

ENEC+ LICENSE

License No. ENEC-01358-P7-PLUS-M1-UL

Page 1/7

Date of Issue 2023-07-21

License Holder SIGNIFY NETHERLANDS B.V.
HIGH TECH CAMPUS 48 EINDHOVEN, 5656 AE
THE NETHERLANDS

Production site

ENEC License No. (safety) ENEC License Number (Safety):
ENEC-01358-P4-M2 issued on 2023-04-17
Issued by ENEC Member Body:
15, UL International Demko A/S, Borupvang 5A, DK-2750 Ballerup, Denmark

Certification Mark See Annex 1

Certified Product Built-in LED Module

Model Fortimo FastFlex *t NxK/zcc XXXxYYY v p Gg a*

See page 2, 5 for additional Information

Trademark PHILIPS or  or ADVANCE or


Ratings I_{max}: 1,5 A ---
See page 3-5 for additional ratings

Complying with the following PD EPRS 001:2018-05 (based on EN 62717:2017)
EPRS standard for

performance
EPRS Test Report No. 4790873459.1.1_1 issued on 2023-07-18

Additional Information The report was revised to include technical modifications.
See page 6 for additional information

Certification Manager
Thomas Wilson

Certification Body

This is to certify that representative sample(s) of the Product described herein ("Certified Product") have been investigated and found in compliance with the Standard(s) indicated on this License, in accordance with the ENEC+ Requirements. The Designated License holder is entitled to use the ENEC+ 15 Mark (as shown in annex 1) for the Certified Product manufactured at the production site(s) identified above in accordance with the ENEC Mark Service Agreement including without limitation the ENEC Mark Testing and Certification Services Service Terms. Only those Products bearing a valid ENEC Mark and the ENEC+ Mark should be considered as being covered by UL's ENEC+ Mark Service. This License shall remain valid unless terminated earlier in accordance with the Service Agreement including without limitation if the Standard identified on this License is amended or withdrawn prior the Date of Withdrawal of conflicting Standard(s).

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ENEC+ LICENSE

License No. ENEC-01358-P7-PLUS-M1-UL
Page 2/7
Date of Issue 2023-07-21

Additional Model(s):

Product Key:

Main series: Fortimo FastFlex *t NxK/zcc XXXxYYY v p Gg a*

Where:

- t* = Product type (may be "LED" or "LED board" or blank);
- N* = Number of LEDs in width (one digit, may be a value between 1 and 6);
- x* = Fixed character;
- K* = Number of LEDs in length (one or two digits, may be a value between 1 and 16);
- z* = CRI of LED divided by 10 (one digit, may be "7" or "8");
- cc* = Color temperature of LED divided by 100 (two digits, may be between 22 and 65);
- XXXx* = Width of module in mm or blank;
- YYY* = Length of module in mm or blank;
- v* = Alphanumeric version indication of module (may be "DA" or "DAX" or "DS" or "DP" or "DPX" or "X" or "DC" or "DAS" or "DHE" or "VO" or blank);
- p* = Alphanumeric version indication of module for performance of the module (may be "HE" or blank)
- G* = Fixed character, (if p= "HE", blank)
- g* = Number of LED module's generation (one or two characters, may be "1", "3" or "4", "4+", "5" or blank);
- a* = Commercial suffix for commercial purposes (optional)

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ENEC+ LICENSE

License No. ENEC-01358-P7-PLUS-M1-UL

Page 3/7

Date of Issue 2023-07-21

Maximum safety rating:

Field v on the Product Key	DC Current [A]	Power [W]	Tc [°C]	Maximum working voltage for basic insulation to mounting surface [V]	With Secondary Optics
LED Module's Generation 3					
Blank	1,05	55	85	680	Yes
DA	1,05	55	85	400(*)	No(*)
DS	1,05	55	85	200	No
LED Module's Generation 4					
Blank or X	1,5	75	85	680	Yes
DA or DAX	1,5	75	105	330(*)	No(*)
DP or DPX	1,5	75	105	670	No
DA(**)	1,05	163,8	85	330(*)	No(*)
DC	1,5	72	100	340	No
DAS	1,05	52,5	85	400(*)	No(*)
DHE	0,72	37,44	95	260(*)	No(*)
LED Module's Generation 4+					
Blank	1,5	75	85	575	Yes
DA	1,5	75	105	330(*)	No(*)
DP	1,5	56,3	105	575	No
LED Module's Generation 1					
VO	1,2	58,32	90	260	No
LED Module's Generation 5					
Blank	1,5	90	85	575	No
DA	1,5	90	95	575	No
DP	1,5	67,5	95	575	No
For LED module's p = "HE"					
DA	1,5	75	95	575	No
DP	1,5	112,5	95	575(***)	No
(*) : See additional information					
(**) : For modules having field a="Trilux"					
(***) : For Modules having field "NxK"=3x8, the max working voltage is 420V;					

