



IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEx BKI 06.0007** Page 1 of 4 Certificate history:
Status: **Current** Issue No: 4 Issue 3 (2017-08-07)
Date of Issue: 2018-01-25 Issue 2 (2014-06-16)
Applicant: **Cooper Crouse-Hinds GmbH** Issue 1 (2011-09-19)
previously CEAG Sicherheitstechnik GmbH Issue 0 (2006-09-05)
Neuer Weg Nord 49
D-69412 Eberbach, Germany
Germany
Equipment: **Energy distribution, switching and control assembly**
Optional accessory: Type GHG 619
Type of Protection: **General requirements, Flameproof enclosure, Increased safety, Intrinsic safety, Encapsulation**
Marking: Ex de ia/ib m [ia/ib] IIC T4...T6
-55 °C ≤ Tamb ≤ +55 °C
Ex tD A21 IP66 T 80 °C

Approved for issue on behalf of the IECEx
Certification Body:

Edit Molnár

Position:

Head of the Certification Body

Signature:
(for printed version)

Date:

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.



Certificate issued by:

Testing Station for Explosion Proof Equipment
H 1037 BUDAPEST
MIKOVINY S.u. 2-4
Hungary





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Date of issue: 2018-01-25

Issue No: 4

Manufacturer: **Cooper Crouse-Hinds GmbH**
previously CEAG Sicherheitstechnik GmbH
Neuer Weg Nord 49
D-69412 Eberbach, Germany
Germany

Additional manufacturing locations: **Cooper Electric (Changzhou) Co. Ltd.**
No. 189 Liuyanghe Road
Xinbei District
Changzhou, Jiangsu
China, 213031
China

Eaton Electric (Singapore) PTE Ltd.
100G Pasir Panjang Road
#07-08/#02-09
Interlocal Centre
Singapore, 118523
Singapore

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

STANDARDS :

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

IEC 60079-0:2004 Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
Edition:4.0

IEC 60079-11:1999 Electrical apparatus for explosive gas atmospheres - Part 11: Intrinsic safety 'i'
Edition:4

IEC 60079-18:1992 Electrical apparatus for explosive gas atmospheres - Part 18: Encapsulation 'm'
Edition:1

IEC 60079-7:2001 Electrical apparatus for explosive gas atmospheres - Part 7: Increased safety 'e'
Edition:3

IEC 61241-0:2004 Electrical apparatus for use in the presence of combustible dust - Part 0: General requirements
Edition:1

IEC 61241-1:2004 Electrical apparatus for use in the presence of combustible dust - Part 1: Protection by enclosures "tD"
Edition:1

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Report:

[HU/BKI/ExTR06.0011/00](#)

Quality Assessment Reports:

[DE/BVS/QAR11.0009/08](#)

[GB/BAS/QAR07.0041/07](#)

[GB/BAS/QAR11.0007/05](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

See details in Annex "Addendum to IECEx BKI 06.0007 Issue 3."

SPECIFIC CONDITIONS OF USE: NO



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Issue No: 4

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

1st issue:

new QAR: DE/BVS/QAR11.0009/00

2nd issue:

Additional manufacturing locations:

1.

Cooper Crouse-Hinds PTE Ltd.

No. 2 Serangoon North Avenue, # 06-01 Fu Yu Building, Singapore 554911

SINGAPORE

2.

Cooper Electric (Changzhou) Co. Ltd

No. 189 Liuyanghe Road, Xinbei District, Changzhou, Jiangsu, China 213031

CHINA

Issue 3:

Certified Ex-components

See details of certificate changes in Annex "Details of Certificate change IECEx BKI 06.0007 Issue 3.

