

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) : IPR3 NFC, MP 42 RF (340044) and PRO FLAT (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 61347-1:2015, EN 61347-1:2015/A1:2021, EN 61347-2-13:2014, EN 61347-2-13:2014/A1:2017 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

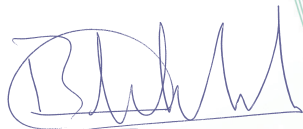
DEKRA hereby grants the right to use the ENEC certification mark.

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 1 August 2023 and expires upon withdrawal of one of the above mentioned standards.

Certificate number: 81-123274 REV.1

DEKRA Certification B.V.



B.T.M. Holtus
Managing Director



R Zhou
Certification Manager

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DUTCH ACCREDITATION
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) | : IPR3 NFC, MP 42 RF (340044) and PRO FLAT (series) |
| Primary voltage | : 220-240 V for a.c., 189-255 V for d.c. |
| Rated frequency | : 50/60 Hz or 50-60 Hz, 0 Hz |
| Primary current | : From 0,06 A to 0,22 A for a.c., from 0,07 to 0,25 A for d.c. |
| Secondary power | : From 0,375 W to 40 W |
| Secondary current | : From 0,125 A to 1,05 A |
| Type of load | : LED modules, power LED |
| Classification | : Independent, built-in |

TESTS**Test requirements**

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

Test result

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

Additional information

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

DEKRA test report No. 3509080.230 and 3509080.231 are laid down in DEKRA test file 350908000; they contain test results. DEKRA test report No. 3509080.230 contains critical component list.

This certificate replaces certificate No. 81-123274 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: | | | | | | | | | |
|--|--------------------|--------------------|--------------|------------------|--------------------|------------------------|---------|-------------|--------------|
| <p>The devices are controlgears for LED modules with stabilized output current (CC) depending on the selection of the DIP switch or NFC setting or via DALI port; the DIP switch options (not for single current models), the NFC software and DALI protocol are detailed both in the technical specification and in the marking plates. All models have SELV output. The input voltage is 220-240 V 50/60 Hz or 50-60 Hz. Different rules for the decimal separator according to national rules: comma or point can be used as decimal separator.</p> | | | | | | | | | |
| Type/s | supply voltage (V) | supply current (A) | Power factor | Output power (W) | Output current (A) | U _{OUT} (Vdc) | ta (°C) | tc (°C) [2] | Use [3] |
| PRO FLAT 40 (K2D86) | 220-240 | 0,22 | 0,95 | 13-40 | 0,3-1,05 | 59 | -25..40 | 90 | II, 110 |
| PRO FLAT 40 BI (K2D87), MP 42 RF (340044) | 170-280* | 0,24* | (Po≥15 W) | | [1] | | -25..45 | 90 | BI, 110 |
| PRO FLAT 40 OF (K2D88) | | | | | | | - | 80 | OF |
| PRO FLAT 40/1050 (K2D89) | 220-240 | 0,22 | 0,9 C-0,95 | 40 | 1,05 | 59 | -25..40 | 90 | II, 110 |
| PRO FLAT 40/1050 BI (K2D90) | | | (Po≥15 W) | | | | -25..45 | 90 | BI, 110 |
| PRO FLAT 40/1050 OF (K2D91) | 170-280* | 0,24* | | | | | - | 80 | OF |
| PRO FLAT 36/900 (K2D92) | 220-240 | 0,2 | 0,9 C-0,95 | 36 | 0,9 | 59 | -25..45 | 90 | II, 110 |
| PRO FLAT 36/900 BI (K2D93) | | | (Po≥15 W) | | | | -25..45 | 90 | BI, 110 |
| PRO FLAT 36/900 OF (K2D94) | 170-280* | 0,22* | | | | | - | 80 | OF |
| PRO FLAT 30/800 (K2D98) | 220-240 | 0,15 | 0,9 C-0,95 | 30 | 0,8 | 59 | -25..45 | 80 | II, 110 |
| PRO FLAT 30/800 BI (K2D99) | | | (Po≥6 W) | | | | -25..50 | 80 | BI, 110 |
| PRO FLAT 30/800 OF (K2E00) | 170-280* | 0,18* | | | | | - | 80 | OF |
| PRO FLAT 30 (K2C12) | 220-240 | 0,16 | 0,95 | 15-32 | 0,35-0,725 | 59 | -25..45 | 85 | II, 110 |
| PRO FLAT 30 BI (K2C13) | | | (Po≥7 W) | | [1] | | -25..50 | 85 | BI, 110 |
| PRO FLAT 30 OF (K2C14) | 170-280* | 0,21* | | | | | - | 80 | OF |
| PRO FLAT 30/700 (K2E01) | 220-240 | 0,15 | 0,9 C-0,95 | 30 | 0,7 | 59 | -25..45 | 85 | II, 110 |
| PRO FLAT 30/700 BI (K2E02) | | | (Po≥7 W) | | | | -25..50 | 85 | BI, 110 |
| PRO FLAT 30/700 OF (K2E03) | 170-280* | 0,19* | | | | | - | 80 | OF |
| PRO FLAT 26/600 (K2E04) | 220-240 | 0,13 | 0,9 C-0,95 | 26 | 0,6 | 59 | -25..45 | 85 | II, 110 |
| PRO FLAT 26/600 BI (K2E05) | | | (Po≥7 W) | | | | -25..50 | 85 | BI, 110 |
| PRO FLAT 26/600 OF (K2E06) | 170-280* | 0,15* | | | | | - | 80 | OF |
| PRO FLAT DALI (K2E07) | 220-240 | 0,15 | 0,95 | 11,5-26 | 0,25-0,7 | 59 | -25..40 | 80 | II, 110 |
| PRO FLAT DALI BI (K2E08) | | | (Po≥6 W) | | [1] | | -25..45 | 80 | DI, 110 |
| PRO FLAT DALI OF (K2E09) | 176-276* | 0,17* | | | | | - | 80 | OF |
| PRO FLAT LC DALI (K2G75) | 220-240 | 0,12 | 0,9 C-0,95 | 5,5-22 | 0,125-0,5 | 59 | -25..50 | 80 | II, 110, DNC |
| PRO FLAT LC DALI BI (K2G76) | | | (Po≥5,5 W) | | [1] | | -25..50 | 80 | DI, 110 |
| PRO FLAT DALI OF (K2G77) | 176-275* | 0,15* | | | | | - | 80 | BI |
| PRO FLAT 22 (K2C15) | 220-240 | 0,12 | 0,9 C-0,95 | 5,5-22 | 0,125-0,5 | 59 | -25..45 | 75 | II, 110, DNC |
| PRO FLAT 22 BI (K2C16) | | | (Po≥5,5 W) | | [1] | | -25..50 | 75 | BI, 110 |
| PRO FLAT 22 OF (K2C17) | 170-280* | 0,15* | | | | | - | 80 | OF |
| PRO FLAT 22/500 (K2E10) | 220-240 | 0,12 | 0,9 C-0,95 | 22 | 0,5 | 59 | -25..45 | 75 | II, 110, DNC |
| PRO FLAT 22/500 BI (K2E11) | | | (Po≥8 W) | | | | -25..50 | 75 | BI, 110 |
| PRO FLAT 22/500 OF (K2E12) | 170-280* | 0,15* | | | | | - | 80 | OF |
| PRO FLAT 15/350 (K2E13) | 220-240 | 0,09 | 0,9 C-0,95 | 15 | 0,35 | 59 | -25..50 | 75 | II, 110, |

