

## OPTOTRONIC - 2DIM High Power IP67 AUX12

2DIM, AUX power, IP67 – constant current LED drivers



### Areas of application

- Area lighting
- Stadium lighting
- Horticulture lighting
- Street and urban lighting
- Suitable for luminaires of protection class I

### Product family benefits

- Easily programmable by OT Programmer-S; (AstroDIM / Constant lumen)
- Efficient and reliable
- 2DIM functionality in one device (AstroDIM, 1...10 V)
- High surge protection: up to 10 kV
- Great flexibility due to wide operating temperature range of -40...55 °C
- Lifetime: up to 100,000 h
- IP rating: IP67
- 5 years guarantee

### Product family features

- Available with different wattage: 400 W, 600 W
- Supply voltage: 220...240 V
- AUX 12V output for sensor and wireless node
- Wide output current range
- Lifetime: up to 100,000 h (at T = 75 °C at T<sub>C</sub>)

Technical data

Electrical data

| Product description                 | Nominal voltage | Input voltage AC | Nominal current     | Mains frequency | Power factor $\lambda$ | Total harmonic distortion |
|-------------------------------------|-----------------|------------------|---------------------|-----------------|------------------------|---------------------------|
| OT 600/220...240/ 2A1 2DIM P7 AUX12 | 220...240 V     | 198...264 V      | 3.3 A <sup>1)</sup> | 50...60 Hz      | 0.95 <sup>2)</sup>     | < 10 % <sup>3)</sup>      |
| OT 400/220...240/ 1A4 2DIM P7 AUX12 | 220...240 V     | 198...264 V      | 2.2 A <sup>1)</sup> | 50...60 Hz      | 0.95 <sup>2)</sup>     | < 10 % <sup>3)</sup>      |

| Product description                 | Device power loss  | Inrush current     | Max. ECG no. on circuit breaker 10 A (B) | Max. ECG no. on circuit breaker 16 A (B) | Max. ECG no. on circuit breaker 25 A (B) |
|-------------------------------------|--------------------|--------------------|--|--|--|
| OT 600/220...240/ 2A1 2DIM P7 AUX12 | 34 W <sup>1)</sup> | 55 A <sup>4)</sup> | 1  | 2  | 3  |
| OT 400/220...240/ 1A4 2DIM P7 AUX12 | 23 W <sup>1)</sup> | 60 A <sup>8)</sup> | 1  | 3  | 5  |

| Product description                 | Surge capability (L/N-Ground) | Surge capability (L-N) | Nominal output power | Maximum output power |
|-------------------------------------|-------------------------------|------------------------|----------------------|----------------------|
| OT 600/220...240/ 2A1 2DIM P7 AUX12 | 10 kV <sup>5)</sup>           | 6 kV                   | 600 W                | 600 W <sup>6)</sup>  |
| OT 400/220...240/ 1A4 2DIM P7 AUX12 | 10 kV <sup>5)</sup>           | 6 kV                   | 400 W                | 400 W <sup>6)</sup>  |

| Product description                 | Efficiency in full-load | Nominal output current | Default output current | Output current tolerance |
|-------------------------------------|-------------------------|------------------------|------------------------|--------------------------|
| OT 600/220...240/ 2A1 2DIM P7 AUX12 | 94 % <sup>7)</sup>      | 1750...2100 mA         | 2100 mA                | ±5 %                     |
| OT 400/220...240/ 1A4 2DIM P7 AUX12 | 92 % <sup>7)</sup>      | 1050...1400 mA         | 1400 mA                | ±5 %                     |

| Product description                 | Output ripple current (100 Hz) | Output PSTLM | Output SVM |
|-------------------------------------|--------------------------------|--------------|------------|
| OT 600/220...240/ 2A1 2DIM P7 AUX12 | 6 %                            | ≤1           | ≤0.4       |
| OT 400/220...240/ 1A4 2DIM P7 AUX12 | 6 %                            | ≤1           | ≤0.4       |

| Product description                 | Minimum output current | Galvanic isolation | Nominal output voltage |
|-------------------------------------|------------------------|--------------------|------------------------|
| OT 600/220...240/ 2A1 2DIM P7 AUX12 | 1750 mA                | basic              | 225...343 V            |
| OT 400/220...240/ 1A4 2DIM P7 AUX12 | 1050 mA                | basic              | 247...380 V            |

