Rosenberger

Power Transmission in Harsh Environments

HVS®240 / HVS®420 Connector Systems

AUTOMOTIVE E-MOBILITY





HVS® – High-Voltage Connector Systems for E-Mobility

Rosenberger HVS® connectors are safety-critical components for electric mobility. Designed for long-term reliability, they provide safe, high-voltage power transmission while withstanding harsh environmental conditions and ensuring that hazardous voltages remain safely isolated – even under fault conditions.

HVS®240 and HVS®420 connector systems for collective-shield applications are designed for electric motor connections with continuous current ratings of up to 285 A / 235 A (Cu/Al) and 410 A / 317 A (Cu/Al), respectively. Despite their housings, the connectors operate reliably over a temperature range from –40 °C to +140 °C and are qualified to vibration severity level IV.

Customer-specific variants are available on request.

Why HVS®240 / HVS®420?

- Lightweight performance → Aluminum housing for reduced vehicle weight.
- Collective shield efficiency → One shield. Less complexity. Lower system cost.
- Maximum power density → High current capability in a compact footprint.
- Reliable under extreme conditions → Engineered for vibration, temperature and harsh environments.
- Safe by design → Integrated HVIL, secure locking and touch protection.
- Ready for next-generation EV Platforms → Scalable solution for e-machine.

Applications

- E-Machine



Product Features

HVS®240

- Working voltage 1200 V DC
- Test voltage 5000 V DC
- Current capacity 285 A @ 80 °C (Cu)
- Current capacity 235 A @ 80 °C (Al)
- HVIL
- Mating cycles ≤ 50
- IP class (mated) IP 6K9K / IP X8 / IPXXD
- IP class (unmated) IPXXB
- Vibration and temperature class 4
- Temperature range -40 °C to +140 °C
- Cable cross sections 16 mm^2, 25 mm^2, 35 mm^2, 50 mm^2
- Weight pcs 400–500 g
- Coding A (black), B (white), C (blue), D (violet)

Qualified according to LV215-2

RoHS compliant

HVS®420

- Working voltage 1200 V DC
- Test voltage 5000 V DC
- Current capacity 410 A @ 80 °C (Cu)
- Current capacity 317 A @ 80 °C(Al)
- HVIL
- Mating cycles ≤ 50
- IP class (mated) IP 6K9K / IP X8 / IPXXD
- IP class (unmated) IPXXB
- Vibration and temperature class 4
- Temperature range -40 °C to +140 °C
- Cable cross sections 35 mm^2, 50 mm^2, 70 mm^2, 95 mm^2
- Weight pcs 500–650 g
- Coding A (black), B (white), C (blue), D (violet)

Qualified according to LV215-2

RoHS compliant

Website

For more information refer to our website:
www.rosenberger.com/hvs

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