

Technical datasheet

for Personal Protective Equipment: Electricians face shield arc class 2 (7 kA)

<u>Articleno.:</u> GFKES003		<u>Description:</u> Electricians Face Shield, made of PC, 550x200x2,0mm, with chin guard, DIN EN 166 and GS-ET-29 (7kA)	
<u>EN Norms:</u>		<u>CE-Certificate:</u>	
EN 166	EN 170	GS-ET-29	C2603.3UHL
Technical features			
<u>Weight:</u> 245g			
<ul style="list-style-type: none"> the face shield has no open metal parts and can be used for live works up to 1.000V electric arc class 2 (7 kA) in accordance with GS-ET-29 VLT class 0 visible light transmittance VLT (D65) $50\% \leq VLT (D65) < 75\%$ mechanical stability in accordance with DIN EN 166 = B (medium impact 120 m/s) 		<ul style="list-style-type: none"> the face shield is made of polycarbonate the face shield has a flange and seals the shield at the top the face shield is securely attached to the helmet by a wide, adjustable elastic band the face shield has a chin guard with Nomex bib for additional protection 	
<u>Used materials:</u>			
<u>Visor:</u>	Polycarbonate 2mm		
<u>U-profile:</u>	Polycarbonate 2mm		
<u>Elastic band:</u>	Silicone, Para grey ca. 40° Shore, 16mm wide		
<u>Attaching parts:</u>	Polypropylene PP GV 30		
<u>Chin guard</u>	Polycarbonate		
<u>Bib</u>	Nomex		
<u>Fields of use:</u>			
<ul style="list-style-type: none"> live works with high voltage up to 1.000 V 		<ul style="list-style-type: none"> areas in which an electric arc class 2 (7 kA) could occur 	
<u>Marking:</u>			
		1000V 2C-1,4 UHL 1 B 8-2-1 CE 0196 on the front of the visor, upper right side	

General remarks

The electrician's visor can only be used with a designated electrician's hard hat.

The following hard hat models are recommended:

GFKES003: BOP Energy 3000

GFKES003-3: VOSS INAP PCG

GFKES003-5: 3M G3501

All hard hats are tested in accordance with DIN EN 50365.

When approaching the danger zone the face shield has to be flipped down.

The user has to make sure that the electrician's face shield has a sufficient protection class. The maximal expectable arc flash energy has to be determined. This can be done with the DGUV document BGI 5188.

The operating life of the electrician's face shield depends on the handling at work. The face shield has to be replaced when it shows strong scratches or fractures. Also the elastic band of the plastic carrier has to be checked for fractures or porosity. These parts have to be replaced

when necessary. PPE made of plastics has to be replaced after 2 years in principle

Warning!

The safety officer should be contacted to ensure an adequate protection at work.

Eye-protection devices against particles with high velocity could transmit the impact energy, if the device is worn together with standard glasses.

If the eye protection device is composed of a number of individual devices – the maximum level of protection depends on the individual device with the lowest protection level.

Notice relating to the mutual compatibility of the marking (s. DIN EN 166 note d, e and f in table 12).

If protection against mechanical impacts with high velocity in extreme temperatures is needed, the used eye protection device has to be marked with the letter T after the letter for the impact protection, i.e. BT. Otherwise the eye protec-

tion device can only be used against impacts with high velocity in room temperature.

Plastic can cause an allergic reaction of the skin of sensitive persons.

