

Translation

EU-Type Examination Certificate Supplement 1

Equipment intended for use in potentially explosive atmospheres
Directive 2014/34/EU

EU-Type Examination Certificate Number: **BVS 19 ATEX E 048 X**

Product: **Power and safety switch type GHG 262 * * * * ******

Manufacturer: **Cooper Crouse-Hinds GmbH**

Address: **Neuer Weg-Nord 49, 69412 Eberbach, Germany**

This supplementary certificate extends EU-Type Examination Certificate No. BVS 19 ATEX E 048 X to apply to products designed and constructed in accordance with the specification set out in the appendix of the said certificate but having any acceptable variations specified in the appendix to this certificate and the documents referred to therein.

DEKRA Testing and Certification GmbH, Notified Body number 0158, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential Report No. BVS PP 19.2092 EU.

The Essential Health and Safety Requirements are assured in consideration of:

EN IEC 60079-0:2018	General requirements
EN 60079-1:2014	Flameproof enclosure "d"
EN IEC 60079-7:2015 + A1:2018	Increased Safety "e"
EN 60079-11:2012	Intrinsic Safety "i"
EN 60079-31:2014	Protection by Enclosure "t"

If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Special Conditions for Use specified in the appendix to this certificate.

This EU-Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

The marking of the product shall include the following:

 **II 2G Ex db eb ia IIB/IIIC T6 / T5 Gb**
II 2D Ex tb IIIC T80°C Db

DEKRA Testing and Certification GmbH
Bochum, 2020-03-26

Signed: Jörg-Timm Kilisch

Managing Director



Page 1 of 4 of BVS 19 ATEX E 048 X / N1
This certificate may only be reproduced in its entirety and without any change.

DEKRA Testing and Certification GmbH, Handwerkstr. 15, 70565 Stuttgart, Germany
Certification body: Dinnendahlstr. 9, 44809 Bochum, Germany
Phone +49.234.3696-400, Fax +49.234.3696-401, e-mail DTC-Certification-body@dekra.com

13 **Appendix**

14 **EU-Type Examination Certificate**

**BVS 19 ATEX E 048 X
Supplement 1**

15 **Product description**

15.1 **Subject and type**

Power and safety switch type GHG 262¹⁾ *2) *3) **4) * *****

- 1) Switch 20 A
- 2) Switch and enclosure version
 - 1 = Main current switch – plastic version
 - 2 = Safety switch – plastic version
 - 3 = Main current switch – metal version
 - 4 = Safety switch – metal version
- 3) Number of switch contacts
 - 3 = 3- poles
 - 4 = 4- poles
 - 5 = 5- poles
 - 6 = 6- poles
- 4) Equipment version
 - 01 = Standard version
 - 02 = Special version
 - 51-99 = Without influence to the type of protection

15.2 **Description**

The power and safety switch type GHG 262 * * * * * is used for switch and disconnect of a rated current up to 20 A. The power and safety switch type GHG 262 * * * * * is built in type of protection "eb" Increased Safety or "tb" Protection by Enclosure. Optionally, circuits in type of protection Intrinsic Safety being connected to the separately certified terminals or components.

The enclosure is made of plastic. Alternatively, separately certified enclosure (PTB 99 ATEX 3118 U / IECEx PTB 11.0030U - made of plastic or metal) can be used. The switch enclosure is equipped with a separately certified switch socket (BVS 14 ATEX E 076 U / IECEx BVS 14.0047U) in type of protection "d" Flameproof Enclosure. Optionally, equipped with an auxiliary switch (EPS 14 ATEX 1.688 U / IECEx EPS 14.0038U), light module (IBExU 12 ATEX 1047 U / IECEx IBE 13.0031U resp. EPS 14 ATEX 1.688 U / IECEx EPS 14.0038U), Ex-d component (IBExU 14 ATEX 1030 U / IECEx IBE 14.0005U) and / or separately certified terminal block (PTB 00 ATEX 3102 U / IECEx PTB11.0029U) or terminal strip (PTB 01 ATEX 1004 U / IECEx PTB 15.0028U).

