

HIGH-VOLTAGE CONTACTOR



HIGH-VOLTAGE CONTACTOR

High-voltage (HV) systems with voltages up to 1000 VDC have become a key component in battery (BEV), fuel cell (FCEV) and hybrid (PHEV) electric vehicles, by substantially improving the efficiency of modern vehicles through faster charging and enhanced range. In modern architectures with such high voltages and peak currents up to 1.5 kA nominal and up to 25 kA in case of a short-circuit, reliable and safe solutions are necessary for rapid switching of high-voltage circuits under normal operating modes as well as under emergencies.

The Rheinmetall DC HV contactor ensures the safe and reliable operation of BEV, PHEV and FCEV vehicles, by disconnecting the battery or the DC fast charging plug when not in use or in case of emergency. It is capable of carrying and breaking high currents bidirectionally. Due to their high degree of flexibility, the Rheinmetall switches can be easily adapted to all customer requirements.

BENEFITS

- Automotive design – best-in-class for functionality, costs, and weight
- Non-pressurized arc chamber to avoid bursting or leakage over lifetime and enabling high contact temperatures
- Sealed design for dust and water protection (IP6K9K)
- Withstands 20 kA short circuit without bursting
- Silver plated contacts for high weld and low contact resistance over lifetime
- High shock resistance and durability
- Lowest weight < 300 g

TECHNICAL DATA

Operating voltage	450 ... 1000 VDC
Operating currents	< 700 A cont.
Contact resistance	< 0.1 mΩ
Break time	< 10 ms
Power consumption	< 2 W

PIERBURG

Pierburg, as a heritage brand, is a system provider for high-quality and innovative solutions and control technologies for the automotive and energy industries, among others.

With its Business Sections, Pierburg stands for outstanding expertise in the following areas: air management, thermal management, e-mobility and hydrogen technology.

CONTACT

Pierburg GmbH

Alfred-Pierburg-Str. 1 · 41460 Neuss
power-systems@rheinmetall.com