CERTIFICATE

Issued to:
Applicant:
TCI Telecomunicazioni Italia S.r.l.
Via Parma, 14
21047 Saronno (VA), Italy

Licensee:
TCI Telecomunicazioni Italia S.r.l.
Via Parma, 14
21047 Saronno (VA), Italy

Product	:	Electronic circuits used with luminaires
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)	:	BLL 2CH ACTUATOR** (*means any alphanumeric characters), SED** (*means any alphanumeric characters) and SWITCH** (*means any alphanumeric characters)

The product and any acceptable variation thereof as specified in the Annex to this certificate and the documents referred to therein.

DEKRA hereby declares that the above-mentioned product has been certified based on:
- a type test according to EN 61347-1:2015, EN 61347-1:2015/A1:2021, EN 61347-2-11:2001 and EN 61347-2-11:2001/A1:2019
- 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 31 March 2025 and expires upon withdrawal of one of the above mentioned standards.

Certificate number: 81-122507 REV.1

DEKRA Certification B.V.

B.T.M. Holtus
Managing Director

Matilde Tonsi
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 circuits used with luminaires
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)	:	BLL 2CH ACTUATOR** (*means any alphanumeric characters), SED** (*means any alphanumeric characters) and SWITCH** (*means any alphanumeric characters)

Product data – type SED** (*means any alphanumeric characters)

Primary voltage	:	12/24/48 V
Nature of supply	:	Constant current
Rated frequency	:	0 Hz
Primary current	:	From 4,6 to 5 A
Output voltage	:	12/24/48 V
Output power	:	From 55 to 240 W
Type of load	:	LED strip, LED modules
Classification	:	Independent, Built in

Product data – type BLL 2CH ACTUATOR** (*means any alphanumeric characters) and SWITCH** (*means any alphanumeric characters)

Primary voltage	:	100-240 V
Nature of supply	:	Alternate current
Rated frequency	:	50/60 Hz
Primary current	:	From 0,02 to 0,04 A
Classification	:	Independent, Built in

TESTS

Test requirements

EN 61347-1:2015
EN 61347-1:2015/A1:2021
EN 61347-2-11:2001
EN 61347-2-11:2001/A1:2019

Test result

The test results are documented in DEKRA test file 351015300.

Additional information

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

DEKRA test report No. 3510153.150 is laid down in DEKRA test file 351015300.

This certificate replaces certificate No. 81-122507 which we hereby declare invalid.

The list of components is laid down in test report 3510153.150.

Conclusion

The examination has confirmed that all requirements were met.

Factory location
TCI Telecomunicazioni Italia S.r.l.
Via Parma, 14
21047 Saronno (VA), Italy

General product information:

The SED models are controllers for constant voltage (CV) LED modules, inserted between the LED driver (CV output) and the LED modules. The dimming can be analogic control (1-10V, Push LV, PUSH, PUSH) or wireless (BLL protocol); a movement detector can be present (PIR). EX models have an external antenna.

Type/s	Input Voltage [1]	Input current [A]	Total output Power (W)	Output voltage (V) [1]	ta (°C)	tc (°C)	Thermal Protection (°C)	Use [4]
SED 4.5A R57 (K3036)	12 24	4,6	55 110	12 24	-20..45	70	100 [2]	BI, MM
SED DCC 2CH BLL (K3044), SED DCC 2CH BLL EX (K3045)	12 24	4,6	55 110	12 24	-20..45	70	130 [3]	DI, PIR
SED 4CH BLL/2 (K3050), SED 4CH BLL EX/2 (K3051)	12 24 48	5	60 120 240	12 24 48	-20..45	65	110 [3]	III, MM

Notes: Kxxxx code can replace the type reference; [1] – DC voltage (0 Hz); [2] – Overheating protection (C.5.c). [3] – Overheating protection (C.5.a); /2 models comply with temperature limit of clause 4.16.2 of EN 60598-1:2015/A1:2018. [4] – III=independent class III; BI=built-in; DI=built-in with double insulation; MM= VDE 0710 T14 for "MM" triangle marking; PIR: passive infrared sensor.

