

## FI-35914/M1

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

## **CB TEST CERTIFICATE**

Product

Name and address of the applicant

Name and address of the manufacturer

Name and address of the factory

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

Ratings and principal characteristics

Trademark (if any)

Customer's Testing Facility (CTF) Stage used

Model / Type Ref.

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

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

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

Electronic controlgear for LED module

Helvar Oy Ab Keilaranta 5 FI-02150 Espoo

Finland

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□ Additional Information on page 2

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**HELVAR** 

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+

This certificate replaces previous CB certificate no. FI-35914 A1, dated 02 May 2018. New alternative capacitor C2, new PCB layout and

New alternative capacitor C2, new PCB layout and updated circuit diagram for model LL1x150-CR-DA. Name of the factory 3 has been updated.

SGS Fimko Ltd.

 $\boxtimes$  Additional Information on page 2

IEC 61347-2-13:2014 IEC 61347-2-13:2014/AMD1:2016 IEC 61347-1:2015

National Differences:

FI, EU Group Differences

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

Signature:

Joonas Leinonen

Date: 2018-12-17 Sig

Issued 2016-06-01





## Ratings and principal characteristics

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

220-240 V; 0/50-60 Hz; lout/Vout: 350 mA / 257...350 V or 700 mA /128...214 V; λ 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; lout/Vout: 350 mA / 120...314 V or 700 mA / 50...157 V; λ 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; lout/Vout: 350 mA / 50...220 V or 700 mA / 35...114 V; λ 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; lout/Vout: 150 mA / 150...350 V or 350 mA / 64...228 V; U-OUT 400 V;

Prated 80 W; λ 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; lout/Vout: 350 mA / 71...228 V or 700 mA / 35...114 V; U-OUT 400 V;

Prated 80 W; λ 0.98; tc +75 °C; ta -20...+50 °C; EL-marked

LL1x10-42 Active+:

220-240 V; 0/50-60 Hz; lout/Vout: 120 mA / 80...350 V or 350 mA / 50...120 V; λ 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; lout/Vout: 120 mA / 80...220 V or 350 mA / 50...120 V; λ 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; λ 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

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