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 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)	:	DC MAXI JOLLY HC** (*means any alphanumeric characters), MP 50** (*means any alphanumeric characters), MP 55** (*means any alphanumeric characters) and MP 65** (*means any alphanumeric characters),

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 17 January 2024 and expires upon withdrawal of one of the above mentioned standards.

Certificate number: 81-117312 REV.1

DEKRA Certification B.V.

B.T.M. Holtus
Managing Director

K Xu
Certification Manager

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PRODUCTS
RvA C 001

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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)	:	DC MAXI JOLLY HC** (*means any alphanumeric characters), MP 50** (*means any alphanumeric characters), MP 55** (*means any alphanumeric characters) and MP 65** (*means any alphanumeric characters),
Primary voltage	:	110-240 V for a.c. supply, 189-250 V for d.c. supply
Rated frequency	:	50/60 Hz, 0 Hz
Primary current	:	From 0,29 A to 0,48 A for a.c., from 0,37 A to 0,41 A for d.c.
Type of load	:	LED modules, power LED
Secondary current	:	From 0,35 to 2,1 A
Secondary voltage	:	From 24 to 58 V
Secondary power	:	From 15 to 65 W
Classification	:	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. 3509080.250 and 3509080.251 are laid down in DEKRA test file 350908000; they contain test results.

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

This certificate replaces certificate No. 81-117312 which we hereby declare invalid.

The list of components is laid down in test report 3509080.250.

Conclusion

The examination proved that all requirements were met.

Factory location

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

General product information:

The devices are electronic controlgears for LED modules. The devices have a stabilized output current or voltage according to the selection of the DIP switch. The output is SELV and it can be reduced by NTC control signal (if present) in case of overheating on the LED module. Dimming features are detailed in the technical specification: PUSH L, ADIM, BILEVEL, BILEVEL N, DALI and BLL (wireless); MD models by external phase dimming. The SYNC port can synchronize other devices as master/slave configuration. SIGNAL GND and 12Vaux (if present) can supply an external fan (max. 50 mA). Models with different codes for different dimming: Codes 123xxx=PWM, 151xxx=AM.

Type/s	Primary voltage (V)	Max. primary current (A)	Power Factor	Output Power (W) [1]	SEC Parameter [1]	Uout (V)	ta (°C)	tc (°C) [2]	Use [3]
DC MAXI JOLLY HC/2 (K2G34), DC MAXI JOLLY HC/2 DALI (K2G35)	220-240 110-127 170-280*	0,29 0,45 0,37*	0,95 (Po>27W) 0,95 (Po>10W)	45-55 40	1,05-2,1 A 48 V	55 -	-25..45	85	I, 110, MM, DNC
MP 55 HC/2 (K2507)							-25..40/45	85	
DC MAXI JOLLY HC BI (K2G36), DC MAXI JOLLY HC BILEVEL N BI (K2G37), DC MAXI JOLLY HC BILEVEL BI (K2G38), DC MAXI JOLLY HC DALI BI (K2G39)		0,33 0,48 0,4*		45-60 40			-25..45/50	85/90	BI, 110, MM
DC MAXI JOLLY HC BLL BI (K2907), DC MAXI JOLLY HC BLL BI EX (K2G52), DC MAXI JOLLY HC BLL BI EX PIR (K2G53)								80	
DC MAXI JOLLY HC BLL/2 (K2B37), DC MAXI JOLLY HC BLL/2 EX (K2G54), DC MAXI JOLLY HC BLL/2 EX PIR (K2G55)								80	I, 110, MM, DNC
MP 55 HC BI (K2223)		0,29 0,45 0,37*	0,98 (Po>27W) 0,98 (Po>10W)	45-55 40				85	BI, 110, MM
MP 55 HC OF (K2229)							-	80	OF
DC MAXI JOLLY HC OF (K2G40), DC MAXI JOLLY HC DALI OF (K2G41), DC MAXI JOLLY HC BILEVEL N OF (K2G42), DC MAXI JOLLY HC BILEVEL OF (K2G43), DC MAXI JOLLY HC BLL OF (K2908), DC		0,33 0,48 0,4*	0,95 (Po>27W) 0,95 (Po>10W)	45-60 40			-	80	OF

