

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) : PROFESSIONALE (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

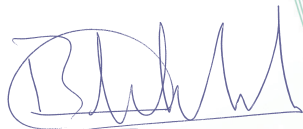
DEKRA hereby grants the right to use the ENEC certification mark.

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

Certificate number: 81-125923

DEKRA Certification B.V.



B.T.M. Holtus
Managing Director



K Xu
Certification Manager

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COUNCIL



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)	: PROFESSIONALE (series)
Primary voltage	: 100-240 V for a.c., 196-250 V for d.c.
Rated frequency	: 50/60 Hz or 50-60 Hz; 0 Hz
Primary current	: From 0,11 to 0,4 A for a.c., from 0,13 to 0,3 A for d.c.
Power factor	: From 0,9 C to 0,98
Secondary power	: From 12 to 45 W
Secondary current	: From 0,125 to 1,4 A, 2x 0,35 A, 2x 0,5 A
Working voltage Uout	: From 55 to 60 V
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. 3500336.542 and 3500336.543 are laid down in DEKRA test file 350033600; they contain test results. DEKRA test report No. 3500336.542 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:

The devices are controlgears for LED modules with stabilized output current (CC) depending on the selection of the DIP switch S1 or S50 or software programming. Dimming features are detailed in the technical specification. All models have SELV output.

Type/s	a.c./*d.c. supply (V) [1]	Input current (A)	Power factor	Output power Po (W)	Output current (A)	Uout d.c. (V)	ta (°C)	tc (°C) [2]	Use [3]
PROFESSIONALE 32 (K2B67)	220-240	0,17	0,95 (Po>13 W)	16-32	0,35-0,7	59	-25..45	75	II, FE, 110
PROFESSIONALE 32 BII (K2B68)	*176-275	*0,21							DI, FE, 110
PROFESSIONALE 32 BI (K2B69)									BI, FE, 110
PROFESSIONALE 32 OF (K2B70)									OF, FE
PROFESSIONALE 34 (K2761)	220-240	0,19	0,93 C-0,97	12-34	0,25-0,7	60	-25..40	70	I, PE, 110, MM
PROFESSIONALE 34 BII (K2C11)	*176-275	*0,22							DI, PE, 110, MM
PROFESSIONALE 34 BI (K2762)									BI, PE, 110, MM
PROFESSIONALE 34 OF (K2763)									OF, PE
PROFESSIONALE 1-10V (K2B71)	220-240	0,2	0,95 (Po>13 W)	16-36	0,3-1,05	59	-25..40	80	II, 110
PROFESSIONALE 1-10V BI (K2B72)									BI, 110
PROFESSIONALE 1-10V OF (K2B73)	*176-275	*0,22							OF
PROFESSIONALE DALI (K2B74)	220-240	0,2	0,95 (Po≥15 W)	16-38	0,3-1,05	59	-25..45	85	II, 110, MM
PROFESSIONALE DALI BI (K2B75)	*176-275	*0,25							DI, 110, MM
PROFESSIONALE DALI OF (K2B76)									OF
PROFESSIONALE DALI NFC (K2F77)	220-240	0,20	0,95 (Po≥15 W)	max. 38	0,3-1,05	59	-25..50	85	II, 110, MM
PROFESSIONALE DALI NFC BI (K2F78)	*176-275	*0,25							DI, 110, MM
PROFESSIONALE DALI NFC OF (K2F79)									OF
PROFESSIONALE 20 DALI NFC (K2I25)	220-240	0,11	0,9 C	max. 20	0,125-0,5	59	-25..50	80	II, 110, MM, DNC
PROFESSIONALE 20 DALI NFC BI (K2I26)	*176-275	*0,13							DI, 110, MM
PROFESSIONALE 20 DALI NFC OF (K2I27)									OF
PROFESSIONALE CASAMBI (K2B77), PROFESSIONALE CASAMBI NFC (K2I31)	220-240	0,20	0,95 (Po≥15 W)	16-38	0,3-1,05	59	-25..45	85	II, 110, MM
PROFESSIONALE CASAMBI BI (K2B78), PROFESSIONALE CASAMBI NFC BI (K2I32)	*176-275	*0,24							DI, 110, MM
PROFESSIONALE CASAMBI OF (K2B79), PROFESSIONALE CASAMBI NFC OF (K2I33)									OF
PROFESSIONALE ZB3 (K2F74)	220-240	0,2	0,95 (Po≥15 W)	16-38	0,3-1,05	59	-25..45	85	II, 110, MM
PROFESSIONALE ZB3 BI (K2F75)	*176-275	*0,24							DI, 110, MM
PROFESSIONALE ZB3 OF (K2F76)									OF
PROFESSIONALE 42 (K2764)	220-240	0,23	0,95	13-42	0,3-1,05	55	-25..40	80	II, FE,