Issue 4:

Change the name and address of the manufacturing location, Singapore

from

Cooper Crouse-Hinds PTE Ltd., No 2 Serangoon North Avenue 5, # 06-01, Singapore, 554911 (QAR: GB/BAS/QAR11.0007/04)

to

Eaton Electric (Singapore) PTE Ltd., 100G Pasir Panjang Road., #07-08/#02-09 Interlocal Centre., Singapore, 118523 (QAR: GB/BAS/

QAR11.0007/05)

Annexes:

[Addendum to IECEx BKI 06.0007 Issue 3..pdf](#)

[Addendum to IECEx BKI 06.0007.pdf](#)

[Details of Certificate change IECEx BKI 06.0007 Issue 3..pdf](#)

1. Description

The following changes are introduced in this 3rd issue of IECEx BKI 06.0007:

- use of Ex d components type GHG 62 * * * * R * * * *
 The Ex-d components GHG 62* * * * R * * * * is a new generation of encapsulated protective units similar the GHG 61...
 The Ex-d components type GHG 62 * * * * R * * * * are certified under IECEx BVS 10.0002U.
 Service temperature range:
 IIB/IIC: -20°C...+110°C for size 1 to 7
 IIB: -45°C...+110°C for size 1 to 2
- use of transformer type GHG 410 9507 * * * *
 The component, Ex-e transformer type GHG 410 9507 * * * * has now an IECEx certificate nr. IECEx BVS 11.0087U.
 There were no technical changes on the product.
 Service temperature range: -55°C...+130°C
- use of bolt terminals type GHG 740* * * * R * * * * (terminals up to 240 mm²)
 The component, terminal type GHG 740* * * * R * * * * (Ex-e bolt terminal) has now an IECEx certificate nr. IECEx BVS 16.0022U.
 There were no technical changes on the product.
 Service temperature range: -50°C/-60°C...+110°C
- use of Ex-d heater type GHG97 * * * * R * * * *
 This new component, Ex heating type GHG97 * * * * R * * * * is IECEx certified under nr. IECEx BVS 17.0030U.
 Service temperature range: -55°C...+110°C
- use of Busbar system GHG 75* * * * R * * * *
 The busbar system GHG 75* * * * R * * * * is IECEx certified under nr. IECEx BVS 11.0048U.
 Service temperature range: -55°C...+80°C / +100°C
 Max rated current: 315 A; rated voltage: 690V
- The ingress protection of the stainless or sheet steel enclosure is: IP66 (see IECEx PTB 11.0030U about the empty enclosure type GHG 60* * * * R * * * *)

All other components listed in the „list of components variants and their combinations” remain unchanged.
 The modifications do not have influence on the safety values and properties of the equipment.
 In all other aspects the equipment is unchanged according to the IECEx BKI 06.0007 Issue 0.

2. Type assortment

It is unchanged, according to the Addendum to IECEx Certificate of Conformity IECEx BKI 06.0007

3. General parameters

According to the Addendum to IECEx Certificate of Conformity IECEx BKI 06.0007 with the following modifications:

Electrical data
 Rated voltage: max. 690V
 Rated current: max. 250 A / 315 A

4. Ambient temperature

It is unchanged, according to the Addendum to IECEx Certificate of Conformity IECEx BKI 06.0007

5. Ingress protection:

IP66 (moulded plastic enclosure, stainless or sheet steel enclosure)

6. Drawings, Manufacturer's Documents

according to the Addendum to IECEx Certificate of Conformity IECEx BKI 06.0007 with the following additions:

Title:	Drawing No.:	Rev. Level:	Date:
Description Issue 3 of IECEx BKI 06.0007	nr. 4732	Rev0; 2 pages	2017.07.20
IECEX CoC	IECEX BVS 10.0002U		2017.03.24
IECEX CoC	IECEX BVS 11.0087U		2016.12.13
IECEX CoC	IECEX BVS 16.0022U		2016.04.20
IECEX CoC	IECEX BVS 17.0030U		2017.04.24
IECEX CoC	IECEX BVS 11.0048U		2011.09.22
IECEX CoC	IECEX PTB 11.0030U		2011.09.12
Type label GHG 619 IECEx	GHG 902 6002 F619x_Pz	Issue 3 (B), 1 page	2017.08.15
information label tamb	GHG9051004P0014	901090 (b), 1 page	2015.08.18

1. Description

The energetic distribution assembly with single or multiple enclosure consists of assembled electrical apparatus for which separate certificates have been issued, as follows:

miniature circuit-breaker board GHG 619 ,

According to the above these assembled components may be used separately.

