

# TYPE EXAMINATION CERTIFICATE



[1]

[2]

**Component intended for use on/in an Equipment or Protective System  
Potentially Explosive Atmospheres  
Directive 2014/34/EU**

[3]

Type Examination Certificate Number: **DEMKO 19 ATEX 2201U Rev. 0**

[4]

Component: **EC Component Fan, Model OA60EC-UR-1WBIP68A**

[5]

Manufacturer: **Knight Electronics Inc.**

[6]

Address: **10557 Metric Dr., Dallas, TX 75243 USA**

[7]

This Component and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

[8]

UL International Demko A/S 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 Directive 2014/34/EU of 26 February 2014.

The examination and test results are recorded in confidential report number: **4788919612.2.1**

[9]

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

**EN 60079-0:2012+A11:2013**

**EN 60079-15:2010**

except in respect of those requirements listed at item 18 of the Schedule.

[10]

The sign "U" is placed after the certificate number. It indicates that this certificate must not be mistaken for a certificate intended for an equipment or protective system. This partial certification may be used as a basis for certification of an equipment or protective system.

[11]

This Type Examination Certificate relates only to the design of the specified component, and not to specific items of component subsequently manufactured.

[12]

The marking of the component shall include the following:

**II 3 G Ex nA IIC Gc**

## Certification Manager

Jan-Erik Storgaard

This is to certify that the sample(s) of the Component described herein ("Certified Component") has been investigated and found in compliance with the Standard(s) indicated on this Certificate, in accordance with the ATEX Product Certification Program Requirements. This certificate and test results obtained apply only to the component sample(s) submitted by the Manufacturer. UL did not select the sample(s) or determine whether the sample(s) provided were representative of other manufactured product. UL has not established Follow-Up Service or other surveillance of the component. The Manufacturer are solely and fully responsible for conformity of all product to all applicable Standards, specifications, requirements or Directives. The test results may not be used, in whole or in part, in any other document without UL's prior written approval.

**Date of issue:** 2019-04-12



## Certification Body

UL International Demko A/S, Borupvang 5A, 2750 Ballerup, Denmark  
Tel. +45 44 85 65 65, [info.dk@ul.com](mailto:info.dk@ul.com), [www.ul.com](http://www.ul.com)

[13]

[14]

**Schedule**  
**TYPE EXAMINATION CERTIFICATE No.**  
**DEMKO 19 ATEX 2201U Rev. 0**

[15]

Description of Component:

Model OA60EC-UR-1WBIP68A is open type EC fan, brushless type, single-phase, electronically protected motor, ambient temperature range of -20°C to +60°C, intended for use in Zone 2 Group IIC Hazardous Locations. This device is with plastic frame and fan blades, intended for installation into an end-user supplied enclosure that utilizes a tool removable door or cover.

Compliance with Design of fans working in potentially explosive atmospheres, EN 14986:2017, has not been verified for the component as part of this certificate.

Temperature range:

The ambient temperature range is -20°C to +60°C.

Electrical data

115-230 V ac, 50/60 Hz, 0.041 A, 2.4 W.

Routine tests:

Routine tests are not required.

[16]

Descriptive Documents

The scheduled drawings are listed in the report no. provided under item no. [ 8 ] on page 1 of this Type Examination Certificate.

[17]

Schedule of Limitations:

- The devices shall be installed in an enclosure that provides a degree of protection not less than IP 54 in accordance with EN 60079-15, or the device must be evaluated as part of end-product evaluation.
- The devices shall only be used in an area of not more than pollution degree 2, as defined in EN 60664-1.
- Transient protection shall be provided that is set at a level not exceeding 140% of the peak rated voltage value at the supply terminal to the devices.
- The devices are for use in -20°C to 60°C. During temperature test, the highest measured temperature within device was 84°C at 60°C ambient temperature.


[18]

Essential Health and Safety Requirements

The Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9.

Additional information



The trademark  will be used as the company identifier on the marking label.

