

### Delphi Power Pack Connectors

Delphi Power Pack Connectors offer high-current/high-power connections for the transportation market. The patented Power Pack portfolio offers two product sizes—the Power Pack 2000 for current demands to 250 amps, and the Power Pack 1000 for current demand to 145 amps. The highlight of the Power Pack family is the terminal system, which allows Power Pack Connectors to mate in either in-line or right-angle direction, which enables easy routing of large cables typical in high-current applications.

Power Pack Connectors meet the increasing demand for high-current/high-power connections systems. High-current/high-voltage sealed systems can be used to help address component electrification issues in hybrid electric vehicles. Commercial vehicles including construction and agricultural vehicles are exposed to extremely harsh environments and the sealing of high-current systems is critical. Power Pack Connectors can also help the transportation market increase plant efficiencies and eliminate labor related to ring terminal systems.



**Delphi Power Pack Connectors  
1000 and 2000 product families**

#### ► Benefits

- High-current carrying capability
  - Power Pack 2000 – 250 amps
  - Power Pack 1000 – 145 amps
- Hand engage/disengage eliminates the need for tools and reduces manufacturing time
- Individually sealed terminal cavities for redundant sealing protection
- Terminal system can mate in the in-line or right-angle direction
- Connector Position Assurance (CPA) and Terminal Position Assurance (TPA) for superior connection reliability
- Robust vibration performance in harsh environments

#### ► Typical Applications

Delphi's Power Pack Connectors are an ideal fit for high-current/high-power sealed and unsealed applications in automotive, heavy-duty truck, and construction/agricultural applications:

- Electrical center power feed
- Electric power steering
- Front wall pass-through
- High-current module interface
- Hybrid vehicle modules
- In-line for battery cable

#### ► Performance Advantages

Delphi Power Pack Connectors are a comprehensive family of high-current/high-power connection systems. Delphi's leading-edge connection systems portfolio provides a unique combination of sealed connectors, a broad range of current capabilities, and both in-line and right-angle box-and-blade connections for easy mating.

▶ **Power Pack 1000**

The Power Pack 1000 offers a smaller package size compared to the Power Pack 2000, while still providing the power demands (up to 145 amps) for wide range of applications. Many features were incorporated up front in the design to help ensure maximum performance in harsh environments. The two-piece terminal design features a beryllium copper interface with multiple contact points for optimal electrical and mechanical performance. Silver plating allows for maximum performance at high temperatures. The design enables hand engage without the use of any tools. A pre-staged CPA (Connection Position Assurance), connector seal retainer, and TPA (Terminal Position Assurance) that provides cable strain relief help ensure connection reliability.

▶ **Application Guidelines for Power Pack 1000**

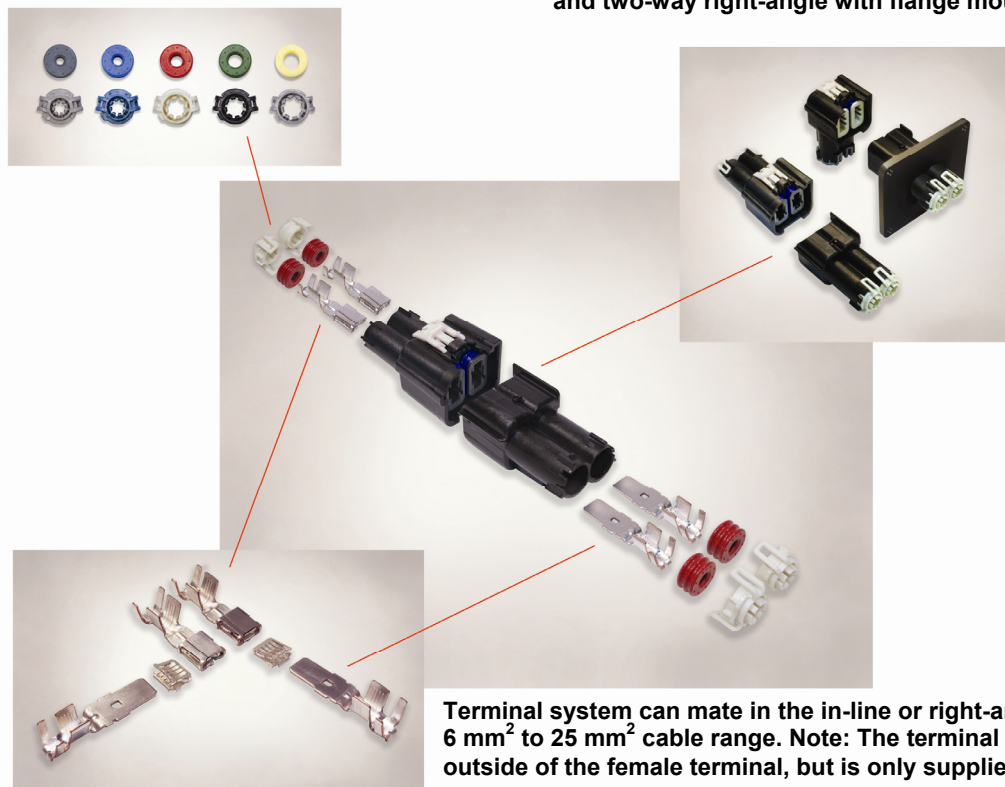
- Blade width: 10.5 mm
- Blade thickness: 1.2 mm
- Current range: Maximum capability 145 amps
- Operating temperature range: -40°C to 150°C
- Cable range: 6 mm<sup>2</sup> to 25 mm<sup>2</sup>
- Validation to USCAR-2
- Sealing protection: IP6K9K, IPX7 mated; IP2XB unmated (female only)

The general application guidelines above are for reference only and may not account for all the variables that would be present in an actual application. For additional detailed product performance information, contact Delphi.