Type/s	a.c./*d.c. supply (V) [1]	Input current (A)	Power factor	Output power Po (W)	Output current (A)	Uout d.c. (V)	ta (°C)	tc (°C) [2]	Use [3]
			(Po>15 W)						110
PROFESSIONALE 42 BII (K2A62)	*176-275	*0,27							DI, FE, 110
PROFESSIONALE 42 BI (K2765)							-25..45		BI, FE, 110
PROFESSIONALE 42 OF (K2766)							-	80	OF, FE
PROFESSIONALE HC (K2D69), PROFESSIONALE HC CASAMBI (K2D67), PROFESSIONALE HC DALI (K2D68)	220-240 *176-275	0,26 *0,3	0,95 (Po≥20 W)	29-45	0,65-1,4	59	-25..40	90	II, 110, MM
PROFESSIONALE HC BI (K2D63), PROFESSIONALE HC CASAMBI BI (K2D64), PROFESSIONALE HC DALI BI (K2D65)							-25..45	90	DI, 110, MM
PROFESSIONALE HC OF (K2D72), PROFESSIONALE HC CASAMBI OF (K2D70), PROFESSIONALE HC DALI OF (K2D71)							-	80	OF
PROFESSIONALE WR (K2F70)	100-127 220-240	0,4	0,98 0,9 C (Po >13 W)	13-38	0,3-1,05	55	-25..40	90	I, PE, 110
PROFESSIONALE WR BI (K2D66)	277						-25..45	75/80 [4]	BI, PE, 110
PROFESSIONALE WR OF (K2D73)	*176-275	*0,25					-	80	OF, PE
PROFESSIONALE 1-10V WR (K2F71)	100-127 220-240	0,4	0,98 0,9 C (Po >13 W)	13-38	0,3-1,05	55	-25..40	90	I, PE, 110
PROFESSIONALE 1-10V WR BI (K2F72)	277						-25..45	80	BI, PE, 110
PROFESSIONALE 1-10V WR OF (K2F73)	*176-275	*0,25					-	80	OF, PE
PROFESSIONALE SQUARE DALI NFC (K2F80), PROFESSIONALE SQUARE NFC (K2F82)	220-240 *176-275	0,205 *0,25	0,9 C (Po≥11 W)	Max. 38	0,3-1,05	60	-25..50	80	DI, 110, MM
PROFESSIONALE SQUARE DALI NFC OF (K2F81), PROFESSIONALE SQUARE NFC OF (K2F83)							-	80	OF
PROFESSIONALE 2x350 cod. 142030 (K2H68)	220-240	0,15	0,95 (Po≥15 W)	Max. 28	2x 0,35	59	-25..45	80	II, 110, MM
PROFESSIONALE 2x350 BI (K2H69)	*176-275	*0,19					-25..50	80	DI, 110, MM
PROFESSIONALE 2x350 OF (K2H70)							-	80	OF
PROFESSIONALE 2x350 cod. 142030ASN (K2H81)	220-240 *176-275	0,15 *0,19	0,95 (Po≥15 W)	Max. 28	2x 0,35	59	-25..40	75	II, 110, MM, DNC
PROFESSIONALE 2x500 (K2H71)	220-240 *176-275	0,20 *0,25	0,95 (Po≥15 W)	Max. 38	2x 0,5	59	-25..40	90	II, 110, MM, DNC
PROFESSIONALE 2x500 BI (K2H72)							-25..45	90	DI, 110, MM
PROFESSIONALE 2x500 OF (K2H73)							-	80	OF
PROFESSIONALE CASAMBI TW (K2H77)	220-240 *176-275	0,15 *0,19	0,95 (Po≥15 W)	Max. 28	2x 0,5 max (I _{SEC1} + I _{SEC2} = max. 700 mA)	59	-25..45	85	II, 110, MM, DNC
PROFESSIONALE CASAMBI TW BI (K2H78)							-25..50	85	DI, 110, MM
PROFESSIONALE CASAMBI TW OF (K2H79)							-	80	OF

