

CERTIFICATE

Issued to:
Applicant:
TCI Telecomunicazioni Italia Srl
Via Parma 14
21047 Saronno (VA), Italy

Licensee:
TCI Telecomunicazioni Italia Srl
Via Parma 14
21047 Saronno (VA), Italy

Product : Electronic controlgear for LED modules
Trade name(s) : TCI, TCI (with little dragon), TCI LED, TCI LED (with little dragon),
TCI LIGHT (with little dragon and ball in square), TCI LIGHT Saronno Italy or
TN101
Type(s)/model(s) : MAXI JOLLY SLIM HV (series), MPSE SLIM (series), MPV 55/350 SLIM,
MPXM 165/900 SLIM, MPX (series), MP SLIM (series) and T-LED (series)

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(s) EN 61347-2-13:2014, EN 61347-2-13:2014/A1:2017, EN 61347-1:2015, EN 61347-1:2015/A1:2021 and EN IEC 62384:2020
- an inspection of the factory location according to CENELEC Operational Document CIG 021
- a DEKRA certification agreement with the number 2033015

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

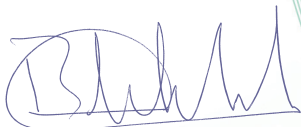
Compliance with the requirements of this Standard carries a presumption of conformity with the essential safety requirements of the Machinery Directive 2006/42/EC.

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

This certificate is issued on 1 February 2023 and expires upon withdrawal of one of the above mentioned standards.

Certificate number: 81-127192

DEKRA Certification B.V.



B.T.M. Holtus
Managing Director



R Zhou
Certification Manager

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SPECIFICATION OF THE CERTIFIED PRODUCT**Product data**

Product	: Electronic controlgear for LED modules
Trade name(s)	: TCI, TCI (with little dragon), TCI LED, TCI LED (with little dragon), TCI LIGHT (with little dragon and ball in square), TCI LIGHT Saronno Italy or TN101
Type(s)/model(s)	: MAXI JOLLY SLIM HV (series), MPSE SLIM (series), MPV 55/350 SLIM, MPXM 165/900 SLIM, MPX (series), MP SLIM (series) and T-LED (series)
Primary voltage	: 110-240 V for a.c., 196-250 V for d.c.
Rated frequency	: 50-60 Hz or 0/50/60 Hz or 0 Hz
Primary current	: From 0,19 to 0,9 A for a.c., from 0,23 to 0,99 A for d.c.
Secondary power	: From 24 to 165 W
Secondary current	: From 0,1 to 0,9 A
Type of load	: LED modules, power LED
Classification	: Independent, built-in

TESTS**Test requirements**

EN 61347-2-13:2014
EN 61347-2-13:2014/A1:2017
EN 61347-1:2015
EN 61347-1:2015/A1:2021
EN IEC 62384:2020

Test result

The test results are laid down in DEKRA test file 350033600.

Additional information

DEKRA test report No. 3500336.372 and 3500336.373 are laid down in DEKRA test file 350033600; they contain test results. DEKRA test report No. 3500336.372 contains critical component list.

For specific Model/Type electrical rating refer to following pages.

This certificate replaces certificate No. 81-127006 which we hereby declare invalid.

Conclusion

The examination proved that all requirements were met.

Factory location

TCI Telecomunicazioni Italia Srl
Via Parma 14
21047 Saronno (VA), Italy

General product information:

The devices are electronic controlgears for LED modules. The MP, MPX, MPXM, T-LED, MAXI JOLLY SLIM models can be independent only with the additional cable retainer (accessory). The devices have a stabilized output current with values depending on the selection of the DIP switch. The DIP switch options are detailed both in the technical specification and in the labels and can be changed by a screwdriver or equivalent tool. The MP models are not dimmable; the other ones are dimmable by analogical signals (PUSH L, 1-10V) or DALI protocol (DA), down to 1 % for some models. The output load can have minimum LEDs corresponding to V_o min, but I_{in} , t_a and t_c are related to max load. NTC port (if present) is for the thermal protection of LED module.

