



DEHNcare® protects
Workers exposed to Arc Faults





DEHNcare® ensures a high degree of safety and wearing comfort



Passive Arc Fault Protection DEHNcare®

Each and every day electrotechnical work is carried out all over the world. The risk that technical defects, maloperations, contaminants or foreign objects in the installation cause arc faults cannot be excluded. If arc faults occur, workers are exposed to temperatures of more than 10,000°C and suffer severe burns.

In addition to technical systems, the arc-fault-tested personal protective equipment DEHNcare® protects workers against the thermal effects of an arc fault.

According to the International Social Security Association and national regulations in the country of use, employers shall include arc fault protection in the risk assessment. If this risk assessment indicates that there is a risk of an arc fault, employers shall provide suitable personal protective equipment to their employees and ensure that it is worn. Personal protective equipment must be tested and approved by an accredited certification body.

The personal protective equipment DEHNcare® is tested to international standards. The safety helmet with visor made of nanoparticles, the gloves and the protective suit or coat made of neoprene and leather provide maximum protection and excellent wearing comfort.

DEHN stands for top-quality in safety equipment as well as lightning protection, earthing and surge protection products. Our high-grade protective clothing was tested by renowned and accredited institutes in line with international standards. The DEHNcare® personal protective equipment is certified as follows:

DEHNcare® jacket, trousers and coat:

- Institut für Ökologie, Technik und Innovation GmbH, independent institute with extensive expertise in textiles
- Öko-Tex-Standard, independent test and certification system for textile products

DEHNcare® face shield:

- ECS, independent test institute specialised in conformity assessment of eye protectors

DEHNcare® gloves:

- STFI, Sächsisches Textilforschungsinstitute e.V., accredited test institute of the textile industry



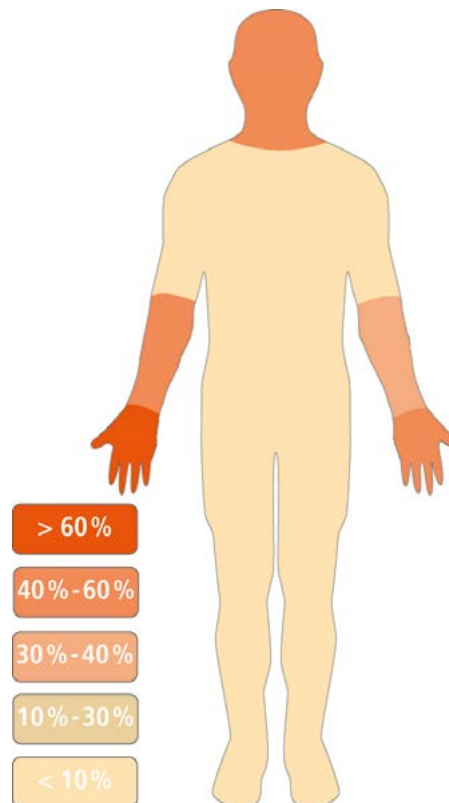


Photo: J. Vogler

Arc faults endanger safety and health

According to the International Social Security Association and national regulations in the country of use, employers shall include arc fault protection in the risk assessment. Depending on the risks to be expected, employers shall provide tested personal protective equipment (PPE) in compliance with the EEC directive 89/686/EEC¹⁾ to their employees and shall ensure that the personal protective equipment is properly used.

Body regions affected by thermal damage



The hand and forearm region is particularly at risk of being burnt by arc faults whilst working on electrical installations.²⁾

¹⁾ Directive 89/686/EEC on the approximation of the laws for Member States concerning personal protective equipment

²⁾ Source: BG ETEM – German trade association for energy, textiles, electrical goods and media products



Arc faults cause skin burns and injuries

Without arc fault protection



Standard protective gloves do not prevent injury and burns.

With arc fault protection



Arc-fault-tested protective gloves provide adequate protection.



Wearing helmets without face shield can result in serious injuries.