The distribution of the energy may basically take place without or with bus system.

Relevant technical details are given in the test documents.

Within this combination, apparatus for which separate certificates have been issued and which are compiled in the „List of component variants and their combinations” may be used.

2. Type assortment

GHG 619

Legend of the signs from left to right

1._, 2._, 3._	Code for Manufacturer
4._, 5._, 6._	Code for Energy distribution, switching and control assembly
7._, 8._	Sign of material 00 = Moulded plastic 01 = Stainless steel 02 = Sheet steel with varnish 03 = Cu-Ni alloy
9._, 10._, 11._, 12._, 13._, 14._, 15._	Sign this have not a bearing on an explosion proof protective mode

3. General parameters

Electrical data

Rated voltage: max. 730 V

Rated current: max. 180 A

Rated connecting cross-section: max 240 mm²

Rated short-circuit current: max. 47 kA

Rated short-time current: max. 1378 A

Length of one overall unit: max. 6,8 m

Electrical safety: Shock-hazard protection by (IEC 60598) For combinations with bus system a temperature of -20 °C must in any case be reached.

The rated values are maximum values; the actual values must be equal or smaller and are dependent by the assembly of the single enclosures to form combined enclosures; they are determined by the individual components with maximum rated values.

The series fuse or protective system must be so selected that the maximum rated current, the maximum rated short-circuit current and the maximum rated short-time current (1 s) are safety cut-off.

All components stated in the „List of component variant and their combinations” might be used in the combination.

The maximum assemblies and the special conditions of the individual components are to be observed.

4. Ambient temperature

Ambient temperature range
-55 °C to ... +55 °C

Temperature class
T4...T6

5. Ingress protection: IP66 to IEC 60529 (moulded plastic enclosure)
IP54 to IEC 60529 (stainless or sheet steel enclosure)

Drawings:

Description No. 4186 (20 sheets) 1999. 10. 10.

List of component variant and their combinations (1 sheet) 1999. 12. 10.

Drawings	GHG 75-2-3881	2 sheets	1999. 09. 28.
	GHG 74-4-3738	1 sheet	1999. 09. 28.
	GHG 75-4-3880	1 sheet	1999. 09. 28.
	GHG 75-2-3884	1 sheet	1999. 09. 28.
	GHG 74-2-3908	1 sheet	1999. 09. 28.
	GHG 74-1-3909	1 sheet	1999. 09. 28.
	GHG 74-2-3124	1 sheet	1999. 09. 28.
	74-2-3831	1 sheet	1999. 09. 27.
	74-3-3832	1 sheet	1999. 09. 27.
	GHG 74-3-3788	1 sheet	1999. 09. 27.
	GHG 75-3-3205	1 sheet	1999. 09. 27.
	Chart GHG 74...	34 sheets	1999. 10. 10.
Drawings	GHG 74-4-3738	1 sheet	1999. 09. 27.
	GHG 75-4-3880	1 sheet	1999. 09. 27.
	GHG 75-2-3884	1 sheet	1999. 09. 27.
	GHG 60-1-3899	1 sheet	1999. 09. 27.
	GHG 41-2-4045	1 sheet	1999. 09. 27.
	GHG 75-2-3859	1 sheet	1999. 10. 10.
	GHG 619-0-3875	1 sheet	1999. 09. 27.
	Operating instructions		1999. 09. 27.

Test protocols and information documents:

Test report No. PTB Ex 99-19131 (5 sheets) 1999. 12. 16.

Test protocol of DMT N. BVS PP 01.2075EG 2001. 07. 11.

Test reports No. PTB Ex 01-11219 (2 sheets) 2001. 10. 01.

Chart Nr. 35, 36, 37 (3 sheets) 2001. 12. 01.

