

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 JOLLY ART, DC JOLLY TRT ** (* means any alphanumeric characters),
MP ** (* means any alphanumeric characters),
SMART** (* means any alphanumeric characters), SMART 70 HC SLIM,
SMART 70 HC SLIM OF and
SUPER PRO ** (* 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

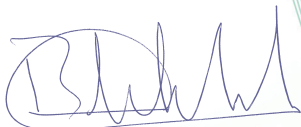
DEKRA hereby grants the right to use the ENEC certification mark.

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.

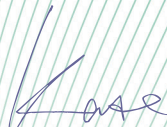
This certificate is issued on 10 January 2024 and expires upon withdrawal of one of the above mentioned standards.

Certificate number: 81-135075

DEKRA Certification B.V.



B.T.M. Holtus
Managing Director



K Xu
Certification Manager

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ACCREDITED BY THE
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) | : DC JOLLY ART, DC JOLLY TRT ** (* means any alphanumeric characters), MP ** (* means any alphanumeric characters), SMART** (* means any alphanumeric characters), SMART 70 HC SLIM, SMART 70 HC SLIM OF and SUPER PRO ** (* means any alphanumeric characters) |
| Primary voltage | : 220-240 V a.c. |
| Rated frequency | : 50/60 Hz or 50-60 Hz |
| Primary current | : 0,4 A |
| Secondary power | : From 11 to 70 W |
| Secondary current | : From 0,25 to 1,75 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. 3509080.560 and 3509080.561 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. 81-114554 which we hereby declare invalid.

The list of components is laid down in test report 3509080.560.

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: | | | | | | | | | | | | |
|---|---------------------------|-------------------------|------------------|---------------------|---------------|--------------------|-------------|-----------------------------|------------|--------|--------|--------|
| <p>The devices are controlgears for LED modules with stabilized output current, depending on the selection of the DIP switch S1 or S50 for multi load models. The stabilized output can be reduced by NTC control signal (if present) in case of overheating on the LED module. All models have SELV output. The input voltage is 50/60 Hz (or 50-60 Hz), 220-240 V for all models; in the marking plate is present also an operative d.c. range in which the products can work; they can be used for centralized emergency installations in the rated range: 220-240 V for SMART 32, SMART 50, SMART 70 and SMARTx models, 196-250 V for other models; no DC supply for MP 32 DL, MP 32/850 DL, MP 32/550 DL, MP 35 DL, MP 42 DL, SMART 42 and MP 40 models, SMART F models, MP 28 BI.</p> | | | | | | | | | | | | |
| Type/s | ac or *dc PRI current (A) | Power factor | Output power (W) | SEC current (A) [1] | d.c. Uout (V) | ta (°C) | tc (°C) [2] | Thermal protection (°C) [3] | Symbol [4] | | | |
| SMART 32 (K2355) | 0,16 | 0,95 (Po≥11 W) | 11-32 | 0,25-1 | 50 | -25..50 | 80 | 100 | I, PE | | | |
| SMART 32 BI (K2354) | *0,18 | | | | | | | | BI, PE | | | |
| SMART 32 OF (K2484) | | | | | | | | | OF, PE | | | |
| MP 32 DL (K2353) | 0,16 | | | | | -25..50 | 80 | 100 | BI, PE | | | |
| MP 32/850 DL | 0,16 | 0,95 (Po≥11 W) | 32 | 0,85 | 50 | -25..50 | 80 | 100 | BI, PE | | | |
| MP 32/550 DL | 0,14 | | 25 | 0,55 | 50 | -25..50 | 80 | 100 | BI, PE | | | |
| SMART 42 (K2629) | 0,23 | 0,95 (Po≥16 W) | 22-42 | 0,5-1,05 | 50 | -25..40 | 70 | 120 | I, PE | | | |
| SMART 42 BI (K2630), MP 42 DL (K2632) | | | | | | | | | -25..45 | 75 | 110 | BI, PE |
| SMART 42 OF (K2631) | | | | | | | | | - | 80 | - | OF, PE |
| SMARTx 26 PLUS (K2680) | 0,14 | 0,95 (Po≥11 W) | 16-26 | 0,35-0,7 | 50 | -25..50 | 80 | 100 | I, PE | | | |
| SMARTx 26 BI PLUS (K2681) | *0,17 | | | | | | | | BI, PE | | | |
| SMARTx 16/350 (K2481) | 0,09 | | 16 | 0,35 | 50 | -25..55 | 80 | 100 | I, PE | | | |
| SMARTx 16/350 BI (K2480) | *0,1 | | BI, PE | | | | | | | | | |
| SMARTx 32/700 (K2483) | 0,16 | 0,95 (Po≥11 W) | 32 | 0,7 | 50 | -25..50 | 80 | 100 | I, PE | | | |
| SMARTx 32/700 BI (K2482) | *0,18 | | | | | | | | BI, PE | | | |
| SMART 40/900F (K2634) | 0,2 | 0,95 (Po≥16 W) | 40 | 0,9 | 50 | -25..45 | 75 | 110 | I, PE | | | |
| SMART 40/900F BI (K2633) | | | | | | | | | BI, PE | | | |
| SMART 42/1050F (K2636) | 0,23 | | 42 | 1,05 | 50 | -25..40 | 70 | 120 | I, PE | | | |
| SMART 42/1050F BI (K2635) | | | | | | | | | -25..45 | 75 | 110 | BI, PE |
| SMART 50 (K2468) | 0,25 | 0,95 (Po≥25 W) | 27-50 | 0,35-1,05 | 85 | -25...45/60 [1] | 90 | 120 | I, PE | | | |
| SMART 50 BI (K2469) | *0,28 | | | | | | | | 110 | BI, PE | | |
| SMART 50 OF (K2470) | | | | | | | | | - | 80 | - | OF, PE |
| SMART 35 (K2590) | 0,2 | 0,95 (Po≥10 W) | 11-35 | 0,25-1 | 50 | -25..40 | 70 | 100 | I, PE | | | |
| SMART 35 BI (K2591), MP 35 DL (K2592) | *0,2 | | | | | | | | -25..50 | 80 | BI, PE | |
| SMART 35 OF (K2593) | | | | | | | | | - | 80 | - | OF, PE |
| DC JOLLY TRT (K2594), DC JOLLY ART | 0,17 | 0,92C-0,95 (Po≥17 W) | 17-32 | 0,35-0,7 | 59 | -25..45 | 75 | 100 | BI, PE | | | |
| DC JOLLY TRT OF (K2595) | *0,19 | | | | | | | | - | 80 | - | OF, PE |
| SMART 70 HC SLIM (K2771) | 0,4 | 0,95 (Po≥15 W) | 37,5-70 | 0,7-1,75 | 59 | -25..45/50 [1] | 90 | 120 | BI, PE | | | |
| SMART 70 HC SLIM OF (K2772) | *0,5 | | | | | | | | - | 80 | - | OF, PE |
| SMART 70 (K2956) | 0,37 | 0,91C-0,95 (Po≥18 W) | 26-70 | 0,3-1,05 | 90 | -25..40 | 80 | 110 | II, FE | | | |
| SMART 70 BI (K2957) | *0,39 | | | | | | | | -25..45 | BI, FE | | |
| SMART 70 OF (K2958) | | | | | | | | | - | 80 | - | OF, FE |

