

# 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  
Type(s)/model(s) : DC MAXI JOLLY H (series), DC MAXI JOLLY HC (series), DC MJ (series),  
DC MJ H (series), MP 55 (series) and MP H (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, EN 61347-1:2015, EN 62384:2006 and EN 62384:2006/A1:2009
- an inspection of the production location according to CENELEC Operational Document CIG 021
- a 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 of the ENEC certification agreement and under the conditions of the ENEC certification agreement.

This certificate is issued on 24 January 2018 and expires upon withdrawal of one of the above mentioned standards.

Certificate number: 81-102679

DEKRA Certification B.V.



drs. G.J. Zoetbrood  
Managing Director



Henk Schendstok  
Certification Manager

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**SPECIFICATION OF THE CERTIFIED PRODUCT****Product data**

|                                |                                                                                                                                 |
|--------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| Product                        | : Electronic controlgear for LED modules                                                                                        |
| Trade name(s)                  | : TCI                                                                                                                           |
| Type(s)/model(s)               | : DC MAXI JOLLY H (series), DC MAXI JOLLY HC (series),<br>DC MJ (series), DC MJ H (series), MP 55 (series) and<br>MP H (series) |
| Primary voltage                | : 110-240 V                                                                                                                     |
| Nature of supply               | : alternate current                                                                                                             |
| Rated frequency                | : 50/60 Hz                                                                                                                      |
| Primary current                | : From 0,29 to 0,48 A                                                                                                           |
| Power factor                   | : From 0,95 to 0,98                                                                                                             |
| Type of load                   | : LED modules, power LED, 25-65 W                                                                                               |
| Working voltage U-OUT          | : From 55 to 95 V                                                                                                               |
| Class                          | : For Independent: I or II                                                                                                      |
| Protection degree              | : For Independent: IP20                                                                                                         |
| Rated maximum temperature (tc) | : From 80 to 90 °C                                                                                                              |
| Ambient temperature            | : From -25 to +50 °C                                                                                                            |
| Classification                 | : Independent or Built in or Integral (OF)                                                                                      |

**TESTS****Test requirements**

EN 61347-2-13:2014  
EN 61347-2-13:2014/A1:2017  
EN 61347-1:2015  
EN 62384:2006  
EN 62384:2006/A1:2009

**Test result**

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

**Additional information**

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

DEKRA test report No. 2102657.50 and 2102657.60 are laid down in DEKRA test file 350033600; they contain 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. The devices have a stabilized output current or voltage according to the selection of the DIP switch (options detailed both in the technical specification and in the labels). 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, 1-10V, MIDNIGHT, BILEVEL, BILEVEL N, PLV, DALI and BLL (wireless). The SYNC port can synchronize other devices as master/slave configuration. TCM models have a twin cap enclosure. Different independent enclosures are used for /2 and TCM models. SIGNAL GND and 12Vaux (if present) can supply an external fan. The independent and built-in models have a 110 °C 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 60598-1:2008, EN 60598-1 /A11:2009, VDE 0710 T14 ("MM" triangle marking). The products were tested in 170-280 V 0 Hz operational range according to IEC 61347-2-13:2014 and they can be used for centralized emergency installations (EN 50171 and EN 50172) in the rated 189-255 V; I<sub>max</sub>=0,4 A for DC MAXI JOLLY HC (series), DC MJ HC (series), I<sub>max</sub>=0,37 A for MP 55 (series). DC can't be used for PUSH L/RED ON/OFF/ OPERATION features.

