出路指示牌

EMERGENCY EXIT SIGN

Galaxy 緊急出路 / 方向 指示牌 (LED) 暗裝吊牌 (GF-ES03-3)

Galaxy self-contained emergency LED Exit/ Directional sign plate (recess mount type)

特徵 Feature

一般模式 及 緊急模式 下的光度相同 Same Lumen output in both Normal and Emergency mode

Maintained type

充電指示, 故障指示 Charging indication, Fault indication

轉換時間小於1秒

Change over complete in less than 1 second

鎳鎘充電電池

Ni-Cd rechargeable battery

3 小時備用電池用於緊急照明

3 Hours battery backup for emergency operation

定期維護檢查 測試 按鈕

Provided with TEST button for regular maintenance check





產品規格 Specifications

項目 Item	GF-ES03-3
功率 Power	3.5 W
電源輸入 Main Supply	220V +/-10%, AC 50Hz
光源 Light Source	LED
燈具類型 Luminaires Type	Maintained Type
電池類型 Battery Type	4.8V 1.2Ah Sealed Ni-Cd/ Ni-MH Rechargeable Battery
應急時間 Emergency Duration	3 Hours
電池充電時間 Battery Recharge Duration	Less than 12 Hours
溫度範圍 Temperature Range	0-45 °c
防護等級 Waterproof Protection	IP20
機身尺寸 Recess Box Dimension	Cover L470*H90*W65mm / Body L415*H60*W55mm
膠牌尺寸 Acrylic Dimension	L400*H165*W8mm

- BS5266 Part1
 HK F. S. D Code of Practice (clause 5.10)
 BS5499 Part3
 HK F. S. D PPA/104(A) (4th Revision)
 850°c Non-flammability

CERTIFICATION

Galaxy 緊急照明燈 (LED) 暗裝式 Galaxy self-contained twin spot LED Luminaire (recess mount type)

型號: (GF-EL01-3)

消 防 處 牌照及審批總區

香港九龍尖沙咀東部康莊道 1 號 5 樓 消防總部大廈

本處檔號 Our Ref.: (168A) in FP(LC) 321/12 Pt.19 來函檔號 Your Ref.: G190012, G190013 & G190014

圖文傳真 Fax: 852-2723 2197 電 話 Tel. No.: 852-2733 7592

電子郵件 E-mail: lcpolic2@hkfsd.gov.hk

Galaxy Fire Services Co., Ltd. 20/F, THE BEDFORD 91-93 Bedford Road, Tai Kok Tsui, Kowloon Hong Kong

Dear Sir / Madam,



FIRE SERVICES DEPARTMENT LICENSING & CERTIFICATION COMMAND

FIRE SERVICES HEADQUARTERS BUILDING, 5/F, No. 1 Hong Chong Road, Tsim Sha Tsui East, Kowloon, Hong Kong

20 November 2019

Application for Acceptance of Exit Sign / Directional Sign

Please be informed that according to FSD Circular Letter No. 1/2007, Exit / directional sign plate (Model: GF-ES03-3, GF-ES02-3 & GF-ES01-3) are not on the list of "Fire Service Installations and Equipment Requiring FSD Approval" and therefore application for its prior acceptance by this Department is not required. Please refer to the following website for more information:-

http://www.hkfsd.gov.hk/home/eng/source/circular/2007_01.pdf

Should you have any enquiries, please feel free to contact the Policy Division of FSD at 2733 4083

Yours faithfully,

(CHEUNG Ngao-tin) for Director of Fire Services

CERTIFICATION

Galaxy 緊急出路 / 方向 指示牌 (LED) 暗裝吊牌 Galaxy self-contained emergency LED Exit/ Directional sign plate (recessed type)

型號: (GF-ES03-3)



DEPARTMENT OF BUILDING SERVICES ENGINEERING 문호한 불구 당룡 및

銀河消防服務有限公司 Galaxy Fire Services Co.,Ltd. 20/F, THE BEDFORD 91-93 Bedford Road,Tai Kok Tsui Kowloon Hong Kong

Our reference: MH-18-T014

Issue date: 4 October 2018

The self-contained emergency exit sign supplied by you was tested in our laboratory on 27 September 2018 and the results were presented as follows;