| | | | | | | | | | |
|--|------|---------------------------------------|-------|-----------|----|---------|----|-----|--------|
| MP 28 BI (K2F103) | 0,15 | 0,95 ($P_{o \geq 15 \text{ W}}$) | 12-28 | 0,3-0,75 | 59 | -25..50 | 70 | 110 | BI, FE |
| MP 42 RF (K2830) | 0,23 | 0,95 ($P_{o \geq 15 \text{ W}}$) | 13-42 | 0,3-1,05 | 55 | -25..40 | 80 | 110 | BI, FE |
| MP 40 ML BII (K2A63) | 0,22 | 0,95 ($P_{o \geq 15 \text{ W}}$) | 29-40 | 0,65-1,05 | 56 | -25..45 | 80 | 110 | DI, FE |
| MP 40 ML (K2968), MP 40 MP RF | | | | | | | | | BI, FE |
| Notes: Kxxxx code can replace the type reference. [1] – Different values according to DIP switch selection (see marking plate). [2] – For OF models t_c is measured on the top of C14 (DC JOLLY TRT/ART, SMART 70 HC SLIM), C15 (MP 28 BI, MP 42 RF, MP 40 models), C20 (all other models). [3] – The products have an overheating protection (C.5.a type) and comply with temperature limit of EN 60598-1. [4] – Symbols: I=IP20 class I; II=IP20 class II; BI=built-in; DI=built-in with double insulation; OF= built-in without enclosure; FE=functional earth; PE=protective earth | | | | | | | | | |

