

## PRODUCT DATASHEET

### OT 165/170...240/1A0 4DIMLT2 G2 CE

OPTOTRONIC® Constant current LED power supplies with 4DIM-DALI and NFC | 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
- Wide current output range: 200 mA...1050 mA
- 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
- Protection through double isolation between mains input and LED output

#### Product features

- Supply voltage: 220...240 V
- Current output range: 70...1,050 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)
- Overtemperature protection via external NTC
- Integrated customizable thermal management (Driver Guard)

## TECHNICAL DATA

### Electrical data

|                                          |                           |
|------------------------------------------|---------------------------|
| Nominal wattage                          | 165.00 W                  |
| Nominal output power                     | 165 W <sup>1)</sup>       |
| Nominal voltage                          | 220...240 V               |
| Nominal output voltage                   | 130...260 V               |
| Input voltage AC                         | 170...264 V               |
| Input voltage DC                         | 176...276 V <sup>2)</sup> |
| U-OUT (working voltage)                  | 300 V                     |
| Nominal current                          | 0.76 A                    |
| Nominal output current                   | 200...1050 mA             |
| Inrush current                           | 77 A <sup>3)</sup>        |
| Output current tolerance                 | ±3 % <sup>4)</sup>        |
| Output ripple current (100 Hz)           | < 5 %                     |
| Mains frequency                          | 0/50/60 Hz                |
| Total harmonic distortion                | < 5 % <sup>5)</sup>       |
| Power factor $\lambda$                   | > 0.98 <sup>6)</sup>      |
| ECG efficiency                           | 93.5 %                    |
| Device power loss                        | 11.5 W                    |
| Max. ECG no. on circuit breaker 25 A (B) | 14                        |
| Surge capability (L/N-Ground)            | 10 kV                     |
| Surge capability (L-N)                   | 6 kV                      |
| Galvanic isolation                       | Double                    |
| Power loss in stand-by mode              | < 0.25 W                  |

1) Max. 75% in DC operating mode

2) Additional fuse needed in DC operation

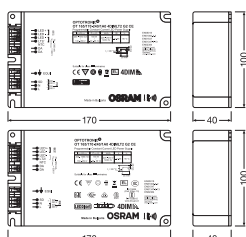
3) At 180  $\mu$ s

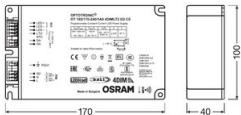
4) +/- 5% for LEDset down to 300mA

5) At full power

6) At full load

### Dimensions & Weight





|                                     |                           |
|-------------------------------------|---------------------------|
| Length                              | 170.00 mm                 |
| Mounting hole spacing, length       | 160,0 mm                  |
| Width                               | 100.00 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              |
| Product weight                      | 980.00 g                  |

Colors & materials

|                 |         |
|-----------------|---------|
| Casing material | Plastic |
| Body material   | Plastic |

Temperatures & operating conditions

|                                          |                        |
|------------------------------------------|------------------------|
| Ambient temperature range                | -40...+55 °C           |
| Maximum temperature at tc test point     | 90 °C                  |
| Max.housing temperature in case of fault | 110 °C                 |
| Permitted rel. humidity during operation | 5...85 % <sup>1)</sup> |

1) Maximum 56 days/year at 85 %

Lifespan

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

1) At maximum T<sub>c</sub> = 90°C / 10% failure rate / At T<sub>c</sub> = 78°C / 10% failure rate

Additional product data

|              |     |
|--------------|-----|
| Encapsulated | Yes |
|--------------|-----|

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                |
| Suitable for fixtures with prot. class | I / II               |
| Type of connection, output side        | Push terminal        |

### Certificates & Standards

|                           |                                                                                                                                                                                                                                                                                                 |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Approval marks – approval | CE / ENEC / VDE / VDE-EMC / CCC / EL / BIS                                                                                                                                                                                                                                                      |
| Standards                 | Acc. to EN 61347-1 / Acc. to EN 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 | < 0.25 W |
|---------------------------------|----------|

### DOWNLOAD DATA

| Documents and certificates                                                         |                                        | Document name                            |
|------------------------------------------------------------------------------------|----------------------------------------|------------------------------------------|
|  | User instruction / safety instructions | OPTOTRONIC® Outdoor                      |
|  | User instruction / safety instructions | 10932717 OPTOTRONIC Outdoor              |
|  | Declarations of conformity             | EU Declaration of Conformity 3813028     |
|  | Certificates                           | OT 165 4DIM LT2 G2 EATON AM27702 210520  |
|  | Certificates                           | VDE EMC Certificate 40044675 (EN)        |
|  | Certificates                           | OT outdoor ENEC 40050684 100220          |
|  | Certificates                           | OT 165 4DIM LT2 G2 INOTEC AM27702 210520 |
|  | Certificates                           | OT 165 4DIM G2 CE BIS 34496 170420       |
|  | Certificates                           | OT ENEC 40050684 060421                  |

| Documents and certificates                                                       |              | Document name                              |
|----------------------------------------------------------------------------------|--------------|--------------------------------------------|
|  | Certificates | OT 165 4DIM G2 CE BIS 34496 170420         |
|  | Certificates | OT 165 4DIM LT2 G2 EATON AM27702 210520    |
|  | Certificates | OT 165 4DIM LT2 G2 INOTEC AM27702 210520   |
|  | Certificates | OT 165 4DIMLT2 G2 CE UK DoC 4310787 010621 |
|  | Certificates | OT EMC 40044675 250621                     |

## LOGISTICAL DATA

| Product code  | Packaging unit (Pieces/Unit) | Dimensions (length x width x height) | Gross weight | Volume                |
|---------------|------------------------------|--------------------------------------|--------------|-----------------------|
| 4062172053952 | Unpacked<br>1                |                                      | 284.00 g     |                       |
| 4062172053969 | Shipping box<br>10           | 395 mm x 148 mm x 248 mm             | 10536.00 g   | 14.50 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.