| Type/s                                                                                                                                                                                                                                            | Primary voltage<br>(50/60 Hz) | Max. primary current | Power Factor | Output Power (W) | Secondary parameter         | Uout Vomax (V)    | ta (°C)           | tc (°C)           | Classification              |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|----------------------|--------------|------------------|-----------------------------|-------------------|-------------------|-------------------|-----------------------------|
| DC MAXI JOLLY HC TCM (K2805), DC MAXI JOLLY HC DALI TCM (K2806), DC MAXI JOLLY HC BLL TCM (K2906)                                                                                                                                                 | 220-240 V<br>110-127 V        | 0,29 A<br>0,45 A     | 0,95<br>[1]  | 40-55<br>[2]     | 1,05 -2,1 A;<br>48 V<br>[2] | 55<br>-           | -25..45<br>[2]    | 80                | Independent Class I (IP20)  |
| DC MAXI JOLLY HC/2 (K2807), DC MAXI JOLLY HC/2 DALI (K2808), DC MAXI JOLLY HC/2 BLL (K2B37)                                                                                                                                                       |                               |                      |              |                  |                             |                   |                   | 85                |                             |
| MP 55 HC TCM (K2504), MP 55 HC/2 (K2507)                                                                                                                                                                                                          |                               |                      |              |                  |                             |                   |                   | -25..40/45<br>[2] |                             |
| DC MAXI JOLLY HC BI (K7393), DC MAXI JOLLY HC PLV BI (K7398), DC MAXI JOLLY HC MIDNIGHT BI (K7397), DC MAXI JOLLY HC BILEVEL N BI (K7396), DC MAXI JOLLY HC BILEVEL BI (K7395), DC MAXI JOLLY HC BLL BI (K2907), DC MAXI JOLLY HC DALI BI (K7394) |                               | 0,33 A<br>0,48 A     | 0,98<br>[1]  | 40-60<br>[2]     |                             | -25..45/50<br>[2] | 85/90             | Built-in          |                             |
| MP 55 HC BI (K2223)                                                                                                                                                                                                                               |                               | 0,29 A<br>0,45 A     |              | 40-55<br>[2]     |                             |                   | 85                |                   |                             |
| DC MJ HC OF (K2799), DC MJ HC DALI OF (K2800), DC MJ HC PLV OF (K2804), DC MJ HC MIDNIGHT OF (K2803), DC MJ HC BILEVEL N OF (K2802), DC MJ HC BILEVEL OF (K2801), DC MJ HC BLL OF (K2908)                                                         |                               | 0,33 A<br>0,48 A     |              | 0,95<br>[1]      |                             |                   | 40-60<br>[2]      | -                 | 80<br>[3]                   |
| MP 55 HC OF (K2229)                                                                                                                                                                                                                               |                               | 0,29 A<br>0,45 A     | 0,98<br>[1]  | 40-55<br>[2]     | -                           | 80<br>[3]         |                   |                   |                             |
| MP 55 HC/2 SI (K2553)                                                                                                                                                                                                                             | 220-240 V<br>110-127 V        | 0,29 A<br>0,45 A     | 0,98<br>[1]  | 40-55<br>[2]     | 1,05 -2,1 A;<br>48 V [2]    | 55<br>-           | -25..45/50<br>[2] | 85                | Independent Class II (IP20) |
| MP 55 1400 BI (K2257)                                                                                                                                                                                                                             |                               |                      |              |                  | 1,05 - 1,4 A<br>[2]         | 55                | -25..50           |                   | Built-in                    |

|                                                                                                                                                                                                                                                                   |           |        |             |              |                     |    |         |    |          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|--------|-------------|--------------|---------------------|----|---------|----|----------|
| MP 55 1400 S BI (K2B30)                                                                                                                                                                                                                                           | 220-240 V | 0,29 A | 0,98<br>[1] | 45-55<br>[2] | 1,05 - 1,4 A<br>[2] | 59 | -25..45 | 85 | Built-in |
| Notes: [1] – Rated value at output power greater than: 10-27 W for DC MAXI JOLLY HC (series), 27 W for MP 55 (series) and DC MJ HC (series). [2] – Different values according to DIP switch selection (see label). [3] – tc measured on the top of C14 capacitor. |           |        |             |              |                     |    |         |    |          |

