltages and currents
- Electrical centers
- Charge coupler cordsets

Beyond the components, Delphi provides custom-designed E/E architectures for electric and hybrid vehicles to achieve greater functionality and performance, resolve packaging challenges, improve reliability, and support environmental friendliness.