# TYPE EXAMINATION CERTIFICATE



[1]

[2]

**Component intended for use on/in an Equipment or Protective System  
Potentially Explosive Atmospheres  
Directive 2014/34/EU**

[3]

Type Examination Certificate Number: **DEMKO 19 ATEX 2202U Rev. 0**

[4]

Component: **EC Component Fan, Models OA109EC-UR-1TBIP68A and OA109EC-UR-1WBIP68A**

[5]

Manufacturer: **Knight Electronics Inc.**

[6]

Address: **10557 Metric Dr., Dallas, TX 75243 USA**

[7]

This Component and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

[8]

UL International Demko A/S 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 Directive 2014/34/EU of 26 February 2014.

The examination and test results are recorded in confidential report number: **4788919612.3.1**

[9]

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

**EN 60079-0:2012+A11:2013**

**EN 60079-15:2010**

except in respect of those requirements listed at item 18 of the Schedule.

[10]

The sign "U" is placed after the certificate number. It indicates that this certificate must not be mistaken for a certificate intended for an equipment or protective system. This partial certification may be used as a basis for certification of an equipment or protective system.

[11]

This Type Examination Certificate relates only to the design of the specified component, and not to specific items of component subsequently manufactured.

[12]

The marking of the component shall include the following:

 **II 3 G Ex nA IIC Gc**

## Certification Manager

Jan-Erik Storgaard

This is to certify that the sample(s) of the Component described herein ("Certified Component") has been investigated and found in compliance with the Standard(s) indicated on this Certificate, in accordance with the ATEX Product Certification Program Requirements. This certificate and test results obtained apply only to the component sample(s) submitted by the Manufacturer. UL did not select the sample(s) or determine whether the sample(s) provided were representative of other manufactured product. UL has not established Follow-Up Service or other surveillance of the component. The Manufacturer are solely and fully responsible for conformity of all product to all applicable Standards, specifications, requirements or Directives. The test results may not be used, in whole or in part, in any other document without UL's prior written approval.

**Date of issue:** 2019-04-12

## Certification Body

UL International Demko A/S, Borupvang 5A, 2750 Ballerup, Denmark  
Tel. +45 44 85 65 65, [info.dk@ul.com](mailto:info.dk@ul.com), [www.ul.com](http://www.ul.com)



[13]

[14]

**Schedule**  
**TYPE EXAMINATION CERTIFICATE No.**  
**DEMKO 19 ATEX 2202U Rev. 0**

[15]

Description of Component:

Models OA109EC-UR-1TBIP68A and OA109EC-UR-1WBIP68A are EC component fan. The devices are open type, low power EC component fans with brushless, single-phase electronically protected motor and intended for use in industrial application. All motor coil and PCB are completely encapsulated in potting compound and the device is intended for installation into an end-user supplied enclosure that utilizes a tool-accessible door or cover.

Compliance with Design of fans working in potentially explosive atmospheres, EN 14986:2017, has not been verified for the component as part of this certificate.

Temperature range:

The ambient temperature range is -20°C to +70°C.

Electrical data

115-230 VAC, 50/60 Hz, 0.08A, 5.2 W

Routine tests:

Routine tests are not required.

[16]

Descriptive Documents

The scheduled drawings are listed in the report no. provided under item no. [ 8 ] on page 1 of this Type Examination Certificate.

[17]

Schedule of Limitations:

- The devices shall be installed in an enclosure that provides a degree of protection not less than IP 54 in accordance with EN 60079-15 or the device must be evaluated as part of end-product evaluation.
- The devices shall only be used in an area of not more than pollution degree 2, as defined in EN 60664-1.
- Transient protection shall be provided that is set at a level not exceeding 140% of the peak rated voltage value at the supply terminal to the devices.
- The devices are for use in -20°C to 70°C ambient temperature. During temperature test, the highest measured temperature within device was 86.7°C at 70°C ambient temperature


[18]

Essential Health and Safety Requirements

The Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9.