Optionally, separately certified terminals can be used according "List of components".

Reason for the supplement:

- Ambient temperature ranges were extended on the basis of subsequent tests.

15.3 Parameters

Rated voltage	up to 690 V
Rated current	up to 20 A
Rated cross-section	up to 4 mm ² (fine-stranded and stranded)
Ambient temperature range	-45 °C up to +55 °C (IIC) -55 °C up to +55 °C (IIB/IIIC) -50 °C up to +55 °C (IIB/IIC only security switch for inverter drives)

Cross-section	Rated current	Temperature class at T _{amb}		
		+40 °C	+50 °C	+55 °C
1.5 mm ²	≤ 10 A	T6 / T80 °C	T6 / T80 °C	T6 / T80 °C
2.5 mm ²	≤ 16 A	T6 / T80 °C	T5 / T80 °C	---
2.5 mm ²	≤ 20 A	T5 / T80 °C	---	---
4 mm ²	≤ 20 A	T6 / T80 °C	T6 / T80 °C	T5 / T80 °C
6 mm ²	≤ 20 A	T6 / T80 °C	T6 / T80 °C	T6 / T80 °C

Intrinsically safe circuits	
Signal lamp Type GHG 417 1805 R...	IBExU 12 ATEX 1047 U
Voltage	U _i ≤ 30 V
Current	I _i ≤ 120 mA
Power	P _i ≤ 750 mW
Effective internal inductance	negligible
Effective internal capacity	negligible

16 Report Number

BVS PP 19.2092 EU, as of 2020-03-26

17 Special Conditions for Use

- The dimensions of the flameproof joints are in parts other than the relevant minimum or maximum values of EN 60079-1:2014. For information on the dimensions of the flameproof joints contact the manufacturer.
- For the combination with circuits in type of protection Intrinsic Safety "i" the creepage and clearance distances between the intrinsically and non-intrinsically circuits must fulfil the requirements according EN IEC 60079-0:2018.

Translation

EU-Type Examination Certificate Supplement 1

Equipment intended for use in potentially explosive atmospheres
Directive 2014/34/EU

EU-Type Examination Certificate Number: **BVS 19 ATEX E 059 X**

Product: **Load-, Main-, and Safety switch type GHG 263 * * * * ***

Manufacturer: **Cooper Crouse-Hinds GmbH**

Address: **Neuer Weg Nord 49, 69412 Eberbach, Germany**

This supplementary certificate extends EU-Type Examination Certificate No. BVS 19 ATEX E 059 X to apply to products designed and constructed in accordance with the specification set out in the appendix of the said certificate but having any acceptable variations specified in the appendix to this certificate and the documents referred to therein.

DEKRA Testing and Certification GmbH, Notified Body number 0158, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential Report No. BVS PP 19.2127 EU.

The Essential Health and Safety Requirements are assured in consideration of:

EN IEC 60079-0:2018	General requirements
EN 60079-1:2014	Flameproof enclosure "d"
EN IEC 60079-7:2015 + A1:2018	Increased Safety "e"
EN 60079-11:2012	Intrinsic Safety "i"
EN 60079-31:2014	Protection by Enclosure "t"

If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Special Conditions for Use specified in the appendix to this certificate.

