

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) : DC LS (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 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.

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 11 February 2022 and expires upon withdrawal of one of the above mentioned standards.

Certificate number: 81-122412

DEKRA Certification B.V.



B.T.M. Holtus
Managing Director



H.R.M. Barends
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)	: DC LS (series)
Primary voltage	: 220-240 V for a.c., 189-250 for d.c.
Rated frequency	: 50-60 Hz or 50/60 Hz, 0 Hz
Primary current	: From 0,08 to 0,11 A for a.c., from 0,05 to 0,07 A for d.c.
Secondary power	: From 7 W to 10 W
Secondary voltage	: From 8 V to 28 V
Type of load	: LED modules
Classification	: Independent

TESTS**Test requirements**

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

Test result

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

Additional information

DEKRA test report No. 3500336.490 and 3500336.491 are laid down in DEKRA test file 350033600; they contain test results. DEKRA test report No. 3500336.490 contains critical component list.

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

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:

Controlgears for LED modules with stabilized output voltage. All models have SELV output. Primary voltage: 220-240 V 50/60 Hz or 50-60 Hz, 189-250 V *0 Hz. The Kxxxx code can replace the type reference according to the following table:

Type/s	supply voltage (V) [1]	supply current (A) [1]	Power Factor λ	Output Power (W)	Output voltage (V)	U _{OUT} (V)	ta (°C)	tc (°C)	Use [2]
DC 7W 8V LS (K2001)	220-240 170-280*	0,08 0,05*	0,52 C	7	8	9	-25...50	75	IND, II, 110, MM
DC 10W 12V LS (K2002)	220-240 170-280*	0,11 0,07*	0,55 C	10	12	13	-25...50	80	IND, II, 100, MM
DC 10W 24V LS (K2003)	220-240 170-280*	0,11 0,07*	0,55 C	10	24	25			
DC 10W 28V LS (K2352)	220-240 170-280*	0,095 0,07*	0,58 C	10	28	34		65	

Notes: [1] – maximum value with a.c. or *d.c. supply. [2] – IND= independent IP20; II= class II; 100/110= overheating protection (C.5.a type); MM= suitable for direct mounting on normally flammable surfaces (EN 60598-1:2015, VDE 0710 T14 for "MM" triangle marking).

Connections

Input supply	PRI	tails H03VVH2-F 2x0,75 mm ²
Output load	SEC + -	tails H05V2-K 0,5 mm ²

Additional information

Use	Independent or built-in controlgear for ordinary luminaire, up to 2000 m above sea level.
Features	For LED; stabilized output voltage; multiple value load; short-circuit proof type; impulse withstand category II; Pollution degree 2; Material group IIIa; thermal protection protection (C.5.a). The material of enclosure was tested with favourable result for Glow-wire at temperature 850-960 °C. All models out of HPFU models are suitable for direct mounting on normally flammable surfaces. Total circuit power: 9 W for DC 7W 8V LS; 12 W for all other models.
DC operation	The products were tested in the nominal range 189-250 V (operative range 170-280 V) according to IEC/EN 61347-2-13; 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).

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:

INSULATION

(B= basic, S= supplementary, R= double or reinforced)

PRI ↔ SEC	R
active parts ↔ touchable parts of enclosure	R
active parts ↔ bottom surface of enclosure	R

Assessment to EN 60598-2-22:2014/AMD1:2020 used in conjunction with EN IEC 60598-1:2021 has been performed.
Assessment to EN 62493:2015 has been performed.
Assessment to VDE 0710 Part 14/04.82 has been performed.
Assessment to EN 62442-3:2018 has been performed.