

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:
MEDB00003UY
Revision No:
2

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

This is to certify:

That the Low-Location Lighting Systems (components only)

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

Issued to

Happich GmbH
Wuppertal, Nordrhein-Westfalen, Germany

is found to comply with the requirements in the following Regulations/Standards:

Regulation **(EU) 2020/1170,**

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

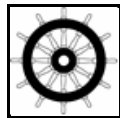
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2026-04-13**.

Issued at **Hamburg** on **2021-04-14**

DNV local station:
Essen

Approval Engineer:
Didier Girardin



Notified Body
No.: **0098**

for DNV SE

Christine Mydlak-Roeder
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 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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



Job Id: **344.1-007927-6**
Certificate No: **MEDB00003UY**
Revision No: **2**

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:

See MTD_LLL_HAPPICH_issue 4.0

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

Test reports:

TR 11143 rev. 1

16-0002 rev.1

DNVGL 9049 15 11681 157/1 dated 2016-02-03

Test-Report 2018012 dated 23.05.2018

Drawings: 473C0326-000-00.2

Installation Manual: 3L-Inst.manual_rev04_

LED type drawing. OSRAM Datasheet: LT TTSD.PDF

Document: MTD_LLL_HAPPICH_issue 4.0

Tests carried out

Tested according to

- IMO Res.A.752(18),
- ISO 15370:2010.

Marking of product

For identification to this type examination certificate the products shall be marked with:

- Manufacturer name
- Type designation with device type
- Serial Number
- Mark of Conformity (see footer on page 1)

End of Certificate

QS - CERTIFICATE OF ASSESSMENT - EC (MODULE D)

Certificate No:
MEDD00001FG
Revision No:
2

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

This is to certify:

That the Quality System for the products

with type designation(s) as specified in the Appendix to this Certificate

Issued to

Happich GmbH
Wuppertal, Nordrhein-Westfalen, Germany

is found to comply with the applicable requirements.

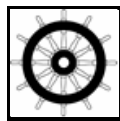
The quality system has been assessed with respect to the procedure of conformity assessment described in Annex II, Module D in the directive 2014/90/EU and regulation (EU) 2020/1170.

This Certificate is valid until **2026-04-13**.

Issued at **Hamburg** on **2021-04-14**

DNV local station:
Essen

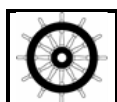
Approval Engineer:
Didier Girardin



Notified Body
No.: **0098**

for **DNV SE**

Christine Mydlak-Roeder
Head of Notified Body



0098/yyyy

0098: Notified Body number undertaking quality surveillance
yyyy: The year in which the mark is affixed

The product liability rests with the manufacturer or his representative in accordance with Directive 2014/90/EU.

This certificate authorizes the manufacturer in conjunction with the valid EC Type Examination (Module B) Certificate(s) of the equipment listed before to affix the Mark of Conformity (wheelmark) to the product described herein.

This certificate loses its validity if the manufacturer makes any changes to the approved quality system, which have not been notified to, and agreed with the notified body named on this certificate. This certificate remains valid unless suspended, withdrawn, recalled or cancelled.

The Manufacturer has to apply for periodical audits to verify the maintenance and application of the quality system every 12 months.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



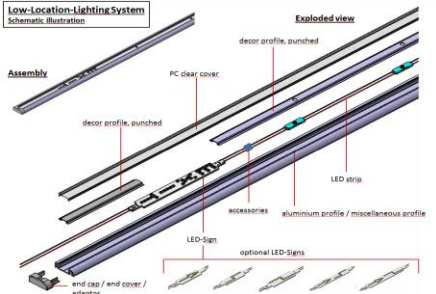
APPENDIX

Item no. MED/3.40 Low-Location Lighting Systems (components only)

Type designation	EC Type-Examination Certificate No.	Expiry date	Notified Body No.	USCG approval number
LED Strip 444A198 (2wire), 444A199 (3wire), 444A088 (3wire) ¹	MEDB00003UY Rev.2	2026-04-13	0098	N/A

