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)	:	BMU MD (series), DC MINI MD (series), MICRO MD (series), MINI LP (series) and MINI MD (series)

The product and any acceptable variation thereto as 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 EN 61347-2-13:2014, EN 61347-2-13:2014/A1:2017, EN 61347-1:2015, EN 61347-1:2015/A1:2021 and EN IEC 62384:2020
- 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 May 2023 and expires upon withdrawal of one of the above mentioned standards.

Certificate number: 81-128071 REV.1

DEKRA Certification B.V.

B.T.M. Holtus
Managing Director

K Xu
Certification Manager

ACCREDITED BY THE
DUTCH ACCREDITATION
COUNCIL

PRODUCTS
RvA C 001

DEKRA Certification B.V. Meander 1051, 6825 MJ Arnhem P.O. Box 5185, 6802 ED Arnhem, The Netherlands
T +31 88 96 83000 F +31 88 96 83100 www.dekra-product-safety.com Company registration 09085396

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)	:	BMU MD (series), DC MINI MD (series), MICRO MD (series), MINI LP (series) and MINI MD (series)
Primary voltage	:	220-240 V a.c.
Rated frequency	:	50/60 Hz
Primary current	:	From 0,04 to 0,12 A
Secondary power	:	From 6 to 20 W
Secondary current	:	From 0,18 to 0,7 A
Type of load	:	LED modules, power LED
Classification	:	Independent, built-in

TESTS

Test requirements

EN 61347-2-13:2014
EN 61347-2-13:2014/A1:2017
EN 61347-1:2015
EN 61347-1:2015/A1:2021
EN IEC 62384:2020

Test result

The test results are laid down in DEKRA test file 350908000.

Additional information

DEKRA test report No. 3509080.70 and 3509080.71 are laid down in DEKRA test file 350033600; they contain test results. DEKRA test report No. 3509080.70 contains critical component list.

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

This certificate replaces certificate No. 81-128071 which we hereby declare invalid.

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 controlgears, intended to supply high power Light Emitting Diodes or LED modules. The devices have a constant output current (CC). The stabilized output (SEC) is dimmable by mains dimming. The FDIM and LP models have double input terminals for looping.

Type/s	Input voltage	Input current (A)	Power Factor	Output Power (W)	Output current (A)	Uout d.c. (V)	t_a (°C)	t_c (°C) [1]	Use [2]
MINI MD 250 OF (K2601)	220-240 V 50/60 Hz	0,07	0,95 (P>10 W)	12,5	0,25	59	-	80	OF
MINI MD 250 LP OF (K2D45)									
MINI 250 LP OF (K2G42)									
MINI MD 250 BI (K2574)							-25..50	75	DI, 110
MINI MD 250 LP BI (K2D46)									
MINI 250 LP BI (K2G38)									
MINI MD 250 (K2570)									II, 110
MINI MD 250 LP (K2D47)									
MINI 250 LP (K2G34)									
MINI MD 350 OF (K2602)	220-240 V 50/60 Hz	0,1	0,95 (P>12 W)	18 (16,5 for FDIM)	0,35	59	-	80	OF
MINI MD FDIM 350mA OF (K2759)									
MINI MD 350 LP OF (K2D48)									
MINI 350 LP OF (K2D43)									
MINI MD 350 BI (K2575)							-25..50	75	DI, 110
MINI MD FDIM 350mA BI (K2753)									
MINI MD 350 LP BI (K2D49)									
MINI 350 LP BI (K2D39)									
MINI MD 350 (K2571)									II, 110
MINI MD FDIM 350mA (K2743)									
MINI MD 350 LP (K2D50)									
MINI 350 LP (K2D35)									
MINI MD 500 OF (K2603)	220-240 V 50/60 Hz	0,11	0,95 (P>13 W)	20	0,5	50	-	80	OF
MINI MD 500 LP OF (K2D51)									
MINI 500 LP OF (K2D44)									
MINI MD 500 BI (K2576)							-25..45	75	DI, 110
MINI MD 500 LP BI (K2D52)									
MINI 500 LP BI (K2D40)									
MINI MD 500 (K2572)									II, 110
MINI MD 500 LP (K2D53)									
MINI 500 LP (K2D36)									
MINI MD 30/500-850 (K2I62)	220-240 V 50/60 Hz	0,16	0,95	30	0,5-0,85	59	-25..50	85	II, 110
MINI MD 40/700-1050 (K2I63)		0,21	0,95	40	0,7-1,05				
MINI MD 700 OF (K2604)	220-240 V 50/60 Hz	0,11	0,95 (P>10 W)	20	0,7	50	-	80	OF
MINI MD FDIM 700mA OF (K2760)									
MINI MD 700 LP OF (K2D54)									
MINI 700 LP OF (K2D45)									
MINI MD 700 BI (K2577)							-25..45	75	DI, 110
MINI MD FDIM 700mA BI (K2748)									
MINI MD 700 LP BI (K2D55)									
MINI 700 LP BI (K2D41)									
MINI MD 700 (K2573)									II, 110
MINI MD FDIM 700mA (K2754)									
MINI MD 700 LP (K2D56)									
MINI 700 LP (K2D37)									
MICRO MD 180 OF (K2D27)	220-240 V 50/60 Hz	0,04	0,96	6	0,18	50	-	80	OF
MICRO MD 180 BI (K2D28)							-25..45	70	DI, 100
MICRO MD 180 (K2D29)									II, 100

