



This is what our partners say

Arc fault protection system DEHNshort

ARC FAULT
PROTECTION SYSTEM

INCOMING SUPPLY
TRANSFORMER 1



OUTGOING
FEEDER

Quenching arc faults as soon as they occur

Arc faults are often caused by human error when working on the switchgear assembly, by contaminants or by foreign objects like forgotten tools or animals. This means that even the most modern switchgear assemblies are at risk.

An arc fault releases an enormous amount of energy in a matter of milliseconds. Extreme heat, toxic gases and explosive pressure waves put all those in the vicinity of the switchgear assembly in mortal danger. As laid down in occupational health and safety legislation, the employer is responsible for the safety of his employees.

What is more, arc faults can lead to a power failure and the resulting production downtime to immense costs. The necessary repairs are often extensive. Sometimes the whole assembly needs to be completely replaced. DEHNshort protects by reacting in the switchgear assembly before the arc fault can cause any damage. DEHNshort can be used with any make of switchgear assembly. Developed for installation in low-voltage switchgear assemblies with design verification, all components are perfectly adjusted to the respective switchgear configuration as part of the project planning. The integration test conducted in an independent, accredited test laboratory verifies the safe functionality¹⁾. As your partner, we accompany you through all project phases.

This brochure shows you how you can profit from DEHNshort and the comprehensive services we offer.

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¹⁾ In the integration test, the combination of switchgear assembly and DEHNshort is tested.

A portrait of a middle-aged man with thinning hair, wearing a light blue button-down shirt. He is looking slightly off-camera with a gentle smile. The background is a soft-focus outdoor scene with green foliage and a blue structure.

“A power failure in a hospital is immediately life-threatening. Availability equals patient protection.”

Lutz Noack,
MLT Ingenieure GmbH, designed the arc fault protection system
for the Humboldt-Klinikum Berlin.

DEHNshort for electrical planning engineers

Decisive to recovery and survival

Lutz Noack was fully aware of the special responsibility resting on his shoulders when planning for the Humboldt-Klinikum in Berlin. Because system failures in hospitals can soon become life-threatening.



Where did you first hear about the arc fault protection system?

Lutz Noack: Dr. Förster, one of DEHN's sales representatives, showed us the DEHNshort arc fault protection system. I passed the information on to the person responsible for the electrical engineering of the VIVANTES properties, one of which is the Humboldt-Klinikum (hospital).

Was it difficult to convince the customer of the necessity for an arc fault protection system?

LN: At first, the customer wanted more information about DEHNshort and DEHN as the manufacturer. Dr. Förster organised an appointment so that we, the planning engineers, and our customers could see DEHNshort in action. The arc fault protection test at the IPH Berlin was very impressive¹⁾.

Which arguments convinced the customer to install an arc fault protection system?

LN: The protection of those people working on the electrical systems was the first consideration. Due to the

increasingly complex nature of power supply and distribution systems, there is a significant risk for electricians during maintenance and repairs. The operator must eliminate the risk of accident and personal injury.

The second consideration was the system availability: A power failure in a hospital must be avoided at all costs. In care and treatment areas that would be immediately life-threatening – just think of a patient in an operating theatre on artificial respiration or other life-preserving systems. Here, system availability is on a par with patient protection.

Tip

Expert knowledge for planning engineers

DEHN arc fault protection provides you, as a planning and engineering office, with an important degree of legal certainty as well as reliable quality and service.

Technical background information, supporting arguments and information material help to you give your customers a better understanding of the theme of arc fault protection. You receive tender specifications, planning drawings, bills of quantity and a detailed application manual.

Our DEHNacademy seminars and regular Planner Forums keep you up to date.

Find out more on
de.hn/c3rur

¹⁾ IPH: Institut Prüffeld für elektrische Hochleistungstechnik GmbH, Berlin

DEHNshort for switchgear manufacturers

Perfect for compact and innovative solutions

Martin Boese aims to provide his hospital clients with the greatest possible safety but, at the same time, the lowest possible maintenance costs. He has found the right partner.

Why did the topic arc fault protection catch your attention?

Martin Boese: For a switchgear manufacturer like us with a focus on "power supply for hospitals" the availability of power is the top priority. Active arc fault protection is a must when it comes to securing the power supply of a hospital.

Why did you decide in favour of the DEHNshort arc fault protection system?

MB: DEHNshort is the ideal solution for us. Comparable products from other manufacturers generally have an additional switchgear panel and, as a result, take up a lot more space.



How much work did the integration of the arc fault protection system in the existing system entail?

MB: The design of the first system is always time-consuming. The system has to be tested and approved. Thanks to the excellent cooperation with DEHN; we were able to hand over the switchgear assembly in the shortest possible time. We are now working on our second project with DEHN and the project work has become almost routine for us.

How does the installation of the DEHNshort arc fault protection system benefit you?

MB: It enables us to position ourselves as an innovative switchgear manufacturer and expand our range accordingly – for us a clear competitive edge.

What are the advantages of cooperating with DEHN?

MB: DEHNshort is a compact system with which we can score points with our customers, hospital operators, when it comes to the sensitive subject of availability. DEHN provides excellent consultancy and professional product support services.

Tip

Expert knowledge for switchgear manufacturers

What counts for you, as a switchgear manufacturer, is the simple integration of the arc fault protection system in the switchgear assembly. Regardless of the make of the switchgear assembly, DEHNshort gives you full control of the costs and function.