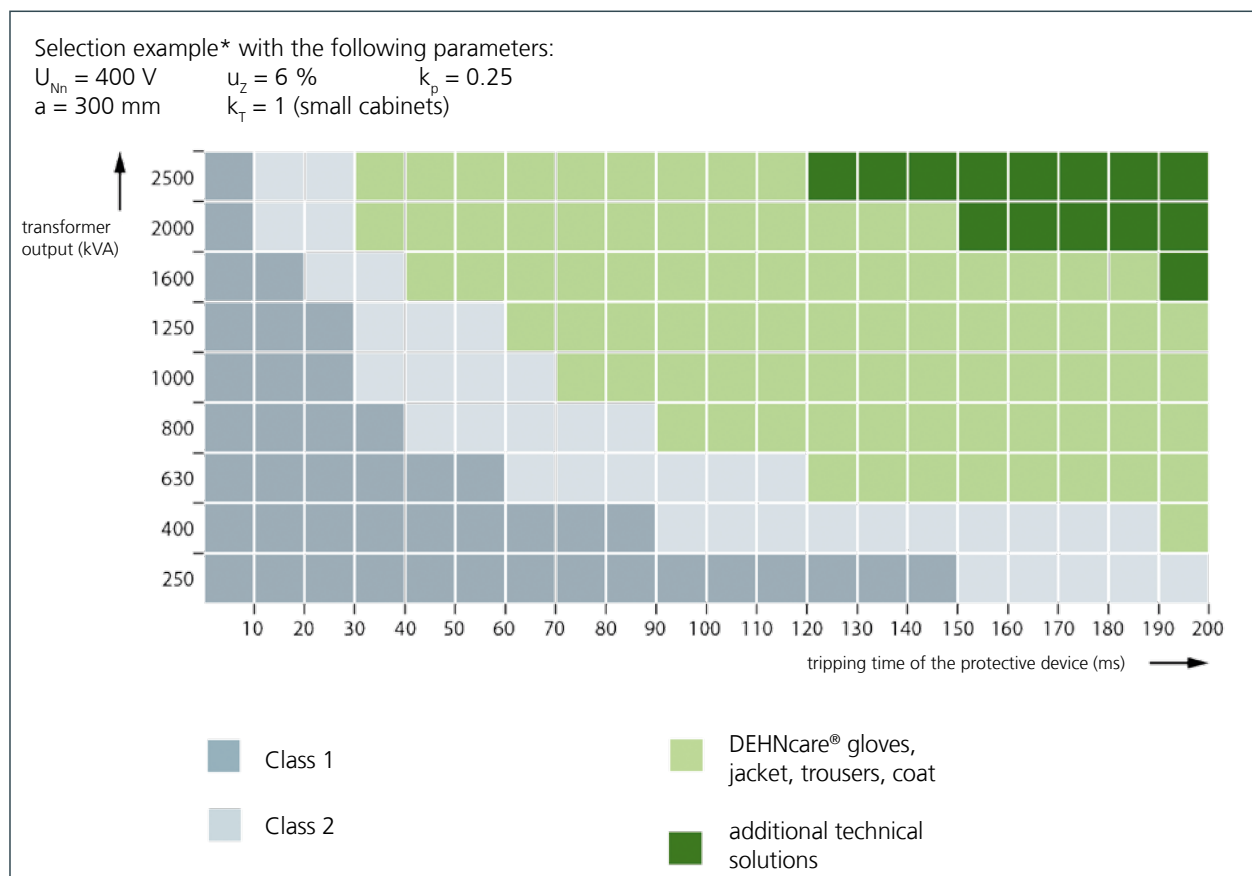


Safety helmet for electricians with face shield protects the face and head region from injuries and burns.



Selecting arc-fault-resistant protective clothing

The diagram shows suitable arc-fault-resistant protective clothing depending on the tripping time of the protective device and the transformer output.



*The representative selection does not replace a risk assessment according to DGUV Information 203-077.