Type/s	Input voltage	Input current (A)	Power Factor	Output Power (W)	Output current (A)	Uout d.c. (V)	t_a (°C)	t_c (°C) [1]	Use [2]
MICRO MD 250 OF (K2755)	220-240 V 50/60 Hz	0,05	0,96	7	0,25	35	-	80	OF
MICRO MD 250 BI (K2749)							-25..45	70	DI, 100
MICRO MD 250 (K2743)									II, 100
MICRO MD 270 OF (K2D30)	220-240 V 50/60 Hz	0,06	0,96	10	0,27	50	-	80	OF
MICRO MD 270 BI (K2D31)							-25..45	70	DI, 100
MICRO MD 270 (K2D32)									II
MICRO MD 350 OF (K2756)	220-240 V 50/60 Hz	0,06	0,9 C-0,96	10	0,35	35	-	80	OF
MICRO MD 350 BI (K2750)							-25..45	70	DI, 100
MICRO MD 350 (K2744)									II
MICRO MD 500 OF (K2757)	220-240 V 50/60 Hz	0,06	0,9 C-0,96	10	0,5	35	-	80	OF
MICRO MD 500 BI (K2751)							-25..45	70	DI, 100
MICRO MD 500 (K2745)									II
MICRO MD 700 OF (K2758)	220-240 V 50/60 Hz	0,06	0,8 C-0,96	10	0,7	25	-	80	OF
MICRO MD 700 BI (K2752)							-25..45	70	DI, 100
MICRO MD 700 (K2746)									II, 100
BMU MD 180 OF (K2D33)	220-240 V 50/60 Hz	0,05	0,96	7	0,18	50	-	80	OF
BMU MD 180 (K2D34)							-25..45	70	DI, 100
BMU MD 250 OF (K2D35)	220-240 V 50/60 Hz	0,05	0,9 C-0,96	7	0,25	35	-	80	BI
BMU MD 250 (K2D36)							-25..45	70	DI, 100
BMU MD 270 OF (K2D37)	220-240 V 50/60 Hz	0,06	0,9 C-0,96	10	0,27	50	-	80	OF
BMU MD 270 (K2D38)							-25..45	70	DI, 100
BMU MD 350 OF (K2D39)	220-240 V 50/60 Hz	0,06	0,9 C-0,96	10	0,35	35	-	80	BI
BMU MD 350 (K2D40)							-25..45	70	DI, 100
BMU MD 500 OF (K2D41)	220-240 V 50/60 Hz	0,06	0,9 C-0,96	10	0,5	35	-	80	OF
BMU MD 500 (K2D42)							-25..45	70	DI, 100
BMU MD 700 OF (K2D43)	220-240 V 50/60 Hz	0,06	0,8 C-0,96	10	0,7	25	-	80	BI
BMU MD 700 (K2D44)							-25..45	70	DI, 100
DC MINI MD 7/185 (K2G46)	220-240 V 50/60 Hz	0,05	0,95	7	0,185	50	-20..50	70	II, 100
DC MINI MD 7/185 OF (K2G47)							-	80	OF
DC MINI MD 18/200-450 (K2G48)	220-240 V 50/60 Hz	0,12	0,97	7,6-17,1	0,2-0,45	50	-20..50	80	II, 100
DC MINI MD 18/200-450 OF (K2G49)							-	80	OF
Notes: The Kxxxx code can replace the type reference. [1] – tc for OF version is measured on the cap of C32 capacitor for DC MINI MD models and C14 capacitor for all other models. [2] – Use: II=Class II, independent, IP20; DI=Built-in with double insulation; OF= Built-in without enclosure; 100 or 110 =overheating protection (C.5.a).									

