


ENEC LICENSE

License No. ENEC-04574-M1

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Date of Issue 2024-03-04

License Holder	TCI TELECOMUNICAZIONI ITALIA S.R.L. VIA PARMA 14 SARONNO, VA, 21047 ITALY
Production site	TCI TELECOMUNICAZIONI ITALIA S.R.L. VIA PARMA 5 SARONNO, VA, 21047 ITALY
Certification Mark	See Annex 1
Certified Product	Built-in LED Module
Model	aaMbxxxx/yyeezzzp nnnnnn/iccss See Pages 2-3 for additional Information
Trademark	
Ratings	Max: 2750 mA --- tc: 90 °C See Pages 2-4 for further ratings
Tested acc. to	EN IEC 62031:2020, EN IEC 62031:2020/A11:2021
Test Report No.	4790875716.1 issued on 2024-02-22
Additional Information	The report was revised to include technical modifications. See Page 4 for additional information

Certification Manager
Thomas Wilson

Certification Body

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Additional Model(s):

Type	Max. input current (A) at 0 Hz	Max. input power (W)	Max. power density (W/cm ²)	t _c (°C)	Notes
aaMxxxx/yyyyeezzzp nnnnnn/iccsc	2,75	75	0,94	85	0,34...0,75 mm ² terminal block or headers connector or pads
aaMbxxxx/yyyyeezzzp nnnnnn/iccsc	0,7	7	0,2	80	Cable with connector or tails
SLMxxxx/yyyyeezzzp nnnnnn/iccsc	2,0	425	0,7	90	Metal core pwb 0,34...0,75 mm ² terminal block or headers connector or pads

Speaking code meaning:

- **aa**= one or two characters for shape: **L** (linear module); **BL** (linear module); **S** (square module); **F** (finger module); **R** (round module).
- **M**= fixed character = Module.
- **b**= one character (it may be missing) for enclosure type (if present); **P**=enclosure extruded white; **N**=nero, enclosure extruded black.
- **xxxx**= two to four characters, 1st module dimension: length or diameter (20-1400 mm).
- **/**= fixed character, separator, missing if 2nd module dimension is not present.
- **yyy**= two to three characters (it may be missing), 2nd module dimension: width (10-233 mm).
- **ee**= one or two characters; any alphanumeric character(s).
- **zzz**= one to three characters; LED numbers (1-220).
- **p**= one character; position of connector; it may be missing when mounted on the top side or **L** when mounted on the bottom side; **P** pads for soldering of connections.
- **nnnnnn**= Six characters (any alphanumeric characters); commercial code.
- **/**= fixed character, separator, missing if following characters are not present.
- **i**= one character (**7- 9**); color rendering index (CRI/10).
- **cc**= two characters (**27-65**); correlated colour temperature, CCT/100;
T1 is tunable white with 2700/4000 K;
T2 is tunable white with 2700/5700 K;
T3 is tunable white with 2700/6500 K;
T4 is tunable white with 3000/5000 K;
T5 is tunable white with 2700/5000 K;
T6 is tunable white with 3000/4000 K (except for LED LM281B+);

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T7 is tunable white with 2000/3000 K;

T8 is tunable white with 2400/3000 K;

T9 is tunable white with 2000/4000 K (except for LED LM281B+).

- ss= Missing or one or two characters:

LED Type	ss	Max Current
LM561B	R or missing	max. I _F =180 mA
LM561B+	S	max. I _F =180 mA
LM281B	E	max. I _F =150 mA
LM301B	V	max. I _F =200 mA
2835C (Luxeon)	L	max. I _F =240 mA
LM281B+	H BB, BC, CA, W, WR, AD	max. I _F =160 mA max. I _F =200 mA max. I _F =200 mA
LM281B+ PRO	BR, BS, BX CK	max. I _F =200 mA max. I _F =250 mA
LM281B+ PRO VM rank	DI	max. I _F =200 mA
LM281B+ RL rank	CY	max. I_F=200 mA
LM301B EVO	DB	max. I _F =200 mA
LM301D	AP	max. I _F =180 mA
LM302D	AM	max. I _F =200 mA
LH351B	M	max. I _F =1500 mA
LH351C	I	max. I _F =2000 mA
LH502C	BE	max. I _F =880 mA
LH502D	CV	max. I _F =800 mA
LUXEON 2835 HE	CE	max. I _F =150 mA
LUXEON 5050 HE	DE	max. I _F =800 mA
LUXEON 5050 Round LES	G	max. I _F =800 mA

Ratings:

The maximum working voltage for insulation of LED module is:

LED model/type	Max. voltage	Minimum distance for insulation design	Working voltage for insulation design
LM837/14L80 128636/8ccL LM837/14E80 128636/8ccAD LM558/14E36L 128828/8ccAD	125 V	3,1 mm basic	310 V (between traces ↔ lateral accessible surface)
representative models of aaMxxxx/yyyyezzzp nnnnnn/iccss	120 V	2,7 mm SELV	270 V (between traces ↔ lateral accessible surface)
representative models of aaMbxxxx/yyyyezzzp nnnnnn/iccss	10 V	3,2 mm basic	320 V (between tails ↔ accessible surface of enclosure/cable)

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representative models of SLMxxxx/yyyyeezzp nnnnnn/iccss	76,6 V	4,2 mm SELV	420 V (between traces ↔ lateral accessible surface)
		through insulation basic	150 V (between traces ↔ metal core)

Additional information:

The original report was modified to include the following changes/additions:

- Update of critical components table
- Update of Max input power from 151,2 W to 425 W for LED modules type SLMxxxx/yyyyeezzp nnnnnn/iccss
- Update of Enclosures
- Update of tests
- Update of Speaking code meaning

This certificate replaces the certificate no. ENEC-04574 issued on 2023-10-12

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Annex 1 to License No.

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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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