CERTIFICATE

DEKRA

Issued to:

Applicant:	Licensee:
TM Technologie sp. z.o.o.	**TM Technologie sp. z.o.o.**
Morawica 355	**Morawica 355**
32-084 Morawica, Poland	**32-084 Morawica, Poland**

Product	:	Emergency lighting with LED light source
Trade name(s)	:	TM TECHNOLOGIE
Type(s)/model(s)	:	iTECH Xn Hvv A/ BB and iTECH Z E2 Hvv A/BB

The product and any acceptable variation thereto is specified in the Annex to this certificate and the documents therein referred to.

DEKRA hereby declares that the above-mentioned product has been certified on the basis of:
- a type test according to the standard EN 60598-1:2015, EN 60598-1:2015/AC:2015, EN 60598-1:2015/AC:2016, EN 60598-1:2015/A1:2018, EN 60598-2-22:2014, EN 60598-2-22:2014/AC:2015, EN 60598-2-22:2014/AC:2016-05 and EN 60598-2-22:2014/AC:2016-09
- an inspection of the production location according to CENELEC Operational Document CIG 021
- a certification agreement with the number 2173187

DEKRA hereby grants the right to use the ENEC certification mark.

The ENEC certification mark may be applied to the product as specified in this certificate for the duration of the ENEC certification agreement and under the conditions of the ENEC certification agreement.

This certificate is issued on 16 April 2019 and expires upon withdrawal of one of the above mentioned standards.

Certificate number: 71-108111

DEKRA Certification B.V.

B.T.M. Holtus
Managing Director

H.R.M. Barends
Certification Manager

© Integral publication of this certificate is allowed

ACCREDITED BY THE
DUTCH ACCREDITATION
COUNCIL

PRODUCTS RvAC 001

ENEC 05

KEMA KEUR

SPECIFICATION OF THE CERTIFIED PRODUCT

Product data

Product	:	Emergency lighting with LED light source
Trade name(s)	:	TM TECHNOLOGIE
Type(s)/model(s)	:	iTECH Xn Hvv A/ BB and iTECH Z E2 Hvv A/BB
Rated voltage/nature of supply	:	210 - 250 Vac - for self-contained types
		210 - 250 Vac / 186 - 254 Vdc - for centrally supplied types
Rated frequency	:	50 - 60 Hz for self-contained types
		0; 50 Hz for centrally supplied types
Ambient temperature	:	ta: 10... +40 °C for all self-contained types
		ta: -15...+40 °C for luminaires with "COLD" indication
		ta: -25...+55 °C for centrally supplied types
Classification	:	class II
Degree of protection against ingress of solid opbjects and moisture	:	IP65
Description	:	Self-contained maintained / non-maintained or centrally supplied. Suitable for recessed as well as surface mounting and can also be used as exit light.

TESTS

Test requirements

EN 60598-1:2015
EN 60598-1:2015/AC:2015
EN 60598-1:2015/AC:2016
EN 60598-1:2015/A1:2018
EN 60598-2-22:2014
EN 60598-2-22:2014/AC:2015
EN 60598-2-22:2014/AC:2016-05
EN 60598-2-22:2014/AC:2016-09

Test result

The test results are laid down in DEKRA test file 223622600.

Additional information

These emergency luminaires hold LED modules that were tested as part of the luminaires acc the EN 62031:2008 + A1:2013 + A2:2015.

The integral LED drivers were tested as part of the luminaires according the EN 61347-2-7:2012 and the EN 61347-2-13:2014 + A1:2017; in conjunction with EN 61347-1:2015.

This certificate replaces certificate No. 71-106000 which we herewith declare invalid.

The list of components is laid down at test report 2236226.50.

Conclusion

The examination proved that all requirements were met.

Factory location

TM Technologie sp. z.o.o.
Morawica 355
32-084 Morawica, Poland

Reference product key code:

iTECH Xn Hvv A/ BB
iTECH Z E2 Hvv A/ BB

iTECH	= general product name
iTECH Z E2	= general product name
X	= model (M, C, W,F,S,O)

	M	= luminaire without optic
	C	= luminaire with Emerald-A optics
	W	= luminaire with Strada-FT optic
	F	= luminaire with Flare-MINI optic
	S	= luminaire with Strada-SQ optic
	O	= luminaire with Flara optic

n	= amount of LED (1, 2, 5)
	1 = 1 LED for C, W, F, S, O
	2 = 2 LED for C, W, F, S or 1 LED for M
	5 = 2 LED for M;
H	= duration time (1 or 3)
	1 = 1 hour
	3 = 3 hours
vv	= power of LED (02, 05)
	02 = 2 W LED
	05 = 5 W LED
A/	= operating mode (M, NM)
	M = self-contained maintain
	NM = self-coned non-maintain
BB	= test mode (ST, AT, DATA, DATA 2, CB)
	ST = manual test
	AT = individual test
	DATA, DATA 2 = central automatic test
	CB = for central battery system

