

OT 165/220...240/1A0 1DIM G2 CE

OPTOTRONIC - 1DIM NFC IP20 | AstroDIM – constant current LED drivers



Product family features

- Supply voltage: 220...240 V
- Current output range: 70...1,050 mA
- AstroDIM for autonomous dimming with five independent levels (astro, time mode)
- Standby power consumption: < 0.5 W
- Constant Lumen Output (CLO)
- Integrated customizable thermal management (Driver Guard)

Product family benefits

- Easy and fast wireless luminaire programming
- Very high efficiency
- Optimized for AstroDIM operation
- 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
- Protection through double isolation between mains input and LED output

Areas of application

- Street and urban lighting
- Industry
- Suitable for outdoor applications in luminaires with IP > 65
- Suitable for use in outdoor luminaires of protection class I and II

Technical data

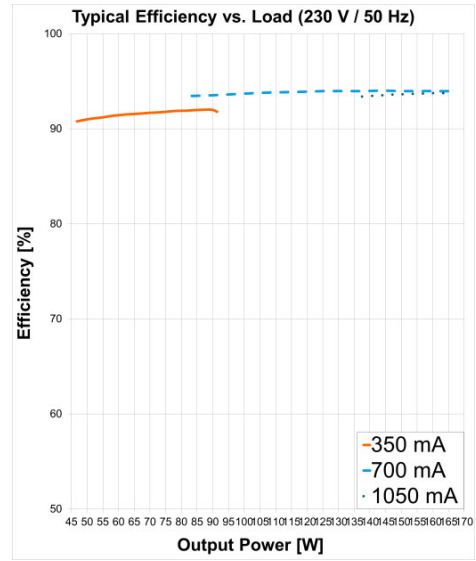
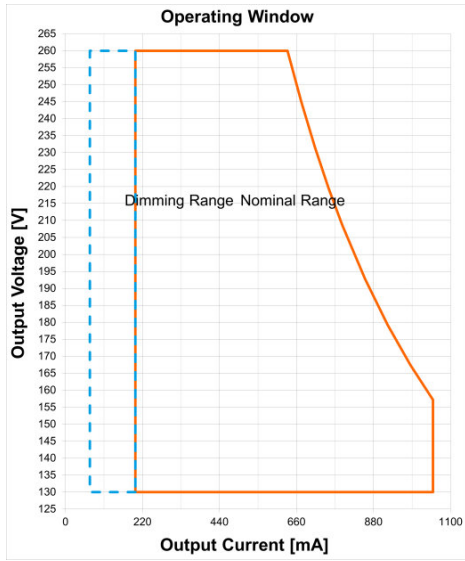
Electrical data

| | |
|--|---------------------|
| Nominal voltage | 220...240 V |
| Input voltage AC | 198...264 V |
| Nominal current | 0.78 A |
| Mains frequency | 50...60 Hz |
| Power factor λ | > 0.98 |
| Total harmonic distortion | < 5 % ¹⁾ |
| Device power loss | 13 W |
| Inrush current | 77 A ²⁾ |
| Max. ECG no. on circuit breaker 10 A (B) | 5 |
| Max. ECG no. on circuit breaker 16 A (B) | 8 |
| Max. ECG no. on circuit breaker 25 A (B) | 13 |
| Surge capability (L/N-Ground) | 10 kV |
| Surge capability (L-N) | 6 kV |
| Nominal output power | 165 W |
| Maximum output power | 165 W |
| Efficiency in full-load | 93 % ³⁾ |
| Nominal output current | 200...1050 mA |
| Output current tolerance | ±3 % |
| Output ripple current (100 Hz) | < 5 % |
| Output PSTLM | ≤1 |
| Output SVM | ≤0.4 |
| Minimum output current | 70 mA |
| Galvanic isolation | Double |
| Nominal output voltage | 130...260 V |
| U-OUT (working voltage) | 300 V |
| Max. no. of ECGs on 16A MCB with EBN-OS | 21 |
| Max. ECG no. on circuit breaker 10 A (C) | 9 |
| Max. ECG no. on circuit breaker 16 A (C) | 14 |