This EU-Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

The marking of the product shall include the following:

 **II 2G Ex db eb ia IIB/IIC T6 / T5 Gb**
II 2D Ex tb IIIC T80°C Db

DEKRA Testing and Certification GmbH
Bochum, 2020-03-18

Signed: Jörg-Timm Kilisch

Managing Director



13 **Appendix**
 14 **EU-Type Examination Certificate**

**BVS 19 ATEX E 059 X
 Supplement 1**

15 **Product description**

15.1 **Subject and type**

Load-, Main-, and Safety switch type GHG 263 *1) *2) **3) *4) ****5)

GHG Manufacturers marking

263 Switch 40 A

*1) Switch and enclosure version

- 1 = Main current switch / load switch – plastic version
- 2 = Safety switch – plastic version
- 3 = Main current switch / load switch – metal version
- 4 = Safety switch – metal version

*2) Number of switch contacts

- 3 = 3-pole
- 4 = 4-pole
- 5 = 5-pole
- 6 = 6-pole

**3) Equipment version

- 01 = Standard version
- 02 = Variant version
- ** = Specification by „Local-Assembly-Partner“

*4) Identification marking (country code) - Without influence on explosion protection

- R = Standard version
- * = Variant version (e.g. "X")

****5) Alphanumeric string - Without influence on explosion protection

15.2 **Description**

The load, main and safety switch type GHG 263 * * * * * is used for switching and disconnecting rated currents up to 40A. The main and safety switch type GHG 263 * * * * * is designed in type of protection "eb", Increased safety or "tb" protection by enclosure. Alternatively, circuits with intrinsic safety "i" protection can also be connected to the separately certified terminals or components.

The enclosure is made of plastic. Alternatively, a separately certified empty enclosure (PTB 99 ATEX 3118 U) made of plastic or metal can be used.

The enclosure is equipped with a separately certified load switch (BVS 14 ATEX E 085 U) in type of protection "db" flameproof enclosure and can optionally be equipped with an auxiliary switch (EPS 14 ATEX 1 688 U), indicator lamp (IBExU 12 ATEX 1047 U), Ex-d component (IBExU 14 ATEX 1030 U) and/or separately certified terminal block (PTB 00 ATEX 3102 U) or terminal strip (PTB 01 ATEX 1004 U).

Optionally, further separately certified terminals can be used according to the "List of components".

Reason for the supplement:

- The ambient temperature range was extended on the basis of subsequent tests.

15.3 Parameters

15.3.1 Electrical parameters

Nominal voltage		up to	690 V
Nominal current		up to	40 A
Nominal cross-section	main contact	16 mm ²	fine-stranded and stranded wire
		25 mm ²	stranded wire
		25 mm ²	flexible with special cable lug or additional clamping bracket
Nominal cross-section	auxiliary contact	35 mm ²	stranded with special cable lug or additional clamping bracket
		up to 4 mm ²	fine wire and stranded wire

15.3.2 Intrinsically safe parameters for signal lamp GHG 417 1805 R...

U_i	≤ 30 V
I_i	≤ 120 mA
C_i	0
L_i	0
P_i	≤ 750 mW

15.3.3 Ambient temperature range

IIC	$-20\text{ °C} \leq T_{amb} \leq +55\text{ °C}$
IIB / IIIC	$-55\text{ °C} \leq T_{amb} \leq +55\text{ °C}$
IIB	$-50\text{ °C} \leq T_{amb} \leq +55\text{ °C}$ (only safety switch for inverter drives)

Temperature class and surface temperature

≤ 4-pole version

connection cross-section	rated current	Ambient temperature and temperature class//surface temperature		
		+40 °C	+50 °C	+55 °C
6 mm ²	I_n up to 35 A	T6 / T80 °C	T6 / T80 °C	T6 / T80 °C
10 mm ²	I_n up to 35 A	T6 / T80 °C	T6 / T80 °C	T6 / T80 °C
	I_n up to 40 A	T6 / T80 °C	T6 / T80 °C	T5 / T80 °C
16 mm ²	I_n up to 40 A	T6 / T80 °C	T6 / T80 °C	T6 / T80 °C

> 4-pole version

connection cross-section	rated current	Ambient temperature and temperature class / surface temperature		
		+40 °C	+50 °C	+55 °C
6 mm ²	I _n up to 35 A	T6 / T80°C	T5 / T80°C	T5 / T80°C */**
10 mm ²	I _n up to 40 A	T6 / T80°C	T6 / T80°C	T5 / T80°C **
16 mm ²	I _n up to 40 A	T6 / T80°C	T6 / T80°C	T6 / T80°C

* Use cables and wires with a temperature resistance of more than 80 °C.

