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 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 (series), SED (series) and SWITCH (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 61347-2-11:2001, EN 61347-2-11:2001/A1:2019 and EN 61347-1:2015
- 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 14 February 2022 and expires upon withdrawal of one of the above mentioned standards.

Certificate number: 81-122507

DEKRA Certification B.V.

B.T.M. Holtus
Managing Director

H.L. Schendstok
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 (series), SED (series) and SWITCH (series)

Product data – type SED (series)

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 (series) and SWITCH (series)

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

Test result

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

Additional information

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

DEKRA test report No. 3500336.560 is laid down in DEKRA test file 350033600; it contains 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 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: [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: [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 clause 4.2 of IEC/EN 62493:2015 standard has been performed for independent models. Assessment to IEC 60598-2-2:2011 used in conjunction with IEC 60598-1:2014, AMD1:2017 (valid for EN 60598-2-2:2012 and EN 60598-1:2015/A1:2018) has been performed. Assessment to MM mark according to VDE 0710 Part 14/04.82 has been performed. Assessment to IEC 60669-2-1:2002/AMD1:2008/AMD2:2015 used in conjunction with IEC 60669-1:1998/AMD1:1999 /AMD2:2006 has been performed for SWITCH 3P models.							