



## EC-TYPE EXAMINATION CERTIFICATE

Equipment or Protective System Intended for use  
in Potentially Explosive Atmospheres  
Directive 94/9/EC

EC-Type Examination Certificate Number : **BAS01ATEX2270**

Equipment or Protective System: **UNIVERSAL GEARBOX**

Manufacturer: **CHALMIT LIGHTING**

Address: **Glasgow, G52 4BL**

This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

The Electrical Equipment Certification Service, notified body number 600 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system 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 confidential Report N°

**01(C)0341 dated 15 April 2002**

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


EN 50014: 1997 + Amds 1 & 2    EN 50018: 2000    EN 50019: 2000  
EN 50028: 1987 + Amd 1    EN 50281-1-1: 1998

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

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

This EC-TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified equipment or protective system. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment or protective system.

The marking of the equipment or protective system shall include the following:-

 **II 2 GD T**(see schedule) **EEx edm IIC T**(see schedule) **T<sub>amb</sub>** (see schedule)

This certificate may only be reproduced in its entirety and without any change, schedule included.


File No: EECS 0068/03/045

This certificate is granted subject to the general conditions of the Electrical Equipment Certification Service. It does not necessarily indicate that the apparatus may be used in particular industries or circumstances.



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 **I M CLEARE**  
DIRECTOR  
22 April 2002



13 Schedule

14 EC-TYPE EXAMINATION CERTIFICATE N° BAS01ATEX2270

15 Description of Equipment or Protective System

The Chalmit Universal Control Gearbox comprises of a 1.5mm thick stainless steel enclosure with overall dimensions 410mm x 170mm x 154mm. The hinged lid is secured to the enclosure by three M5 screws into 'nutserts' located in an external flange running the entire length of the enclosure. Adequate sealing of at least IP66 is ensured by a 5mm thick silicone sponge gasket adhered to the lid, compressed by at least 2mm by a lip on the body of the enclosure.

An external welded stainless steel earth stud is provided, fitted with locking and anti-rotation washers. Internal earthing is via an EEx e component approved terminal electrically in contact with the steel enclosure.

The following components may be contained within the enclosure:

#### Ballast/Transformer

Manufactured by Venture with winding wires to EN60317-8 grade 2, 200°C, vacuum impregnated with unsaturated solventless polyester (class H, CTI 600V). The ballasts have a minimum  $T_w$  of 140°C. The bobbin material is glass filled nylon with a minimum COT of 180°C.

The ballasts can be single or multi-tapped and are all fitted with non self-resetting Thermik P1 thermal cut-outs. The ballasts comply with EN 60922 and are fitted with EEx e approved terminals.

#### Capacitors (optional)

Capacitors are contained within a 5mm thick tubular aluminium enclosure 124mm long, 64mm diameter. The enclosure is completed by an end cap screwed into an internal thread on the enclosure with wires passing through a component approved line bush covered by PTB97ATEX1047U. The enclosed capacitor is assessed against the requirements of EN 50018.

If the optional capacitors are not used the marking becomes:

⊕ II 2GD T (see schedule) EEx em II T (see schedule)  $T_{amb}$  (see schedule)

#### Terminals

EEx e component approved terminals are used, either WAGO terminals covered by PTB Ex-97D3116U or Weidmuller MK6 covered by BAS Ex813095U.

#### Fuse (optional)

The glass cartridge fuse is encapsulated using Araldite inside an open-topped nylon potting box.

If the optional fuse is not fitted the marking becomes:

⊕ II 2GD T (see schedule) EEx ed IIC T (see schedule)  $T_{amb}$  -20°C to 40°C



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## Schedule

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## EC-TYPE EXAMINATION CERTIFICATE N° BAS01ATEX2270

The following ratings apply to different models in the range:

Model		Ambient -40°C to °C (*)	T Class	Dust T rating (°C)
Ballast	150W	45	T4	110
		55	T3	120
	250W	45	T4	110
		55	T3	120
	400W	55	T4	120
	600W	45	T4	115
		55	T3	125
	Transformer	500VA	35	T4
55			T3	115
1000VA		35	T4	105
		55	T3	115

(\*) Ambient range reduced to -20°C to 40°C if optional encapsulated fuse is fitted.

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## Special Conditions For Safe Use

None.

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## Essential Health and Safety Requirements

All requirements are covered by compliance with harmonised standards EN 50014: 1997 + Amds 1 & 2, EN 50018: 2000, EN 50019: 2000 and EN 50281-1-1: 1998 as well as non-harmonised standard EN 50028: 1987 + Amd 1.

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## DRAWINGS

Number	Sheet	Date	Description
D1998	1	20-3-01	General arrangement
D1998	2	20-3-01	Component details
D1998	3	20-3-01	Certification notes

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BASEEFA List Keywords  
2ENCLOSU



## *Flameproof Certification Release From Pressure Testing*

Release from individual pressure test is granted to:-

CHALMIT LIGHTING  
388 Hillington Road  
Glasgow  
G52 4BL

I hereby grant release from the obligation to apply individual mechanical pressure tests to all apparatus covered by EC-Type Examination Certificate BAS01ATEX2270 and Supplementary Certificates thereto.

Only the following is included in this release.

The flameproof capacitor housing.

The release is conditional upon the maintenance of adequate quality control and inspection during production, to ensure compliance with any specified or implied conditions of certification.

The release is valid until 21 April 2005 unless earlier revoked or suspended.