| Type/s | supply voltage (V) | supply current (A) | Power factor | Output power (W) | Output current (A) | U _{OUT} (Vdc) | ta (°C) | tc (°C) [2] | Use [3] |
|---|--------------------|--------------------|---------------------|------------------|--------------------|------------------------|---------|-------------|--------------|
| | | | (Po≥8 W) | | | | | | DNC |
| PRO FLAT 15/350 BI (K2E14) | 170-280* | 0,1* | | | | | -25..55 | 75 | BI, 110 |
| PRO FLAT 15/350 OF (K2E15) | | | | | | | - | 80 | OF |
| PRO FLAT 13/300 (K2E16) | 220-240 | 0,08 | 0,9 C-0,95 (Po≥8 W) | 13 | 0,3 | 59 | -25..50 | 75 | II, 110, DNC |
| PRO FLAT 13/300 BI (K2E17) | 170-280* | 0,08* | | | | | -25..55 | 75 | BI, 110 |
| PRO FLAT 13/300 OF (K2E18) | | | | | | | - | 80 | OF |
| PRO FLAT 12/250 (K2E19) | 220-240 | 0,07 | 0,9 C-0,95 (Po≥8 W) | 12 | 0,25 | 59 | -25..50 | 75 | II, 110, DNC |
| PRO FLAT 12/250 BI (K2E20) | 170-280* | 0,07* | | | | | -25..55 | 75 | BI, 110 |
| PRO FLAT 12/250 OF (K2E21) | | | | | | | - | 80 | OF |
| PRO FLAT 10 DALI (K2I70) | 220-240 | 0,06 | 0,95 (Po≥5 W) | 0,375-10 | 0,15-0,7 [1] | 59 | -25..45 | 75 | II, 110, DNC |
| PRO FLAT 10 DALI BI (K2I71) | 176-275* | 0,075* | | | | | -25..50 | 75 | BI, 110 |
| PRO FLAT 10 DALI OF (K2I72) | | | | | | | - | 80 | OF |
| PRO FLAT 38 DALI NFC (K2H74), PRO FLAT 38 DALI NFC LG (K2I73) | 220-240 | 0,2 | 0,95 (Po≥13 W) | 1,5-38 | 0,15-1,05 [1] | 59 | -25..40 | 85 | II, 110 |
| PRO FLAT 38 DALI NFC BI (K2H75), PRO FLAT 38 DALI NFC LG BI (K2I74) | 176-275* | 0,25* | | | | | -25..45 | 80 | DI, 110 |
| PRO FLAT 38 DALI NFC OF (K2H76), PRO FLAT 38 DALI NFC LG OF (K2I75) | | | | | | | - | 80 | OF |
| PRO FLAT 38 DALI NFC IPR3 (K2H82) | 220-240 | 0,2 | 0,95 (Po≥13 W) | 1,5-38 | 0,15-1,05 [1] | 59 | -25..50 | 90 | II, 110 |
| IPR3 NFC (K2H95) | 176-275* | 0,25* | | | | | -25..50 | 90 | II, 110 |

