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)	:	PRO FLAT (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 62384:2006 and EN 62384:2006/A1:2009
- 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 28 May 2021 and expires upon withdrawal of one of the above mentioned standards.

Certificate number: 81-119153

DEKRA Certification B.V.

B.T.M. Holtus
Managing Director

H.R.M. Barends
Certification Manager

ACCREDITED BY THE
DUTCH ACCREDITATION
COUNCIL

PRODUCTS
RvA C 001

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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)	:	PRO FLAT (series)
Type of load	:	LED modules, power LED
Primary voltage	:	220-240 V a.c., 189-255 V d.c
Nature of supply	:	alternate current, direct current
Rated frequency	:	50/60 Hz, 0 Hz
Primary current	:	From 0,07 to 0,22 A for a.c., from 0,07 to 0,24 A for d.c.
Secondary current	:	From 0,125 to 1,05 A
Secondary power	:	From 5,5 to 40 W
Classification	:	Independent, Built-in

TESTS

Test requirements

EN 61347-2-13:2014
EN 61347-2-13:2014/A1:2017
EN 61347-1:2015
EN 62384:2006
EN 62384:2006/A1:2009

Test result

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

Additional information

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

DEKRA test reports No. 3500336.280 and 3500336.281 are laid down in DEKRA test file 350033600; they contain test results and critical component list. DEKRA test report No. 3500336.280 contains the critical component list.

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 controlgears for LED modules with stabilized output current (depending on the selection of the DIP switch S1 or S50); the DIP switch options (not for single current models) are detailed both in the technical specification and in the marking plates. All models have SELV output. The input voltage is 220-240 V 50/60 Hz. The Kxxxx code can replace the type reference according to the following tables:

Type/s	ac or dc input current [A]	Power factor	Output power (W)	Output current (A)	U_{0UT} (Vdc)	ta (°C)	tc (°C) [2]	Use [3]
PRO FLAT 40 or K2D86	0,22	0,95	13-40	0,3-1,05	59	-25..40	90	II, 110
PRO FLAT 40 BI** or K2D87	**0,24	(Pout≥15 W)		[1]		-25..45	90	BI, 110
PRO FLAT 40 OF or K2D88						-	80	OF
PRO FLAT 40/1050 or K2D89	0,22	0,9 C-0,95	40	1,05	59	-25..40	90	II, 110
PRO FLAT 40/1050 BI or K2D90	**0,24	(Pout≥15 W)				-25..45	90	BI, 110
PRO FLAT 40/1050 OF or K2D91						-	80	OF
PRO FLAT 36/900 or K2D92	0,2	0,9 C-0,95	36	0,9	59	-25..45	90	II, 110
PRO FLAT 36/900 BI or K2D93	*0,22	(Pout≥15 W)				-25..45	90	BI, 110
PRO FLAT 36/900 OF or K2D94						-	80	OF
PRO FLAT 30/800 or K2D98	0,15	0,9 C-0,95	30	0,8	59	-25..45	80	II, 110
PRO FLAT 30/800 BI or K2D99	**0,18	(Pout≥6 W)				-25..50	80	BI, 110
PRO FLAT 30/800 OF or K2E00						-	80	OF
PRO FLAT 30 or K2C12	0,16	0,95	15-32	0,35-0,725	59	-25..45	85	II, 110
PRO FLAT 30 BI or K2C13	**0,21	(Pout≥7 W)		[1]		-25..50	85	BI, 110
PRO FLAT 30 OF or K2C14						-	80	OF
PRO FLAT 30/700 or K2E01	0,15	0,9 C-0,95	30	0,7	59	-25..45	85	II, 110
PRO FLAT 30/700 BI or K2E02	*0,19	(Pout≥7 W)				-25..50	85	BI, 110
PRO FLAT 30/700 OF or K2E03						-	80	OF
PRO FLAT 26/600 or K2E04	0,13	0,9 C-0,95	26	0,6	59	-25..45	85	II, 110
PRO FLAT 26/600 BI or K2E05	*0,15	(Pout≥7 W)				-25..50	85	BI, 110
PRO FLAT 26/600 OF or K2E06						-	80	OF
PRO FLAT DALI or K2E07	0,15	0,95	11,5-26	0,25-0,7	59	-25..40	80	II, 110
PRO FLAT DALI BI or K2E08	*0,17	(Pout≥6 W)		[1]		-25..45	80	DI, 110
PRO FLAT DALI OF or K2E09						-	80	OF
PRO FLAT LC DALI or K2G75	0,12	0,9 C – 0,95	5,5-22	0,125-0,5	59	-25..50	80	II, 110, DNC
	*0,15	(Pout≥5,5 W)		[1]				
PRO FLAT LC DALI BI or K2G76						-25..50	80	DI, 110
PRO FLAT DALI OF or K2G77						-	80	BI
PRO FLAT 22 or K2C15	0,12	0,9 C – 0,95	5,5-22	0,125-0,5	59	-25..45	75	II, 110, DNC
	**0,15	(Pout≥5,5 W)		[1]				
PRO FLAT 22 BI or K2C16						-25..50	75	BI, 110
PRO FLAT 22 OF or K2C17						-	80	OF
PRO FLAT 22/500 or K2E10	0,12	0,9 C – 0,95	22	0,5	59	-25..45	75	II, 110, DNC
	**0,15	(Pout≥8 W)						
PRO FLAT 22/500 BI or K2E11						-25..50	75	BI, 110
PRO FLAT 22/500 OF or K2E12						-	80	OF
PRO FLAT 15/350 or K2E13	0,09	0,9 C – 0,95	15	0,35	59	-25..50	75	II, 110, DNC
	**0,1	(Pout≥8 W)						
PRO FLAT 15/350 BI or K2E14						-25..55	75	BI, 110

