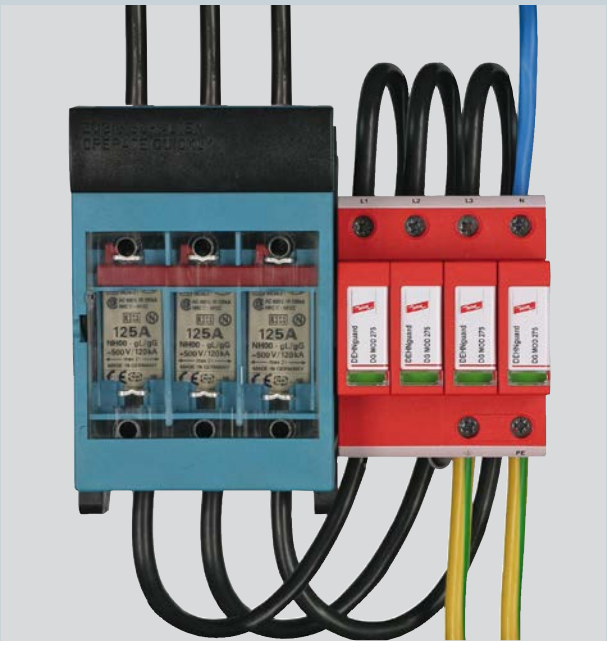
More Space in the Switchgear Cabinet
Arresters with integrated Backup Fuse



Insufficient space belongs to the past ...

Surge arresters are equipped with external backup fuses to meet standards-based requirements for the installation of surge protective devices.

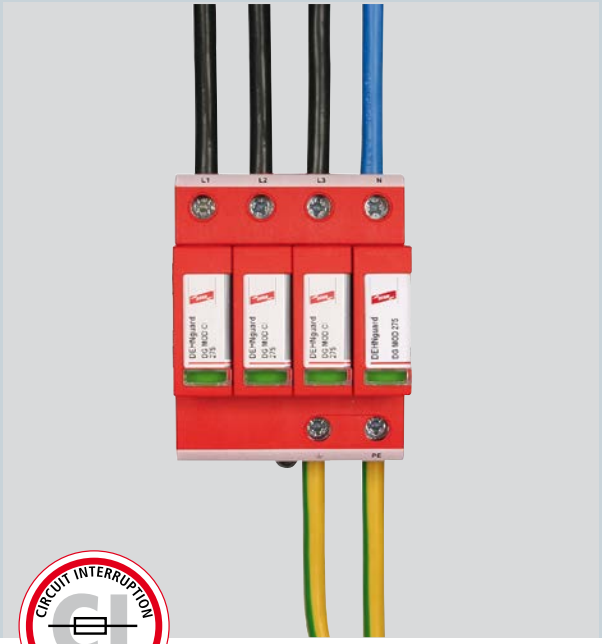
- The maximum value of the backup fuse specified by the manufacturer and
- the impulse current carrying capability of the backup fuse

are decisive for ensuring that fuses are correctly selected and dimensioned.

For example, a backup fuse ≤ 315 A gL/gG must be used for DEHNventil combined arresters in case of system backup fuses greater than 315 A.

A correctly dimensioned external fuse takes up a lot of space in the switchgear cabinet and makes it difficult to maintain the maximum cable length* for connecting surge protective devices.

* max. 0.5 m according to IEC 60364-5-53



... today surge arresters with integrated backup fuse free up space.

External backup fuses take up a lot of space and involve additional expenses and effort. A both simple and effective way to gain space in the switchgear cabinet and easily fulfil all installation regulations is to use surge protective devices with integrated backup fuse. DEHN, a leading manufacturer of lightning and surge arresters, offers arresters with integrated backup fuse:

- DEHNvenCI
- DEHNbloc® Maxi S
- DEHNguard® M/S CI
- V(A) NH

These surge arresters with integrated backup fuse from DEHN are characterised by:

- Requiring 75% less space
- Shorter cable lengths in compliance with the IEC 60364-5-53 standard
- Time-saving planning and installation
- User-friendliness since no external backup fuse must be dimensioned
- Integrated fuse monitoring

Surge arresters with integrated backup fuse provide additional safety when planning and installing electrical installations.

DEHNvenCI
Type 1 combined arrester with integrated backup fuse

The coordinated DEHNvenCI spark-gap-based combined arresters with RADAX Flow follow current limitation combine system protection and compact dimensions in a single device. The features of the practice-proven DEHNventil family are combined with a lightning-current-carrying arrester backup fuse in an enclosure with a width of two modules. DEHNvenCI is energy coordinated with other arresters of the Red/Line product family and even allows to protect terminal equipment if the distance between DEHNvenCI and the consumers is less than 5 m.