| Type/s | ac or *dc PRI current (A) | Power factor | Output power (W) | SEC current (A) [1] | d.c. Uout (V) | ta (°C) | tc (°C) [2] | Thermal protection (°C) [3] | Symbol [4] |
|--|---------------------------------|-------------------|------------------------|---------------------------|---------------------|------------|-------------------|-----------------------------------|---------------|
| SUPER PRO 42/1050 (K2969) | 0,23 | 0,95 | 42 | 1,05 | 59 | -25..40 | 80 | 110 | II, FE |
| SUPER PRO 42/1050 BII (K2A64) | *0,27 | (Po≥15 W) | | | | | | | DI, FE |
| SUPER PRO 42/1050 BI (K2970) | | | | | | -25..45 | | | BI, FE |
| SUPER PRO 42/1050 OF (K2971) | | | | | | - | 80 | - | OF, FE |
| SUPER PRO 38/900 (K2972), SUPER PRO 35/850 (K2B86), SUPER PRO 33/800 (K2B88) | 0,2 *0,25 | 0,95 (Po≥15 W) | 38 35 33 | 0,9 0,85 0,8 | 59 | -25..40 | 75 | 110 | II, FE |
| SUPER PRO 38/900 BII (K2A65), SUPER PRO 35/850 BII (K2B87), SUPER PRO 33/800 BII (K2B89) | | | | | | | | | DI, FE |
| SUPER PRO 38/900 BI (K2973), SUPER PRO 35/850 BI (K2B90), SUPER PRO 33/800 BI (K2B91) | | | | | | -25..45 | | | BI, FE |
| SUPER PRO 38/900 OF (K2974), SUPER PRO 35/850 OF (K2B92), SUPER PRO 33/800 OF (K2B93) | | | | | | - | 80 | - | OF, FE |
| SUPER PRO 32/700 (K2975), SUPER PRO 29/650 (K2B94) | 0,17 *0,2 | 0,95 (Po≥12 W) | 32 29 | 0,7 0,65 | 59 | -25..45 | 75 | 110 | II, FE |
| SUPER PRO 32/700 BII (K2A66), SUPER PRO 29/650 BII (K2B95) | | | | | | | | | DI, FE |
| SUPER PRO 32/700 BI (K2976), SUPER PRO 29/650 BI (K2B97) | | | | | | -25..50 | | | BI, FE |
| SUPER PRO 32/700 OF (K2977), SUPER PRO 29/650 OF (K2B96) | | | | | | - | 80 | - | OF, FE |
| SUPER PRO 27/600 (K2978), SUPER PRO 24/550 (K2B98), | 0,15 *0,17 | 0,95 (Po≥16 W) | 27 24 | 0,6 0,55 | 59 | -25..45 | 75 | 110 | II, FE |
| SUPER PRO 27/600 BII (K2A67), SUPER PRO 24/550 BII (K2B99) | | | | | | | | | DI, FE |
| SUPER PRO 27/600 BI (K2979), SUPER PRO 24/550 BI (K2C03) | | | | | | -25..50 | | | BI, FE |
| SUPER PRO 27/600 OF (K2980), SUPER PRO 24/550 OF (K2C01) | | | | | | - | 80 | - | OF, FE |
| SUPER PRO 23/500 (K2981) | 0,13 | 0,95 | 23 | 0,5 | 59 | -25..50 | 75 | 110 | II, FE |
| SUPER PRO 23/500 BII (K2A68) | *0,15 | (Po≥10 W) | | | | | | | DI, FE |
| SUPER PRO 23/500 BI (K2982) | | | | | | | 70 | | BI, FE |
| SUPER PRO 23/500 OF (K2983) | | | | | | - | 80 | - | OF, FE |
| SUPER PRO 22/485 (K2A86), SUPER PRO 20/450 (K2C05) | 0,12 *0,14 | 0,95 (Po≥10 W) | 22 20 | 0,485 0,45 | 59 | -25..50 | 75 | 110 | II, FE |
| SUPER PRO 22/485 BII (K2A87), SUPER PRO 20/450 BII (K2C06) | | | | | | | | | DI, FE |
| SUPER PRO 22/485 BI (K2A88), SUPER PRO 20/450 BI (K2C07) | | | | | | | 70 | | BI, FE |
| SUPER PRO 22/485 OF (K2A89), SUPER PRO 20/450 OF (K2C02) | | | | | | - | 80 | - | OF, FE |
| SUPER PRO 18/400 (K2984) | 0,1 | 0,95 | 18 | 0,4 | 59 | -25..45 | 70 | 110 | II, FE |
| SUPER PRO 18/400 BII (K2A69) | *0,12 | (Po≥16 W) | | | | | | | DI, FE |
| SUPER PRO 18/400 BI (K2985) | | | | | | -25..50 | | | BI, FE |
| SUPER PRO 18/400 OF (K2986) | | | | | | - | 80 | - | OF, FE |