Places of production

1.Happich GmbH, Lise-Meitner-Str. 14, Wuppertal, Germany



05

Pos.	NOMENCLATURE	HAPPICH	444A198	444A199	444A088	weight	size	functionalities	assembly	fixation	material	electrical connection	Prüfberichte	Materialdatenblatt	Zeichnung	191023 LED-Wachst mit 090208 Änderungen an LED.xlsx anwendbar
No.		Item number				kg	mm									
aluminum profile / miscellaneous profile																
1	ALU PROFIL AA 3110 SILBER	444A018	x	x	x	0,3	31x10	housing LED-strip and LED-Signs	system carrier	mounting not specified	aluminium	no	None	None	372C1158-000-00	
2	ALU PROFIL BA 3410	444A137	x	x	x	0,4	34x10	housing LED-strip and LED-Signs	system carrier	mounting not specified	aluminium	no	None	None	372C1159-000-00	
3	ALU PROFIL BB 3510 SILBER	444A076	x	x	x	0,3	37x10	housing LED-strip and LED-Signs	system carrier	mounting not specified	aluminium	no	None	None	372C1147-000-00	
4	ALU PROFIL CC 3810 SILBER	444A077	x	x	x	0,3	38x10	housing LED-strip and LED-Signs	system carrier	mounting not specified	aluminium	no	None	None	372C0928-000-00	
5	ALU PROFIL CC 3815,5	444A009	x	x	x	0,4	38,15,5	housing LED-strip and LED-Signs	system carrier	mounting not specified	aluminium	no	None	None	372C0612-000-00	
6	PROFIL BB 10 RAL 7028	444A110	x	x	x	0,3	28x10	housing LED-strip and LED-Signs	system carrier	mounting not specified	aluminium	no	None	None	A110 PROFIL.pdf	
7	PROFIL BB 10 MASTER RAL 7028	444A111	x	x	x	0,3	28x10	housing LED-strip and LED-Signs	system carrier	mounting not specified	aluminium	no	None	None	none	
8	PROFIL CC 15 RAL 7028	444A114	x	x	x	0,3	27,5x9	housing LED-strip and LED-Signs	system carrier	mounting not specified	aluminium	no	None	None	A114 PROFIL.pdf	
8	PROFIL AA 2915 SILBER	444A247	x	x	x	0,2	22x12	housing LED-strip and LED-Signs	system carrier	mounting not specified	aluminium	no	None	None	372C1165-000-00	
9	FLEX PROFILE (Bumby, S&L, PROFIL E)	444A232	x	NO	NO	0,2	28x10	housing LED-strip	system carrier	mounting not specified	silicone	no	None	None	445C0421-011-00	
121	FLEX PROFILE	444A252	x	NO	NO	0,14	15x10	housing LED-strip	system carrier	mounting not specified	silicone	no	None	None	445C0424-000-00	
122	FLEX PROFILE	444A254	x	NO	NO	0,13	20x8,5	housing LED-strip	system carrier	mounting not specified	silicone	no	None	None	445C0427-000-00	
LED-Sign																
10	ARROW SIGN	444A403	x	x	x	0,005	94,6x20	illuminate signposting	LED circuit board	place in, clamping	miscellaneous	yes	2018012-Happich - Test report - 2018-05-23-unterschieden.PDF 16081901_FAIR_Happich_sign_series	650024_DRW_Arrow_Sign (thin foil)_PCB_Documentation_Rev1_Finished.pdf	571C0367-000-00	X
11	ARROW SIGN	444A201	x	x	x	0,005	94,6x17,6	illuminate signposting	LED circuit board	place in, clamping	miscellaneous	yes	2018012-Happich - Test report - 2018-05-23-unterschieden.PDF 16081901_FAIR_Happich_sign_series	650023_DRW_Arrow_PCB_Documentation_Rev2C.pdf	571C0355-000-00	X
12	ARROW SIGN	444A401	x	x	x	0,005	94,6x20	illuminate signposting	LED circuit board	place in, clamping	miscellaneous	yes	2018012-Happich - Test report - 2018-05-23-unterschieden.PDF 16081901_FAIR_Happich_sign_series	650024_DRW_Arrow_Sign (thin foil)_PCB_Documentation_Rev1_Finished.pdf	571C0367-000-00	X
13	ARROW SIGN LED 22V	444A008	x	x	x	0,005	68x17,5	illuminate signposting	LED circuit board	place in, clamping	miscellaneous	yes	none	none	571C0367-000-00	
14	ARROW SIGN GREEN 22V WT PCB	444A103	x	x	x	0,005	68x17,5	illuminate signposting	LED circuit board	place in, clamping	miscellaneous	yes	none	none	571C0350-000-00	
15	ARROW SIGN GREEN 22V WT PCB	444A303	x	x	x	0,005	94,6x17,6	illuminate signposting	LED circuit board	place in, clamping	miscellaneous	yes	2018012-Happich - Test report - 2018-05-23-unterschieden.PDF 16081901_FAIR_Happich_sign_series	650023_DRW_Arrow_PCB_Documentation_Rev2C.pdf	571C0355-000-00	X
16	ARROW-STAR-COMBI SIGN DOWN - RIGHT	444A311	x	x	x	0,008	159,7x17,6	illuminate signposting	LED circuit board	place in, clamping	miscellaneous	yes	2018012-Happich - Test report - 2018-05-23-unterschieden.PDF 16081901_FAIR_Happich_sign_series	650031_DRW_Arrow_Star_Down_R_PCB_Documentation_Rev1.pdf	571C0360-000-00	X
17	ARROW-STAR-COMBI SIGN DOWN - RIGHT	444A411	x	x	x	0,007	159,7x20	illuminate signposting	LED circuit board	place in, clamping	miscellaneous	yes	2018012-Happich - Test report - 2018-05-23-unterschieden.PDF 16081901_FAIR_Happich_sign_series	650032_DRW_Arrow_Star_Down_R_Sign_PCB_Documentation_Rev1_Finished.pdf	571C0371-000-00	X
