CERTIFICATE

Issued to:
Applicant:
TCI Telecomunicazioni Italia SrL
Via Parma 14
21047 Saronno (VA), Italy

Manufacturer/Licensee:
TCI Telecomunicazioni Italia SrL
Via Parma 14
21047 Saronno (VA), Italy

Product	:	Electronic control gear for Light Emitting Diodes
Trade name(s)	:	TCI and TN101
Type(s)/model(s)	:	DC NR series and DC R 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 and EN 61347-1:2015
- an inspection of the production location according to CENELEC Operational Document CIG 021
- a certification agreement with the number 2033016

DEKRA hereby grants the right to use the KEMA-KEUR certification mark.

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

This certificate is issued on 13 September 2017 and expires upon withdrawal of one of the above mentioned standards.

Certificate number: 81-101405

DEKRA Certification B.V.

drs. G.J. Zoetbrood
Managing Director

Henk Schendstok
Certification Manager

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PRODUCTS
RvA C 001

KEMA KEUR

SPECIFICATION OF THE CERTIFIED PRODUCT

Product data

Product	:	Electronic control gear for Light Emitting Diodes
Trade name(s)	:	TCI and TN101
Type(s)/model(s)	:	DC NR series and DC R series
Primary voltage	:	110-240 V
Nature of supply	:	alternate current
Rated frequency	:	50/60 Hz
Primary current	:	From 0,16 to 0,2 A
Power factor	:	0,6 C
Type of load	:	LED modules, power LED
Working voltage U-OUT	:	27 V to 41 V
Class	:	-
Protection degree	:	IP20 for Independent
Tc point	:	75 °C
Ambient temperature	:	-25 to +45 °C
Type of thermal protection	:	100 °C
Overheating protection	:	C.5.a
Classification	:	Independent or Built in; SELV Output

TESTS

Test requirements

EN 61347-2-13:2014
EN 61347-2-13:2014/A1:2017
EN 61347-1:2015

Test result

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

Additional Information

DEKRA test report No. 2102612.50 is laid down in DEKRA test file 350033600; it contains both 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 electronic controlgears for LED modules with SELV output. The devices have a constant voltage (CV) or current (CC) output; the stabilized output (SEC) can be dimmable by PWM control devices only for R and RS models; the NR models are not dimmable. Same features for built-in versions (BI). Primary voltage: 110-240 V (50/60 Hz); 189-255 V (0 Hz); the following models are suitable for centralized emergency installations (EN 50171 and EN 50172) in the rated d.c. range; the operative d.c. range is ±10 % (guaranted performance). BI are built-in models, the other are independent class II. The Kxxxx code can replace the type reference according to the following table:

Type/s	ac PRI Current [A]	dc PRI Current [A] [2]	Output Power (W)	Secondary Parameter	V_{0max} (Vdc)	ta (°C)	tc (°C)	Thermal Protection (°C) [3]
DC 8W 12V R (K2386)	0,17	0,06	8	12 V	-	-25..45	75	100
DC 8W 12V RBI (K2394)								
DC 8W 12V RS (K2488)								
DC 8W 12V RSBI (K2489)								
DC 8W 12V NRS (K2490)								
DC 8W 12V NRSBI (K2491)								
DC 15W 700mA R (K2494)	0,17-0,2 [1]	0,11	15 (8*-10* at 110-127 V)	700 mA	27	-25..45 /55*	75	100
DC 15W 700mA RBI (K2569)								
DC 15W 700mA RS (K2495)								
DC 15W 700mA RSBI (K2A59)								
DC 12W 350mA RS (K2A60)	0,16	0,09	12 (8 at 110-127 V)	350 mA	41	-25..45	75	100
DC 12W 350mA RSBI (K2A61)								
Notes: [1] – 0,17 A at 8W 110-127 V and 15 W 220-240 V; 0,2 A at 10 W 110-127 V. [2] – Max. value at 170 Vdc (see label). [3] –The products have an overheating protection (C.5.a type) and comply with temperature limit of clause 4.16.2 of EN 60598-1:04 ("F" triangle marking), EN 60598-1:2015.								

Connections for all models		
Input supply	PRI	Screw terminal 0,75-2,5 mm², 0,5-2,5 mm² for BI models
Dimming	PWM	Connector
Output load	SEC	Screw terminal 0,75-2,5 mm², 0,5-2,5 mm² for BI models

Additional information

All models have the following features: λ=0,6 C; AC/DC P/S for LED; stabilized output current (CC) or voltage (CV); short-circuit proof type; impulse withstand category II; Pollution degree 2 (Normal Pollution); Material group IIIa; the material of enclosure for independent models was tested with favourable result for Glow-wire at temperature 960 °C.

INSULATION	PRI	PWM (if present)	SEC
PRI	-	double	double
PWM (if present)	double	-	basic for DC 15W 700mA RS, DC 15W 700mA RSBI; double for DC DC 8W 12V R, DC 8W 12V RBI, DC 15W 700mA R, DC 15W 700mA RBI, DC 12W 350mA RS, DC 12W 350mA RS BI
SEC	double	basic for DC 15W 700mA RS, DC 15W 700mA RSBI; double for DC DC 8W 12V R, DC 8W 12V RBI, DC 15W 700mA R, DC 15W 700mA RBI, DC 12W 350mA RS, DC 12W 350mA RS BI	-

DC 8W 12V NRS, DC 8W 12V NRSBI, DC 15W 700mA RS, DC 15W 700mA RSBI shall have FELV control for PWM. In the final application the connections to the controlgears shall be according to IEC 60598-1 or national deviations of the country where installed. Creepage distances and clearances for built-in and OF (integrated without enclosure) models shall comply with the requirements of IEC/EN 60598-1 when the device is installed in the final application:

INSULATION: **MODELS:**	Between active parts and the bottom surface of enclosure	Between active parts and external surfaces of enclosure
DC 8W 12V R, DC 8W 12V RS, DC 8W 12V NRS, DC 15W 700mA R, DC 15W 700mA RS, DC 12W 350mA RS	double	double
DC 8W 12V RBI, DC 8W 12V RSBI, DC 8W 12V NRSBI, DC 15W 700mA RBI, DC 15W 700mA RSBI, DC 12W 350mA RS BI	double	-
All models are suitable for direct mounting on normally flammable surfaces (EN 60598-1:2015, VDE 0710 T14 for "MM" triangle marking). All models have been assessed for IEC 60335-1:2010/COR1:2010/COR2:2010 /AMD1:2013/COR1:2014/AMD2:2016/ COR1:2016 (see Annex 11): par. 19.4, 22.42, 29, 30.2.3, 30.2.4.		

All models have the following features: AC/DC P/S for LED; stabilized output current (CC) or voltage (CV); multiple value load; short-circuit proof type; impulse withstand category II; Pollution degree 2 (Normal Pollution); Material group IIIa; the material of enclosure for independent models was tested with favourable result for Glow-wire at temperature 960 °C. All models are suitable for direct mounting on normally flammable surfaces (EN 60598-1:2015, VDE 0710 T14 for "MM" triangle marking). All models have been assessed for IEC 60335-1:2010/COR1:2010/COR2:2010 /AMD1:2013/COR1:2014/AMD2:2016/ COR1:2016 (see Annex 11): par. 19.4, 22.42, 29, 30.2.3, 30.2.4.