



Delivering superior shielding and current density, the Imperium™ Connector System safely operates in extreme shock and vibration conditions found in the hybrid-electric and electrification commercial vehicle markets

The Imperium™ High Voltage/High Current (HVHC) Connector System is available in 8.00 and 11.00mm diameter today. A variety of configurations are in development, which demonstrates how Imperium connectors can be repackaged to meet customer application needs.

The Imperium™ High Voltage/High Current (HVHC) Connector System is capable of handling more severe shock and vibration conditions than any other product on the market today.

Features and Benefits

Capable of handling up to 1000V and 250.0A per contact	Safely operates at high voltage and amperage
Integrated MX150™ High-Voltage Interlock Loop (HVIL) crimp terminal	Eliminates high-voltage arcing during disconnects. Ensures safety of operators. Eliminates need for additional connector (First Break Last Mate)
Closed-loop 360-degree shield design with grounding tabs	Contains EMI and RFI for in-vehicle communications
Fully sealed to IP6K9K while mated	Ensures safe operation from fluids in harsh environments
Rugged integrated shield design	Provides effective end-of-life shielding. Withstands extreme shock and vibration
Compression-face seal	Reduces enclosure machining costs. Compatible with casted enclosures and low-cost sheetmetal versions
Header face shield with redundant grounding tabs	Simplifies grounding process for device manufacturers
Robust solid, one-piece contacts (in plug and receptacle)	Reduces contact resistance for lower power loss
Protective, insulated plug and receptacle contact caps	Meets touch-proof industry safety requirements

Imperium™ High Voltage/High Current (HVHC) Connector System

- 171466** Harness Connector
- 171467** Header
- 100212** Single-Ended Harness Assembly
- 100213** Double-Ended Harness Assembly



Imperium™ High Voltage/High Current (HVHC) Connector System Two-Way Harness (Series: 100212)



Imperium™ High Voltage/High Current (HVHC) Connector System Two-Way Header (Series: 171467)

Specifications

Reference Information

Packaging: Tray
 UL File No.: N/A
 CSA File No.: N/A
 Mates With: 171466, 171467
 Use With: N/A
 Designed In: mm
 RoHS: Yes
 Halogen Free: No
 Glow Wire Compliant: No

Electrical

Voltage (max.): 1000VDC
 Current (max.): 250
 Contact Resistance: 1.0 mΩ max
 Dielectric Withstanding Voltage:
 3000VDC
 Insulation Resistance: 500VDC

Mechanical

Contact Insertion Force: TBD
 Contact Retention to Housing: TBD
 Insertion Force to PCB: N/A
 Mating Force (max.): 144N
 Unmating Force (max.): 190N
 Durability (min.): 75 cycles with no silver plating wear through

Physical

Housing:
 Polyester 94V-0 UV Stabilized
 Contact:
 Copper (Power Terminals) Copper Alloy (HVIL Terminals)

Imperium™ High Voltage/High Current (HVHC) Connector System

Plating:

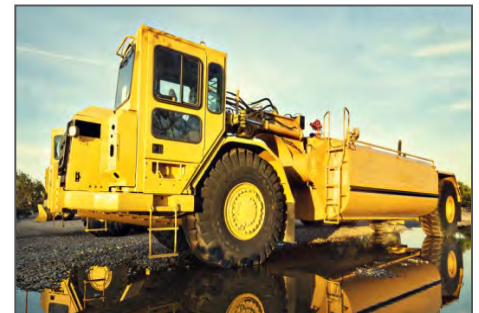
Contact Area —
 Silver over nickel (Power Terminals)
 Tin over nickel (HVIL Terminals)
 Solder Tail Area — N/A
 Underplating — Nickel
 PCB Thickness: N/A
 Operating Temperature: 125°C
 Wire Gauge range:
 ISO Wire: 50.00 to 35.00mm²
 SAE Wire: 1/0 to 1AWG
 Insulation Diameter: 15.20mm

Applications

- Commercial vehicles
 - Inverters
 - High Current batteries
 - Electric Motor
 - DC to DC Converters
- Hybrid / Electric Vehicles
 - Agricultural
 - Construction
- Electric Bus
- Military ground vehicles



Construction Equipment



Ordering Information

Connector

Order No.	Plating	Component Type
171466-9001	Silver	2 Way 1/0 AWG Harness Receptacle Kit
171467-1001		2 Way Header

Cable Assembly

Order No.	Single or Double Ended	Component Type
100212-1001	Single	0.5 Meter
100212-1011		1.0 Meter
100212-1021		1.5 Meter
100212-1031		2.0 Meter
100213-2001	Double	0.5 Meter
100213-2011		1.0 Meter
100213-2021		1.5 Meter
100213-2031		2.0 Meter

www.molex.com/link/imperiumconnectorsystem.html