| The following products were tested in 176-280 V 0 Hz operational range according to IEC 61347-2-13:2014 and they can be used for centralized emergency installations (EN 50171 and EN 50172) in the rated 196-255 V; I <sub>max</sub> =0,38 A (0,41 A for 65 W); DC can't be used for PUSH L/RED ON/OFF/ OPERATION features. |                            |                      |              |                  |                          |                                        |                     |                     |                            |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|----------------------|--------------|------------------|--------------------------|----------------------------------------|---------------------|---------------------|----------------------------|
| Type/s                                                                                                                                                                                                                                                                                                                       | Primary voltage (50/60 Hz) | Max. primary current | Power Factor | Output Power (W) | Secondary parameter      | U <sub>out</sub> V <sub>omax</sub> (V) | t <sub>a</sub> (°C) | t <sub>c</sub> (°C) | Classification             |
| DC MAXI JOLLY H/2 (K2525), DC MAXI JOLLY DALI H/2 (K2526), DC MAXI JOLLY MIDNIGHT H/2 (K2527), DC MAXI JOLLY BILEVEL H/2 (K2528), DC MAXI JOLLY BILEVEL N H/2 (K2529), DC MAXI JOLLY PLV H/2 (K2530), MP 65 H/2 (K2531), DC MAXI JOLLY BLL H/2 (K2909)                                                                       | 220-240 V<br>110-127 V     | 0,32 A<br>0,45 A     | 0,95<br>[1]  | 25-65<br>[2]     | 0,35 -1,2 A;<br>58 V [2] | 95<br>-                                | -25..45/50<br>[3]   | 80                  | Independent Class I (IP20) |
| MP 60 H/2 (K2532)                                                                                                                                                                                                                                                                                                            |                            | 0,31 A<br>0,42 A     |              | 25-60<br>[2]     | 0,35 -1,05 A<br>58 V [2] |                                        |                     |                     |                            |
| DC MAXI JOLLY HTCM (K2533), DC MAXI JOLLY DALI HTCM (K2534), DC MAXI JOLLY MIDNIGHT HTCM (K2535), DC MAXI JOLLY BILEVEL HTCM (K2536), DC MAXI JOLLY BILEVEL N HTCM (K2537), DC MAXI JOLLY PLV HTCM (K2538), MP 65 HTCM (K2539), DC MAXI JOLLY BLL HTCM (K2910)                                                               |                            | 0,32 A<br>0,45 A     |              | 25-65<br>[2]     | 0,35 -1,2 A;<br>58 V [2] |                                        |                     |                     |                            |
| MP 60 HTCM (K2540)                                                                                                                                                                                                                                                                                                           |                            | 0,31 A<br>0,42 A     |              | 25-60<br>[2]     | 0,35 -1,05 A<br>58 V [2] |                                        |                     |                     |                            |
| DC MAXI JOLLY HBI (K2541), DC MAXI JOLLY BLL HBI (K2911), DC MAXI JOLLY DALI HBI (K2542), DC MAXI JOLLY MIDNIGHT HBI (K2543), DC MAXI JOLLY BILEVEL HBI (K2544), DC MAXI JOLLY BILEVEL N HBI (K2545), DC MAXI JOLLY PLV HBI (K2546), MP 65 HBI (K2547)                                                                       |                            | 0,32 A<br>0,45 A     |              | 25-65<br>[2]     | 0,35 -1,2 A;<br>58 V [2] |                                        |                     |                     | Built-in                   |
| MP 60 HBI (K2548)                                                                                                                                                                                                                                                                                                            |                            | 0,31 A<br>0,42 A     |              | 25-60<br>[2]     | 0,35 -1,05 A<br>58 V [2] |                                        |                     |                     |                            |
| DC MJ H OF (K2549), DC MJ DALI H OF (K2550), DC MJ MIDNIGHT H OF (K2551), DC MJ BILEVEL H OF (K2552), DC MJ BILEVEL N H OF (K2553), DC MJ PLV H OF (K2554), MP 65 H OF (K2555), DC MJ H BLL OF (K2912)                                                                                                                       |                            | 0,32 A<br>0,45 A     |              | 25-65<br>[2]     | 0,35 -1,2 A;<br>58 V [2] |                                        | -                   | 80<br>[3]           | Integral                   |

|                                                                                                                                                                                                                                               |  |                  |  |              |                          |  |  |  |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------|--|--------------|--------------------------|--|--|--|--|
| MP 60 H OF (K2556)                                                                                                                                                                                                                            |  | 0,31 A<br>0,42 A |  | 25-60<br>[2] | 0,35 -1,05 A<br>58 V [2] |  |  |  |  |
| Notes: [1] – Rated value at output power greater than 25 W for DC MAXI JOLLY H (series), MP H (series), DC MJ H (series). [2] –Different values according to DIP switch selection (see label). [3] – tc measured on the top of C14 capacitor. |  |                  |  |              |                          |  |  |  |  |