Type/s	Primary voltage (V)	Max. primary current (A)	Power Factor	Output Power (W) [1]	SEC Parameter [1]	Uout (V)	ta (°C)	tc (°C) [2]	Use [3]
MAXI JOLLY HC BLL EX OF (K2G44)									
MP 55 HC/2 SI (K2553)	220-240	0,29	0,98 (Po>27W)	45-55	1,05-2,1 A 48 V	55 -	-25..45/50	85	II, 110, MM
	110-127	0,45	0,98 (Po>10W)	40					
MP 55 1400 BI (K2257)	170-280*	0,37*			1,05-1,4 A	55	-25..50		BI, 110, MM
MP 55 1400 S BI (K2B30)	220-240	0,29	0,98 (Po>27W)	45-55	1,05-1,4 A	59	-25..45	85	BI, 110, MM
	170-280*	0,37*							
DC MAXI JOLLY HC TC (K2G45), DC MAXI JOLLY HC DALI TC (K2G46)	220-240	0,29	0,95 (Po>27W)	45-55	1,05-2,1 A	55 -	-25..45	80	I, 110, MM, DNC
	110-127	0,43	0,95 (Po>15W)	40					
DC MAXI JOLLY TC (K2G47), DC MAXI JOLLY DALI TC (K2G48)	220-240	0,29	0,95 (Po>25W)	15-55	0,3-1,2 A	59 -	-25..45	75	I, 110, MM
	110-127	0,43	0,95 (Po>15W)	15-40					
MP 50 TC (K2308)	220-240 110-127	0,29 0,45	0,98 (Po>25W)	25-50 25-40	0,35-1,05 A	90	-25..45	75	I, 110, MM
MP 50 TC OF (K2310)	170-280*	0,33*					-	80	OF
DC MAXI JOLLY HC MD (K2G49)	220-240	0,3	0,95 (Po>25W)	45-50	1,05-2,1 A 24 V	59 -	-25..45	75	I, 110, MM, DNC
DC MAXI JOLLY HC MD BI (K2G50)							-25..50	85	BI, 110, MM
DC MAXI JOLLY HC MD OF (K2G51)							-	80	OF
MP 65 H/2 (K2531)	220-240	0,32	0,95 (Po>25W)	25-65 25-40	0,35 -1,2 A 58 V	95 -	-25..45/50	80	I, 110, MM
MP 65 HBI (K2547)	110-127	0,45					-25..45/50		BI, 110, MM
	176-280*	0,41*							
MP 65 H OF (K2555)							-	80	OF

Notes: Supply frequency=50/60 Hz; *0 Hz; [1] – Different values according to DIP switch selection. [2] – tc measured on the top of C_{14} capacitor; [3] – Note: I=independent IP20 class I; II=independent IP20 class II; BI=built-in; 110= overheating protection (C.5.a type) and comply with temperature limit of EN 60598-1; MM= suitable for direct mounting on normally flammable surfaces; OF= built-in without enclosure; DNC= suitable for recessed use but Do not Cover.

Connection		TC models	All other models
PRI supply	L, N, ⏚	Screw-less terminal 0,75-1,5 mm²	Screw-less terminal 0,5-1,5 mm² for BI models, 0,75-1,5 mm² for independent models
Dimming control	PUSH L, RED ON, RED OFF	Screw-less terminal 0,75-1,5 mm²	Screw-less terminal 0,5-1,5 mm²
DALI control	DA, DA	Screw-less terminal 0,75-1,5 mm²	Screw-less terminal 0,5-1,5 mm²
Analogic dimming	ADIM	Screw-less terminal 0,2-1,5 mm²	Screw-less terminal 0,2-1,5 mm²
Auxiliary connections	SEC, 12Vaux, NTC, I-set, SIGNAL GND, PIR IN, PIR +, PIR -	Connector	Connector
Syncronism	SYNC	Connector	Connector
Load	SEC + -	Screw terminal 0,5-2,5 mm²	Screw terminal 0,5-2,5 mm²

Additional information	
Use	Independent, built-in use for ordinary luminaire
Features	For LED; short-circuit proof type; impulse withstand category II; pollution degree 2 (Normal Pollution); material group IIIa; the material of enclosure was tested for Glow-wire at temperature of 750-960 °C with favourable result. The heating tests for OF models have been performed using the same enclosure of BI models. TC models have terminals used for looping of supply and DALI. Total circuit power: 57 W for HC MD models, 58 W for MP 50 TC models, 61 W for HC TC models and MP 55 1400 models, 60 W for other HC models, 72 W for MP 65 models, 63 W for DC MAXI JOLLY HC/2, MP 55 models, 67 W for DC MAXI JOLLY HC BI models.
DC operation	Models suitable for d.c. operation (EL symbol) have been tested in the rated supply range 189-250 V for the specific use in centralized emergency installations (extended range 170-280 V); assessment to EN IEC 60598-2-22:2022 used in conjunction with EN IEC 60598-1:2021 has been performed for independent models (for built-in models only Clauses 22.7.2 and 22.7.3 have been assessed).

The creepage distances, clearances and connections of control gears in the final application shall be according to EN 60598-1 or national deviations of the country where installed in the final application: INSULATION (B= basic, S= supplementary, R= double or reinforced)	
PRI, PUSH L, RED ON, RED OFF ↔ PE; DA ↔ PE	B
PRI, PUSH L, RED ON, RED OFF ↔ DA	B
DA ↔ SEC, 12Vaux, NTC, I-set, SIGNAL GND, SYNC	S
PRI, PUSH L ↔ SEC, 12Vaux, NTC, I-set, SIGNAL GND, PIR IN, PIR +, PIR -, SYNC, SEC; PRI, PUSH L ↔ ADIM	R
SEC, 12Vaux, NTC, I-set, SIGNAL GND, PIR IN, PIR +, PIR -, SYNC, SEC ↔ PE; ADIM ↔ PE	R
Active parts ↔ the enclosure for independent models	R
Active parts ↔ the bottom side of enclosure for built-in models	R
Assessment to EN 62493:2015, EN 62493:2022 has been performed. Assessment to EN IEC 62442-3:2022 has been performed.	