▶ **Power Pack 1000 Portfolio**

**Terminal Position Assurance (TPA)** provides extra strain relief for cables. TPA and seal cover a 6 mm<sup>2</sup> to 25 mm<sup>2</sup> cable range.

Connection systems feature sealed and isolated cavities, integrated Connector Position Assurance (CPA), and connector seal retainer. Pictured is the two-way in-line and two-way right-angle with flange mounted connection.



Terminal system can mate in the in-line or right-angle direction with a 6 mm<sup>2</sup> to 25 mm<sup>2</sup> cable range. Note: The terminal contact is shown outside of the female terminal, but is only supplied as an assembly.

▶ **Power Pack 2000**

The Power Pack 2000 can carry up to 250 amps in an efficient package. Similar to the Power Pack 1000, the Power Pack 2000 features a terminal design with a silver plated beryllium copper interface with multiple contact points for managing the heat generated in high-current applications. Additionally, the connection incorporates the CPA, TPA, and seal retention features.

▶ **Application Guidelines for Power Pack 2000**

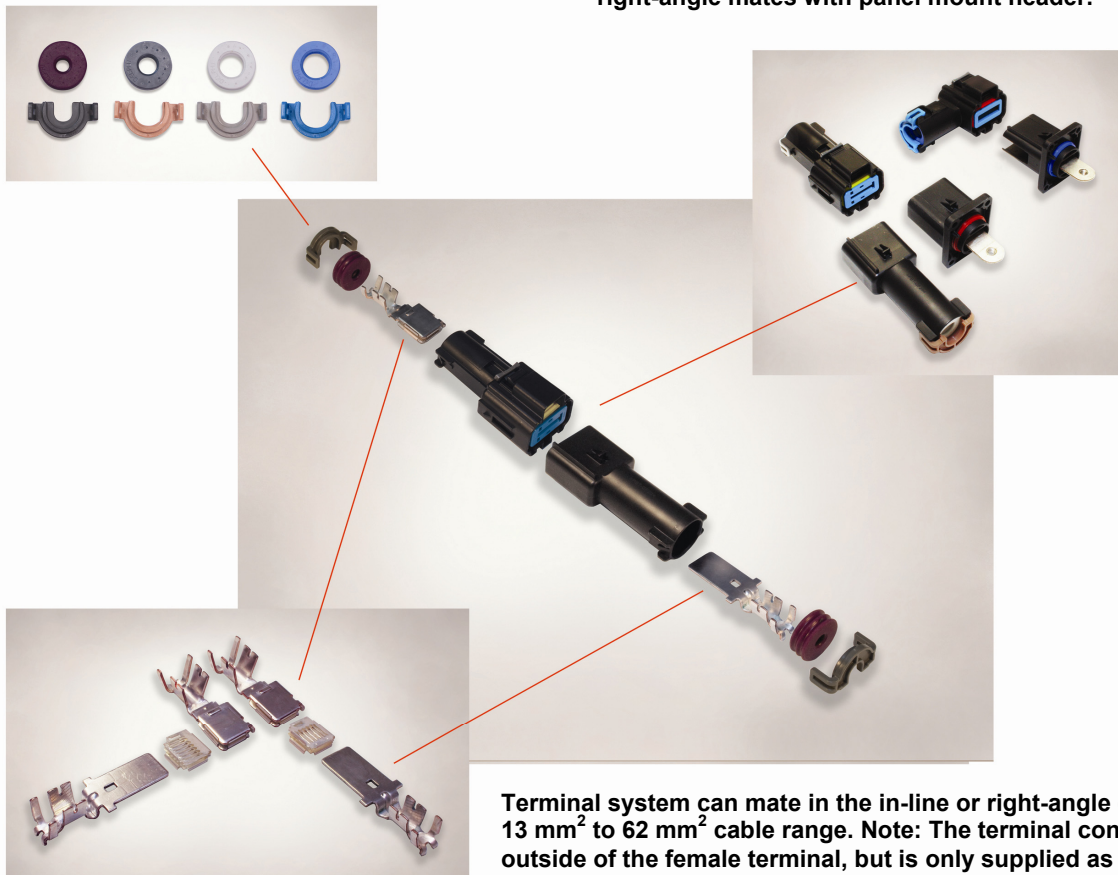
- Blade width: 17.7 mm
- Blade thickness: 1.63 mm
- Current range: Maximum capability 250 amps
- Operating temperature range: -40°C to 150°C
- Cable range: 13 mm<sup>2</sup> to 62 mm<sup>2</sup>
- Validation to USCAR-2
- Sealing protection: IP6K9K, IPX7 mated; IP2XB unmated (female only)

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▶ **Power Pack 2000 Portfolio**

**Terminal Position Assurance (TPA)** ensures seal and terminal are held in place. TPA and seal cover a 13mm<sup>2</sup> to 62mm<sup>2</sup> cable range.

**Connection systems feature integrated Connector Position Assurance (CPA), and connector seal retainer.** One-way female mates with panel mount or in-line male connection. One-way right-angle mates with panel mount header.



**Terminal system can mate in the in-line or right-angle direction with a 13 mm<sup>2</sup> to 62 mm<sup>2</sup> cable range. Note: The terminal contact is shown outside of the female terminal, but is only supplied as an assembly.**