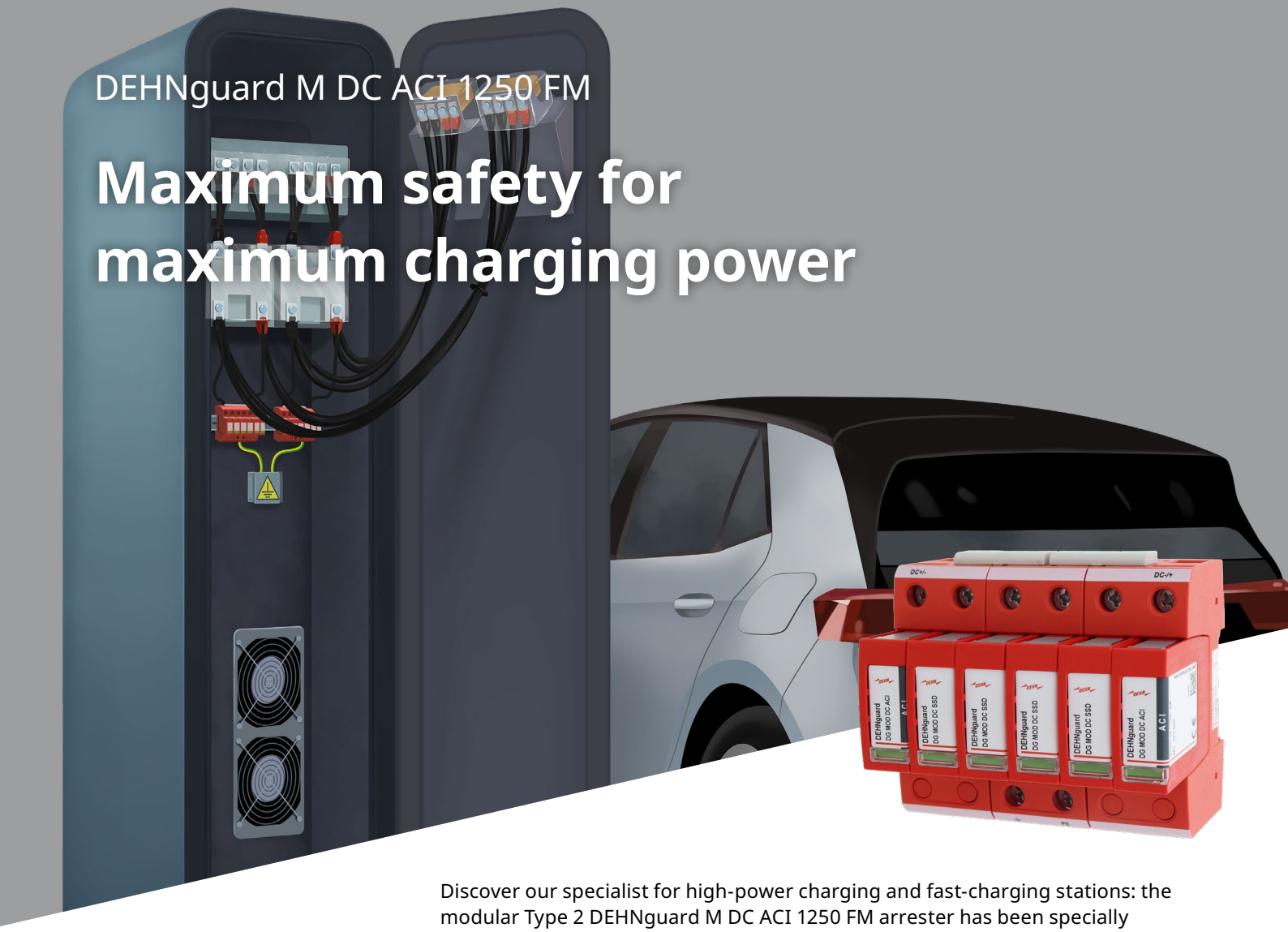
DEHNguard M DC ACI 1250 FM

Maximum safety for maximum charging power



Discover our specialist for high-power charging and fast-charging stations: the modular Type 2 DEHNguard M DC ACI 1250 FM arrester has been specially designed for use in DC charging equipment up to 1250 V. Thanks to the integrated ACI switch/spark gap combination, its protection modules combine the necessary overvoltage protection with the backup fuse. You save on an external backup fuse, and this results in many other advantages.

Your benefits at a glance:

- **Already fit for IEC 61643-41:** With a protection level of 2.5 kV and a short-circuit withstand capability of 100 kA, the DG M DC ACI 1250 FM has everything it takes to fulfil the upcoming standard.
- **Space-saving:** Thanks to the integrated ACI technology, no external backup fuse is required. This saves space in existing charging posts and allows new models to be designed more compactly.
- **No dimensioning necessary:** The elimination of an external backup fuse eliminates the need for laborious dimensioning of backup fuses, selectivity and cross-sectional areas when designing new charging posts. The integrated switch/spark gap combination is precisely adapted to the arrester.
- **Cost saving:** The external backup fuse normally required for the surge arrester of each charging point is no longer necessary. So the more charging points your HPC park has, the more you save.
- **Easy maintenance:** The pluggable modules can be replaced quickly and easily in the event of a fault. In addition, the floating remote signalling contact always provides reliable information about the status of the arrester.

Surge protection for DC applications up to 1250 V

The DEHNguard M DC ACI 1250 FM reliably protects fast-charging posts and connected electric vehicles from damage caused by overvoltages and ensures that the charging process runs reliably.

The Type 2 surge arrester is therefore essential for the constant availability and safe operation of fast-charging and HPC stations.

Technical data:

DG M DC ACI 1250 FM	
Part No.	972 150
SPD classification	Type 2
Nominal voltage U_N (DC+ → DC-) Nominal voltage U_N (DC+/DC- → PE)	1250 V 625 V
Nominal impulse discharge current (8/20 µs) (I_n)	10 kA
Max. nominal impulse discharge current (8/20 µs) (I_{max})	20 kA
Voltage protection level U_P (DC+ → DC-) Voltage protection level U_P (DC+/DC- → PE)	< 5 kV < 2.5 kV
Short-circuit current I_k (DC+ → DC-)	100 kA

"+", "-" and "PE" connection: up to 25 mm² (flexible) and up to 35 mm² (stranded, solid)

ACI technology with integrated switch/spark gap combination

Used without a backup fuse

Short-circuit current: 100 kA

Status indication

Remote signalling contact for easy remote monitoring

Effective protection solution also for battery storage systems

The effects of lightning discharges pose a serious threat to battery storage systems. The surges resulting from this exceed the dielectric strength of the installed electronic components inside the storage system many times over.

The DEHNguard M DC ACI 1250 FM is used in DC battery storage systems up to a maximum short-circuit withstand capability (ISCCR)) ≤100 kA for t ≤7.5 ms. Thanks to the integrated ACI technology, no external backup fuse is required. This saves space and costs.

More on ACI technology in the video:
http://de.hn/b8m64

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Find out more about DEHNguard M DC ACI 1250 FM:
http://de.hn/cc31E

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DS152/EN/0325
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