18	ARROW-STAR-COMBI SIGN DOWN - RIGHT	444A308	x	x	x	0,008	159,7x17,6	illuminate signposting	LED circuit board	place in, clamping	miscellaneous	yes	2018012-Happich - Test report - 2018-05-23-unterschieden.PDF 16081901_FAIR_Happich_sign_series	650031_DRW_Arrow_Star_Down_R_PCB_Documentation_Rev1.pdf	571C0360-000-00	X
19	ARROW-STAR-COMBI SIGN DOWN - RIGHT	444A408	x	x	x	0,007	159,7x20	illuminate signposting	LED circuit board	place in, clamping	miscellaneous	yes	2018012-Happich - Test report - 2018-05-23-unterschieden.PDF 16081901_FAIR_Happich_sign_series	650032_DRW_Arrow_Star_Down_R_Sign_PCB_Documentation_Rev1_Finished.pdf	571C0371-000-00	X
20	ARROW-STAR-COMBI SIGN UP - LEFT	444A405	x	x	x	0,007	159,7x20	illuminate signposting	LED circuit board	place in, clamping	miscellaneous	yes	2018012-Happich - Test report - 2018-05-23-unterschieden.PDF 16081901_FAIR_Happich_sign_series	650030_DRW_Arrow_Star_Up_L_Sign_PCB_Documentation_Rev1_Finished.pdf	571C0369-000-00	X
21	ARROW-STAR-COMBI SIGN UP - LEFT	444A406	x	x	x	0,007	159,7x20	illuminate signposting	LED circuit board	place in, clamping	miscellaneous	yes	2018012-Happich - Test report - 2018-05-23-unterschieden.PDF 16081901_FAIR_Happich_sign_series	650030_DRW_Arrow_Star_Up_L_Sign_PCB_Documentation_Rev1_Finished.pdf	571C0369-000-00	X
22	ARROW-STAR-COMBI SIGN UP - LEFT	444A306	x	x	x	0,008	159,7x17,6	illuminate signposting	LED circuit board	place in, clamping	miscellaneous	yes	2018012-Happich - Test report - 2018-05-23-unterschieden.PDF 16081901_FAIR_Happich_sign_series	650029_DRW_Arrow_Star_Up_L_PCB_Documentation_Rev_B.pdf	571C0359-000-00	X
23	ARROW-STAR-COMBI SIGN UP - LEFT	444A305	x	x	x	0,007	159,7x17,6	illuminate signposting	LED circuit board	place in, clamping	miscellaneous	yes	2018012-Happich - Test report - 2018-05-23-unterschieden.PDF 16081901_FAIR_Happich_sign_series	650029_DRW_Arrow_Star_Up_L_PCB_Documentation_Rev_B.pdf	571C0359-000-00	X
24	STAR SIGN DOWN - RIGHT	444A310	x	x	x	0,005	97,2x17,6	illuminate signposting	LED circuit board	place in, clamping	miscellaneous	yes	2018012-Happich - Test report - 2018-05-23-unterschieden.PDF 16081901_FAIR_Happich_sign_series	650027_DRW_Star_Down_R_PCB_Documentation_Rev_B.pdf	571C0357-000-00	X
25	STAR SIGN DOWN - RIGHT	444A410	x	x	x	0,005	97,2x20	illuminate signposting	LED circuit board	place in, clamping	miscellaneous	yes	2018012-Happich - Test report - 2018-05-23-unterschieden.PDF 16081901_FAIR_Happich_sign_series	650028_DRW_Star_Down_R_Sign_PCB_Documentation_Rev1_Finished.pdf	571C0370-000-00	X
26	STAR SIGN DOWN - RIGHT	444A307	x	x	x	0,005	97,2x17,6	illuminate signposting	LED circuit board	place in, clamping	miscellaneous	yes	2018012-Happich - Test report - 2018-05-23-unterschieden.PDF 16081901_FAIR_Happich_sign_series	650027_DRW_Star_Down_R_PCB_Documentation_Rev_B.pdf	571C0357-000-00	X
27	STAR SIGN DOWN - RIGHT	444A407	x	x	x	0,005	97,2x20	illuminate signposting	LED circuit board	place in, clamping	miscellaneous	yes	2018012-Happich - Test report - 2018-05-23-unterschieden.PDF 16081901_FAIR_Happich_sign_series	650028_DRW_Star_Down_R_Sign_PCB_Documentation_Rev1_Finished.pdf	571C0370-000-00	X
28	STAR SIGN LED 22V	444A004	x	x	x	0,003	68x17,5	illuminate signposting	LED circuit board	place in, clamping	miscellaneous	yes	none	none	571C0370-000-00	
29	STAR SIGN UP - LEFT	444A404	x	x	x	0,005	97,2x20	illuminate signposting	LED circuit board	place in, clamping	miscellaneous	yes	2018012-Happich - Test report - 2018-05-23-unterschieden.PDF 16081901_FAIR_Happich_sign_series	650026_DRW_Star_Up_L_Sign (t...umentation_Rev1_Finished.pdf	571C0368-000-00	X
30	STAR SIGN UP - LEFT	444A302	x	x	x	0,005	97,2x17,6	illuminate signposting	LED circuit board	place in, clamping	miscellaneous	yes	2018012-Happich - Test report - 2018-05-23-unterschieden.PDF 16081901_FAIR_Happich_sign_series	650025_DRW_Star_Up_L_PCB_Documentation_Rev_B.pdf	571C0356-000-00	X
31	STAR SIGN UP - LEFT	444A402	x	x	x	0,005	97,2x20	illuminate signposting	LED circuit board	place in, clamping	miscellaneous	yes	2018012-Happich - Test report - 2018-05-23-unterschieden.PDF 16081901_FAIR_Happich_sign_series	650026_DRW_Star_Up_L_Sign (t...umentation_Rev1_Finished.pdf	571C0368-000-00	X
32	STAR SIGN GREEN 22V BLACK PCB	444A107	x	x	x	0,003	68x17,5	illuminate signposting	LED circuit board	place in, clamping	miscellaneous	yes	none	none	571C0349-000-00	
33	STAR SIGN GREEN 22V WT PCB	444A104	x	x	x	0,003	68x17,5	illuminate signposting	LED circuit board	place in, clamping	miscellaneous	yes	none	none	571C0349-000-00	