(ST, AT, DATA, DATA 2, CB)**	- connect the appropriate module
AT	- PCB 010233 AT module
DATA	- PCB 010233 DATA module
DATA 2	- PCB 010205 DATA 2 module
ST, CB	- without additional module

CBx – for central battery system
CB1 non-addressable module for all 230VAC/216VDC central battery systems
CB2 - version with addressable module DCBLU05.
CB3 - version with addressable module 010336 (dedicated to TM-CB A central battery system)

LiFePO4/C – battery pack with integrated charge / discharge controller.

Ambient temperature ranges (ta):
+10 °C...+40 °C: for self-contained maintain / non-maintain luminaire.
-15 °C...+40 °C: for self-contained maintain / non-maintain luminaire with "COLD" indication.
-25 °C...+55 °C: for centrally supplied luminaire with CB1.
-10 °C...+40 °C: for centrally supplied luminaire with CB2, CB3.

List of models:

Models		Battery pack	Duration time	Mode	LED control gear	LED module	LED type
iTECH Z E2 (ST, AT, DATA, DATA 2, CB)**	102M (NM)	6.4V 1.5Ah LiFEPO4/C	1h	M, NM	iTECH 010232 without driver	146D+82B	LED strip IP65 12V 18 LED
	302M (NM)	6.4V 1.5Ah LiFEPO4/C	3h	M, NM	iTECH 010232 without driver	146D+82B	LED strip IP65 12V 18 LED
	102M (NM) COLD	6.4V 1.5Ah LiFEPO4/C	1h	M, NM	iTECH 010232 without driver	146D+82B	LED strip IP65 12V 18 LED
	302M (NM) COLD	6.4V 3.0Ah LiFEPO4/C	3h	M, NM	iTECH 010232 without driver	146D+82B	LED strip IP65 12V 18 LED
	02 CB1	-	-	-	iTECH 010232 without driver	146D+82B	LED strip IP65 12V 18 LED
	02 CB2 adressable DCBLU05						
	02 CB3 adressable 010336	-	-	-	iTECH 010336 without driver	146D+82B	LED strip IP65 12V 18 LED
iTECH M2, C1, W1, F1, S1, O1 (ST, AT, DATA, DATA 2, CB)**	302 M(NM)						
	102 M(NM) COLD	6.4V 1.5Ah LiFEPO4/C	1h	M, NM	iTECH 010232 with integrated LED driver	010142G or 010142H 1 x LED	Luxeon T/TX OSLON Square ~ 660mA
	302 M(NM) COLD	6.4V 3.0Ah LiFEPO4/C	3h	M, NM	iTECH 010232 with integrated LED driver	010142G or 010142H 1 x LED	Luxeon T/TX OSLON Square ~ 660mA
	02 CB1	-	-	-	iTECH 010232 with integrated LED driver	010142G or 010142H 1 x LED	Luxeon T/TX OSLON Square ~ 660mA
	02 CB2 adressable DCBLU05						
	02 CB3 adressable 010336	-	-	-	iTECH 010336 with integrated LED driver	010142G or 010142H 1 x LED	Luxeon T/TX OSLON Square ~ 660mA
iTECH M5, C2, W2, F2, S2, O2 (ST, AT, DATA, DATA 2, CB)**	105 M(NM)	6.4V 1.5Ah LiFEPO4/C	1h	M, NM	iTECH 010232 with integrated LED driver	010142G or 010142H 2 x LED	Luxeon T/TX OSLON Square ~ 660mA
	305 M(NM)	6.4V 3.0Ah LiFEPO4/C	3h	M, NM	iTECH 010232 with integrated LED driver	010142G or 010142H 2 x LED	Luxeon T/TX OSLON Square ~ 660mA
	105 M(NM) COLD	6.4V 3.0Ah LiFEPO4/C	1h	M, NM	iTECH 010232 with integrated LED driver	010142G or 010142H 2 x LED	Luxeon T/TX OSLON Square ~ 660mA
	05 CB1	-	-	-	iTECH 010232 with integrated LED driver	010142G or 010142H 2 x LED	Luxeon T/TX OSLON Square ~ 660mA
	05 CB2 adressable DCBLU05						
	02 CB3 adressable 010336	-	-	-	iTECH 010336 with integrated LED driver	010142G or 010142H 2 x LED	Luxeon T/TX OSLON Square ~ 660mA