

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) : DCCH (series), DCC (series), DC AR (series), DC BMU (series) and
MP 15 (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

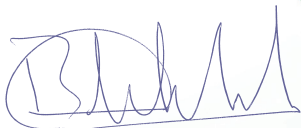
DEKRA hereby grants the right to use the ENEC certification mark.

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 14 October 2020 and expires upon withdrawal of one of the above mentioned standards.

Certificate number: 81-115922

DEKRA Certification B.V.



B.T.M. Holtus
Managing Director



C. Lin
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)	: DCCH (series), DCC (series), DC AR (series), DC BMU (series) and MP 15 (series)
Type of load	: LED modules, power LED

Product data – type DC AR (series)

Primary voltage	: 100-240 V ac or dc
Rated frequency	: 50/60 Hz
Primary current	: From 0,13 to 0,23 A
Secondary current	: From 0,35 to 0,55 A
Secondary power	: From 10 to 14 W
Classification	: Built in

Product data – type DC BMU (series)

Primary voltage	: 100-240 V ac or dc, 195-250 V dc
Rated frequency	: 50/60 Hz, 0 Hz
Primary current	: From 0,12 to 0,22 A for 50/60 Hz, from 0,043 to 0,082 A for 0 Hz
Secondary current	: From 0,2 to 0,7 A
Secondary power	: From 6 to 12 W
Classification	: Built in

Product data – type DCC (series)

Primary voltage	: 100-240 V ac or dc, 110-195-250 V dc
Rated frequency	: 50/60 Hz, 0 Hz
Primary current	: From 0,12 to 0,19 A for 50/60 Hz, from 0,065 to 0,11 A for 0 Hz
Secondary current	: From 0,25 to 0,7 A
Secondary power	: From 10 to 15 W
Classification	: Independent, built in

Product data – type DCCH (series)

Primary voltage	: 220-240 Vac or dc, 195-250 V dc
Rated frequency	: 50/60 Hz, 0 Hz
Primary current	: From 0,07 to 0,13 A for 50/60 Hz, from 0,05 to 0,084 A for 0 Hz
Secondary current	: From 0,14 to 0,35 A
Secondary power	: From 5,6 to 12 W
Classification	: Built in

Product data – type MP 15 (series)

Primary voltage	: 100-240 V ac or dc, 195-250 V dc
Rated frequency	: 50/60 Hz, 0 Hz
Primary current	: 0,19 A for 50/60 Hz, 0,1 A for 0 Hz
Secondary current	: From 0,06 to 0,36 A
Secondary power	: From 2,5 to 15 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

The list of components is laid down in test report 2102972.50 and 2107972.60.

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 electronic SELV step-down controlgears for LED modules. The devices have a constant output current (CC) and for some models it can be selected by the DIP switch. The Kxxxx can replace the type as following:														
Type/s	Input Voltage (V) [1]	Input current (A)	Power Factor	Output Power (W)	Output current (A)	Uout d.c. [V]	ta [°C]	tc [°C] [2]	Thermal Protection (°C) [3]	Classification [4]				
DCC 10W 250mA/U S or K2227, DCC 10W 250mA/U S IP54 or K2228	220-240 100-120 *176-276	0,12 0,19 *0,065	0,54 C 0,64 C	10 10 10	0,25	44	-25..50	75	100	IND, II, IP20 or IP54				
DCC 10W 250mA/U S BI or K2226										BI, MM				
DCC 10W 250mA/U S OF or K2225										BI				
DCC 15W 350mA/U S or K2185, DCC 15W 350mA/U S IP54 or K2188	220-240 100-120 *176-276 *110	0,15 0,19 *0,11	0,54 C 0,64 C	15 10 15 10	0,35	44	-25..45	75	100	IND, II, IP20 or IP54				
DCC 15W 350mA/U S BI or K2182										BI, MM				
DCC 15W 350mA/U S OF or K2179										BI				
DCC 12W 500mA/U S or K2186, DCC 12W 500mA/U S IP54 or K2189	220-240 100-120 *176-276	0,13 0,19 *0,082	0,54 C 0,64 C	12 10 12	0,5	26	-25..50	80	100	IND, II, IP20 or IP54				
DCC 12W 500mA/U S BI or K2183										BI, MM				
DCC 12W 500mA/U S OF or K2180										BI				
DCC 12W 700mA/U S or K2187, DCC 12W 700mA/U S IP54 or K2190	220-240 100-120 *176-276	0,13 0,19 *0,082	0,54 C 0,64 C	12 10 12	0,7	18	-25..45	75	100	IND, II, IP20 or IP54				
DCC 12W 700mA/U S BI or K2184										BI, MM				
DCC 12W 700mA/U S OF or K2181										BI				
MP 15 or K2433	220-240 100-127 *176-276	0,19 0,19 *0,1	0,54- 0,64 C	2,5-15 2,5-10 15	0,06- 0,36	44	-25..45	75	100	IND, II, IP20				
MP 15 BI or K2432										BI, MM				
MP 15 OF or K2431										BI				
DC 6W 200mA BMU or K2578	120-240 100-120 *176-276	0,12 0,12 *0,043	0,5 C 0,62 C	6 6 6	0,2	36	-25..60	80	100	BI, MM				
DC 6W 200mA BMU OF or K2580										BI				
DC 6W 210mA BMU or K2579										0,21	-25..60	80	100	BI, MM
DC 6W 210mA BMU OF or K2581										BI				
DC 12W 350mA BMU or K2194	110-240 100 *176-276	0,22 0,22 *0,082	0,54 C 0,64 C	12 10 12	0,35	36	-25..50	80	100	BI, MM				
DC 12W 350mA BMU OF or K2191										BI				
DC 12W 500mA BMU or K2195										0,5	25	-25..50	80	100
DC 12W 500mA BMU OF or K2192					BI									
DC 12W 700mA BMU or K2193					0,7	19	-25..50	80	100	BI, MM				
DC 12W 700mA BMU OF or K2196					BI									