Test reports No PTB Ex 01-11319 (2 sheets) 2002. 01. 31.

Test protocol of DMT No. BVS PP 02.2017 EG 2002. 02. 28.

DMT No BVS PP 02.2018 EG 2002. 02. 28.

Test report No. PTB Ex 02-12099 (2 sheets) 2002. 05. 13.

Technical report of heat test of TÜV Süddeutschland BB-NEG2-MAN-K/m/Rg (6 sheets) 1999. 11. 10.



DETAILS OF CERTIFICATE CHANGE
IECEX BKI 06.0007 Issue 3

Issue 3

Amendment 1 – use of Ex d components type GHG 62 * * ***R****

The Ex-d components GHG 62* * ***R**** is a new generation of encapsulated protective units similar the GHG 61...-

Service temperature range:

IIB/IIC: -20°C...+110°C for size 1 to 7

IIB: -45°C...+110°C for size 1 to 2

The Ex-d components type GHG 62 * * *** R **** are certified under IECEx BVS 10.0002U.

Amendment 2 – use of transformer type GHG 410 9507 * ****

The component, Ex-e transformer type GHG 410 9507 * **** has now an IECEx certificate nr. IECEx BVS 11.0087U.

There were no technical changes on the product.

Service temperature range: -55°C...+130°C

Amendment 3 – use of bolt terminals type GHG 740**** * **** (terminals up to 240 mm²)

The component, terminal type GHG 740**** * **** (Ex-e bolt terminal) has now an IECEx certificate nr. IECEx BVS 16.0022U.

There were no technical changes on the product.

Service temperature range: -50°C/-60°C...+110°C

Amendment 4 – use of Ex-d heater type GHG97 * * * * R * * * *

This new component, Ex heating type GHG97 * * * * R * * * * is IECEx certified under nr. IECEx BVS 17.0030U.

Service temperature range: -55°C...+110°C

Amendment 5 – use of Busbar system GHG 75* ****R****

The busbar system GHG 75* ****R**** is IECEx certified under nr. IECEx BVS 11.0048U.

Service temperature range: -55°C...+80°C / +100°C

Max rated current: 315 A; rated volatge: 690V

Amendment 6 –

The ingress protection of the stainless or sheet steel enclosure is: IP66 (see IECEx PTB 11.0030U about the empty enclosure type GHG 60* **** R ****)

All other components listed in the „list of components variants and their combintions” remain unchanged.

Manufacturer's Documents concerning the changes			
Title:	Drawing No.:	Rev. Level:	Date:
Description Issue 3 of IECEx BKI 06.0007	nr. 4732	Rev0; 2 pages	2017.07.20
IECEX CoC	IECEX BVS 10.0002U		2017.03.24
IECEX CoC	IECEX BVS 11.0087U		2016.12.13
IECEX CoC	IECEX BVS 16.0022U		2016.04.20
IECEX CoC	IECEX BVS 17.0030U		2017.04.24
IECEX CoC	IECEX BVS 11.0048U		2011.09.22
IECEX CoC	IECEX PTB 11.0030U		2011.09.12
Type label GHG 619 IECEx	GHG 902 6002 F619x_Pz	Issue 3 (B), 1 page	2017.08.15
information label tamb	GHG9051004P0014	901090 (b), 1 page	2015.08.18

Issue 2

New manufacturing locations:

1.

Cooper Crouse-Hinds PTE Ltd
No 2 Serangoon North Avenue, # 06-01 Fu Yu Building, Singapore 554911
SINGAPORE

(The IECEx QAR of the new manufacturing location:
GB/BAS/QAR11.0007/02)

2.

Cooper Electric (Changzou) Co. Ltd
189 Liuyanghe Road, Xinbei District, Changzou, Jiangsu, China 213031
CHINA

(The IECEx QAR of the new manufacturing location:
GB/BAS/QAR07.0041/04)

Issue 1

new QAR: DE/BVS/QAR11.0009/00