# Physikalisch-Technische Bundesanstalt

**Braunschweig und Berlin**

(1) # EC-TYPE-EXAMINATION CERTIFICATE

**(Translation)**

(2) Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres - **Directive 94/9/EC**

(3) EC-type-examination Certificate Number:

**PTB 04 ATEX 3019 X**

(4) Equipment: Explosion-protected safety and isolating transformer

(5) Manufacturer: Cooper Crouse-Hinds GmbH

(6) Address: Neuer Weg Nord 49, 69412 Eberbach, Germany

(7) This equipment and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.

(8) The Physikalisch-Technische Bundesanstalt, notified body No. 0102 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems 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 PTB Ex 04-34054.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

**EN 50014:1997 + A1 + A2** **EN 50019:2000** **EN 60079-7:2003**

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

(11) This EC-type-examination Certificate relates only to the design, examination and tests of the specified equipment in accordance to the Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate.

(12) The marking of the equipment shall include the following:

**II 2 G EEx e II T1, T2, T3 or T4**

Zertifizierungsstelle Explosionsschutz Braunschweig, May 28, 2004

By order:

Dr.-Ing. F. Liehesch
Oberregierungsrat

PHYSIKALISCH-TECHNISCHE BUNDESANSTALT

(13) # SCHEDULE

(14) ## EC-TYPE-EXAMINATION CERTIFICATE PTB 04 ATEX 3019 X

(15) Description of equipment

Safety and isolating transformer of type series GHG 410 9507 P . . . . of the type of protection Increased Safety "e", whose mechanical construction has been specified in the test report according to clause 16 below and whose electrical design has been specified in an associated data sheet, each according the manufacturer´s application.

(16) Report PTB Ex 04-34054

(17) Special conditions for safe use

The transformer may only be mounted in an enclosure certified for use in the potentially explosive area and designed for the corresponding temperature class and IP 54 degree of protection as a minimum. The enclosure dimensions shall as a minimum comply with the specifications provided by the manufacturer. The primary-end fusing may be provided in the form of fusible links that are selected to comply with the transformer ratings. Secondary transformer fusing (e.g. automatic circuit breakers of characteristic 'K') shall be provided such that at 1.5 times the current rating the transformer will trip within 2 minutes. The installation instructions included in the manufacturer's operating manual shall be complied with.

(18) Essential health and safety requirements

Met by compliance with the standards mentioned above.

Zertifizierungsstelle Explosionsschutz
By order:

Dr.-Ing. F. Lienesch
Oberregierungsrat

PHYSIKALISCH-TECHNISCHE BUNDESANSTALT

Braunschweig, May 28, 2004

# Physikalisch-Technische Bundesanstalt

**Braunschweig und Berlin**

## DATA SHEET 01 TO EC-TYPE-EXAMINATION CERTIFICATE PTB 04 ATEX 3019 X

**Manufacturer: Cooper Crouse-Hinds GmbH, 69412 Eberbach, Germany**

for the safety and isolation transformer of explosion-protected design
Type GHG 410 9507 P . 100VA . .

Ratings

This certificate is valid for the following designs providing the motors of this type differ only negligibly from the sample tested as regards the electrical and thermal stresses:

| | | | | |
|---|---|---|---|---|
| Power: | | 100 | | VA |
| Voltage, primary: | 110 | | 690 | V |
| Voltage, secondary: | 12 | | 240 | V |
| Current, secondary: | 8.33 | | 0.42 | A |
| Frequency: | | 50 - 60 | | Hz |
| Short-circuit voltage: | | 4.2 | | % |
| Duty Type: | | S1 | | |
| Thermal class: | | E | | |

In addition to the above-mentioned voltages, intermediate values are also permissible. The associated currents are to be converted in the inverse ratio to the voltages.

The mains voltage may vary by up to ± 10 % from the rated values.

Report PTB Ex 04-34173

Zertifizierungsstelle Explosionsschutz
By order

Dr.-Ing. F. Lienesch
Oberregierungsrat

Braunschweig, May 28, 2004

# Physikalisch-Technische Bundesanstalt

**Braunschweig und Berlin**

## DATA SHEET 02 TO EC-TYPE-EXAMINATION CERTIFICATE PTB 04 ATEX 3019 X

**Manufacturer: Cooper Crouse-Hinds GmbH, 69412 Eberbach, Germany**

for the safety and isolation transformer of explosion-protected design
Type GHG 410 9507 P . 200VA . .