We are at your side from the integration test to the hand over. We train your employees and offer support with the design, tender, start-up and acceptance tests.

Find out more on

de.hn/dsh-manufacturers

A portrait of Martin Boese, a middle-aged man with light brown hair, wearing black-rimmed glasses and a light blue button-down shirt with a patterned tie. He is smiling slightly and looking towards the camera. The background is a blurred industrial setting with metal shelving units.

“We are able to position ourselves as an innovative switchgear manufacturer. For us, this is a clear competitive edge.”

Martin Boese,
General Manager of Böhning Energietechnik Berlin GmbH,
is responsible for the switchgear construction for the Charité Berlin, phase of construction II.

DEHNshort for operators

Ideal for the protection of employees and system availability

Harald Gamsjäger wants to provide a safe working environment for his employees and a relaxed shopping atmosphere for the customers in the Shopping City Süd (SCS) in Vienna.



When did you first become aware of the topic arc fault protection?

Harald Gamsjäger: At a product presentation where the DEHNshort arc fault protection system was introduced alongside the DEHNcare protective clothing range.

Which services did you perform at the SCS Vienna?

HG: Almost 60 of our employees overhauled the entire electrical installation at the SCS Vienna. Since then a team of 20 has been responsible for the maintenance.

Was the SCS Vienna the first project in which you included DEHNshort in your designs?

HG: Yes, and thanks to the excellent service provided during design, planning and initial operation it won't be the last joint project. At DEHN you feel you are in good hands.

How did you convince your customers of the advantages of an arc fault protection system?

HG: Availability in the shopping centre is the primary concern of Unibail-Rodamco, the owners of the SCS Vienna. DEHNshort considerably improves availability so that customers can shop around the clock without a care and the shops do not incur any losses.

Tip

Expert knowledge for operators and service providers

As the operator of a system you are responsible for the safety of your personnel. Arc faults endanger your staff and the permanent electrical power supply. So, it is ideal if they are detected and automatically quenched as soon as they arise. Staff enjoy optimum protection and the system is back in operation in the shortest possible time.

The special DEHN service: we support you during the risk assessment and provide intensive product training on DEHNshort.

Find out more on
de.hn/dsh-operators

A portrait of Harald Gamsjäger, a middle-aged man with a beard and mustache, wearing a blue button-down shirt. He is smiling slightly and looking towards the camera. The background is out of focus, showing a white vehicle with the letters 'SCS' on it.

“My top priority is protecting
our service staff. This is the
responsibility of the operator.”

Harald Gamsjäger,
KLENK & Meder GmbH, is responsible for maintenance at the SCS Vienna

Comprehensive support for DEHNshort

As your partner, we provide comprehensive services to support you when designing, planning and starting up. Rely on our expertise in all matters of arc fault protection.

Initial contact

Questions:

- Protection goals?
- Technical framework conditions?
- Design verification?

Protection concept

Criteria:

- Personal protection? System protection? Combination of the two?
- Requirements with regard to switchgear availability?
- Conventional or active arc fault protection?

Planning engineers

Training

DEHN services

- Basics of arc fault protection
- Standardisation

Tenders

DEHN services

- Support with project description and creating offers
- Tender specifications

Project

DEHN services

- Support with project planning

Switchgear manufacturers

Integration tests

DEHN services

- Support with the constructive integration of the components
- Joint preparation and conduct of integration tests

First project

DEHN services

- Training employees involved in the design, installation and start-up
- Support with the design, tender and acceptance tests

Subsequent projects

DEHN services

- Support with the design, tender and acceptance tests

Operators

Risk evaluation

DEHN services

- Support with risk assessment

Supplier selection

DEHN services

- Provision of tender specifications
- Overview of all switchgear manufacturers with successfully completed integration test

First project

DEHN services

- Training the employees who look after the switchgear installations

Personal protection with DEHNcare

Even more safety for your service staff at the switchgear assembly? DEHNcare protective clothing provides the best possible safety when working on electrical systems. And it is also comfortable to wear.

DEHNcare jacket (APJ)

The arc fault tested protective jacket scores points with its zip and hook-and-loop fasteners, reflective strips and useful side pockets on the arm.

A clever alternative to the jacket is the DEHNcare coat (APC), which protects the thigh area right down to the knee.



DEHNcare protective hood (APHO)

The hood offers protection in combination with our safety helmet for electricians. The 3-zone protective system provides all-round protection for the face, head and neck



DEHNcare arc-fault-resistant face shield (APS T)

Complements the safety helmet for electricians and ensures the best possible visibility due to anti-mist coating and high light transmittance.

DEHNcare protective gloves (APG)

The gloves protect the hands and lower arms from burns and other injuries. The version with a long gauntlet even protects right up to the crook of the arm. These gloves are exceptionally touch sensitive.

DEHNcare trousers (APT)

The arc-fault-tested protective trousers impress with functional details like pockets, knee pads, braces, etc.

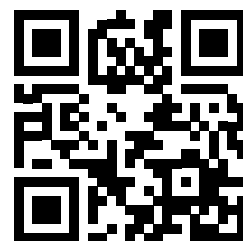
Find out more about arc fault protection with DEHNshort and DEHNcare here on:

de.hn/arc-fault-protection

Surge Protection
Lightning Protection
Safety Equipment
DEHN protects.

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