

# PRODUCT DATASHEET

## OT 110/170-240/1A0 4DIM NFC G3 CE

OPTOTRONIC 4DIM NFC IP20 | Constant Current - Outdoor - dimmable



### Areas of application

- Street and urban lighting
- Industry
- Suitable for outdoor applications in luminaires with IP > 54
- Suitable for use in outdoor luminaires of protection class I and II

### Product benefits

- 4DIM functionality in one device (StepDIM, AstroDIM, MainsDIM, DALI)
- DALI-2 certified incl. Parts 251, 252, 253
- Easy and fast wireless luminaire programming
- Very high efficiency
- High surge protection: up to 10 kV (in protection class I or II)
- Great flexibility due to wide operating temperature range of -40...55 °C or 60 °C
- High surge DALI protection: 1 kV
- Protection through double isolation between mains input and LED output
- Optimized NFC for programming from the top: easy accessibility in luminaires

### Product features

- Supply voltage: 220...240 V
- Wide current output range: 150 mA...1050 mA or 1500 mA
- Easy and fast wireless luminaire programming via NFC
- Flexible current setting with one additional wire (LEDset2)
- AstroDIM for autonomous dimming with five independent levels (astro, time mode)
- Allows for energy saving in twilight phases
- MainsDIM function for dimming via reduction of line voltage amplitude
- Isolated DALI interface for bidirectional telemanagement systems
- Standby power consumption: < 0.35 W

- Constant Lumen Output (CLO)
- Integrated customizable thermal management (Driver Guard)

## TECHNICAL DATA

### Electrical data

|                                          |                           |
|------------------------------------------|---------------------------|
| Nominal wattage                          | 110.00 W                  |
| Nominal output power                     | 110 W <sup>1)</sup>       |
| Nominal voltage                          | 220...240 V               |
| Nominal output voltage                   | 55...157 V                |
| Input voltage range                      | 220...277 V               |
| Input voltage AC                         | 170...264 V <sup>2)</sup> |
| Input voltage DC                         | 176...276 V <sup>3)</sup> |
| U-OUT (working voltage)                  | 220 V                     |
| Nominal current                          | 1.05 A                    |
| Nominal output current                   | 150...1050 mA             |
| Inrush current                           | 102 A <sup>4)</sup>       |
| Output current tolerance                 | ±3 % <sup>5)</sup>        |
| Output ripple current (100 Hz)           | > 4 %                     |
| Mains frequency                          | 0/50/60 Hz                |
| Total harmonic distortion                | > 5 % <sup>6)</sup>       |
| Power factor $\lambda$                   | 0.99 <sup>7)</sup>        |
| ECG efficiency                           | 93 % <sup>8)</sup>        |
| Device power loss                        | 8.3 W                     |
| Max. ECG no. on circuit breaker 10 A (B) | 7                         |
| Max. ECG no. on circuit breaker 16 A (B) | 12                        |
| Max. ECG no. on circuit breaker 25 A (B) | 19                        |
| Surge capability (L/N-Ground)            | 10 kV                     |
| Surge capability (L-N)                   | 6 kV                      |
| Galvanic isolation                       | Double                    |
| Flickering metric (Pst LM)               | ≤1                        |

1) Max. 75% in DC operating mode

2) Permitted voltage range

3) Additional fuse needed in DC operation

4) At 106 µs

5) +/- 5% for LEDset down to 150mA

6) At full power

7) At full load

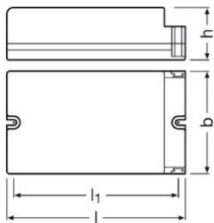
8) at 230 V, 50 Hz

### Photometrical data

|                            |    |
|----------------------------|----|
| Flickering metric (Pst LM) | ≤1 |
|----------------------------|----|

|                                 |      |
|---------------------------------|------|
| Stroboscope effect metric (SVM) | ≤0.4 |
|---------------------------------|------|

Dimensions & Weight



|    |          |
|----|----------|
| l  | 133,0 mm |
| l1 | 122,5 mm |
| b  | 77,0 mm  |
| h  | 40,0 mm  |

|                                      |                           |
|--------------------------------------|---------------------------|
| Length                               | 133.00 mm                 |
| Mounting hole spacing, length        | 122,5 mm                  |
| Width                                | 77.00 mm                  |
| Height                               | 40.00 mm                  |
| Cable cross-section, input side      | 0.2...1.5 mm <sup>2</sup> |
| Cable cross-section, output side     | 0.2...1.5 mm <sup>2</sup> |
| Wire preparation length, input side  | 8,5...9,5 mm              |
| Wire preparation length, output side | 8,5...9,5 mm              |
| Product weight                       | 590.00 g                  |

Colors & materials

|                 |         |
|-----------------|---------|
| Product color   | Black   |
| Casing material | Plastic |
| Body material   | Plastic |

Temperatures & operating conditions

|                                          |                        |
|------------------------------------------|------------------------|
| Ambient temperature range                | -40...+55 °C           |
| Maximum temperature at tc test point     | 85 °C                  |
| Max.housing temperature in case of fault | 120 °C                 |
| Permitted rel. humidity during operation | 5...95 % <sup>1)</sup> |

<sup>1)</sup> The luminaire manufacturer must ensure that condensation water cannot be created within the fixture.