Ratings

This certificate is valid for the following designs providing the motors of this type differ only negligibly from the sample tested as regards the electrical and thermal stresses:

| | | | |
|---|---|---|---|
| Power: | 200 | | VA |
| Voltage, primary: | 110 | 690 | V |
| Voltage, secondary: | 12 | 240 | V |
| Current, secondary: | 16.67 | 0.84 | A |
| Frequency: | 50 - 60 | | Hz |
| Short-circuit voltage: | 4.2 | | % |
| Duty Type: | S1 | | |
| Thermal class: | E | | |

In addition to the above-mentioned voltages, intermediate values are also permissible. The associated currents are to be converted in the inverse ratio to the voltages.

The mains voltage may vary by up to ± 10 % from the rated values.

Report PTB Ex 04-34173

Zertifizierungsstelle Explosionsschutz
By order

Dr.-Ing. F. Lienesch
Oberregierungsrat

Braunschweig, May 28, 2004

# Physikalisch-Technische Bundesanstalt

**Braunschweig und Berlin**

## DATA SHEET 03 TO EC-TYPE-EXAMINATION CERTIFICATE PTB 04 ATEX 3019 X

**Manufacturer: Cooper Crouse-Hinds GmbH, 69412 Eberbach, Germany**

for the safety and isolation transformer of explosion-protected design
Type GHG 410 9507 P . 400VA . .

Ratings

This certificate is valid for the following designs providing the motors of this type differ only negligibly from the sample tested as regards the electrical and thermal stresses:

| | | | | |
|---|---|---|---|---|
| Power: | | 400 | | VA |
| Voltage, primary: | 110 | | 690 | V |
| Voltage, secondary: | 12 | | 240 | V |
| Current, secondary: | 33.3 | | 1.67 | A |
| Frequency: | | 50 - 60 | | Hz |
| Short-circuit voltage: | | 5.1 | | % |
| Duty Type: | | S1 | | |
| Thermal class: | | E | | |

In addition to the above-mentioned voltages, intermediate values are also permissible. The associated currents are to be converted in the inverse ratio to the voltages.

The mains voltage may vary by up to ± 10 % from the rated values.

Report PTB Ex 04-34173

Zertifizierungsstelle Explosionsschutz
By order

Dr.-Ing. F. Lienesch
Oberregierungsrat

Braunschweig, May 28, 2004

# Physikalisch-Technische Bundesanstalt

**Braunschweig und Berlin**

## DATA SHEET 04 TO EC-TYPE-EXAMINATION CERTIFICATE PTB 04 ATEX 3019 X

**Manufacturer: Cooper Crouse-Hinds GmbH, 69412 Eberbach, Germany**

for the safety and isolation transformer of explosion-protected design
Type GHG 410 9507 P . 550VA . .

Ratings

This certificate is valid for the following designs providing the motors of this type differ only negligibly from the sample tested as regards the electrical and thermal stresses:

| | | | | |
|---|---|---|---|---|
| Power: | | 550 | | VA |
| Voltage, primary: | 110 | | 690 | V |
| Voltage, secondary: | 12 | | 240 | V |
| Current, secondary: | 45.8 | | 2.29 | A |
| Frequency: | | 50 - 60 | | Hz |
| Short-circuit voltage: | | 3.1 | | % |
| Duty Type: | | S1 | | |
| Thermal class: | | E | | |

In addition to the above-mentioned voltages, intermediate values are also permissible. The associated currents are to be converted in the inverse ratio to the voltages.

The mains voltage may vary by up to ± 10 % from the rated values.

Report PTB Ex 04-34173

Zertifizierungsstelle Explosionsschutz
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Braunschweig, May 28, 2004

# Physikalisch-Technische Bundesanstalt

**Braunschweig und Berlin**

## DATA SHEET 05 TO EC-TYPE-EXAMINATION CERTIFICATE PTB 04 ATEX 3019 X

**Manufacturer: Cooper Crouse-Hinds GmbH, 69412 Eberbach, Germany**

for the safety and isolation transformer of explosion-protected design
Type GHG 410 9507 P . 1200VA . .

Ratings

This certificate is valid for the following designs providing the motors of this type differ only negligibly from the sample tested as regards the electrical and thermal stresses:

| | | | | |
|---|---|---|---|---|
| Power: | | 1200 | | VA |
| Voltage, primary: | 110 | | 690 | V |
| Voltage, secondary: | 12 | | 240 | V |
| Current, secondary: | 100 | | 5 | A |
| Frequency: | | 50 - 60 | | Hz |
| Short-circuit voltage: | | 2.3 | | % |
| Duty Type: | | S1 | | |
| Thermal class: | | E | | |

In addition to the above-mentioned voltages, intermediate values are also permissible. The associated currents are to be converted in the inverse ratio to the voltages.

The mains voltage may vary by up to ± 10 % from the rated values.

Report PTB Ex 04-34173

Zertifizierungsstelle Explosionsschutz
By order

Dr.-Ing. F. Lienesch
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Braunschweig, May 28, 2004