<sup>1)</sup> Vin 230v 50Hz

<sup>2)</sup> Full load at 230 V/50 Hz

<sup>3)</sup> At full load

Product family datasheet

4) Max, th = 830µs @ 50% Ipk  
5) L - N acc to EN 61547 (>15 pulses) / L/N - PE acc to EN 61547 (>15 pulses)  
6) LED output  
7) at 230 V, 50 Hz  
8) Max, th = 630µs @ 50% Ipk

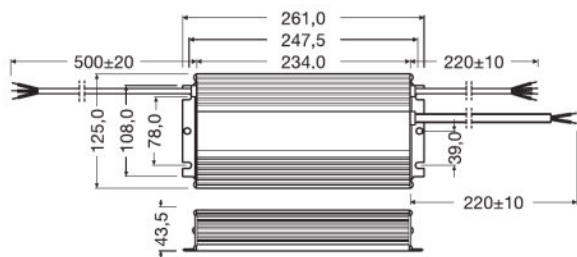
Dimensions & weight

| Product description                 | Length   | Width    | Height  | Mounting hole spacing, length | Mounting hole spacing, width | Product weight |
|-------------------------------------|----------|----------|---------|-------------------------------|------------------------------|----------------|
| OT 600/220...240/ 2A1 2DIM P7 AUX12 | 261.0 mm | 125.0 mm | 43.5 mm | 247.5 mm                      | 78.0 mm                      | 2550.00 g      |
| OT 400/220...240/ 1A4 2DIM P7 AUX12 | 252.0 mm | 89.5 mm  | 44.5 mm | 238.5 mm                      | 40 mm                        | 1980.00 g      |

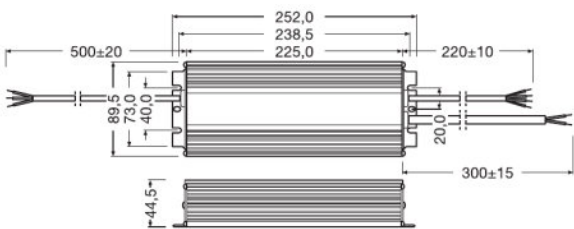
| Product description                 | Cable cross-section, input side | Cable cross-section, output side | Wire preparation length, input side |
|-------------------------------------|---------------------------------|----------------------------------|-------------------------------------|
| OT 600/220...240/ 2A1 2DIM P7 AUX12 | 1.0 mm <sup>2</sup> 1)          | 1.0 mm <sup>2</sup> 2)           | 10 mm                               |
| OT 400/220...240/ 1A4 2DIM P7 AUX12 | 1.0 mm <sup>2</sup> 1)          | 1.0 mm <sup>2</sup> 2)           | 10 mm                               |

1) L (Brown/BN), N (Blue/BU), PE(Green/Yellow, GNYE )  
2) LED+ (Brown/BN), LED- (Blue/BU)

Product line drawing



OT 600/220...240/ 2A1 2DIM P7 AUX12



OT 400/220...240/ 1A4 2DIM P7 AUX12

Temperatures & operating conditions

| Product description                 | Ambient temperature range | Temperature range at storage | Maximum temperature at tc test point | Max.housing temperature in case of fault |
|-------------------------------------|---------------------------|------------------------------|--------------------------------------|--|
| OT 600/220...240/ 2A1 2DIM P7 AUX12 | -40...+55 °C              | -40...+85 °C                 | 90 °C <sup>1)</sup>                  | 120 °C                                   |
| OT 400/220...240/ 1A4 2DIM P7 AUX12 | -40...+55 °C              | -40...+85 °C                 | 90 °C <sup>1)</sup>                  | 120 °C                                   |

| Product description                 | Permitted rel. humidity during operation |
|-------------------------------------|--|
| OT 600/220...240/ 2A1 2DIM P7 AUX12 | 5...85 % <sup>2)</sup>                   |
| OT 400/220...240/ 1A4 2DIM P7 AUX12 | 5...85 % <sup>2)</sup>                   |

<sup>1)</sup> Measured on tc point indicated of the product label.