Description of luminaire: "Galaxy" self-contained emergency LED exit sign plate

(recessed type)

Complete set model: GF-ES03-3

Input: AC 220V +/-10% 50Hz

Battery: Sealed Ni-Cd / Ni-MH rechargeable battery pack

(4.8V 1.2Ah)

Full charge period / Duration: 12 hours / 3 hours

Lamp type: LED lamp

Test button and charging LED: Incorporated

Low voltage cut off: Incorporated

Power cables: No power cables extended outside the enclosure of the self-

contained emergency luminaire

MH-18-T014
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CERTIFICATION

Galaxy 緊急出路 / 方向 指示牌 (LED) 暗裝吊牌 Galaxy self-contained emergency LED Exit/ Directional sign plate (recessed type)

型號: (GF-ES03-3)



DEPARTMENT OF BUILDING SERVICES ENGINEERING

Test procedures;

- After 12 hours of charging at 220V 50 Hz AC supply, the emergency exit sign has attained 100% of its rated battery capacity.
- 2. The emergency exit sign was placed vertically on a desk and a luminance meter was placed at a distance of about 5 cm away pointing to the exit sign. Luminance measurement was carried out in a dark room so that light emitted by the emergency exit sign will not affect the measurement. (see figure below)



3. The test button on the exit sign was pressed so that the emergency exit sign was now powered by its own battery and the battery voltage and luminance was measured at 5 s, 1 min, 30 min and then at 30 min intervals until the rated duration. The total duration of emergency exit sign box was recorded.

The results are as follows;

1. Luminance of emergency exit sign (operated on battery supply)

Time (min)	Battery Volt (V)	Luminance (cd/m ²)
Normal		67
5 s	5.4	67
1	5.4	67
30	5.2	69
60	5.1	69
90	5	69
120	4.9	68
150	4.7	67
180	4.3	63

- The total discharge time is 182 minutes at which the batteries were disconnected by the incorporated low voltage cut out device.
- The emergency luminaire passed the resistance to flame and ignition as stipulated in BSEN 60598-2-22:2014 and the external parts passed the 850°C glow wire test detailed in IEC60695-2-10: 2013.

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DEPARTMENT OF BUILDING SERVICES ENGINEERING

Summary of compliance with PPA/104(A)(4th Revision)

Item	Test Requirement of PPA/104(A) (4th Revision)	Result- Remark	Verdict
B.3	Emergency lighting luminaires shall comply with the non-flammability (resistance to flame and ignition) provisions specified in BS EN 60598-2-22:2014 and external parts shall also be subjected to the 850°C glowing/hot wire test; any burning parts should self-extinguish within 30 seconds.		pass
B.4	All power cables extended outside the enclosure of a self-contained emergency lighting luminaire, other than the wiring connecting the luminaire to normal supply, shall conform to BS EN 60702-1:2002+A1:2015, BS EN 60702-2:2002+A1:2015 and BS 6207-3:2001 as appropriate or to BS 6387:2013 Cat. CWZ or other international standards acceptable to the Director of Fire Services.		pass
B.5	An automatic trickle charger with a 220-volt input and suitable output and fitted with pilot lights or other indicating device shall be provided for the batteries. The charger shall be capable or recharging the battery to 100% of the rated capacity in not more than 12 hours.		pass
B.6	The self-contained luminaires emergency lighting systems shall be capable of maintaining the stipulated lighting levels for a period of not less than one hour (rated duration).		pass
B.7	Upon failure of the main lighting system or in the event of power failure, the emergency lighting shall automatically light up to at least 90% of the stipulated illumination level within 5 seconds.		pass
B.8	Each unit shall be provided with a properly labeled 'TEST' switch and charge monitor light. A low voltage cut out shall also be provided to disconnect the batteries when fully discharged.		pass

Our measurement complied with relevant sections of BS 5266-1:2016. The test results complied with BS 5499-3:1990, BS5499-4:2013, FSD COP for Minimum Fire Service Installations (2012) Clause 5.10 on Exit and Directional Signs and Regulation PPA104(A) (4th Revision) of Fire Services Department specifications.

Dr Hilda Cheung Hiu Dan

Instructor

Department of Building Services Engineering

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