Article list

Electrician's face shield 7kA:

GFKES003 (standard)
GFKES003LANG (long bib)
GFKES003-2 (anti-fog)
GFKES003-3 (broad form)
GFKES003-3LANG (long bib)
GFKES003-5 (round form)
GFKES003-5LANG (long bib)

RUDOLF UHLEN GmbH

Aschua

Herstellung von Arbeitsschutzartikeln

Am Höfgen 13 – 42781 Haan

Telephone: +49 (0)2129/1444 Internet: www.aschua-uhlen.de

Telefax: +49 (0)2129/59980 E-mail: info@aschua-uhlen.de

General manager: Volker Fiedler
Steffen Fiedler

Trade registerno.: HRB 17088 Registercourt Wuppertal

User manual

Electrician's visor for hard hats for live-working up to 1000 V



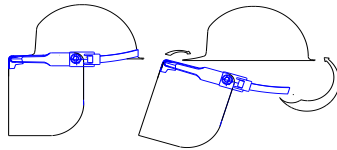
Documentno.:
28.05.2022 / R3

Electrician's visor made of PC, 550x200x2,0mm, with chin guard

- The visor is used in combination with a hard hat.
- According to DIN EN 166 no open metal parts are used.
- The visor is made of Polycarbonate, 2,0mm thick and it has optical class 1.
- The visor complies the special mechanical and thermal demands for work places where arc flashes of class 2 (7kA) can occur.
- The face shield has a flange and seals the visor at the top. It cannot fold below the helmet brim (see picture above).
- The U-profile is used for attaching the face-shield to the hard hat and it is made of Polycarbonate 2mm thick.
- The electrician's visor is securely attached to the hard hat by a wide, adjustable elastic band (3mm thick).
- The face shield is attached to the U-profile with an enforced M6 screwed joint made of PP.

- The face shield has a chin guard made of polycarbonate. An additional bib made of Nomex fabric gives protection to chin and throat.

Manual



- The U-profile of the electrician's visor is slid on the brim of the hard hat (s. picture).
- That followed the elastic band is pulled over the back of the hard hat. The visor has now a firm fit on the hard hat.
- The face shield can be lifted and locked in any position by a thread connector.
- The screws cannot loosen unintentionally.

Storage

Personal protective equipment should be stored in dry rooms. Especially components made of plastics should not be exposed to intense solar radiation.

When not using the face shield, it should be stored in an UV-resistant container/bag.

The face shields should not be stored in areas with high temperatures or humid conditions.

When the face shields are moved in a vehicle, they should be fixed, so no deformations or chafes can occur.

Cleaning / Disinfection

The universal-visor carriers and the face-shields can be cleaned with water and standard detergents as well as with mild disinfectants. However, the face shields should be dried with compressed air (at best with a lintless cloth) to avoid scratches.

Safety checks

Before using the face shield the user should do a safety check. Damaged or scratched face shields or other damaged parts have to be replaced.

Damages are: cracks, fractures, holes, deep notches but also burned areas, milky or darkened surfaces.

Maintenance/repairs

Maintenance has to be conducted on a regular basis.

To be checked in particular:

- Firm fit of the electrician's visor on the hard hat. The elastic band should be checked.
- Folding mechanism of the visor. If necessary the screwed joint has to be tightened.
- Attachment of the face shield to the visor.

- The face shield has to be checked for its transparency and other damages.

Repairs can only be done with the original parts of the manufacturer.

Decay time/aging

All used materials are exposed to environmental impacts like UV-radiation, acid rain and various other impacts. Therefore especially the personal protective equipment made of thermoplastic plastics has to be replaced after 2 years the latest.

Technical features

Electricians' visor

- **Face shield**
Polycarbonate 2,0mm
- **U-Profile**
Polycarbonate 2mm
- **Mounting parts**
Polypropylen PP GV 20
- **Elastic band**
Silicone, grey
- **Chin guard**
Polycarbonate; Nomex

Marking

The face shield is tested in accordance with DIN EN 166, DIN EN 170 and GS-ET-29 (2011).

