

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 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 production location according to CENELEC Operational Document CIG 021
- a certification agreement with the number 2033015

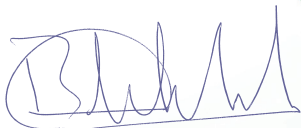
DEKRA hereby grants the right to use the ENEC certification mark.

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

This certificate is issued on 12 March 2020 and expires upon withdrawal of one of the above mentioned standards.

Certificate number: 81-112955

DEKRA Certification B.V.



B.T.M. Holtus
Managing Director



R Zhou
Certification Manager

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DUTCH ACCREDITATION
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
Nature of supply	: alternate current
Rated frequency	: 50/60 Hz or 50-60 Hz
Primary current	: From 0,17 to 0,4 A
Power factor	: From 0,9 C to 0,97
Secondary power	: From 11 to 45 W
Secondary current	: From 0,25 to 1,4 A
Working voltage Uout	: From 55 to 60 V
Type of load	: LED modules, power LED
Ambient temperature	: From -25 to 50 °C
Type of thermal protection	: 110 °C
Classification	: Independent, built-in, integral

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 report No. 2102886.50 and 2102886.60 are laid down in DEKRA test file 350033600; they contain test results and 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 (CC) depending on the selection of the DIP switch S1/S50 or software programming. Dimming features are detailed in the technical specification. All models have SELV output. BI models are built-in, BII models are to built-in with double insulation, OF models are integral, other models are IP20 independent. Kxxxx code can replace the type reference according to the following tables:									
Type/s	ac or *dc input supply	ac or *dc input current (A)	Power factor	Output power Po (W)	Output current (A)	d.c. Uout (V)	ta (°C)	tc (°C) [1]	symbol [2]
PROFESSIONALE 32 (K2B67)	220-240 V 50/60 Hz	0,17	0,95 (Po>13 W)	16-32	0,35-0,7	59	-25..45	75	II, FE, 110
PROFESSIONALE 32 BII (K2B68)	*196-250 V	*0,21							DI, FE, 110
PROFESSIONALE 32 BI (K2B69)							-25..50	75	FE, 110
PROFESSIONALE 32 OF (K2B70)							-	80	FE
PROFESSIONALE 34 (K2761)	220-240 V 50-60 Hz	0,19	0,93 C-0,97	12-34	0,25-0,7	60	-25..40	70	I, PE, 110
PROFESSIONALE 34 BII (K2C11)	*196-250 V	*0,22							DI, PE, 110
PROFESSIONALE 34 BI (K2762)							-25..45	75	PE, 110
PROFESSIONALE 34 OF (K2763)							-	80	PE
PROFESSIONALE 1-10V (K2B71)	220-240 V 50/60 Hz	0,2	0,95 (Po>13 W)	16-36	0,3-1,05	59	-25..40	80	II, 110
PROFESSIONALE 1-10V BI (K2B72)							-25..45	80	110
PROFESSIONALE 1-10V OF (K2B73)	*196-250 V	*0,22					-	80	-
PROFESSIONALE DALI (K2B74)	220-240 V 50-60 Hz	0,2	0,95 (Po≥15 W)	16-38	0,3-1,05	59	-25..45	85	II, 110, MM
PROFESSIONALE DALI BI (K2B75)	*196-250 V	*0,25					-25..50	85	DI, 110, MM
PROFESSIONALE DALI OF (K2B76)							-	80	-
PROFESSIONALE DALI NFC (K2F77)	220-240 V 50-60 Hz	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)	*196-250 V	*0,25					-25..50	85	DI, 110, MM
PROFESSIONALE DALI NFC OF (K2F79)							-	80	-
PROFESSIONALE CASAMBI (K2B77)	220-240 V 50-60 Hz	0,20	0,95 (Po≥15 W)	16-38	0,3-1,05	59	-25..45	85	II, 110, MM
PROFESSIONALE CASAMBI BI (K2B78)	*196-250 V	*0,24					-25..50	85	DI, 110, MM
PROFESSIONALE CASAMBI OF (K2B79)							-	80	-
PROFESSIONALE ZB3 (K2F74)	220-240 V 50-60 Hz	0,2	0,95 (Po≥15 W)	16-38	0,3-1,05	59	-25..45	85	II, 110, MM
PROFESSIONALE ZB3 BI (K2F75)							-25..50	85	DI, 110, MM

PROFESSIONALE ZB3 OF (K2F76)	*196-250 V	*0,24					-	80	-
PROFESSIONALE 42 (K2764)	220-240 V 50/60 Hz	0,23	0,95 ($P_o > 15$ W)	13-42	0,3-1,05	55	-25..40	80	II, FE, 110
PROFESSIONALE 42 BII (K2A62)									FE, 110
PROFESSIONALE 42 BI (K2765), MP 42 RF (K2830)	*196-250 V	*0,27					-25..45		FE, 110
PROFESSIONALE 42 OF (K2766)							-	80	FE
PROFESSIONALE HC (K2D69), PROFESSIONALE HC CASAMBI (K2D67), PROFESSIONALE HC DALI (K2D68)	220-240 V 50-60 Hz	0,26	0,95 ($P_o \geq 20$ 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)	*196-250 V	*0,3					-25..45	90	DI, 110, MM
PROFESSIONALE HC OF (K2D72), PROFESSIONALE HC CASAMBI OF (K2D70), PROFESSIONALE HC DALI OF (K2D71)							-	80	-