Type/s	a.c. *d.c. supply voltage (V) [1]	a.c. *d.c. supply current (A)	Power Factor	Max. Output Power (W)	Constant SEC current (A) [2]	d.c. Uout (V)	t_a (°C)	t_c (°C)	Use [3]	
T-LED 80/700 DALI SLIM (K2497), T-LED 80/700 DALI SLIM 1% (K2901), T-LED 80/700 1-10V SLIM (K2498)	220-240 *176-276	0,4 *0,5	0,95 (P>42 W)	42-80	0,35-0,7	180	-25..50	85	IND, BI, PE, 110	
T-LED 80/500 DALI SLIM (K2487), T-LED 80/500 DALI SLIM 1% (K2902), T-LED 80/500 1-10V SLIM (K2501)		0,4 *0,5	0,95 (P>37 W)	37,4-80	0,22-0,5	210				
MAXI JOLLY 80 SLIM HV (K2350)			0,95 (P>30 W)	34-80	0,2-0,5	210				BI, PE, 110
MAXI JOLLY 50 SLIM HV (K2904)		0,25 *0,32	0,95 (P>37 W)	34-50						
T-LED 80/350 DALI SLIM (K2499), T-LED 80/350 DALI SLIM 1% (K2903), T-LED 80/350 1-10V SLIM (K2500)			0,4 *0,5	0,95 (P>35 W)	35-80	0,14-0,35				300
MP 80/700 SLIM (K2348)	220-240 *176-276	0,4 *0,5	0,95 (P>46 W)	52-80	0,325-0,7	340	-25..50	85	IND, BI, FE, 110	
MP 80/700 SLIM GW (K2C43)								90		
MP 60/700 SLIM (K2639)		0,3 *0,38	0,95 (P>47 W)	60	0,45-0,7	340		85		
MP 80/500 SLIM (K2347) or MP 80/500 SLIM LIV, MP 80/500 SLIM cod. 122214I (K2C44) or 122214ICC		0,4 *0,5	0,95 (P>46 W)	73,5-80	0,35-0,5	340				
MP 80/350 SLIM (K2346) or MP 80/350 SLIM LIV		0,4 *0,5	0,95 (P>46 W)	54-80	0,2-0,35	300 390 [4]		85		
MP 80/350 SLIM GW (K2905)								90		
MP 56/350 SLIM (K2638)		0,29 *0,35	0,87 C-0,95 (P>27 W)	27-56	0,1-0,35	390		85		
MP 50/350 SLIM (K2471)		0,25 *0,32	0,87 C-0,95 (P>27 W)	27-50	0,1-0,35	300		85		
MP 35/350 SLIM (K2637)		0,19 *0,23	0,83 C-0,95 (P>27 W)	35	0,25-0,35	300		80		

Notes: The Kxxxx code can replace the type reference according to the following tables; * see additional information for d.c. [1] – Rated primary voltage: 220-240 V, 50-60 Hz. [2] – Output parameter where the product is declared as

“stabilized”; values according to DIP switch selection (see marking plate). [3] – IND=independent with cable retainer; BI=built-in; PE=protective earth; FE=functional earth; 110= overheating protection (C.5.a type), comply with temperature limit of IEC 60598-1. [4] – 300 V for 300-350 mA selections; 390 V for 200-290 mA selections.