DEHNcare® protective gloves

The hand and forearm region is particularly at risk of being burnt by arc faults whilst working on electrical installations. DEHNcare® protective gloves of type APG provide reliable protection in the event of an arc fault. They comply with applicable laws and regulations and have been extensively tested in box tests.

DEHNcare® protective gloves (APG)

Protection against

- second-degree skin burns caused by arc faults
- cut and stab wounds
- Protective gloves with long gauntlet: enhanced arc fault protection up to the crook of the arm

Maximum wearing comfort thanks to

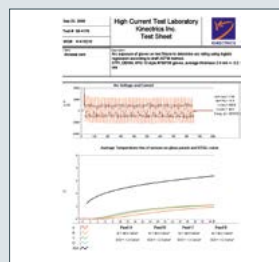
- minimised sweat
- exceptional touch sensitivity
- excellent fit
- easier to put on



Type	Part No.
APG 8	785 796
APG 9	785 797
APG 10	785 798
APG 11	785 799
APG 12	785 800
APG 8 L	785 808
APG 9 L	785 809
APG 10 L	785 810
APG 11 L	785 811
APG 12 L	785 812

Approved and documented tests

- Arc fault protection as per IEC 61482-1-2, class 2 (box test: 7 kA / 0.5 s)
- Arc fault protection as per IEC 61482-1-1 (ATPV: 32.8 cal / cm² (leather palm) and 45 cal / cm² (coated back))
- Hazard Risk Category HRC 3 (leather palm) and HRC 4 (coated back)
- Protection against thermal risks (EN 407:2004)
- Protection against mechanical risks (EN 388:2003)





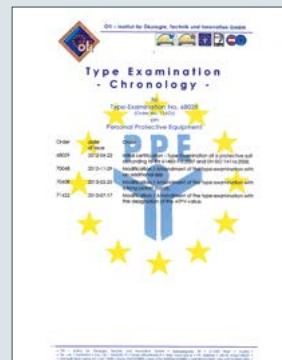
DEHNcare® protective clothing

DEHNcare® protective clothing protects workers from burns caused by arc faults. The combination of breathable leather and neoprene ensures protection as per IEC 61482-1-2 (class 2)* and provide a high wearing comfort.

The flame-retardant lining and the reflective strips ensure maximum protection. All materials such as zip and hook-and-loop fasteners are also made of flame-retardant material. The flapped side pockets round off the appearance. The suit is available in six sizes to ensure right fit. The coat is available in three double sizes.

Approved and documented tests

- Arc fault protection as per IEC 61482-1-2, class 2 (box test: 7 kA / 0.5 s)
- Arc fault protection as per IEC 61482-1-1 (ATPV: 33.1 cal / cm²)
- Hazard Risk Category HRC 3
- Protection against thermal risks (EN 407:2004)
- Protection against mechanical risks (EN 388:2003)





DEHNcare® jacket (APJ)

Arc-fault-tested protective jacket, sizes 46 to 58

- flame-retardant zip and hook-and-loop fasteners
- reinforced stand-up collar
- reflective strips
- useful side pockets



Type	Part No.
APJ 46	785 769
APJ 48	785 770
APJ 50	785 771
APJ 52	785 772
APJ 54	785 773
APJ 56	785 774
APJ 58	785 775

DEHNcare® trousers (APT)

Arc-fault-tested protective trousers, sizes 46 to 58

- flame-retardant fasteners
- reflective strips
- pockets for knee pads
- useful cargo pockets
- adjustable belt
- pair of braces
- knee pads



Type	Part No.
APT 46	785 779
APT 48	785 780
APT 50	785 781
APT 52	785 782
APT 54	785 783
APT 56	785 784
APT 58	785 785

DEHNcare® coat (APC)

Arc-fault-tested protective coat, sizes 48/50 to 60/62

- flame-retardant zip and hook-and-loop fasteners
- reinforced stand-up collar
- reflective strips
- useful side pockets



Type	Part No.
APC 48 50	785 755
APC 52 54	785 756
APC 56 58	785 757
APC 60 62	785 758

DEHNcare® safety helmet with arc-fault-resistant face shield

Accident statistics show that the face region is frequently affected by severe burns. The DEHN safety helmet with arc-fault-resistant face shield protects workers from second-degree skin burns, flying debris and splashes. The visor is extremely robust and scratch-proof.