Notes: Kxxxx code can be used as type reference; *Supply at 0 Hz; [1] – Different values according to DIP switch selection or software setting for NFC models or via DALI port with DALI programmer. [2] – For OF models tc is measured on the top of C15. [3] – 110= the products have an overheating protection (C.5.a automatic resetting type) and comply with temperature limit of EN 60598-1; II=Independent class II; BI= Built-in; DI= Built-in with double insulation; OF= built-in without enclosure; DNC= Do not cover.

| Connections | | |
|------------------------|--|---|
| Input supply | PRI | screwless terminal block 0,2/0,5...1,5 mm ² (0,75...1,5 mm ² for independent models) IPR3 models provided with tails / leads wirings: J1-J2 H07RN-F 2x1 mm ² |
| DALI control | DA | screwless terminal block 0,2/0,5...1,5 mm ² (0,75...1,5 mm ² for independent models) IPR3 models provided with tails / leads wirings: J3-J4 H05RN-F 2x0,75 mm ² |
| Output load | SEC | screwless terminal block 0,2/0,5...1,5 mm ² IPR3 models provided with tails / leads wirings: J5-J6 Style 20549 or 20233 HFT 2x18AWG |
| Additional information | | |
| Use | Independent and built-in for ordinary luminaire; up to 2000 m above sea level. | |

| | | | |
|--|---|----------------------|-----------|
| Features | All models have the following features: for LED; stabilized output current (CC); multiple value load; short-circuit proof type; impulse withstand category II and III; Pollution degree 2; Material group IIIa; the material of enclosure was tested with favourable result for Glow-wire at temperature 750-960 °C. The tests for OF models have been performed using the same enclosure of independent models. Total circuit power: 44 W for PRO FLAT 40 models, PRO FLAT 40/1050 models, MP 42 RF (340044), 43 W for PRO FLAT 38 models, IPR3 NFC 40 W for PRO FLAT 36/900 models, 36 W for PRO FLAT 30 models, 33 W for PRO FLAT 30/800 models, PRO FLAT 30/700 models, 29 W for PRO FLAT DALI models, 28 W for PRO FLAT 26/600 models, 25 W for PRO FLAT LC DALI models, PRO FLAT 22 models, PRO FLAT 22/500 models, 17 W for PRO FLAT 15/350 models, 15 W for PRO FLAT 13/300 models, 14 W for PRO FLAT 12/250 models; 12,8 W for PRO FLAT 10 DALI models, IPR3 10/200. | | |
| d.c. operation | Models suitable for d.c. operation (EL symbol) have been tested in the rated supply range 189-250 V or 196-250 V (extended 170-280 V or 176-275 V) for the specific use in centralized emergency installations; 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 OF models have been tested in the same enclosure of built-in models, the safety evaluations must be repeated if they will be assembled in a final luminaire with different enclosure. The creepage distances, clearances and connections of control gears 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) | independent models | BI models | OF models |
| PRI ↔ SEC | R | R | R |
| PRI ↔ DA (if present) | B | B | B |
| SEC ↔ DA (if present) | R | R | R |
| Between active parts ↔ external touchable parts | R | B, R for DALI models | - |
| Between active parts ↔ bottom side of the enclosure | R | R | - |
| All models are suitable for direct mounting on normally flammable surfaces (EN IEC 60598-1:2021) only for values (most unfavorable) up to the following t_c value: | | | |
| PRO FLAT 40 models, PRO FLAT 36 models, MP 42 RF (340044) | 75 | | |
| PRO FLAT 38 DALI NFC IPR3, IPR3 NFC | 82 | | |
| PRO FLAT 38 DALI NFC models | 73 | | |
| PRO FLAT 30 models, PRO FLAT DALI models, | 73 | | |
| PRO FLAT 30/800, PRO FLAT 22, PRO FLAT LC DALI models | rated t_c | | |
| Assessment to EN 62493:2015, EN 62493:2015/A1:2022 has been performed. | | | |
| Assessment to EN IEC 62442-3:2022 has been performed. | | | |
| All independent models are suitable for "MM" triangle marking only for values (most unfavorable) up to the following t_c value: | | | |
| PRO FLAT 40 models, PRO FLAT 36 models | 80 | | |
| PRO FLAT 38 DALI NFC IPR3, IPR3 NFC | 87 | | |
| PRO FLAT 38 DALI NFC models | 78 | | |
| PRO FLAT 30 models, PRO FLAT DALI models | 75 | | |
| PRO FLAT 30/800, PRO FLAT 22, PRO FLAT LC DALI models | rated t_c | | |