The SWITCH 3P models are electronic switches for SED models or LED drivers; they switch on/off and dim the light by 1-3 pushbuttons. BLL 2CH ACTUATOR models switches different loads.

Type/s	Input Voltage [1]	Input current [A]	ta (°C)	tc (°C)	Use [2]
SWITCH 3P BLL (K3052)	110-240	0,04	-25..45	55	BI, 3P
SWITCH 3P BLL/2 (K3053), SWITCH 3P BLL EX/2 (K3054)	100-240	0,02	-25..45	60	II, 3P
BLL 2CH ACTUATOR (K3055), BLL 2CH ACTUATOR EX (K3056)					II, A, B

Notes: Kxxxx code can replace the type reference; [1] – Supply voltage 50/60 Hz); [2] – BI=built-in; II=independent IP20 class II; 3P= 1-3 controls by pushbutton; A, B=contacts for loads.

Connections for SED models	SED 4.5A R57	SED DCC 2CH BLL models	SED 4CH models	type
Input supply	IN	IN	V_{IN}	Screw terminal 0,75-2,5 mm^2 or 0,5-2,5 mm^2 for BI models

Dimming port	1..10V, Push LV	Push LV	PUSH	Screw terminal 0,5-2,5 mm^2
Movement sensor	Not present	In PIR	Not present	Connector (3 poles)
Output LED modules	OUT	OUT Ch1, OUT Ch2	+COM, W, R, G, B	Screw terminal 0,5-2,5 mm^2

Connections for SWITCH models	SWITCH 3P BLL	SWITCH 3P BLL/2, SWITCH 3P BLL EX/2	BLL 2CH ACTUATOR, BLL 2CH ACTUATOR EX	type
Input supply	L, N	L, N	L, N	Screw terminal 0,75-2,5 mm^2 or 0,5-2,5 mm^2 for BI models
Control port	C, P1, P2, P3	C/N, IN1, IN2, IN3	A, B	Screw terminal 0,5-2,5 mm^2 or 0,5-2,5 mm^2 for BI models

Additional information	
Features for SED models	multiple value load; short-circuit proof type; impulse withstand category II and III; Pollution degree 2; Material group IIIa; the material of case was tested for Glow-wire at temperature 750-960 °C; independent models are suitable for direct mounting on normally flammable surfaces.
Features for SWITCH models, BLL 2CH ACTUATOR models	Electronic switch with wireless control; impulse withstand category II or III; Pollution degree 2; Material group IIIa; the material of case was tested for Glow-wire at temperature 750-960 °C. SWITCH 3P models receive the input command by three inputs for pushbuttons. BLL 2CH ACTUATOR models switch on/off drivers (5A/250Vac; 5A/30Vdc; 2A/48Vdc) or loads (incandescent lamps up to 1000W; LED or CFL lamps up to 150W; motor up to 300W).

INSULATION B= basic, S=supplementary, R=double or reinforced	SED 4.5A R57	SED DCC 2CH BLL models	SED 4CH models	SWITCH 3P BLL	SWITCH /2 models	BLL 2CH ACTUATOR models
IN↔OUT	-	-	-	-	-	-
1..10V, Push LV, In PIR ↔ OUT, PUSH ↔ OUT	-	-	-	-	-	-
L, N ↔ C, P1, P2, P3, C/N, IN1, IN2, IN3	-	-	-	-	R	-
L, N ↔ A, B	-	-	-	-	-	R
Active parts↔external enclosure	B	R	R	R	R	R

Assessment to EN 62493:2015 and EN 62493:2015/A1:2022 has been performed for SED 4.5A R57.

Assessment to EN IEC 60598-2-2:2024 used in conjunction with EN IEC 60598-1:2021 has been performed.

Assessment to EN IEC 60669-2-1:2022 /A11:2022 used in conjunction with EN IEC 60669-1:2018 has been performed for SWITCH 3P BLL.