Additional information



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# TYPE EXAMINATION CERTIFICATE



[1]

[2]

**Component intended for use on/in an Equipment or Protective System  
Potentially Explosive Atmospheres  
Directive 2014/34/EU**

[3]

Type Examination Certificate Number: **DEMKO 19 ATEX 2199U Rev. 0**

[4]

Component: **EC Component Fan, Models OA172EC-22-1TBIP68A, OA172EC-22-1WBIP68A, OA172EC-11-1TBIP68A, OA172EC-11-1WBIP68A**

[5]

Manufacturer: **Knight Electronics Inc.**

[6]

Address: **10557 Metric Dr., Dallas, TX 75243 USA**

[7]

This Component and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

[8]

UL International Demko A/S 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 Directive 2014/34/EU of 26 February 2014.

The examination and test results are recorded in confidential report number: **4788919612.1.1**

[9]

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

**EN 60079-0:2012+A11:2013**

**EN 60079-15:2010**

except in respect of those requirements listed at item 18 of the Schedule.

[10]

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[11]

This Type Examination Certificate relates only to the design of the specified component, and not to specific items of component subsequently manufactured.

[12]

The marking of the component shall include the following:

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## Certification Manager

Jan-Erik Storgaard

This is to certify that the sample(s) of the Component described herein ("Certified Component") has been investigated and found in compliance with the Standard(s) indicated on this Certificate, in accordance with the ATEX Product Certification Program Requirements. This certificate and test results obtained apply only to the component sample(s) submitted by the Manufacturer. UL did not select the sample(s) or determine whether the sample(s) provided were representative of other manufactured product. UL has not established Follow-Up Service or other surveillance of the component. The Manufacturer are solely and fully responsible for conformity of all product to all applicable Standards, specifications, requirements or Directives. The test results may not be used, in whole or in part, in any other document without UL's prior written approval.

**Date of issue: 2019-04-05**

## Certification Body

UL International Demko A/S, Borupvang 5A, 2750 Ballerup, Denmark  
Tel. +45 44 85 65 65, [info.dk@ul.com](mailto:info.dk@ul.com), [www.ul.com](http://www.ul.com)



[13]

## Schedule

[14]

# TYPE EXAMINATION CERTIFICATE No. DEMKO 19 ATEX 2199U Rev. 0

[15]

### Description of Component:

Models OA172EC-22-1TBIP68A, OA172EC-22-1WBIP68A and OA172EC-11-1TBIP68A, OA172EC-11-1WBIP68A are open type AC fan, brushless type, single-phase, electronically protected motor, ambient temperature range of -20°C to +70°C, intended for use in Category 3, Group IIC Hazardous Locations. These devices are with ADC12 aluminum alloy frame and plastic fan blades. The devices are intended for installation into an end-user supplied enclosure that utilizes a tool removable door or cover.

Models OA172EC-22-1TBIP68A, OA172EC-22-1WBIP68A and OA172EC-11-1TBIP68A, OA172EC-11-1WBIP68A are identical except input voltage, input current and PWM of U3.

### Temperature range:

The ambient temperature range is -20°C to +70°C.

### Electrical data

OA172EC-22-1TBIP68A, OA172EC-22-1WBIP68A – 230 Vac, 50/60 Hz, 0.14 A, 15 W  
OA172EC-11-1TBIP68A, OA172EC-11-1WBIP68A – 115 Vac, 50/60 Hz, 0.23 A, 15 W

### Routine tests:

Routine tests are not required.

[16]

### Descriptive Documents

The scheduled drawings are listed in the report no. provided under item no. [ 8 ] on page 1 of this Type Examination Certificate.

[17]

### Schedule of Limitations:

- The devices shall be installed in an enclosure that provides a degree of protection not less than IP 54 in accordance with EN 60079-15, or the device must be evaluated as part of end-product evaluation.
- The devices shall only be used in an area of not more than pollution degree 2, as defined in EN 60664-1.
- Transient protection shall be provided that is set at a level not exceeding 140% of the peak rated voltage value at the supply terminal to the devices.
- The devices are for use in -20°C to 70°C. During temperature test, the highest measured temperature within device was 85.1°C at 70°C ambient temperature.

[18]

### Essential Health and Safety Requirements

The Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9.

### Additional information



The trademark

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