| | | | | | | | | | |
|------------------------------|-------|-----------|----|------|----|---------|----|-----|--------|
| SUPER PRO 16/350 (K2987) | 0,09 | 0,95 | 16 | 0,35 | 59 | -25..50 | 70 | 110 | II, FE |
| SUPER PRO 16/350 BII (K2A70) | *0,11 | (Po≥10 W) | | | | | | | DI, FE |
| SUPER PRO 16/350 BI (K2988) | | | | | | | | | BI, FE |
| SUPER PRO 16/350 OF (K2989) | | | | | | - | 80 | - | OF, FE |
| SUPER PRO 13/300 (K2D59) | 0,07 | 0,95 | 13 | 0,3 | 59 | -25..50 | 70 | 110 | II, FE |
| SUPER PRO 13/300 BII (K2D60) | *0,09 | (Po≥11 W) | | | | | | | DI, FE |
| SUPER PRO 13/300 BI (K2D61) | | | | | | | | | BI, FE |
| SUPER PRO 13/300 OF (K2D62) | | | | | | - | 80 | - | OF, FE |
| SUPER PRO 12/250 (K2993) | 0,07 | 0,93 C | 12 | 0,25 | 59 | -25..55 | 70 | 110 | I, PE |
| SUPER PRO 12/250 BII (K2A72) | *0,08 | (Po≥10 W) | | | | | | | BI, PE |
| SUPER PRO 12/250 BI (K2994) | | | | | | | | | BI, PE |
| SUPER PRO 12/250 OF (K2995) | | | | | | - | 80 | - | OF, FE |

Notes: Kxxxx code can replace the type reference. [1] – Different values according to DIP switch selection (see marking plate). [2] – For OF models tc is measured on the top of C15. [3] – The products have an overheating protection (C.5.a type) and comply with temperature limit of EN 60598-1. [4] – Symbols: I=IP20 class I; II=IP20 class II; BI=built-in; DI=built-in with double insulation; OF= built-in without enclosure; FE=functional earth; PE=protective earth.

| Connections for DC JOLLY TRT, DC JOLLY ART, DC JOLLY TRT OF | | |
|---|--------|---|
| Input supply | PRI | double insulated tails, 0,75 mm ² |
| Input dimming | PUSH-L | double insulated tails, 0,75 mm ² |
| Output load | SEC | tails 0,5 mm ² |
| Connections for SMART 70 HC SLIM models | | |
| Input supply | PRI | screwless terminal block 0,5...1,5 mm ² |
| Output load | SEC | screwless terminal block 0,5...1,5 mm ² |
| Connections for all other models | | |
| Input supply | PRI | screwless terminal block 0,5...1,5 mm ² (0,75...1,5 mm ² for independent models) |
| Input for thermal protection (if present) | NTC | screwless terminal block 0,5...1,5 mm ² |
| Output load | SEC | screwless terminal block 0,5...1,5 mm ² |

| Additional information | |
|--|--|
| Use | Independent, 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; Pollution degree 2; Material group IIIa; the material of enclosure was tested with favourable result for Glow-wire at temperature 750-960 °C. All models except SMART 50 and SMART 70 have touchable output circuit. Total circuit power: 14 W for SUPER PRO 12/250 models; 15 W for SUPER PRO 13/300 models; 18 W for SUPER PRO 16/350 models; 20 W for SUPER PRO 18/400 models; 22 W for SUPER PRO 20/450 models; 24 W for SUPER PRO 22/485 models; 26 W for SUPER PRO 23/500 models; 27 W for SUPER PRO 24/550 models; 30 W for SUPER PRO 27/600 models; 31 W for MP 28 BI; 32 W for SUPER PRO 29/650 models; 33 W for ART, TRT models; 36 W for SMART 32, MP 32, SUPER PRO 33/800, SUPER PRO 32/700 models; 39 W for SMART 35, MP 35, SUPER PRO 35/850 models; 42 W for SUPER PRO 38/900 models; 44 W for MP 40 models; 46 W for SMART 42, MP 42, SUPER PRO 42/1050 models; 55 W for SMART 50 models; 76 W for SMART 70 models; 77 W for SMART 70 HC DALI models. |
| DC operation | Models suitable for d.c. operation (EL symbol) have been tested in the rated supply range 196-250 V for the specific use in centralized emergency installations (extended range 176-276 V); assessment to IEC 60598-2-22:2021 used in conjunction with 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 IEC/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 ↔ DA; PRI, PUSH L ↔ PE; SEC ↔ PE; NTC ↔ PE | |
| B | |

| | |
|--|-----------------|
| PRI ↔ FE; PRI ↔ SEC; PRI ↔ NTC | R |
| Active parts ↔ the enclosure of independent and BII models | R |
| Active parts ↔ the bottom side of enclosure of built-in models | R |
| All products with enclosure are suitable for direct mounting on normally flammable surfaces only for values up to the following t_c value: | max. t_c (°C) |
| SMART 32 models, SMARTx 32/700 models | 77 |
| MP 40 models | 74 |
| SMART 70 HC SLIM | 82 |
| SUPER PRO 42 models, SUPER PRO 32 models, SUPER PRO 27 models, SUPER PRO 23 models, SUPER PRO 22 models | 72 |
| SUPER PRO 38 models | 70 |
| All other models | nominal t_c |
| Assessment to EN 62493:2015, EN 62493:2022 has been performed. | |
| Assessment to EN IEC 62442-3:2022 has been performed. | |