Type/s	a.c. *d.c. supply voltage (V) [1]	a.c. *d.c. supply current (A)	Power Factor	Max. Output Power (W)	Constant SEC current (A) [2]	d.c. Uout (V)	ta (°C)	tc (°C) [3]	Use [4]
MPSE 40/350 SLIM (K2E72)	220-240 *176-276	0,23 *0,26	0,95 (Po>19 W)	24-40	0,2-0,35	330	-25..60	85	BI, 110
MPSE 40/700 SLIM (K2G82)		0,23 *0,26	0,95 (Po>19 W)	26-40	0,325-0,7	330	-25..50	85	BI, 110
MPSE 55/350 SLIM (K2D74)		0,31 *0,35	0,95 (Po>27 W)	26-55	0,1-0,35	340	-25..50	85	BI, PE, 110
MPSE 55/350 SLIM MO (K2G81)						300			
MPV 55/350 SLIM (K2G04)		0,31 *0,35	0,95 (Po>37 W)	44-55	0,2-0,35	320	-25..50	90	BI, 110
MPSE 55/700 SLIM (K2D75)		0,31 *0,35	0,95 (Po>27 W)	45,5-55	0,325-0,625 0,65-0,7	360	-25..50	85 90	BI, PE, 110
MPSE 60/350 SLIM (K2I44)		0,31 *0,37	0,95 (Po>27 W)	26-60	0,1-0,3	340	-25..50	85	BI, PE, 110
MP 100/350 SLIM (K2D76)		0,6 *0,6	0,95 (Po>32 W)	59-100	0,2-0,35	340	-25..60	90	IND, BI, FE, 110
MPX 100/350 277V SLIM (K2D84)	110-277 *176-276	0,6 *0,6	0,95 (Po>25 W)	59-100	0,2-0,35	340	-25..50	85	
MPX 100/350 277V SLIM 127671BR							-35..50		
MP 100/750 SLIM (K2D77)	220-240 *176-276	0,6 *0,6	0,95 (Po>32 W)	55-100	0,25-0,6 0,65-0,75	340	-25..60 -25..50	90 85	
MP 120/700 SLIM (K2D78)		0,65 *0,7	0,95 (Po>43 W)	79-120	0,325-0,6 0,65-0,7	350	-25..60 -25..55	90 90	
MPX 120/700 277V SLIM (K2D85)	110-277 *176-276	0,65 *0,7	0,95 (Po>43 W)	79-120	0,325-0,7	350	-25..50	90	
MPX 165/800 SLIM (K2D79)	110-240 *176-276	0,9 *0,9	0,98 (Po>61 W)	103-165	0,425-0,7 0,725-0,8	340	-25..60 -25..55	90 90	
MPXM 165/900 SLIM (K2I43)	110-240 *176-276	0,9 *0,99	0,98 (Po>61 W)	128-165	0,525-0,9	370	-25..60	85	IND, BI, PE, 110
MPX 160GW OF (K2G61)	220-240 *176-276	0,77 *0,96	0,95 (P>52 W)	160	0,4-0,7	340	-	87	OF, FE
MPX 80GW OF (K2G62)		0,4 *0,5	0,98 (P>61 W)	80	0,4-0,7	340	-	83	
MPX 120/800 SLIM (K2G05)	110-240 *176-276	0,65 *0,7	0,95 (P>61 W)	103-120	0,425-0,7 0,725-0,8	330	-25..60 -25..55	95 90	IND, BI, FE, 110
MP 80/350 277V SLIM (K2D80)	110-277 *176-276	0,4 *0,5	0,95 (P>41 W)	25-80	0,2-0,35	390	-25..50	85	
MP 80/500 277V SLIM (K2D81)		0,4	0,95 (P>41 W)	25-80	0,35-0,5	390	-25..50	85	

		*0,5	
<p>Notes: The Kxxxx code can replace the type reference according to the following tables. [1] – Rated primary voltage: 110-240 V for MPX (tested in 220-240 V), MPXM models, 220-240 V for all other models, 50-60 Hz or 0/50/60 Hz; * see additional information for d.c. [2] – Output parameter where the product is declared as “stabilized”; values according to DIP switch selection. [3] – tc measured on the top of C15 capacitor for OF models. [4] – IND=independent with additional cable retainer as accessory; BI=built-in; OF=built-in without enclosure; PE=protective earth; FE= functional earth; 110= overheating protection (C.5.a type), comply with temperature limit of IEC 60598-1.</p>			

Connections		
Input supply	PRI	screwless terminal block 0,5...2,5 mm ² for MPX OF models 0,5...1,5 mm ² for MPXM 165/900 SLIM 0,2...1,5 mm ² for other models
Input for thermal protection (if present)	NTC	screwless terminal block 0,2...1,5 mm ²
Input for dimming or control (if present)	PUSH L, DA 1, DA 2, 1-10V	screwless terminal block 0,2...1,5 mm ²
Output load	SEC	screwless terminal block 0,2...1,5 mm ²