34	STAR SIGN GREEN 22V/WT PCB	4444304	x	x	x	0,005	97,2x17,6	illuminate signposting	LED circuit board	place in, clamping	miscellaneous	yes	2018012-Happich - Test report - 2018-05-23-unterschieden.PDF	650025 DRW Star_Up_L_PCB_Documentation_Rev_B.pdf	571C0356-00-00	x		
35	NEW DIRECTION SIGN LED SIGN	4444105	x	x	x	0,005	68x17,5	illuminate signposting	LED circuit board	place in, clamping	miscellaneous	yes	16081901 FAIR Happich sign series	none	none	none	x	
36	HW ARROW SIGN LED 22V	4444152	x	x	x	0,005	50,8x17,5	illuminate signposting	LED circuit board	place in, clamping	miscellaneous	yes	none	none	none	none	x	
37	HW-DIREC SIGN GREEN 22V/WT PCB	4444097	x	x	x	0,005	50,8x17,5	illuminate signposting	LED circuit board	place in, clamping	miscellaneous	yes	none	none	none	none	x	
38	HW-DIRECTION SIGN LED 22V/LB	4444096	x	x	x	0,005	50,8x17,5	illuminate signposting	LED circuit board	place in, clamping	miscellaneous	yes	none	none	none	none	x	
39	HW EXIT SIGN LED 22V	4444099	x	x	x	0,056	158,6x17,5	illuminate signposting	LED circuit board	place in, clamping	miscellaneous	yes	none	none	none	none	x	
40	HW EXIT SIGN GREEN 22V/WT PCB	4444101	x	x	x	0,056	158,6x17,5	illuminate signposting	LED circuit board	place in, clamping	miscellaneous	yes	none	none	none	none	x	
42	DIRECTION SIGN LED 22V+H+R FLAS	4444006	x	x	x	0,005	68x17,5	illuminate signposting	LED circuit board	place in, clamping	miscellaneous	yes	none	none	none	none	x	
43	DIRECTION SIGN LED 22V/LB	4444005	x	x	x	0,005	68x17,5	illuminate signposting	LED circuit board	place in, clamping	miscellaneous	yes	none	none	none	none	x	
44	EMBARKATION SIGN 22V, WHITE	4444106	x	x	x	0,003	68x17,5	illuminate signposting	LED circuit board	place in, clamping	miscellaneous	yes	none	none	none	none	x	
45	EMBARKATION SIGN WHITE 22V	4444098	x	x	x	0,003	68x17,5	illuminate signposting	LED circuit board	place in, clamping	miscellaneous	yes	none	none	none	none	x	
46	EXIT MODUL GRUN GRN EX 22V, GR	4444084	x	x	x	0,056	158,6x17,5	illuminate signposting	LED circuit board	place in, clamping	miscellaneous	yes	none	none	none	none	x	
47	EXIT MODUL GRUN GRN EX 22V, GR	4444384	x	x	x	0,056	174,9x17,6	illuminate signposting	LED circuit board	place in, clamping	miscellaneous	yes	2018012-Happich - Test report - 2018-05-23-unterschieden.PDF	650021 DRW Exit-Sign_Rev_2_6b_PCB-documentation	571C0354-200-00	x		
48	EXIT MODULE WITH DECOR PROFILE	4444325	x	x	x	0,056	174,9x20	illuminate signposting	LED circuit board	place in, clamping	miscellaneous	yes	2018012-Happich - Test report - 2018-05-23-unterschieden.PDF	650023 DRW Exit-Sign (thin foil)_PCB_Documentation_Rev1.pdf	571C0372-200-00	x		
49	EXIT MODULE WITH DECOR PROFILE	4444325	x	x	x	0,056	174,9x17,6	illuminate signposting	LED circuit board	place in, clamping	miscellaneous	yes	2018012-Happich - Test report - 2018-05-23-unterschieden.PDF	650021 DRW Exit-Sign_Rev_2_6b_PCB-documentation	571C0354-200-00	x		
50	EXIT MODULE WITH DECOR PROFILE	4444145	x	x	x	0,056	174,9x20	illuminate signposting	LED circuit board	place in, clamping	miscellaneous	yes	2018012-Happich - Test report - 2018-05-23-unterschieden.PDF	650023 DRW Exit-Sign (thin foil)_PCB_Documentation_Rev1.pdf	571C0372-200-00	x		
