

IEC SYSTEM FOR MUTUAL RECOGNITION OF TEST CERTIFICATES FOR ELECTRICAL EQUIPMENT  
(IECEE) CB SCHEME**CB TEST CERTIFICATE**

Product

Electronic controlgear for LED module

Name and address of the applicant

Helvar Oy Ab  
Keilaranta 5  
FI-02150 Espoo  
Finland

Name and address of the manufacturer

Helvar Oy Ab  
Keilaranta 5  
FI-02150 Espoo  
Finland

Name and address of the factory

See page 3

*Note: When more than one factory, please report on page 2* Additional Information on page 2

Ratings and principal characteristics

See page 2

Trademark (if any)

HELVAR

Customer's Testing Facility (CTF) Stage used

-

Model / Type Ref.

LL1x150-CR-DA, LL1x150-CR Active+,  
LL1x110-CR-DA, LL1x110 Active+,  
LL1x110-CR Active+, LL1x80-CR-DA,  
LL1x80-CR Active+, LL1x23-80-CR-DA,  
LL1x23-80 Active+, LL1x80-DA-350-700,  
LL1x80-350-700 Active+, LL1x10-42 Active+  
LL1x10-42-CR-DA, LL1x10-42-CR Active+

Additional information (if necessary may also be reported on page 2)

This certificate replaces previous CB certificate no. FI-35914 A1, dated 02 May 2018. New alternative capacitor C2, new PCB layout and updated circuit diagram for model LL1x150-CR-DA. Name of the factory 3 has been updated.

A sample of the product was tested and found to be in conformity with

 Additional Information on page 2IEC 61347-2-13:2014  
IEC 61347-2-13:2014/AMD1:2016  
IEC 61347-1:2015

National Differences:

FI, EU Group Differences

As shown in the Test Report Ref. No. which forms part of this Certificate

289530-1A, 289530-1A Amendment-1

This CB Test Certificate is issued by the National Certification Body


SGS Fimko Ltd.  
Särkiniementie 3  
FI-00210 Helsinki, Finland

SGS

SGS Fimko Ltd.

Date: 2018-12-17

Signature:

  
 Joonas Leinonen  
 Special'st

**Ratings and principal characteristics**

LL1x150-CR-DA, LL1x150-CR Active+:

220-240 V; 0/50-60 Hz; Iout/Vout: 350 mA / 257...350 V or 700 mA / 128...214 V;  $\lambda$  0,98;  
U-OUT: 400 V; Prated: 150 W; ta: -25...+50 °C; tc: 80 °C

LL1x110-CR-DA, LL1x110-CR Active+:

220-240 V; 0/50-60 Hz; Iout/Vout: 350 mA / 120...314 V or 700 mA / 50...157 V;  $\lambda$  0,98;  
U-OUT: 400 V; Prated: 110 W; ta: -25...+50 °C; tc: 75 °C

LL1x80-CR-DA, LL1x80-CR Active+:

220-240 V; 0/50-60 Hz; Iout/Vout: 350 mA / 50...220 V or 700 mA / 35...114 V;  $\lambda$  0,98;  
U-OUT: 250 V; Prated: 80 W; ta: -20...+50 °C; tc: 75 °C

LL1x23-80-CR-DA, LL1x23-80 Active+:

220-240 V; 0/50-60 Hz; Iout/Vout: 150 mA / 150...350 V or 350 mA / 64...228 V; U-OUT 400 V;  
Prated 80 W;  $\lambda$  0.98; tc +75 °C; ta -25...+50 °C; EL-marked

LL1x80-DA-350-700, LL1x80-350-700 Active+:

220-240 V; 0/50-60 Hz; Iout/Vout: 350 mA / 71...228 V or 700 mA / 35...114 V; U-OUT 400 V;  
Prated 80 W;  $\lambda$  0.98; tc +75 °C; ta -20...+50 °C; EL-marked

LL1x10-42 Active+:

220-240 V; 0/50-60 Hz; Iout/Vout: 120 mA / 80...350 V or 350 mA / 50...120 V;  $\lambda$  0,98;  
U-OUT: 400 V; Prated: 42 W; ta: -20...+50 °C; tc: 75 °C

LL1x10-42-CR-DA, LL1x10-42-CR Active+:

220-240 V; 0/50-60 Hz; Iout/Vout: 120 mA / 80...220 V or 350 mA / 50...120 V;  $\lambda$  0,98;  
U-OUT: 250 V; Prated: 42 W; ta: -25...+50 °C; tc: 75 °C

LL1x110 Active+:

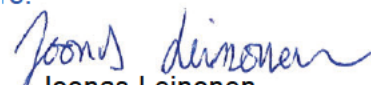
220-240 V; 0/50-60 Hz; Iout/Vout: 350 mA / 120...314 V or 700 mA / 50...157 V;  $\lambda$  0,98;  
U-OUT: 400 V; Prated: 110 W; ta: -20...+50 °C; tc: 75 °C

SGS Fimko Ltd.  
Särkiniementie 3  
FI-00210 Helsinki, Finland

**SGS**  
SGS Fimko Ltd.

Date: 2018-12-17

Signature:

  
Joonas Leinonen  
Specialist

## Name and address of the factories:

1. Helvar Oy Ab  
Yrittäjätie 23  
FI-03600 Karkkila  
Finland


SGS Fimko Ltd.  
Särkiniementie 3  
FI-00210 Helsinki, Finland



SGS Fimko Ltd.

Date: 2018-12-17

Signature



Joonas Linnonen  
Specialist