PRO FLAT 15/350 OF or K2E15						-	80	OF
PRO FLAT 13/300 or K2E16	0,08 **0,08	0,9 C – 0,95 (Pout≥8 W)	13	0,3	59	-25..50	75	II, 110, DNC
PRO FLAT 13/300 BI or K2E17						-25..55	75	BI, 110
PRO FLAT 13/300 OF or K2E18						-	80	OF
PRO FLAT 12/250 or K2E19	0,07 **0,07	0,9 C – 0,95 (Pout≥8 W)	12	0,25	59	-25..50	75	II, 110, DNC
PRO FLAT 12/250 BI or K2E20						-25..55	75	BI, 110
PRO FLAT 12/250 OF or K2E21						-	80	OF

Notes: an operative d.c. range is present in the marking for which the products can work in centralized emergency installations (EN 50171 and EN 50172), *rated 189-255 V range, extended 170-280 V range, ** rated 196-250 V range, extended 176-275 V range; [1] – Different values according to DIP switch selection (see marking plate). [2] – For OF models tc is measured on the top of C15. [3] – 110=the products have an overheating protection (C.5.a automatic resetting type) and comply with temperature limit of EN 60598-1:2015/A1:2018; II=class II; DI=Built-in with double insulation; OF=built-in without enclosure; DC=Do not cover.

Connections

Input supply	PRI	screwless terminal block 0,2…1,5 mm² (0,75…1,5 mm² for independent models)
DALI control	DA	screwless terminal block 0,2…1,5 mm² (0,75…1,5 mm² for independent models)
Output load	SEC	screwless terminal block 0,2…1,5 mm²

Additional information

Features	All models have the following features: for LED; stabilized output current (CC); multiple value load; short-circuit proof type; impulse withstand category ll and III; Pollution degree 2; Material group llla; the material of enclosure was tested with favourable result for Glow-wire at temperature 750-960 °C.
DC operation	The products were tested in d.c. range according to IEC/EN 61347-2-13; d.c. operation can be allowed with external fuse installed in front of the controlgear for standards different from IEC/EN 61347 series.

INSULATION: B= basic, S= supplementary, D= double or reinforced	PRI	DA (if present)	SEC
PRI	-	D	D
DA (if present)	B	-	D
SEC	D	D	-

The OF models have been tested in the same enclosure of built-in models, the safety evaluations must be repeated if they will be assembled in a final luminaire with different enclosure. 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:

INSULATION: B= basic, S= supplementary, D= double or reinforced	independent models	BI models	OF models
Between active parts ↔ external touchable parts	D	B, D for DALI models	-
Between active parts ↔ botton side of the enclosure	D	D	-
PRO FLAT OF models	-	-	-

Assessment to IEC 60598-2-22:2014/AMD1:2017 used in conjunction with IEC 60598-1:2014/AMD1:2017 has been performed (valid for EN 60598-2-22:2014/AMD1:2020 used in conjunction with EN 60598-1:2014/AMD1:2017 and EN 60598-1:2015/A1:2018).
Assessment to IEC 62493:2015 (valid for EN 62493:2015) has been performed.
All models are suitable for direct mounting on normally flammable surfaces (EN 60598-1:2015) only for values (most unfavorable) up to the following t_c value:

	Max. t_c (°C)
PRO FLAT 40 models, PRO FLAT 36 models, MP 42 RF (340044)	75
PRO FLAT 30 models, PRO FLAT DALI models	73
PRO FLAT 30/800, PRO FLAT 22, PRO FLAT LC DALI models	rated t_c

All independent models are suitable for "MM" triangle marking (VDE 0710 T14) only for values (most unfavorable) up to the following t_c value:

	Max. t_c (°C)
PRO FLAT 40 models, PRO FLAT 36 models	80
PRO FLAT 30 models, PRO FLAT DALI models	75
PRO FLAT 30/800, PRO FLAT 22, PRO FLAT LC DALI models	rated t_c