File No: EECS 0068/03/045



IM CLEARE  
DIRECTOR EECS  
22 April 2002



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Re-issued 8 May 2002 to remove Special Conditions for Safe Use



1 **SUPPLEMENTARY EC - TYPE EXAMINATION CERTIFICATE**

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres**  
**Directive 94/9/EC**

3 Supplementary EC - Type **BAS01ATEX2270/1**  
Examination Certificate Number:

4 Equipment or Protective System: **Universal Gearbox**

5 Manufacturer: **CHALMIT LIGHTING**

6 Address: **Glasgow, G52 4BL**

7 This supplementary certificate extends EC – Type Examination Certificate No. **BAS01ATEX2270** to apply to equipment or protective systems designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

This supplementary certificate shall be held with the original certificate.

The original certificate was issued by The Electrical Equipment Certification Service, Notified Body Number 0600, which retains responsibility for its original documentation. Baseefa (2001) Ltd., Notified Body Number 1180, is responsible only for the additional work relating to this supplementary certificate and any other supplementary certificate it has issued.

This certificate may only be reproduced in its entirety, without any change, schedule included.

Baseefa (2001) Ltd. Customer Reference No. **0068**

Project File No. **03/0292**

This certificate is granted subject to the general terms and conditions of Baseefa (2001) Ltd. It does not necessarily indicate that the equipment may be used in particular industries or circumstances.

**Baseefa (2001) Ltd.**

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PP

R S SINCLAIR  
DIRECTOR  
On behalf of  
Baseefa (2001) Ltd.



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## Schedule

### 8 Description of the variation to the Equipment or Protective System

#### Variation 1.1

Alternative arrangement of the capacitor enclosure cover fitted with either a threaded line bushing to PTB97ATEX1047U or with potted cables.

### 9 Report Number

None

### 10 Special Conditions for Safe Use

None

### 11 Essential Health and Safety Requirements

Compliance with the Essential Health and Safety Requirements is not affected by this variation.

### 12 Drawings and Documents

Number	Sheet	Issue	Date	Description
D1998	1	1	04.04.03	General Arrangement
D1998	2	1	04.04.03	Component Details
D1998	3	1	04.04.03	Certification Notes
B1341	1	-	07.04.03	"B" Type Capacitor with Line Bushing
B1342	1	-	07.04.03	"B" Type Capacitor with Potted Cables



**1 SUPPLEMENTARY EC - TYPE EXAMINATION CERTIFICATE**

**2 Equipment or Protective System Intended for use in Potentially Explosive Atmospheres  
Directive 94/9/EC**

**3 Supplementary EC - Type Examination Certificate Number: BAS01ATEX2270/2**

**4 Equipment or Protective System: Universal Gearbox**

**5 Manufacturer: CHALMIT LIGHTING**

**6 Address: Glasgow, G52 4BL**

**7 This supplementary certificate extends EC – Type Examination Certificate No. BAS01ATEX2270 to apply to equipment or protective systems designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.**

This supplementary certificate shall be held with the original certificate.

The original certificate was issued by The Electrical Equipment Certification Service, Notified Body Number 0600, which retains responsibility for its original documentation. Baseefa (2001) Ltd., Notified Body Number 1180, is responsible only for the additional work relating to this supplementary certificate and any other supplementary certificate it has issued.

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Baseefa (2001) Ltd. Customer Reference No. 0068

Project File No. 04/0662

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## Schedule

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Certificate Number BAS01ATEX2270/2

15 **Description of the variation to the Equipment or Protective System**

### Variation 2.1

Alternative main terminals Type WDU6 to KEMA 98ATEX1683U for use up to a 550V three phase supply for looping purposes.

16 **Report Number**

None

17 **Special Conditions for Safe Use**

None

18 **Essential Health and Safety Requirements**

Compliance with the Essential Health and Safety Requirements is not affected by this variation.

19 **Drawings and Documents**

Number	Sheet	Issue	Date	Description
D1998	1	2	30.08.04	General Arrangement
D1998	2	2	30.08.04	Component Details
D1998	3	2	30.08.04	Certification Notes
D1998	4	2	30.08.04	Mains Terminal Options





1 **SUPPLEMENTARY EC - TYPE EXAMINATION CERTIFICATE**

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres  
Directive 94/9/EC**

- 3 Supplementary EC - Type Examination Certificate      **See Schedule**  
Number:
- 4 Equipment or protective system:                              **See Schedule**
- 5 Manufacturer:    **Chalmit Lighting**
- 6 Address:    **Glasgow, G52 4BL**

7 This supplementary certificate extends the EC - Type Examination Certificates listed in the Schedule to apply to equipment or protective systems designed and constructed in accordance with the specification set out in the Schedules of the said Certificates but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

A copy of this Supplementary Certificate shall be attached to each of the original Certificates.

This certificate may only be reproduced in its entirety, without any change, Schedule included.

Baseefa Customer Reference No. **0068**

Project File No. **06/0355**

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*M. J. M. J. M. J.*  
*PP* R S SINCLAIR

DIRECTOR  
On behalf of  
Baseefa (2001) Ltd.



### Schedule

#### Description of the variation to the Equipment or Protective System

To allow the use of ballasts and transformers manufactured by any alternative supplier meeting the original specifications.

Certificate No.	Supplement No.	Equipment Type
Baseefa04ATEX0155	4	Evolution II Luminaire
BAS01ATEX2270	3	Universal Gearbox
BAS98ATEX2372	5	Evolution (200 Series Mk III) Floodlight IIB
BAS98ATEX2373	5	Evolution (200 Series Mk III) Floodlight IIC

#### Report No.

None

#### Special Conditions for Safe Use

None

#### Essential Health and Safety Requirements

Compliance with the Essential Health and Safety Requirements is not affected by this variation.

#### Drawings and Documents

Number	Sheet	Issue	Date	Description
B1766	1 of 1	-	12/14/2005	Ballast and Transformer Manufacturing Detail