

High Voltage Switchgear

Power Management

Overview

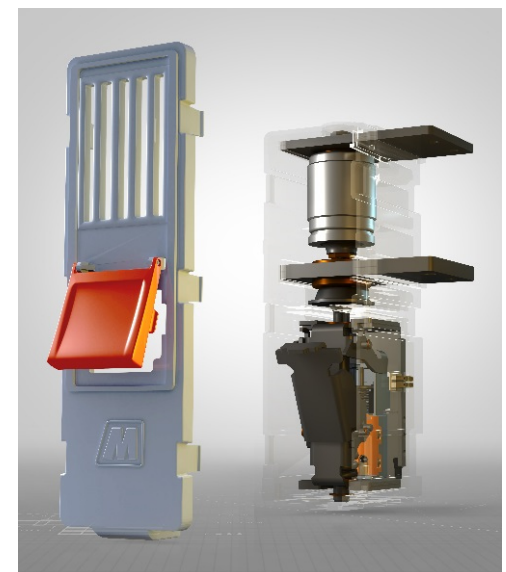
Methode Electronics has designed and manufactured a high performance fast close switchgear device for demanding high voltage, high current applications where nothing can be left to chance.

With Methode patented technology at its core, our switchgear device offers high performance, function and durability while remaining smaller, lighter and offering greater flexibility in design than current market alternatives.

Tens of thousands Methode switchgear devices are in-service today, delivering optimal, safe and reliable performance at an affordable price.

Technical specification

- Closes in less than 8 milliseconds
- 3.3 kV dc max rated continuous voltage
- 1.6 kA dc max tested current carrying capacity
- 350 kA dc max tested making current
- Low internal resistance of 13 μOhm
- Contact to contact and contact to ground dielectric resistance exceeding 10 kV
- Partial discharge under 10 pC
- Live status reporting and continuous diagnostics
- Armed/fired state visual indicator flap
- Auto reload option available enabling remote reset



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Switchgear device summary

Where high power switches (Insulated Gate Bipolar Transistor technology) are series connected in high voltage power conversion applications in order to achieve higher voltages, Methode's low energy triggering, fast actuating switchgear protects and maintains this connection chain in the event of an IGBT module failure to prevent series chain collapse.

Where required Methode's switchgear can instead be adapted to rapidly open circuit.

Methode patented high speed trigger mechanism

- Rapid (and tunable) actuation
- Low energy triggering (less than 250 mJ)
- Functionality independent of external energy sources
- Live status reporting and continuous diagnostics
- Robust and resilient to debris/contaminants
- Remote resetting (auto reload available option)

Methode patented fast close contactor technology

- High voltage, high current power contactor
- Extremely fast closing time
- Small space envelope
- Low current density
- Contact resistance stability as temperature rises
- Arc prevention
- Flexible and easily adaptable design