** Use cable glands with a temperature resistance of more than 70 °C.

16 **Report Number**

BVS PP 19.2127 EU, as of 2020-03-18

17 **Special Conditions for Use**

- The gap lengths of the flameproof gaps of the switching base are partly longer and the gap widths of the flameproof gaps are partly smaller than required in Table 2 and 3 of EN 60079-1:2014. Information on the dimensions can be obtained from the manufacturer.
- When combined with circuits of ignition protection type "I" - intrinsic safety, the clearances and creepage distances between intrinsically safe and non-intrinsically safe circuits in accordance with EN 60079-11:2012 must be maintained.

18 **Essential Health and Safety Requirements**


The Essential Health and Safety Requirements are covered by the standards listed under item 9.

19 **Drawings and Documents**

Drawings and documents are listed in the confidential report.

We confirm the correctness of the translation from the German original.
In the case of arbitration only the German wording shall be valid and binding.

DEKRA Testing and Certification GmbH
Bochum, 2020-03-18
BVS-Ret/Ar A20200101


Managing Director

Translation

EU-Type Examination Certificate Supplement 1

Change to Directive 2014/34/EU

Equipment intended for use in potentially explosive atmospheres
Directive 2014/34/EU

EU-Type Examination Certificate Number: **BVS 15 ATEX E 125 X**

Product: **Load-, Main- und Safety switch type GHG 264 * * * * ***

Manufacturer: **Cooper Crouse-Hinds GmbH**

Address: **Neuer Weg Nord 49, 69412 Eberbach, Germany**

This supplementary certificate extends EC-Type Examination Certificate No. BVS 15 ATEX E 125 X to apply to products designed and constructed in accordance with the specification set out in the appendix of the said certificate but having any acceptable variations specified in the appendix to this certificate and the documents referred to therein.

DEKRA Testing and Certification GmbH, Notified Body number 0158, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential Report No. BVS PP 15.2217 EU.

The Essential Health and Safety Requirements are assured in consideration of:

EN IEC 60079-0:2018	General requirements
EN 60079-1:2014	Flameproof enclosure "d"
EN IEC 60079-7:2015 + A1:2018	Increased Safety "e"
EN 60079-11:2012	Intrinsic Safety "i"
EN 60079-31:2014	Protection by Enclosure "t"

If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Special Conditions for Use specified in the appendix to this certificate.

This EU-Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

The marking of the product shall include the following:

 **II 2G Ex db eb ia IIC/IIB T6 / T5 Gb**
II 2D Ex tb IIIC T80°C Db

DEKRA Testing and Certification GmbH
Bochum, 2020-04-20

Signed: Jörg-Timm Kilisch

Managing Director

13 **Appendix**
 14 **EU-Type Examination Certificate**

**BVS 15 ATEX E 125 X
 Supplement 1**

15 **Product description**

15.1 **Subject and type**

Load- and safety switch type GHG 264 00 **1) * *2) ****

- 1) Switching mode
 - 17 = Load- and safety switch 6-pole version with terminals (plastic version)
 - 20 = Load- and safety switch 3-/4-pole version (plastic version)
 - 21 = Load- and safety switch 6-pole version (plastic version)
 - 23 = Load- and safety switch 3-/4-pole version (metal version)
 - 24 = Safety switch for converter supply (plastic version)
- 2) Identification marking (country code) - Without influence on explosion protection
 - R = Standard version
 - * = Variant version (e.g. "X")

15.2 **Description**

The load, main and safety switch type GHG 264 00 * * * * **** is used for switching and disconnecting rated currents up to 80A. The main and safety switch type GHG 263 * * * * **** is designed in type of protection "eb", Increased safety or "tb" protection by enclosure. Alternatively, circuits with intrinsic safety "i" protection can also be connected to the separately certified terminals or components.

