DNV·GL

Certificate No:
MEDB00003UY

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED). This Certificate is issued by DNV GL SE based on the notification of the Federal Maritime and Hydrographic Agency of Germany.

This is to certify:

That the Low-Location Lighting Systems

with type designation(s)
LED Strip 444A198 (2wire), 444A199 (3wire), 444A088 (3wire)

Issued to
HAPPICH GmbH
Wuppertal, Germany

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2018/773,**
item No. MED/3.40. SOLAS 74 as amended, Regulation II-2/13, FSS Code 11, IMO Res.A.752(18) and ISO 15370:2010

Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2021-02-10**.

Issued at **Hamburg** on **2018-08-08**

DNV GL local station:
Essen

Approval Engineer:
Heinz Scheffler

Notified Body
No.: **0098**

for **DNV GL SE**

Sven Dudszus
Head of Notified Body

The mark of conformity may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity issued when the production-surveillance module (D, E or F) of Annex B of the MED is fully complied with and controlled by a written inspection agreement with a Notified Body. The product liability rests with the manufacturer or his representative in accordance with Directive 2014/90/EU.
This certificate is valid for equipment, which is conform to the approved type. The manufacturer shall inform DNV GL SE of any changes to the approved equipment. This certificate remains valid unless suspended, withdrawn, recalled or cancelled.
Should the specified regulations or standards be amended during the validity of this certificate, the product is to be re-approved before being placed on board a vessel to which the amended regulations or standards apply.

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Product description

Type name: LED Strip 444A198 (2wire), 444A199 (3wire), 444A088 (3wire)

LED type as per drawing 473C0322-000

Further details as per Installation Manual 3L-Inst.manual_rev04 Dated 04.04.2018

Technical Data:
LED-Strip as per dwg. 473 C0326-000-00.2 (22V DC, green)
Degree of protection: IP 57

Optional power supply equipment 230V, 50/60Hz, output 22V DC:
3L-PSU 100W without back-up battery 444A002
3L-PSU 100W with back-up battery min. 1h 444A003
3L-PSU with back-up battery min. 1h 444A207
3L-PSU without back-up battery 444A208
3L-PSU (LID REMOVABLE) 444A230
SOIL PROFILE 444A232

Degree of protection: power units IP 55, LED stripes IP 67

Accessories: see document MTD LLL Happich issue 2.0

Optional LED Strip without decor foil
444A198 without decor ->444A191
444A199 without decor ->444A192
444A088 without decor ->444A203

LED Strips for Refitting/Spares (trade name)
444A200 (2 wire, 250mm distance)
444A201 (3 wire, 250mm distance)
444A086 (3 wire, 200mm distance)
444A087 (3 wire, 250mm distance)

Application/Limitation

Approved for use as Low-Location Lighting, escape route signs

Extent of arrangement and placing of the low location lighting units are to be in accordance with IMO Resolution A.752 (18) or ISO 15370 (2010) and is to be approved by the administration or competent authority in each case/project.

Each product is to be supplied with its manual for installation, maintenance and use.

Type Examination documentation

See Annex

Tests carried out

Tested according to ISO 15370:2010, IMO Res.MSC98(73) chapt.11

Marking of product

- According to Article 10 of the Council Directive (MED) and including information required by the LSA Code § 1.2.2.9 and § 1.2.3
- Manufacturer name
- Type identification
- Lot number

Annex

Hidden