Additional information		
Use	Independent, built-in for ordinary luminaire, up to 2000 m above sea level.	
Features:	AC/DC P/S for LED; stabilized output current (CC); multiple value load; short-circuit proof type; impulse withstand category II; Pollution degree 2 (Normal Pollution); Material group IIIa; the material of plastic enclosure was tested with favourable result for Glow-wire at temperature 750-960 °C. NTC can be terminated with a resistor. The metal spring (MP, MPX SLIM models) can be used for the functional earth connection of controlgear for EMC compliance. Models with functional earth can be used in class II applications. The creepage distances, clearances and connections of control gears in the final application shall be according to IEC 60598-1 or national deviations of the country where installed in the final application. Total circuit power: 38 W for MP 35/350 SLIM, 44 W for MPSE 40/350 SLIM, MPSE 40/700 SLIM, 53 W for MP 50/350 SLIM, 56 W for MAXI JOLLY 50 SLIM HV, 58 W for MPSE 55/350 SLIM, MPSE 55/350 SLIM MO, MPSE 55/700 SLIM, MPV 55/350 SLIM, 60 W for MP 56/350 SLIM, 63,5 W for MPSE 60/350 SLIM, 65 W for MP 60/700 SLIM, 83 W for MP 80/350 277V SLIM, MP 80/500 277V SLIM, 85 W for MPX 80GW OF, 86 W for T-LED 80 models, MAXI JOLLY 80 models, other MP 80 models, 102 W for MP 100 models, MPX 100 models, 123 W for MP 120/700 SLIM, MPX 120/700 277V SLIM, 125 W for MPX 120/800 SLIM, 166 W for MPX 160GW OF, 168 W for MPX 165/800 SLIM, 173 W for MPXM 165/900 SLIM.	
DC operation	The products were tested in the nominal range 196-250 V (operative range 176-275 V) according to IEC/EN 61347-2-13 and they can be used for centralized emergency installations; Uout can be present in the label if d.c. supply is referred to earth; d.c. operation for standards different from IEC/EN 61347 can be allowed with external fuse installed in front of the controlgear (e.g. Littelfuse, 477 series, 5x20 mm time-lag rated for 500 Vac / 400 Vdc, VDE certificate No. 40025413).	
MODEL	INSULATION (B=basic, S=supplementary, R=double/reinforced)	
OF models	Between active parts ↔ touchable parts	N/A
All models with enclosure	Between active parts ↔ touchable parts	B
MPXM and additional cable retainer	Between active parts ↔ touchable parts	B
All models with plastic enclosure and additional cable retainer	Between active parts ↔ touchable parts	R
MP and MPX SLIM	Between functional earth ↔ the active parts	R
T-LED, MAXI JOLLY SLIM, MPSE 55/350 SLIM, MPSE 60/350 SLIM, MPSE 55/700 SLIM, MPXM 165/900 SLIM	Between L, N ↔ PE earth, PUSH L ↔ PE earth, DALI ↔ PE earth, 1-10V ↔ PE earth	B
T-LED 1-10V SLIM models	Between L, N, PE, PUSH L ↔ 1-10V	B
T-LED DALI SLIM, MAXI JOLLY SLIM models	Between L, N, PE, PUSH L ↔ DALI	B
T-LED 1-10V SLIM models	Between 1-10V ↔ SEC	S
T-LED DALI SLIM, MAXI JOLLY SLIM models	Between DALI ↔ SEC	S
All	Between PRI ↔ SEC	N/A

MPSE 55/350 SLIM, MPSE 55/700 SLIM, T-LED and MAXI JOLLY models (with PE)	Between live parts ↔ fixing screw to supporting surface of class I luminaire	B
MP models out of 277V models, MPX models (with FE), MPSE 40/350 SLIM, MPV 55/350 SLIM	Between live parts ↔ fixing screw to supporting surface	R
All products with enclosure are suitable for direct mounting on normally flammable surfaces (EN 60598-1 Annex N, VDE 0710 T14 for "MM" triangle marking) only for values (most unfavourable) up to the t_a or following t_c value:		
		Max. t_c (°C)
MP 80/500 SLIM, MP 80/500 SLIM cod. 1222141, MP 80/500 277V SLIM		75
MP 80/700 SLIM, MP 80/700 SLIM GW, MPSE 55/350 SLIM, MPSE 55/350 SLIM MO, MPSE 40/350 SLIM, MPX 165/800 SLIM, MPX 120/800 SLIM, MP 120/700 SLIM, MPX 120/700 277V SLIM, MP 100/750 SLIM, MPSE 40/700 SLIM, MPSE 60/350 SLIM		80
MPSE 55/700 SLIM, MPV 55/350 SLIM, MP 100/350 SLIM		85
All other models out of OF models		nominal t_c
<p>The creepage distances, clearances and connections of control gears in the final application shall be according to EN 60598-1 or national deviations of the country where installed. DC operation: add an external fuse if necessary, according to standards different from EN 61347 series.</p> <p>Assessment to EN IEC 60598-2-22:2022 used in conjunction with EN IEC 60598-1:2021 has been performed.</p> <p>Assessment to EN 62493:2015 has been performed.</p> <p>Assessment to VDE 0710 Part 14/04.82 has been performed.</p> <p>Assessment to EN IEC 62442-3:2022 has been performed.</p>		