The enclosure is made of plastic. Alternatively, a separately certified empty enclosure (PTB 99 ATEX 3118 U) made of plastic or metal can be used.

The enclosure is equipped with a separately certified switch base (BVS 12 ATEX E 127 U) in type of protection "db" flameproof enclosure and can optionally be equipped with an auxiliary switch (EPS 14 ATEX 1 688 U), indicator lamp (IBExU 12 ATEX 1047 U), Ex-d component (IBExU 14 ATEX 1030 U) and/or separately certified terminal block (PTB 00 ATEX 3102 U) or terminal strip (PTB 01 ATEX 1004 U).

Optionally, further separately certified terminals can be used according to the "List of components".

Reasons for the supplement:

- The ambient temperature range was extended on the basis of subsequent tests.
- Updating to the harmonized standards

With this supplement the certificate is changed to Directive 2014/34/EU.
 (Annotation: In accordance with Article 41 of Directive 2014/34/EU, EC-Type Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Supplementary Certificates to such EC-Type Examination Certificates, and new issues of such certificates, may continue to bear the original certificate number issued prior to 20 April 2016.)

15.3 **Parameters**

15.3.1 Electrical parameters

Nominal voltage		up to 690 V	
Nominal current		up to 80 A	
Nominal cross-section	main contact	16 mm ²	fine-stranded and stranded wire
		25 mm ²	stranded wire
		25 mm ²	flexible with special cable lug or additional clamping bracket
		35 mm ²	stranded with special cable lug or additional clamping bracket
	auxiliary contact	up to 4 mm ²	fine wire and stranded wire

15.3.2 Intrinsically safe parameters for signal lamp GHG 417 1805 R....

U _i	≤	30 V
I _i	≤	120 mA
C _i		0
L _i		0
P _i	≤	750 mW

15.3.3 Ambient temperature range

IIC	-20 °C ≤ T _{amb} ≤ +55 °C
IIB / IIIC	-55 °C ≤ T _{amb} ≤ +55 °C
IIB	-50 °C ≤ T _{amb} ≤ +55 °C (only safety switch for inverter drives)

Temperature class and surface temperature

Cross-section	Rated current	Temperature class at T _{amb}		
		+40 °C	+50 °C	+55 °C
16 mm ²	≤ 63 A	T6	T6	T6
	≤ 80 A	T6	T5	---
25 mm ²	≤ 80 A	T6	T6	T6
35 mm ²	≤ 80 A	T6	T6	T6

16 **Report Number**

BVS PP 15.2217 EU, 2020-04-20

17 **Special Conditions for Use**

- The gap lengths of the flameproof gaps of the switching base are partly longer and the gap widths of the flameproof gaps are partly smaller than required in Table 2 and 3 of EN 60079-1:2014. Information on the dimensions can be obtained from the manufacturer.
- When combined with circuits of ignition protection type "i" - intrinsic safety, the clearances and creepage distances between intrinsically safe and non-intrinsically safe circuits in accordance with EN 60079-11:2012 must be maintained.
- The used enclosure made from the material SMC 0190 RAL 7035 is only permitted to use in Zone 1 and has to carry the following warning "WARNING – CLEAN ONLY WITH DAMP CLOTH".

18 **Essential Health and Safety Requirements**

The Essential Health and Safety Requirements are covered by the standards listed under item 9.

19 **Drawings and Documents**

Drawings and documents are listed in the confidential report.

We confirm the correctness of the translation from the German original.
In the case of arbitration only the German wording shall be valid and binding.

DEKRA Testing and Certification GmbH
Bochum, 2020-04-20
BVS-Pz A20200190



Managing Director