Type/s	Input Voltage (V) [1]	Input current (A)	Power Factor	Output Power (W)	Output current (A)	Uout d.c. [V]	ta [°C]	tc [°C] [2]	Thermal Protection (°C) [3]	Classification [4]
DCCH 12W 250/350mA or K2436	220-240 *176-276	0,12/0,13 *0,084	0,55 C	10/12 10/12	0,25/0,35	44	-25..45/50	80	100	BI, MM
DCCH 12W OF or K2435							-	80		BI
DCCH 7W 140/180mA or K2842	220-240 *176-276	0,07/0,08 *0,05	0,5 C	5,6/7,2 5,6/7,2	0,14/0,18	44	-25..50	75	100	BI, MM
DCCH 7W OF or K2843							-	80		BI
DC 14W 350mA AR or K2312	220-240 110-127	0,15 0,23	0,54 C 0,62 C	14 12	0,35	44	-25..45	80	100	BI, MM
DC 12W 550mA AR or K2153	220-240 100-127	0,13 0,21	0,5 C 0,61 C	12 10	0,55	25	-25..50 -25..45	80 75	100	BI, MM

Notes: [1] – Input supply: 50/60 Hz or *0 Hz; the operative d.c. range according to IEC 61347-2-13 in which the product can work; the d.c. supply is the reference for centralized emergency installations (EN 50171 and EN 50172) in the rated 196-250 V. [2] The tc point for OF integral models is measured on the metal cap of C₂ or C_{2A} capacitor. [3] – The products have an overheating protection (C.5.a type) and comply with temperature limit of clause 4.16.2 of IEC 60598-1; the heating tests for OF models have been performed using the same enclosure of BI models. [4] – Classification: IND=independent, II=class II; BI=built-in; IPxx=case IP20 or IP54; MM=suitable for direct mounting on normally flammable surfaces (EN 60598-1:2015, VDE 0710 T14 for "MM" triangle marking).

Connection	DCC, MP 15	AR	DCCH, BMU
Connection to supply (PRI)	screw terminal block 0,75...2,5 mm ²	screw terminal block 0,5...2,5 mm ²	screwless terminal block 0,5...1,5 mm ²
Connection to load (SEC)	screw terminal block 0,75...2,5 mm ²	screw terminal block 0,5...2,5 mm ²	screwless terminal block 0,5...1,5 mm ²

Additional information

DCCH models are derived from DC 12W 350mA BMU with the additional feature: The A-B terminal is used for the selection of output current (see labels).

All models have the following features: for LED; Impulse withstand category II; Pollution degree 2; Material group IIIa; use up to 2000 m above sea level; multiple value load control gear; short-circuit proof type control gear; the material of enclosure was tested with favourable result for Glow-wire at temperature 750/960 °C.

INSULATION

B= basic, S= supplementary, D= double or reinforced

	PRI	A B (if present)	SEC
PRI	-	D	D
A B (if present)	D	-	-
SEC	D	-	-

In the final application the connections to the controlgears shall be according to IEC 60598-1 or national deviations of the country where installed; add an external fuse if necessary, according to standards different from IEC 61347 series. Creepage distances and clearances for built-in models shall comply with the requirements of IEC/EN 60598-1 when the device is installed in the final application:

INSULATION: B= basic, S= supplementary, D= double or reinforced	Between active parts and the bottom surface of enclosure	Between active parts and outer surfaces of enclosure
DCC 10W 250mA/U S, DCC 15W 350mA/U S, DCC 12W 500mA/U S, DCC 12W 700mA/U S, DCC 10W 250mA/U S IP54, DCC 15W 350mA/U S IP54, DCC 12W 500mA/U S IP54, DCC 12W 700mA/U S IP54, MP 15	D	D
DCC 10W 250mA/U S BI, DCC 15W 350mA/U S BI, DCC 12W 500mA/U S BI, DCC 12W 700mA/U S BI, MP 15 BI, DC 6W 200mA BMU, DC 6W 210mA BMU, DC 12W 350mA BMU, DC 12W 500mA BMU, DC 12W 700mA BMU, DCCH 12W 250/350mA, DCCH 7W 140/180mA, DC 12W 550mA AR; DC 14W 350mA AR	D	-
DCC 10W 250mA/U S OF, DCC 15W 350mA/U S OF, DCC 12W 500mA/U S OF, DCC 12W 700mA/U S OF, MP 15 OF, DC 6W 200mA BMU OF, DC 6W 210mA BMU OF, DC 12W 350mA BMU OF, DC 12W 500mA BMU OF, DC 12W 700mA BMU OF, DCCH 12W OF, DCCH 7W OF	-	-