Connections	MINI MD 30/500-850, MINI MD 40/700-1050	Other independent models	Built-in models
Input supply (PRI)	0,75-1,5 mm; diam. 5-8 mm	MINI MD models, MINI LP models, DC MINI MD models: screwless 0,75-1,5 mm; diam. 5-8 mm	MICRO MD models: screw 0,5-2,5 mm DC MINI MD models: screwless 0,5-1,5 mm Other models: screwless 0,2-1,5 mm
Looping (PRI)	-	MINI MD FDIM models, MINI MD LP models, MINI LP models: screwless 0,75-1,5 mm; diam. 5-8 mm	MINI MD FDIM models, MINI MD LP models, MINI LP models: screwless 0,2-1,5 mm

Output load (SEC)	screwless 0,5-1,5 mm; diam. 3-8 mm	MICRO MD models: screw 0,5-2,5 mm; diam. 3-8 mm Other MINI MD models, MINI LP models: screwless 0,2-1,5 mm; diam. 3-8 mm DC MINI MD models: screwless 0,5-1,5 mm; diam. 3-8 mm	MICRO MD models: screw 0,5-2,5 mm DC MINI MD models: screwless 0,5-1,5 mm Other models: screwless 0,2-1,5 mm

Additional information

All models have the following features: multiple value load; short-circuit proof type. impulse withstand category II; Pollution degree 2; Material group IIIa; the material of case was tested with favourable result for Glow-wire at temperature 750-960 °C. The models MINI MD LP and MINI MD FDIM have terminals for supply looping (max. current in the label). OF models have been tested in an enclosure with same dimensions as independent models. Total circuit power: 45 W for MINI MD 40/700-1050, 34 W for MINI MD 30/350-850, 22,5 W for MINI MD 700 and MINI MD 500 models, 20 W for MINI MD 350 models, 19 W for DC MINI MD 18/200-450 models, 14 W for MINI MD 250 models, 11,9 W for MICRO MD 270, MICRO MD 350, MICRO MD 500, MICRO MD 700, BMU MD 700, BMU MD 500, BMU MD 350 and BMU MD 270 models, 8 W for MICRO MD 250, BMU MD 250 and DC MINI MD 7/185 models, 7,5 W for MICRO MD 180 and BMU MD 180 models. In the final application the use of the controlgears shall be according to EN 60598-1 or national deviations of the country where installed:

INSULATION (B= basic, S= supplementary, R= double or reinforced)	Independent models	BI models	OF models
Between PRI ↔ SEC	R	R	R
Between active parts ↔ external of enclosure	R	R	-
Between active parts ↔ bottom side of enclosure	R	R	-

All models are suitable for direct mounting on normally flammable surfaces (EN 60598-1).
Assessment to EN 60598-2-2:2012 used in conjunction with EN IEC 60598-1:2021 has been performed.
Assessment to EN 62493:2015, EN 62493:2022 has been performed.
Assessment to EN IEC 62442-3:2022 has been performed.