Lifespan

|              |                                  |
|--------------|----------------------------------|
| ECG lifetime | 50000 h / 100000 h <sup>1)</sup> |
|--------------|----------------------------------|

1) At maximum  $T_c = 90^\circ\text{C}$  / 10% failure rate / At  $T_c = 78^\circ\text{C}$  / 10% failure rate

## Capabilities

|                                        |                                             |
|----------------------------------------|---------------------------------------------|
| Dimmable                               | Yes                                         |
| Dimming interface                      | 4DIM / AstroDIM / DALI / MainsDIM / StepDIM |
| Dimming range                          | 10...100 %                                  |
| Overheating protection                 | Automatic reversible                        |
| Overload protection                    | Automatic reversible                        |
| No-load proof                          | Yes                                         |
| Short-circuit protection               | Automatic reversible                        |
| Max. cable length to lamp/LED module   | 2,0 m <sup>1)</sup>                         |
| Suitable for fixtures with prot. class | I / II                                      |
| Suitable for emergency lighting        | Yes                                         |
| Type of connection, output side        | Push terminal                               |

1) Output wires must be routed as close as possible to each other

## Certificates & Standards

|                           |                                                                                                                                                                                                                                                                                                   |
|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Approval marks – approval | CCC / CE / DALI-2 / EL / ENEC / RCM / VDE                                                                                                                                                                                                                                                         |
| Standards                 | Acc. to EN 61347-1 / Acc. to ENEC 61347-2-13 / Acc. to EN 62384 / Acc. to EN 55015:2006 + A1:2007 + A2:2009 / Acc. to EN 61547 / Acc. to FCC 47 part 15 class B / Acc. to IEC 61000-3-2 / Acc. to IEC 61000-3-3 / Acc. to IEC 62386-101 / Acc. to IEC 62386-102 / Acc. to IEC 62386-207 / UL-8750 |
| Protection class          | I/II                                                                                                                                                                                                                                                                                              |
| Type of protection        | IP20                                                                                                                                                                                                                                                                                              |

## LOGISTICAL DATA

|                              |              |
|------------------------------|--------------|
| Temperature range at storage | -40...+85 °C |
|------------------------------|--------------|

## Energy labelling regulation data acc EU 2019/2015

|                                 |          |
|---------------------------------|----------|
| Networked standby power for CLS | < 0.35 W |
|---------------------------------|----------|

## Safety advice

- All electrical connections must be made by a qualified person.
- Caution, risk of electric shock.

## DOWNLOAD DATA

| Documents and certificates                                                         |                                        | Document name                      |
|------------------------------------------------------------------------------------|----------------------------------------|------------------------------------|
|  | User instruction / safety instructions | OT 110/165/40/75 /170-240/1A0 4DIM |

| Documents and certificates                                                       |                                 | Document name                       |
|----------------------------------------------------------------------------------|---------------------------------|-------------------------------------|
|  | Declarations of conformity      | OT 110/165/40/75 /170-240/1A0 4DIM  |
|  | Declarations of conformity UKCA | OT 110/165/40/75 /170-240/1A0 4DIM  |
|  | Certificates                    | OT 110/165/40/75 /170-240/1A0 4DIM  |
|  | Certificates                    | OT 110/170-240/1A0 4DIM NFCG3CE     |
|  | Certificates                    | OT 110/170-240/1A0 4DIM NFCG3CEVS18 |
|  | Certificates                    | OT 110/170-240/1A0 4DIM NFCG3CE     |

## LOGISTICAL DATA

| Product code  | Packaging unit (Pieces/Unit) | Dimensions (length x width x height) | Gross weight | Volume                |
|---------------|------------------------------|--------------------------------------|--------------|-----------------------|
| 4062172219037 | Unpacked<br>1                | 133 mm x 77 mm x 40 mm               | 590.00 g     | 0.41 dm <sup>3</sup>  |
| 4062172279918 | Shipping box<br>18           | 285 mm x 268 mm x 156 mm             | 11096.00 g   | 11.92 dm <sup>3</sup> |

The mentioned product code describes the smallest quantity unit which can be ordered. One shipping unit can contain one or more single products. When placing an order, for the quantity please enter single or multiples of a shipping unit.

## DISCLAIMER

Subject to change without notice. Errors and omission excepted. Always make sure to use the most recent release.