Mounting device

UHL 166 8-2 B CE 0196

Face shield

2C-1,4 UHL 1 B 8-2-1 CE -0196-

Explanation of the marking:

UHL = manufacturer

Rudolf Uhlen GmbH
166 = EN Norm
2C-1,4 = UV-shade
1 = optical class
B = mechanical impact with medium energy
8-2 = electric arc class 2 (7kA)
CE = CE sign
-0196- = notified body

Additional marking according to GS-ET-29

1 = the luminous transmittance $VLT < D65$, which emulates the luminance impression of the human eye (accord. to ISO 10527:2007), is $50\% \leq VLT (D65) < 75\%$.

This product is assigned to Light transmittance class 1 (LT Class 1). Additional lighting is not required under normal working conditions. In any case, check your ability to detect color in the work environment before using this product.

Artificial lighting can interfere with the tint of the face shield and impair colour perception, especially when using fluorescent or LED lamps as illuminants. It must be ensured that all cable codes used at the workplace can be safely distinguished under actual lighting conditions. Check your colour perception prior to starting work by performing the following steps:

1. Gather a sampling of cable pieces having the same colour coding as the cables used at your workplace.
2. Ensure that you are in a safe location, but with the same lighting (type and intensity) as anticipated at your workplace.
3. Clean the face shield and check it for damage (do not hesitate to replace the face shield if necessary - refer to the User information).
4. Don the face shield as described in the User information.
5. Quickly sort through the bundled cable samples. If you have difficulty distinguishing between the various cable codes or are mistaken in sorting them, then the lighting is insufficient and/or the face shield is too dark. This could cause an accident at work, such as electric fault arcing.

The distance of the face shield to the forehead of the user is 55cm.

Notified body:

ECS GmbH
Obere Bahnstr. 74
73431 Aalen
Notified Body: 1883

Notified body (audit):

DIN CERTCO Gesellschaft für Konformitätsbewertung mbH
Alboinstr. 56
12103 Berlin
Notified Body: 0196

EU-Baumusterprüfbescheinigung

C2603.3UHL

Antragsteller	Rudolf Uhlen GmbH Am Höfgen 13 42781 Haan Deutschland
Kennbuchstabe	UHL
Produktart	Elektrikerschutzschirm, Gesichtsschutzschild zum Schutz gegen Störlichtbogen
Modellname	GFKES003, GFKKH002-E
Prüfgrundlage	Grundlegende Anforderungen nach Anhang II der PSA-Verordnung (EU) 2016/425 EN 166 : 2001, EN 170 : 2002, GS-ET-29 : 2011
Prüfnummer / Prüfbericht	1323-ECS-18 / MR 13231-ECS-18 2015-ECS-21 / MR 20152-ECS-21 INNOGY 18_145-1, 18_145-2 WESTENERGIE 20_372-2
Werkstoffe	Polycarbonat, Nomex, Polypropylen, Polyethylen
Optische und mechanische Eigenschaften	Lichttransmission NA: 62% Optische Klasse: 1 UV-Schutzfilter mit Farberkennung Schutz gegen Teilchen hoher Geschwindigkeit (B) Schutz gegen Störlichtbogen (8), Klasse 2, Transmissionsklasse 1
Kennzeichnung	2C-1,4 UHL 1 B 8-2-1 - 166 8-2 B CE 1883

Augenschutzprodukte gegen Risiken der Elektrizität und für Arbeiten unter Spannung unterliegen als Kategorie-III-Produkte gemäß PSA-Verordnung der Überwachung (Modul C2) durch eine notifizierte Stelle. Diese EU-Baumusterprüfbescheinigung ist bis zum **28. Februar 2024** gültig.

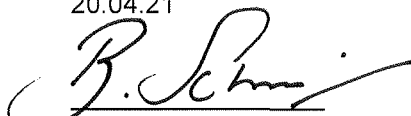
ECS bestätigt, dass das oben bezeichnete Augenschutzgerät die grundlegenden Anforderungen für Gesundheitsschutz und Sicherheit der Verordnung der Europäischen Gemeinschaft für persönliche Schutzausrüstungen (EU) 2016/425 erfüllt. Der Antragsteller stimmt den Allgemeinen Geschäftsbedingungen der ECS GmbH und weiteren, im Antrag auf Konformitätsbewertung genannten Vereinbarungen zu.