| Common parameters for all models                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |        |                                                 |                                                                                        |                                                          |                                                         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-------------------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------|---------------------------------------------------------|
| Connection to supply (PRI)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |        |                                                 | screwless terminals; 0,5-1,5 mm² for built-in models; 0,75-1,5 mm² for built-in models |                                                          |                                                         |
| Connection to PUSH L, OPERATION, RED ON, RED OFF, DA (if present)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |        |                                                 | screwless terminals; 0,5-1,5 mm² for built-in models; 0,75-1,5 mm² for built-in models |                                                          |                                                         |
| Connection to 1...10V, LEVEL, 1..10VPUSH (if present)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |        |                                                 | screw terminals; 0,2-1,5 mm²                                                           |                                                          |                                                         |
| Connection to SEC, 12Vaux, NTC, I-set (if present), SYNC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        |                                                 | connector                                                                              |                                                          |                                                         |
| Connection to load (SEC)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        |                                                 | screw terminals; 0,5...2,5 mm²                                                         |                                                          |                                                         |
| Additional information                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |        |                                                 |                                                                                        |                                                          |                                                         |
| All models have the following features: AC/DC P/S for LED; stabilized output current (all models) and voltage (MP 55 1400 BI excluded); multiple value load; short-circuit proof type; impulse withstand category II; Pollution degree 2 (Normal Pollution); Material group IIIa; the material of enclosure was tested with favourable result for Glow-wire at temperature 850/950 °C.                                                                                                                                                                                                                  |        |                                                 |                                                                                        |                                                          |                                                         |
| INSULATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | PRI    | PUSH L, OPERATION, RED ON, RED OFF (if present) | DALI (if present)                                                                      | SYNC, 1...10V, LEVEL, PUSH LV, NTC (if present)          | SEC                                                     |
| PRI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | -      | basic                                           | basic                                                                                  | double                                                   | double                                                  |
| PUSH L, OPERATION, RED ON, RED OFF (if present)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | basic  | -                                               | basic                                                                                  | double                                                   | double                                                  |
| DALI (if present)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | basic  | basic                                           | -                                                                                      | supplementary                                            | supplementary                                           |
| SYNC, 1...10V, LEVEL, PUSH LV, NTC (if present)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | double | double                                          | supplementary                                                                          | -                                                        | -                                                       |
| SEC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | double | double                                          | supplementary                                                                          | -                                                        | -                                                       |
| 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:                                                                                                                                                                                                                                           |        |                                                 |                                                                                        |                                                          |                                                         |
| MODELS:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |        |                                                 | INSULATION:                                                                            | Between active parts and the bottom surface of enclosure | Between active parts and external surfaces of enclosure |
| DC MAXI JOLLY HC TCM, DC MAXI JOLLY HC BLL TCM, DC MAXI JOLLY HC DALI TCM, DC MAXI JOLLY HC/2, DC MAXI JOLLY HC/2 DALI, DC MAXI JOLLY HC/2 BLL, MP 55 HC TCM, MP 55 HC/2, MP 55 HC/2 SI, DC MAXI JOLLY H/2, DC MAXI JOLLY BLL H/2, DC MAXI JOLLY DALI H/2, DC MAXI JOLLY MIDNIGHT H/2, DC MAXI JOLLY BILEVEL H/2, DC MAXI JOLLY BILEVEL N H/2, DC MAXI JOLLY PLV H/2, MP 65 H/2, MP 60 H/2, DC MAXI JOLLY HTCM, DC MAXI JOLLY BLL HTCM , DC MAXI JOLLY DALI HTCM, DC MAXI JOLLY MIDNIGHT HTCM, DC MAXI JOLLY BILEVEL HTCM, DC MAXI JOLLY BILEVEL N HTCM, DC MAXI JOLLY PLV HTCM, MP 65 HTCM, MP 60 HTCM |        |                                                 |                                                                                        | double                                                   | double                                                  |
| DC MAXI JOLLY HC BI, DC MAXI JOLLY HC BLL BI, DC MAXI JOLLY HC DALI BI, DC MAXI JOLLY HC PLV BI, DC MAXI JOLLY HC MIDNIGHT BI, DC MAXI JOLLY HC BILEVEL N BI, DC MAXI JOLLY HC BILEVEL BI, MP 55 HC BI, MP 55 1400 BI, DC MAXI JOLLY HBI, DC MAXI JOLLY DALI HBI, DC MAXI JOLLY MIDNIGHT HBI, DC MAXI JOLLY BILEVEL HBI, DC MAXI JOLLY BILEVEL N HBI, DC MAXI JOLLY PLV HBI, MP 65 HBI, MP 60 HBI, MP 55 1400 S BI                                                                                                                                                                                      |        |                                                 |                                                                                        | double                                                   | -                                                       |
| DC MJ HC OF, DC MJ HC BLL OF, DC MJ HC DALI OF, DC MJ HC PLV OF, DC MJ HC MIDNIGHT OF, DC MJ HC BILEVEL N OF, DC MJ HC BILEVEL OF, MP 55 HC OF, DC MJ H OF, DC MJ H BLL OF, DC MJ DALI H OF, DC MJ MIDNIGHT H OF, DC MJ BILEVEL H OF, DC MJ BILEVEL N H OF, DC MJ PLV H OF, MP 65 H OF, MP 60 H OF                                                                                                                                                                                                                                                                                                      |        |                                                 |                                                                                        | -                                                        | -                                                       |