PRELIMINARY DATASHEET

molex

eHV60 Connection System ›

The eHV60 Connection System features a compact, rugged, sealed and fully shielded power connector that meets global standards for auxiliary high-voltage, medium-current electrified architectures in automotive and industrial applications.

ADVANTAGES AND FEATURES

Reduces size and weight for high-voltage, medium-current connections

The connector delivers up to 1,000V DC and 64.0A at +80°C (with 6.00mm^2 cable) in a smaller and lighter form factor than alternatives, reducing system complexity and costs while supporting next-generation electric vehicle (EV) subsystems.

Offers localized manufacturing

With various production locations available, this connector reduces supply chain risks and quality gaps.

Simplifies design work

The connector is fully compatible and interchangeable with the established Class 3 auxiliary high-voltage interface standard, eliminating redesign work and enabling drop-in replacement.

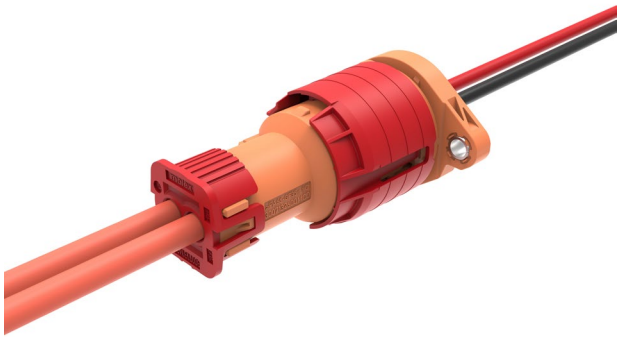
Voltage	Up to 1,000V DC
Current	Up to 64.0A @ +80°C (with 6.00mm^2 cable)
Terminal System	4.00mm round pin
Target Seal Ratings	IP6K9K (mated), IP2XB (unmated), S3
Target Vibration Resistance	SG2 (per LV215-1)/USCAR V3
Operating Temperatures	-40 to +140°C

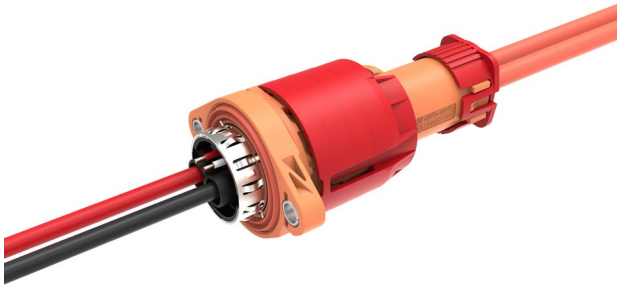
Supports use in harsh automotive environments

The seal is targeted to meet IP6K9K (mated)/IP2XB (unmated)/S3 ratings for preventing water or dust ingress, reducing failures even in challenging conditions. Vibration resistance is targeted to meet SG2/V3 specifications, preventing unintended disconnections.

Enhances EMI shielding performance

The design provides effective EMI resistance in noisy environments. High-resistance electromagnetic compatibility (EMC) shielding (up to 10 Megohms) improves performance and reduces interference in dense system layouts.





PRELIMINARY DATASHEET

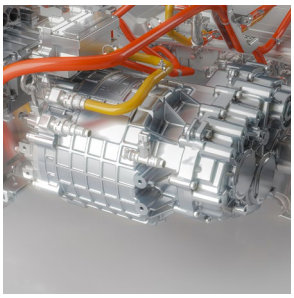
eHV60 Connection System ›

MARKETS AND APPLICATIONS

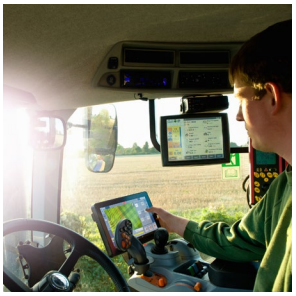
Automotive
Compressors
DC/DC converters
Heaters
Onboard chargers
Powertrain connectivity
- Electric motors
- Generators
- High-voltage battery packs
- Traction-power inverter modules

Commercial Vehicles
Electrified auxiliaries
Powertrain subsystems

Industrial Equipment
EV charging stations
Energy-storage battery packs
Forklifts
High-voltage cable assemblies



Electric Motors



Electrified Auxiliaries

EV Charging Stations

PRELIMINARY SPECIFICATIONS

Reference Information
Packaging: Bag
Designed in: Millimeters
RoHS: Yes
Halogen Free: Yes
Standards Compliance: USCAR2, LV215

Electrical
Voltage (max.): 1,000V DC
Current (max.): 64.0A @ +80°C (with 6.00mm² cable)
Conductor Cross-Section: 4.00 to 6.00mm²
High-Voltage Interlock Loop: Optional
(bridged in connector)
EMC Shielding Resistance: ≤10 Megohms

Mechanical
Poles: 2
Configuration: Vertical
Terminal System: 4.00mm round pin

Physical
Seal Ratings: IP6K9K (mated), IP2XB (unmated), S3
Fire Rating: UL94 V-0
Vibration Resistance: SG2 (per LV215-1)/USCAR V3
Operating Temperatures: -40 to +140°C

www.molex.com

Order No. 987652-8931 USA/0k/GF/2025.08