51	EXIT SIGN LED 22V	4444007	x	x	x	0,056	158,6x17,5	illuminate signposting	LED circuit board	place in, clamping	miscellaneous	yes	none	none	none	none	x	
52	EXIT SIGN MODUL HW LED STRIPE	4444081	x	x	x	0,056	158,6x17,5	illuminate signposting	LED circuit board	place in, clamping	miscellaneous	yes	none	none	none	none	x	
53	EXIT SIGN MODUL HW LED STRIPE	4444082	x	x	x	0,056	158,6x17,5	illuminate signposting	LED circuit board	place in, clamping	miscellaneous	yes	2018012-Happich - Test report - 2018-05-23-unterschieden.PDF	16081901 FAIR Happich sign series	none	none	none	x
LED strip																		
54	HW LED Strip 2L 200 mm	4444190	same item	NO	NO	0,053	Lieferlänge 50m	illuminate escape route	cabble with LED-Islands	clamping, place in	miscellaneous	yes	16-0002_ksue1.pdf 190403-1 Sea water testing	none	none	none	x	
55	HW LED Strip 2L 250 mm	4444200	NO	NO	NO	0,053	Lieferlänge 50m	illuminate escape route	cabble with LED-Islands	clamping, place in	miscellaneous	yes	16-0002_ksue1.pdf 190403-1 Sea water testing	none	none	none	x	
56	HW LED Strip 3L 200 mm	4444199	NO	same item	NO	0,053	Lieferlänge 50m	illuminate escape route	cabble with LED-Islands	clamping, place in	miscellaneous	yes	16-0002_ksue1.pdf 190403-1 Sea water testing	none	none	none	x	
57	HW LED Strip 3L 250mm	4444201	NO	NO	NO	0,053	Lieferlänge 50m	illuminate escape route	cabble with LED-Islands	clamping, place in	miscellaneous	yes	16-0002_ksue1.pdf 190403-1 Sea water testing	none	none	none	x	
59	HW LED Strip 20 w. clear block	4444080	NO	NO	same item	0,053	Lieferlänge 50m	illuminate escape route	cabble with LED-Islands	clamping, place in	miscellaneous	yes	16-0002_ksue1.pdf 190403-1 Sea water testing	none	none	none	x	
60	LED STRIP WITHOUT DECOR FOIL, 200 mm	4444191	x	NO	NO	0,053	Lieferlänge 50m	illuminate escape route	cabble with LED-Islands	clamping, place in	miscellaneous	yes	16-0002_ksue1.pdf 190403-1 Sea water testing	none	none	none	x	
61	LED Strip 2L with 250 mm distance	4444193	NO	NO	NO	0,053	Lieferlänge 50m	illuminate escape route	cabble with LED-Islands	clamping, place in	miscellaneous	yes	16-0002_ksue1.pdf 190403-1 Sea water testing	none	none	none	x	
62	LED STRIP WITHOUT DECOR FOIL, 200 mm	4444203	x	NO	NO	0,053	Lieferlänge 50m	illuminate escape route	cabble with LED-Islands	clamping, place in	miscellaneous	yes	16-0002_ksue1.pdf 190403-1 Sea water testing	none	none	none	x	
decor profile, punched, unpunched																		
63	COVER / INLET WITH HOLES 20 CM	4444108	x	x	x	0,07 kg/m	15x10	placement for LED strip	single profile	clamping, place in	plastic	no	none	Bayblend FR3030+	A108 Cover Inlet.pdf	none		
64	COVER / INLET WITHOUT HOLES	4444109	x	x	x	0,09 kg/m	15x10	placement for LED strip	single profile	clamping, place in	plastic	no	none	Bayblend FR3030+	A109 Cover Inlet.pdf	none		
85	ABDECKFOLIE UNGELOCHT	4444201	x	x	x	0,02 kg/m	18,4x3,5	placement for LED strip	single profile	clamping, place in	plastic	no	none	none	none	none		
86	DECOR PROFILE, punched (199.5mm), RAL 9004	4444204	x	x	x	0,03 kg/m	16,4x5,5	placement for LED strip	single profile	clamping, place in	plastic	no	none	PCAB648 - R0410.pdf	4440324-000-00	none		