Das Augenschutzprodukt ist wie oben angegeben zu kennzeichnen. Tragen Tragkörper und Sichtscheiben unterschiedliche Kennzeichnungen, so ist die jeweils geringste Schutzstufe anzugeben.

Diese EU-Baumusterprüfbescheinigung verliert ihre Gültigkeit, wenn der Antragsteller / Hersteller sicherheitsrelevante Produkteigenschaften gegenüber dem geprüften Baumuster verändert oder wenn die sicherheitsrelevanten Anforderungen in der zugrunde gelegten Prüfnorm verschärft bzw. revidiert werden.

Name, Anschrift und Kennnummer der benannten Stelle ECS sind in der Produktinformation zu nennen.

ECS GmbH
Notifizierte Stelle 1883
20.04.21



Dr. Bernhard Schmitz
ECS-Zertifizierer



ECS GmbH – European Certification Service
Augenschutz und Persönliche Schutzausrüstung
Laserschutz und Optische Messtechnik
Hüttfeldstraße 50
73430 Aalen, Germany

Anhang zu einer EU-Baumusterprüfbescheinigung

Antragsteller: Rudolf Uhlen GmbH, 42781 Haan, Deutschland

Nummer der EU-Baumusterprüfbescheinigung: C2603.3UHL vom 20.04.2021

Diese EU-Baumusterprüfbescheinigung gilt für folgende Varianten:

Modellname	Messprotokoll	Kennzeichnung
GFKES003	13231-ECS-18	2C-1,4 UHL 1 B 8-2-1 - 166 8-2 B CE 1883
GFKES003LANG		
GFKES003-3		
GFKES003-3LANG		
GFKES003-5		
GFKES003-5LANG		
GFKKH002-E	20152-ECS-21	


Werden die Kennzeichnungen von Schutzscheibe und Tragkörper getrennt aufgebracht, so sind folgende Kennzeichnungen zu verwenden:

Schutzscheibe: 2C-1,4 UHL 1 B 8-2-1 CE 1883

Tragkörper: UHL 166 8-2 B CE 1883

Rudolf Uhlen GmbH - Am Höfgen 13 - 42781 Haan

EU DECLARATION OF CONFORMITY (2019.R2)

1. PPE: **GFKES003**
 2. Manufacturer: **Rudolf Uhlen GmbH
Am Höfgen 13
42781 Haan**
- 
3. This declaration of conformity is issued under the sole responsibility of the manufacturer:
Rudolf Uhlen GmbH.
4. Object of the declaration:
Electricians Face Shield, made of PC, 550x200x2,0mm, with chin guard, DIN EN 166 and GS-ET-29 (7kA)
5. The object of the declaration described in point 4 is in conformity with the relevant Union harmonisation legislation: guideline 2001/95/EG and regulation (EU) 2016/425
6. References to the relevant harmonised standards used, including the date of the standard, or references to the other technical specifications, including the date of the specification, in relation to which conformity is declared: EN 166:2001, EN 170:2002 and GS-ET 29:2011-05
7. The notified body DIN CERTCO Gesellschaft für Konformitätsbewertung mbH, Alboinstr. 56, 12103 Berlin (0196) performed the EU type-examination (Module B) and issued the EU type-examination certificate **C2603.3UHL** ausgestellt.
8. The PPE is subject to the conformity assessment procedure based on internal production control plus supervised product checks at random intervals (Module C2) under surveillance of the notified body DIN CERTCO Gesellschaft für Konformitätsbewertung mbH, Alboinstr. 56, 12103 Berlin (0196).
9. Additional Information:
Signed for and on behalf of:
Rudolf Uhlen GmbH

Haan, 20. April 2023:



Steffen Fiedler
-General Manager-