¹⁾ At full load

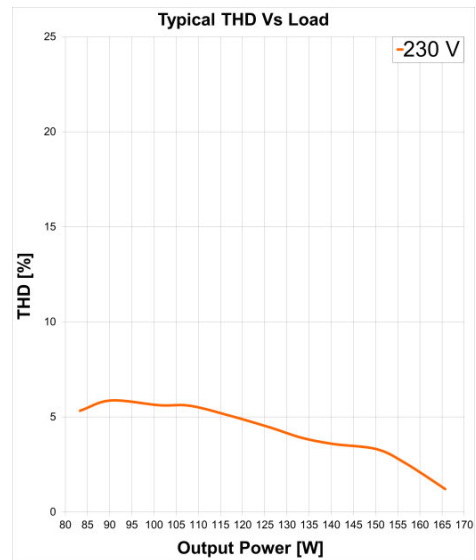
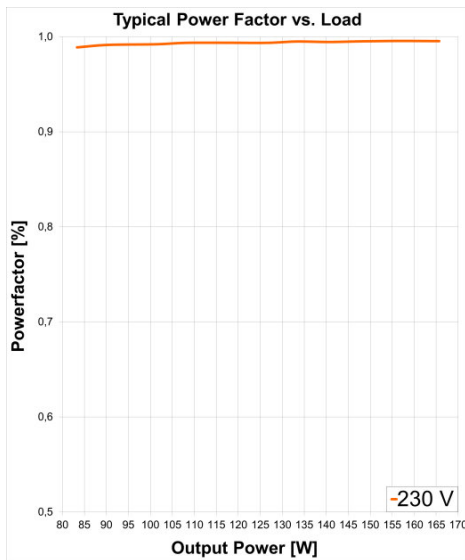
²⁾ At 192 μ s

³⁾ at 230 V, 50 Hz



Operating Window OT DX 165 1A0 DIMA LT2 E

Typical Efficiency vs. Load (230 V 50 Hz) OT 165220-2401A0 1DIM G2 CE

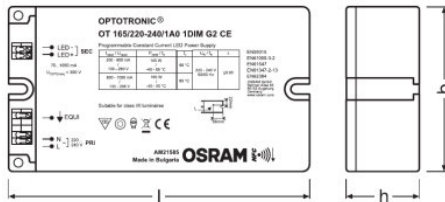


Typical Power Factor vs. Load OT 165220-2401A0 1DIM G2 CE

Typical THD vs Load OT 165220-2401A0 1DIM G2 CE

Product datasheet

Dimensions & weight



| | |
|--|---------------------------|
| Length | 150.0 mm |
| Width | 90.0 mm |
| Height | 39.5 mm |
| Mounting hole spacing, length | 134.0 mm |
| Mounting hole spacing, width | - |
| Product weight | 785.00 g |
| Cable cross-section, input side | 0.2...1.5 mm ² |
| Cable cross-section, output side | 0.2...1.5 mm ² |
| Wire preparation length, input side | 8.5...9.5 mm |

Temperatures & operating conditions

| | |
|---|----------------------------|
| Ambient temperature range | -40...+55 °C ¹⁾ |
| Temperature range at storage | -25...80 °C |
| Maximum temperature at tc test point | 90 °C ²⁾ |
| Max.housing temperature in case of fault | 130 °C |
| Permitted rel. humidity during operation | 5...85 % ³⁾ |

¹⁾ T_{a(max)} = 50°C for output current >800 mA

²⁾ T_{c(max)} = 85°C for output current >800 mA

³⁾ Maximum 56 days/year at 85 %

Lifespan

| | |
|---------------------|--------------------------------|
| ECG lifetime | 50000 / 100000 h ¹⁾ |
|---------------------|--------------------------------|

¹⁾ T_c = 85°C, with max. 10% failure rate / T_c = 75°C, with max. 10% failure rate

Capabilities

| | |
|--------------------------|------------|
| Dimmable | Yes |
| Dimming interface | AstroDIM |
| Dimming range | 10...100 % |

Product datasheet

| | |
|--|----------------------|
| Suitable for fixtures with prot. class | I / II |
| Constant lumen function | Programmable |
| Short-circuit protection | Automatic reversible |
| No-load proof | Yes |
| Intended for no-load operation | No |
| Max. cable length to lamp/LED module | 2.0 m ¹⁾ |
| Overload protection | Automatic reversible |
| Number of channels | 1 |