87	DECOR PROFILE, punched (199.5mm)	4444213	x	NO	NO	0,03 kg/m	16,4x5,5	placement for LED strip	single profile	clamping, place in	plastic	no	none	PCAB648 - R0410.pdf	4440324-000-00	none		
88	DECOR PROFILE, punched (199.5mm)	4444219	x	x	x	0,02 kg/m	18,4x3,5	placement for LED strip	single profile	clamping, place in	plastic	no	none	Bayblend FR3030+	4440323-000-00	none		
69	DECOR PROFILE, punched (199.5mm), RAL 7035	4444210	x	x	x	0,02 kg/m	18,4x3,5	placement for LED strip	single profile	clamping, place in	plastic	no	none	Bayblend FR3030+	4440323-000-00	none		
70	DECOR PROFILE, punched (250mm), RAL 7035	4444231	NO	NO	NO	0,02 kg/m	18,4x3,5	placement for LED strip	single profile	clamping, place in	plastic	no	none	Bayblend FR3030+	4440323-000-00	none		
71	DECOR PROFILE, unpunched, RAL 7035	4444230	x	x	x	0,02 kg/m	18,4x3,5	placement for LED strip	single profile	clamping, place in	plastic	no	none	Bayblend FR3030+	4440323-000-00	none		
72	DECOR PROFILE, unpunched, RAL 7035	4444225	x	x	x	0,03 kg/m	16,4x5,5	placement for LED strip	single profile	clamping, place in	plastic	no	none	PCAB648 - R0410.pdf	4440324-000-00	none		
73	DECOR PROFILE, unpunched, RAL 9004	4444221	x	x	x	0,02 kg/m	18,4x3,5	placement for LED strip	single profile	clamping, place in	plastic	no	none	Bayblend FR3030+	4440323-000-00	none		
74	DECOR PROFILE, unpunched, RAL 9004	4444248	x	x	x	0,02 kg/m	18,4x3,5	placement for LED strip	single profile	clamping, place in	plastic	no	none	PCAB648 - R0410.pdf	4440324-000-00	none		
75	DECKPROFIL, 20CM, GREY	4444204	NO	NO	NO	0,02 kg/m	18,4x3,5	placement for LED strip	single profile	clamping, place in	plastic	no	none	Bayblend FR3030+	A024 Dekvprofil.pdf	none		
76	DECKPROFIL, UNGELOCHT, RAL7035, lightgray	4444022	x	x	x	0,02 kg/m	18,4x3,5	placement for LED strip	single profile	clamping, place in	plastic	no	none	Bayblend FR3030+	A022 Dekvprofil.pdf	none		
PC clear cover																		
77	PC ABDECKPROFIL	4444225	x	x	x	0,05 kg/m	20x3,3	protective covering	clip in	plastic	no	none	none	Lexan.pdf	4400342-000-00	none		
78	PC ABDECKPROFIL, C27.5	4444112	NO	NO	NO	0,07 kg/m	27,5x6,1	protective covering	single profile	clip in	plastic	no	none	Lexan.pdf	A112 PROFIL.pdf	none		
79	PC Clear Cover	4444142	x	x	x	0,05 kg/m	23x4,9	protective covering	single profile	clip in	plastic	no	none	Lexan.pdf	44002415-000-00	none		
80	PROFIL C27.5, RAL 7038	4444114	NO	NO	NO	0,07 kg/m	27,5x6,1	protective covering	single profile	clip in	plastic	no	none	Lexan.pdf	A114 PROFIL.pdf	none		
123	PC CLEAR COVER ARROW SIGN	4444285	NO	NO	NO	0,001	59,4x15	protective covering	single part	clip in	plastic	no	none	Lexan.pdf	44002419-000-00	none		
124	PC CLEAR COVER STAR SIGN DOWN - RIGHT	4444256	NO	NO	NO	0,001	62x15	protective covering	single part	clip in	plastic	no	none	Lexan.pdf	44002420-000-00	none		
125	PC CLEAR COVER STAR SIGN UP - LEFT	4444257	NO	NO	NO	0,001	62x15	protective covering	single part	clip in	plastic	no	none	Lexan.pdf	44002421-000-00	none		
126	PC CLEAR COVER ARROW STAR COMBI SIGN DOWN - RIGHT	4444258	NO	NO	NO	0,002	124,5x15	protective covering	single part	clip in	plastic	no	none	Lexan.pdf	44002422-000-00	none		
127	PC CLEAR COVER ARROW STAR COMBI SIGN UP - LEFT	4444259	NO	NO	NO	0,002	124,5x15	protective covering	single part	clip in	plastic	no	none	Lexan.pdf	44002423-000-00	none		