Technical data	
SPD according to EN 61643-11	Type 1
Maximum continuous operating a.c. voltage U_C	255 V
Lightning impulse current (10/350) I_{imp}	25 kA
Voltage protection level U_p	≤ 1.5 kV
Mains-side overcurrent protection	not required
Fuse monitoring	integrated

Extended technical data ** In installations with prospective short-circuit currents > 50 kA_{rms}	
Maximum prospective short-circuit current	100 kA_{rms} (220 kA_{peak})
Limitation/extinction of main follow currents	up to 100 kA_{rms} (220 kA_{peak})

Type	Version / system configuration	Part No.
DVCI 1 255	Single-pole	961 200
DVCI 1 255 FM*	Single-pole	961 205

DEHNbloc® Maxi S
Type 1 lightning current arrester with integrated backup fuse

Thanks to their application-optimised mechanical design, the coordinated DEHNbloc Maxi S spark-gap-based lightning current arresters with RADAX Flow follow current limitation can be directly mounted onto the PEN/N busbar without additional adapters. With the backup fuse integrated in the device, no other separate arrester backup fuses need to be installed. DEHNbloc Maxi S is directly coordinated with type 2 DEHNguard arresters without additional cable length.

Technical data	
SPD according to EN 61643-11	Type 1
Maximum continuous operating a.c. voltage U_C	255 V
Lightning impulse current (10/350) I_{imp}	25 kA
Voltage protection level U_p (including 80 cm connecting cable)	≤ 2.5 kV
Mains-side overcurrent protection	not required
Fuse monitoring	integrated

Extended technical data ** In installations with prospective short-circuit currents > 50 kA_{rms}	
Maximum prospective short-circuit current	100 kA_{rms} (220 kA_{peak})
Limitation/extinction of main follow currents	up to 100 kA_{rms} (220 kA_{peak})

Type	Version / system configuration	Part No.
DBM 1 255 S	Single-pole	900 220

* FM = floating changeover contact for remote signalling
** tested by VDE

DEHNguard® M/S CI
Type 2 surge arrester with integrated backup fuse

The DEHNguard M/S CI surge arresters combine surge protection and safety in a single device, setting new standards for user-friendly application. Thanks to their integrated backup fuse, DEHNguard M/S CI surge arresters take up less space than conventional arresters. The prewired complete unit of the DEHNguard M/S CI surge arresters consists of a base part and plug-in protection modules. The "Thermo Dynamic Control" monitoring device provides maximum reliability. DEHNguard M/S CI surge arresters are energy coordinated with other arresters of the Red/Line product family.

Technical data	
SPD according to EN 61643-11	Type 2
Maximum continuous operating a.c. voltage U_C	275 V
Nominal discharge current (8/20) I_n	12.5 kA
Max. discharge current (8/20) I_{max}	25 kA
Voltage protection level U_p	≤ 1.5 kV
Mains-side overcurrent protection	not required
Fuse monitoring	integrated
Short-circuit withstand capability	25 kA_{rms}

Type	Version / system configuration	Part No.
DG M TNC CI 275	TN-C	952 304
DG M TNC CI 275 FM*	TN-C	952 309
DG M TNS CI 275	TN-S	952 401
DG M TNS CI 275 FM*	TN-S	952 406
DG M TT CI 275	TT and TN-S	952 322
DG M TT CI 275 FM*	TT and TN-S	952 327
DG M TN CI 275	TN	952 173
DG M TN CI 275 FM*	TN	952 178
DG M TT 2P CI 275	TT and TN	952 171
DG M TT 2P CI 275 FM*	TT and TN	952 176
DG S CI 275	Single-pole	952 079
DG S CI 275 FM*	Single-pole	952 099

V NH, VA NH
Type 2 surge arrester with integrated backup fuse

The single-pole V NH and VA NH surge arresters are adapted to the requirements in industrial sub-circuit distribution boards. Designed in the form of an NH fuse holder, they can be easily integrated into busbar systems. An indicator reliably indicates fault conditions. V NH and VA NH surge arresters are energy coordinated with other arresters of the Red/Line product family. Due to their additional spark gap, VA NH surge arresters can be used in systems with permanent insulation monitoring.

Technical data	
SPD according to EN 61643-11	Type 2
Maximum continuous operating a.c. voltage U_C	280 V
Nominal discharge current (8/20) I_n	15 kA
Max. discharge current (8/20) I_{max}	30 kA
Voltage protection level U_p	≤ 1.5 kV
Mains-side overcurrent protection	not required
Fuse monitoring	integrated
Short-circuit withstand capability	25 kA_{rms}

Type	Version / system configuration	Part No.
V NH00 280	Single-pole, size NH00	900 261
V NH00 280 FM*	Single-pole, size NH00	900 263
V NH1 280	Single-pole, size NH1	900 270
VA NH00 280	Single-pole, size NH00	900 262
VA NH00 280 FM*	Single-pole, size NH00	900 264
VA NH1 280	Single-pole, size NH1	900 271

* FM = floating changeover contact for remote signalling

Surge Protection
Lightning Protection
Safety Equipment
DEHN protects.

DEHN + SÖHNE
GmbH + Co.KG.

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