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

Programming

| | |
|--------------------|-----|
| Programming device | NFC |
|--------------------|-----|

Certificates & standards

| | |
|---------------------------|--|
| Type of protection | IP20 |
| Standards | Acc. to EN 61347-1:2015/Acc. to EN 61347-2-13:2014 + A1:2017/Acc. to EN 62384:2006 + A1:2009-09/Acc. to EN 55015:2013 + A1:2015/Acc. to EN 61000-3-2:2014/Acc. to EN 61000-3-3:2013/Acc. to EN 61547:2009/Acc. to ETSI EN 301 489-3 V2.1.1 (2019-03) |
| Approval marks – approval | CE / ENEC / VDE / VDE-EMC / CCC / EAC |

Logistical data






| | |
|----------------|--------------|
| Commodity code | 850440829000 |
|----------------|--------------|

Environmental information

| Information according Art. 33 of EU Regulation (EC) 1907/2006 (REACH) | |
|---|--|
| Date of Declaration | 18-05-2022 |
| Primary Article Identifier | 4052899605381 4050732430831 8010703816763 |
| Candidate List Substance 1 | Lead |
| CAS No. of substance 1 | 7439-92-1 |
| Safe Use Instruction | The identification of the Candidate List substance is sufficient to allow safe use of the article. |
| Declaration No. in SCIP database | 152e5914-5c70-44c0-894b-48cb3f2a5dab d1ca2ea4-2cb0-4091-83f9-6f053599510e 5196b370-7087-4ece-a1b2-ff46c4bd2739 |

Download Data

Product datasheet

| File | |
|---|---|
|  | User instruction OPTOTRONIC Outdoor |
|  | Brochures Technical Application Guide - 4DIMLT2 G2 CE LED drivers (EN) |
|  | Certificates OT ENEC 40050684 041122 |
|  | Certificates OT EMC 40044675 031022 |
|  | Declarations of conformity EU Declaration of Conformity 3979050 |

Ecodesign regulation information:

Intended for use with LED modules.

The forward voltage of the LED light source shall be within the defined operating window of the control gear in all operating conditions including dimming if applicable.

Separate control gear and light sources must be disposed of at certified disposal companies in accordance with Directive 2012/19/EU (WEEE) in the EU and with Waste Electrical and Electronic Equipment (WEEE) Regulations 2013 in the UK. For this purpose, collection points for recycling centres and take-back systems (CRSO) are available from retailers or private disposal companies, which accept separate control gear and light sources free of charge. In this way, raw materials are conserved and materials are recycled.

Logistical Data

| Product code | Product description | Packaging unit (Pieces/Unit) | Dimensions (length x width x height) | Volume | Gross weight |
|---------------|------------------------------------|------------------------------|--------------------------------------|-----------------------|--------------|
| 4052899605381 | OT 165/220...240/1A0 1DIM G2 CE | Shipping carton box 10 | 385 mm x 300 mm x 125 mm | 14.44 dm ³ | 8191.00 g |

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.

Accessories Optional

| Product description | Accessory name | Accessory code |
|------------------------------------|-----------------------------------|----------------|
| OT 165/220...240/1A0 1DIM G2 CE | NFC Scanner by TERTIUM Technology | 4055462290281 |

Data privacy

Product datasheet

This OSRAM driver can be configured using the Tuner4TRONIC software. This requires registering on www.myosram.com and downloading the Tuner4TRONIC software from the Internet. The Tuner4TRONIC software enables users to access and view the operational data of a luminaire or driver via the corresponding programming interfaces. A password key (Config Lock) must be set up in the driver via the Tuner4TRONIC software in order to control which users can access and view operational data. Follow the instructions for password setup. To grant an external person or company rights to access or view operational data, you can assign password keys. In this case, however, you are responsible for ensuring that the third party concerned takes notice of the information described here. However, OSRAM can read out operating data from devices for maintenance and service purposes even when a password key has been assigned. In individual cases, OSRAM will also use its access rights in order to optimize or improve driver hardware and driver functions. In accordance with data privacy principles, any user of operating data (luminaire manufacturers, third parties with access rights) must ensure that personal data (e.g. name, address, location IDs) are only merged with the prior written consent of the person (end user) concerned. The respective user of the operating data is responsible for providing evidence of consent.

Disclaimer

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