128	PC CLEAR COVER EXIT MODULE	4444260	NO	NO	NO	0,003	139,7x15	protective covering	single part	clip in	plastic	no	none	Lexan.pdf	44002424-000-00	none		
3L PSU																		
81	3L-PSU + ACCU (LID REMOVABLE)	4444230	x	x	x	18	445x340x123,5	power supply	single unit	mounting not specified	miscellaneous	yes	S - DEVELOP - PROJECTS - 3L - 3L-PSU-PSU_M0701-Baumusterp-374f-ung-QTR_M_...PDF	none	571C0362-000-00	none		
82	3L-PSU 100W W/DCU	4444002	x	x	x	7	280x340x127	power supply	single unit	mounting not specified	miscellaneous	yes	S - DEVELOP - PROJECTS - 3L - 3L-PSU-PSU_M0701-Baumusterp-374f-ung-QTR_M_...PDF	none	571C0361-000-00	none		
83	3L-PSU W/DCU	4444208	x	x	x	7	280x340x127	power supply	single unit	mounting not specified	miscellaneous	yes	S - DEVELOP - PROJECTS - 3L - 3L-PSU-PSU_M0701-Baumusterp-374f-ung-QTR_M_...PDF	none	571C0361-000-00	none		
84	3L-PSU+ACCU	4444207	x	x	x	18	445x340x127	power supply	single unit	mounting not specified	miscellaneous	yes	S - DEVELOP - PROJECTS - 3L - 3L-PSU-PSU_M0701-Baumusterp-374f-ung-QTR_M_...PDF	none	571C0362-000-00	none		
85	3L-PSU+ACCU, 100W	4444003	x	x	x	18	445x340x127	power supply	single unit	mounting not specified	miscellaneous	yes	S - DEVELOP - PROJECTS - 3L - 3L-PSU-PSU_M0701-Baumusterp-374f-ung-QTR_M_...PDF	none	571C0362-000-00	none		
86	3L-PSU W/DCU 100W/24V	4444237	x	x	x	7	280x340x127	power supply	single unit	mounting not specified	miscellaneous	yes	S - DEVELOP - PROJECTS - 3L - 3L-PSU-PSU_M0701-Baumusterp-374f-ung-QTR_M_...PDF	none	571C0374-000-00	none		
87	3L-PSU+ACCU 100W/24V	4444209	x	x	x	18	445x340x127	power supply	single unit	mounting not specified	miscellaneous	yes	S - DEVELOP - PROJECTS - 3L - 3L-PSU-PSU_M0701-Baumusterp-374f-ung-QTR_M_...PDF	none	571C0362-000-00	none		
89	3L-PSU+ACCU 100W (nfb)	4444212	x	x	x	18	445x340x127	power supply	single unit	mounting not specified	miscellaneous	yes	S - DEVELOP - PROJECTS - 3L - 3L-PSU-PSU_M0701-Baumusterp-374f-ung-QTR_M_...PDF	none	571C0361-000-00	none		
endcap / end cover / adaptor																		
90	END COVER SILVER, MOLDED	4444027	x	x	x	0,001	38x22	profile closure	mount part	clamping, plug in	plastic	no	none	none	44803070-000-00	none		
91	END COVER SILVER, 38MM	4444026	x	x	x	0,003	38x22	profile closure	mount part	clamping, plug in	plastic	no	none	none	A026 END COVER.pdf	none		
92	END COVER LIGHT GREY 38MM MODL	4444022	x	x	x	0,001	38x22	profile closure	mount part	clamping, plug in	plastic	no	none	none	44803070-000-00	none		
93	BA3x10 End Cap Left (basic grey)	4444074	x	x	x	0,003	34x10	profile closure	mount part	clamping, plug in	plastic	no	none	none	A074 End cap.pdf	none		
94	BA3x10 End Cap Left (basic)	4444073	x	x	x	0,003	34x10	profile closure	mount part	clamping, plug in	plastic	no	none	none	A073 End cap.pdf	none		
95	BA3x10 End Cap Right (basic grey)	4444072	x	x	x	0,003	34x10	profile closure	mount part	clamping, plug in	plastic	no	none	none	44803069-000-00	none		
96	BA3x10 End Cap Right (basic)	4444070	x	x	x	0,003	34x10	profile closure	mount part	clamping, plug in	plastic	no	none	none	A070 END CAP.pdf	none		
97	END CAP BB 3710, ALU																	