Type/s	ac or *dc input supply [3]	ac or *dc input current (A)	Power factor	Output power P_o (W)	Output current (A)	d.c. U_{out} (V)	t_a (°C)	t_c (°C) [1]	symbol [2]
PROFESSIONALE WR (K2F70)	100-240 V 50/60 Hz	0,4	0,95 ($P_o > 13$ W)	13-38	0,3-1,05	55	-25..40	90	I, PE, 110
PROFESSIONALE WR BI (K2D66)	*196-250 V	*0,25					-25..45	75/80 [4]	PE, 110
PROFESSIONALE WR OF (K2D73)							-	80	PE
PROFESSIONALE 1-10V WR (K2F71)	100-240 V 50/60 Hz	0,4	0,95 ($P_o > 12$ W)	13-38	0,3-1,05	55	-25..40	90	I, PE, 110
PROFESSIONALE 1-10V WR BI (K2F72)	*196-250 V	*0,25					-25..45	80	PE, 110
PROFESSIONALE 1-10V WR OF (K2F73)							-	80	PE
PROFESSIONALE SQUARE DALI NFC (K2F80), PROFESSIONALE SQUARE NFC (K2F82)	220-240 V 50/60 Hz	0,205	0,9 C ($P_o \geq 11$ 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	-

Notes: * operative d.c. range in which the products can work for centralized emergency installations. [1] – t_c is measured on the top of C15 for OF models. [2] – Symbols: I=independent class I; II=independent class II; FE=functional earth; PE=protective earth; DI=double insulation; 110= overheating protection (C.5.a type); MM=VDE 0710 T14. [3] – ac supply for WR models: 100-277 V, but tested only at 100-240 V. [4] – $t_c=75$ °C at 220-240 V, 80 °C at 100-120 V.

Connections		
Input supply	PRI	screwless terminal block 0,5...1,5 mm ² (0,75...1,5 mm ² for independent models)

Input for control (if present)	P1 P2, DA, DA/L S, DA/N	screwless terminal block 0,5...1,5 mm ² (0,75...1,5 mm ² for independent models)
Input for local control (if present)	1..10V	screwless terminal block 0,5...1,5 mm ²
Output load	SEC	screwless terminal block 0,5...1,5 mm ²

Additional information					
All models have the following 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 enclosure was tested with favourable result for Glow-wire at temperature 750-950 °C. The products have an overheating protection and comply with temperature limit of clause 4.16.2 of EN 60598-1:04 ("F" triangle marking), IEC 60598-1:2014/AMD1:2017. All models have touchable output circuit.					
INSULATION: B= basic, S= supplementary, D= double or reinforced	PRI	P1, P2 (if present)	1..10V (if present)	DA, DA/L S, DA/N	SEC
PRI	-	B	D	B	D
P1, P2 (if present)	B	-	-	-	D
1..10V (if present)	D	-	-	-	-
DA, DA/L S, DA/N	B	-	-	-	D
SEC	D	D	-	D	-
1-10V control is used for local connections (sensors). The products can work for centralized emergency installations (EN 50171 and EN 50172) in the rated range: 196-250 V; in the marking plate can be present also an extended range considering ±10 % of the rated value; an external fuse installed before the controlgear can be necessary in final applications according to standards different from IEC 61347 series. Independent, BII and BI models are suitable for direct mounting on normally flammable surfaces (EN 60598-1:2015 for NFS, VDE 0710 T14 for "MM" triangle marking) with tc upward only for values up to the following tc value:					
					max. tc (°C)
PROFESSIONALE 32, PROFESSIONALE 34 models					70
PROFESSIONALE 1-10V models					67
PROFESSIONALE DALI, PROFESSIONALE DALI NFC, PROFESSIONALE CASAMBI, PROFESSIONALE ZB3 models					65
PROFESSIONALE 42 models					69
PROFESSIONALE HC models					80
PROFESSIONALE HC DALI, PROFESSIONALE HC CASAMBI models					77
PROFESSIONALE WR, PROFESSIONALE WR 1-10V models					83
PROFESSIONALE SQUARE DALI NFC, PROFESSIONALE SQUARE NFC					70

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 in a 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	Between active parts and test finger	Between active parts and external surfaces of enclosure
PROFESSIONALE 32, PROFESSIONALE 34, PROFESSIONALE 1-10V, PROFESSIONALE DALI, PROFESSIONALE DALI NFC, PROFESSIONALE CASAMBI, PROFESSIONALE ZB3, PROFESSIONALE 42, PROFESSIONALE HC, PROFESSIONALE HC DALI, PROFESSIONALE HC CASAMBI, PROFESSIONALE WR, PROFESSIONALE 1-10V WR, PROFESSIONALE 32 BII, PROFESSIONALE 34 BII, PROFESSIONALE DALI BI, PROFESSIONALE DALI NFC BI, PROFESSIONALE CASAMBI BI, PROFESSIONALE ZB3 BI, PROFESSIONALE 42 BII, PROFESSIONALE HC BI, PROFESSIONALE HC DALI BI, PROFESSIONALE HC CASAMBI BI, PROFESSIONALE WR BI, PROFESSIONALE 1-10V WR BI, PROFESSIONALE SQUARE DALI NFC, PROFESSIONALE SQUARE NFC	D	D
PROFESSIONALE 32 BI, PROFESSIONALE 34 BI, PROFESSIONALE 1-10V BI, PROFESSIONALE 42 BI	B	D (only bottom side)

PROFESSIONALE 32 OF, PROFESSIONALE 34 OF, PROFESSIONALE 1-10V OF, PROFESSIONALE DALI OF, PROFESSIONALE DALI NFC OF, PROFESSIONALE CASAMBI OF, PROFESSIONALE ZB3 OF, PROFESSIONALE 42 OF, PROFESSIONALE HC OF, PROFESSIONALE HC DALI OF, PROFESSIONALE HC CASAMBI OF, PROFESSIONALE WR OF, PROFESSIONALE 1-10V WR OF, PROFESSIONALE SQUARE DALI NFC OF, PROFESSIONALE SQUARE NFC OF	-	-
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