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ENEC+ LICENSE

License No. ENEC-01358-P7-PLUS-M1-UL

Page 4/7

Date of Issue 2023-07-21

Performance ratings:

Field v on the Product Key	Max Current [A]	Power [W]	Max Luminous Flux [lm]	T _p Max [°C]	CCT [K]	CRI	Efficacy [lm/W]
LED Module's Generation 4 or 4+							
Blank or X DA or DAX DP or DPX	1,5	71,8	8004	105	2700-6500	70 80	93-124
DHE	0,7	30	5000	90	3000-4000	80	166
DC	1,5	70	8496	85	2700-5000	70 80	83-121
LED Module's Generation 1							
VO	1,2	50,8	8390	90	4000-5000	70 80	153
LED Module's Generation 5							
DA	1,05	52,5	5533	95	2200-6500	70 80	131
DP	1,05	39,375	4998	95	3000-5700	70 80	151
LED Module's p='HE'							
DA	1,2	60		95	2700-4000	70	132
DP	1,2	82,08	10648	95	2700-4000	70	150
Ambient Temperature range: -40 °C to 50 °C							

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ENEC+ LICENSE

License No. ENEC-01358-P7-PLUS-M1-UL

Page 5/7

Date of Issue 2023-07-21

Product Key:

Variant series: **Fortimo FastFlex** *t NxKup/zcc XXXxYYY v Gg a*

Where:

t = Product type (may be "LED" or "LED board" or blank);
N = Number of Cluster of LEDs (one digit, may be a value between 2 and 4);
x = Fixed character;
K = Number of LEDs for each Cluster (one or two digits, may be "8" or "16");
up = Fixed character;
z = CRI of LED divided by 10 (one digit, may be "7" or "8");
cc = Color temperature of LED divided by 100 (two digits, may be between 22 and 57);
XXXx = Width of module in mm or blank;
YYY = Length of module in mm or blank;
v = Alphanumeric version indication of module (may be "PR" or "DHL");
G = Fixed character;
g = Number of LED module's generation (one character, may be "5");
a = Commercial suffix for commercial purposes (optional)

Maximum ratings:

Field v on the Product Key	DC Current [A]	Power [W]	t _c [°C]	Maximum working voltage for basic insulation to mounting surface [V]	With Secondary Optics
LED Module's Generation 5					
PR	1,05	56,7	95	575	No
DHL	1,05	56,7	95	575	No

Performance ratings:

Field v on the Product Key	Max Current [A]	Power [W]	Max Luminous Flux [lm]	T _p Max [°C]	CCT [K]	CRI	Efficacy [lm/W]
DHL	1,05	56,7	6400	85	3000-5000	70 80	113
PR	1,05	56,7	7600	85	2700-5700	70 80	134

Ambient Temperature range: -40 °C to 50 °C

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ENEC+ LICENSE

License No. ENEC-01358-P7-PLUS-M1-UL
Page 6/7
Date of Issue 2023-07-21

Additional information:

This certificate replaces previous certificate no. ENEC-01358-P7-PLUS-UL issued on 2023-04-18 due to:

- Add the temperature cycling test for the model Fortimo FastFlex LED 4x16 740 VO G1 and Fortimo FastFlex LED 2x8/727 DA HE with the test method Alternative test 1 with 10 K/min
- Minor corrected factory's address to align with UL database
- Corrected the typo on table of Performance ratings in CCT [K]

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Annex 1 to License No. ENEC-01358-P7-PLUS-M1-UL

Annex of the form of the Mark



15 is the identification number of the Certification Body

Size of the mark:

The size of the mark may be reduced on the condition that
it remains legible and that the ratio $b/a=1,7$ is kept

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