107	End Cap (right)	444A064	x	x	x	0,01	34x8,5	profile closure	mould part	clamping, plug in	aluminium	no	none	none	A064 END CAP.pdf
108	ENDSEC. RAL 7026	444A115	x	x	x	0,004	34x22	profile closure	mould part	clamping, plug in	plastic	no	none	none	A115 ENDSEC.pdf
109	End Cap	444A248	x	x	x	0,004	22x12	profile closure	mould part	clamping, plug in	aluminium	no	none	none	376C0401-000-00
wire															
109	PCB/CAGE UNIT FOR ACCU VERSION	444A142	x	x	x	0,33	270x160x90	casing of PCB (Leiterplatte)	screwed	screwed	miscellaneous	yes	none	none	A142 PCB CAGE.pdf
110	PCB/CAGE UNIT NON ACCU VERSION	444A141	x	x	x	0,63	250x220	casing of PCB (Leiterplatte)	screwed	screwed	miscellaneous	yes	none	none	A141 PCB CAGE.pdf
111	CABLE 2X0,75MMHFX-OSLUPIRELLI	444A035	x	x	x	0,01	2x0,75mm ²	electrical connection	ready made	soldered	miscellaneous	yes	none	none	none
112	LOTTVERBINDER	444A131	x	x	x	0,7 / 1000Stk.	2x0,35	cable connection	ready made	soldered	miscellaneous	yes	none	none	B-155-3802_drawing.pdf
113	END RESISTOR	444A003	x	x	x	0,06/100Stk.	67x3,3	voltage reduction	ready made	soldered	miscellaneous	yes	none	none	A093 End Resistor.pdf
114	PA M5 - M20 REDUZIERUNG	444A061	x	x	x	0,005	M20x25	reduction of M25 thread to M20	ready made	screwed	miscellaneous	no	none	none	A061 REDUZIERUNG.pdf
115	KABEL 1 X 2 X 0,75 FIRE RES	444A056	x	x	x	0,11/m	1x2x0,75mm ²	power connection	ready made	soldered	miscellaneous	yes	none	none	A056 KABEL.pdf
116	KABEL 2 X 0,75 DMM VERZINNT	444A034	x	x	x	0,042/m	2x0,75mm ²	power connection	ready made	soldered	miscellaneous	yes	none	none	A034 KABEL.pdf
117	KABEL 2 X 2 X 0,75 MA FIRE RES	444A036	x	x	x	0,11/m	2x2x0,75mm ²	power connection	ready made	soldered	miscellaneous	yes	none	none	A036 KABEL.pdf
118	ACCU 12V7,2 AH	444A116	x	x	x	2,4	150x60x100	power storage	ready made	clamped	miscellaneous	yes	none	none	none
119	ACCU PACK, 3X 12V7,2 AH	444A124	x	x	x	7,5	150x180x100	power storage	ready made	clamped	miscellaneous	yes	none	none	none
120	ACCU 24V4AH	444A197	x	x	x	2,4	150x60x100	power storage	ready made	clamped	miscellaneous	yes	none	none	A197 Akku.pdf