Type/s	a.c./*d.c. supply (V) [1]	Input current (A)	Power factor	Output power Po (W)	Output current (A)	Uout d.c. (V)	ta (°C)	tc (°C) [2]	Use [3]
<p>Notes: The Kxxxx code can replace the type reference. [1] – a.c. at 50-60 Hz or 50/60 Hz; ac supply for WR models: 100-277 V, but tested only at 100-240 V; *d.c. supply, see additional information for rated/operative range. [2] – tc is measured on the top of C15 for OF models. [3] – I=independent class I; II=independent class II; FE=functional earth; PE=protective earth; DI=built-in with double insulation; BI=built-in; OF=built-in without enclosure; 110= overheating protection (C.5.a type); MM=VDE 0710 T14; DNC=Do not cover. [4] – tc=75 °C at 220-240 V, 80 °C at 100-120 V.</p>									

Connections		
Supply	PRI, L, N	screwless terminal block 0,5...1,5 mm ² (0,75...1,5 mm ² for independent models)
Control (if present)	P1 P2, DA, DA/LS, DA/N	screwless terminal block 0,5...1,5 mm ² (0,75...1,5 mm ² for independent models)
Local control (if present)	ADIM	screwless terminal block 0,5...1,5 mm ²
Output load	SEC + -	screwless terminal block 0,5...1,5 mm ²

Additional information				
Use	Independent or built-in controlgear for ordinary luminaire, up to 2000 m above sea level.			
Features	<p>For LED; stabilized output current; multiple value load; short-circuit proof type; impulse withstand category II; Pollution degree 2; Material group IIIa; thermal protection protection (C.5.a); the tests for OF models have been performed using the same enclosure of BI models.</p> <p>The material of enclosure was tested with favourable result for Glow-wire at temperature 750-960 °C.</p> <p>Total circuit power: 22,5 W for PROFESSIONALE 20 DALI NFC models; 31 W for PROFESSIONALE 2x350 models, PROFESSIONALE CASAMBI TW models; 35 W for PROFESSIONALE 32 models; 37 W for PROFESSIONALE 34 models; 40 W for PROFESSIONALE 1-10V models; 46 W for PROFESSIONALE 42 models; 50 W for PROFESSIONALE HC models; 42 W for all other models.</p>			
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; 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	Independent models	PROFESSIONALE 32 BI, PROFESSIONALE 34 BI, PROFESSIONALE 1-10V BI, PROFESSIONALE 42 BI, PROFESSIONALE WR BI, PROFESSIONALE 1-10V WR BI	Other BI models and BII models	OF models
PRI ↔ SEC, ADIM (if present)	R			
PRI ↔ DA	B			
SEC ↔ DA	R			
SEC ↔ DA/LS, DA/N, P1, P2	R			
active parts ↔ touchable parts of enclosure	R	B	R	-
active parts ↔ bottom surface of enclosure	R	R	R	-
Assessment to EN 60598-2-22:2014/A1:2020 used in conjunction with EN IEC 60598-1:2021 has been performed.				
Assessment to EN 62493:2015 has been performed.				
Assessments to normally flammable surfaces according to EN 60598-1 and VDE 0710 Part 14/04.82 (MM symbol) have been performed with the following limits:				
PROFESSIONALE DALI NFC, PROFESSIONALE DALI, PROFESSIONALE CASAMBI, PROFESSIONALE CASAMBI NFC, PROFESSIONALE ZB3 models	MM	tc ≤ 65 °C		
PROFESSIONALE 42 models	-	tc ≤ 69 °C		
PROFESSIONALE WR, PROFESSIONALE WR 1-10V models	-	tc ≤ 83 °C		
PROFESSIONALE SQUARE DALI NFC, PROFESSIONALE SQUARE NFC	MM	tc ≤ 74 °C		
PROFESSIONALE HC models, PROFESSIONALE HC DALI, PROFESSIONALE HC CASAMBI models	MM	tc ≤ 85 °C		
PROFESSIONALE 34 models, PROFESSIONALE 2x350, PROFESSIONALE 2x500, PROFESSIONALE CASAMBI TW, PROFESSIONALE 20 DALI NFC models	MM	declared tc		
PROFESSIONALE DALI NFC, PROFESSIONALE DALI, PROFESSIONALE CASAMBI, PROFESSIONALE CASAMBI NFC, PROFESSIONALE ZB3 models	MM	tc ≤ 65 °C		
PROFESSIONALE 1-10V models	MM	tc ≤ 67 °C		
Assessment to EN 62442-3:2018 has been performed.				