Safety helmet for electricians of type ESH

Protection of the head and face region with maximum wearing comfort

Easy to use thanks to

- push / rotary knob for adjusting the size
- plug-in system (helmet, face shield)



Type	Part No.
ESH U 1000 S Y, yellow	785 730
ESH U 1000 S W, white	785 731
ESH U 1000 S O, orange	785 732
ESH U 1000 S B, blue	785 733
ESH U 1000 S R, red	785 734

DEHNcare® arc-fault-resistant face shield of type APS

Excellent visibility due to

- anti-mist coating
- natural colour reproduction
- high light transmittance

High degree of protection due to nano-technology

- energy absorbing
- low wear



Type	Part No.
APS T CL2 SC ^{1) 2)}	785 761
APS T 12C SC ^{1) 2)}	785 762
APS T 20C SC ^{1) 2)}	785 763

Type	Part No.
APS T CL2 FS ^{2) 3)}	785 764
APS T 12C FS ^{2) 3)}	785 765
APS T 20C FS ^{2) 3)}	785 766

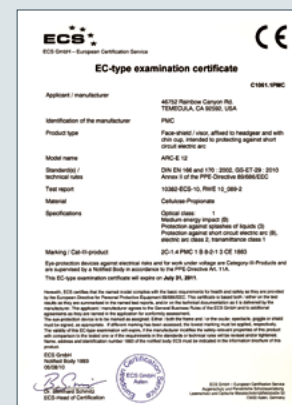
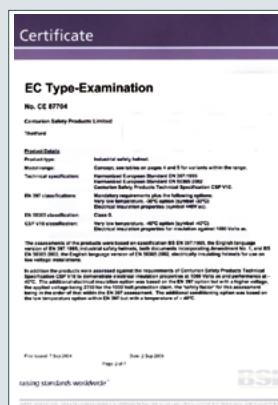


Type	Part No.
APS CL2 SC ¹⁾	785 746
APS 12C SC ¹⁾	785 747

Type	Part No.
APS CL2 FS ³⁾	785 761
APS 12C FS ³⁾	785 762

Approved and documented tests

- Arc fault protection as per GS-ET-29, class 2 (box test: 7 kA / 0.5 s)
- Arc fault protection as per ASTM F2178 (12 cal / cm²)
- Hazard Risk Category HRC 2
- Protection against thermal and mechanical risks as per EN 166 and EN 177 (face shield)
- Electrical requirements according to EN 50365 (helmet)
- Protection against thermal and mechanical risks as per EN 397



Accessories for DEHNcare®

Chin strap and sweatband complete the DEHNcare® portfolio. Storage bag and backpack have proved best for transport.

Chin strap (KR)

Chin strap for safety helmets



Type	Part No.
KR ESH U 1000	785 738

Sweatband (SB)

Replacement part for ESH 1000... safety helmet for electricians



Type	Part No.
SB ESH U 1000	785 752

Visor holder with clip (VH)

For arc-fault-tested face shields with clip



Type	Part No.
VH SC APS	785 753

Storage bag (AT)

Storage bag for safety helmet, face shield and protective gloves



Type	Part No.
AT 50 30	785 442

Storage backpack (ARS)

Storage backpack for the complete DEHNcare® protective equipment



Type	Part No.
ARS 65 40	785 443

www.dehn-international.com/partners



**Surge Protection
Lightning Protection
Safety Equipment
DEHN protects.®**

DEHN + SÖHNE
GmbH + Co.KG.

Hans-Dehn-Str. 1
P.O. Box 1640
92306 Neumarkt
Germany

Phone +49 9181 906-0
Fax +49 9181 906-1100
info@dehn.de
www.dehn.de



www.dehn-international.com



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