<sup>2)</sup> Maximum 56 days/year at 85 %

Lifespan

| Product description                    | ECG lifetime                   |
|--|--------------------------------|
| OT 600/220...240/ 2A1 2DIM P7<br>AUX12 | 50000 / 100000 h <sup>1)</sup> |
| OT 400/220...240/ 1A4 2DIM P7<br>AUX12 | 50000 / 100000 h <sup>1)</sup> |

<sup>1)</sup> At maximum T<sub>c</sub> = 85°C / 10% failure rate / At maximum T<sub>c</sub> = 70°C / 10% failure rate

Capabilities

| Product description                    | Dimmable | Dimming interface | Dimming range | Suitable for fixtures with prot. class |
|--|----------|-------------------|---------------|--|
| OT 600/220...240/ 2A1 2DIM P7<br>AUX12 | Yes      | 1...10 V / 2DIM   | 10...100 %    | I                                      |
| OT 400/220...240/ 1A4 2DIM P7<br>AUX12 | Yes      | 1...10 V / 2DIM   | 10...100 %    | I                                      |

| Product description                    | Constant lumen function | Short-circuit protection | No-load proof | Intended for no-load operation |
|--|-------------------------|--------------------------|---------------|--------------------------------|
| OT 600/220...240/ 2A1 2DIM P7<br>AUX12 | Yes                     | Yes                      | Yes           | No                             |
| OT 400/220...240/ 1A4 2DIM P7<br>AUX12 | Yes                     | Yes                      | Yes           | No                             |

| Product description                    | Max. cable length to lamp/LED module | Number of channels |
|--|--------------------------------------|--------------------|
| OT 600/220...240/ 2A1 2DIM P7<br>AUX12 | 2.0 m <sup>1)</sup>                  | 1                  |
| OT 400/220...240/ 1A4 2DIM P7<br>AUX12 | 2.0 m <sup>1)</sup>                  | 1                  |

<sup>1)</sup> Output wires must be routed as close as possible to each other

Programming

| Product description                    | Programming device                       |
|--|--|
| OT 600/220...240/ 2A1 2DIM P7<br>AUX12 | OT Programmer-S - EAN<br>[4052899629172] |
| OT 400/220...240/ 1A4 2DIM P7<br>AUX12 | OT Programmer-S - EAN<br>[4052899629172] |

Certificates & standards

| Product description                 | Type of protection | Standards  | Approval marks – approval  |
|-------------------------------------|--------------------|--|----------------------------|
| OT 600/220...240/ 2A1 2DIM P7 AUX12 | IP67               | Acc. to EN 61347-1:2015/A1:2021/Acc. to EN 61347-2-13:2014/Acc. to EN 62384:2006/A1:2009/CB/CCC/ENEC         | CCC / CE / ENEC / RCM / CB |
| OT 400/220...240/ 1A4 2DIM P7 AUX12 | IP67               | Acc. to EN 61347-1:2015/A1:2021/Acc. to EN 61347-2-13:2014/A1:2017/Acc. to EN 62384:2006/A1:2009/CB/CCC/ENEC | CCC / CE / CB / ENEC / RCM |

Logistical data

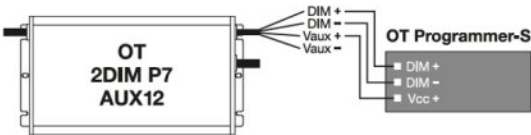
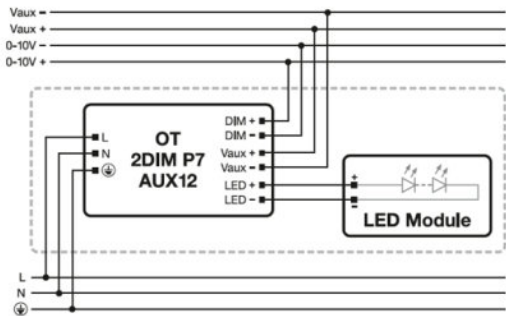
| Product description                 | Commodity code |
|-------------------------------------|----------------|
| OT 600/220...240/ 2A1 2DIM P7 AUX12 | 85044083900    |
| OT 400/220...240/ 1A4 2DIM P7 AUX12 | 85044083900    |

Environmental information  
Information according Art. 33 of EU Regulation (EC) 1907/2006 (REACH)

| Product description                 | Date of Declaration | Primary Article Identifier | Candidate List Substance 1 |
|-------------------------------------|---------------------|----------------------------|----------------------------|
| OT 600/220...240/ 2A1 2DIM P7 AUX12 | 09-06-2023          | 4052899624238              | Lead                       |
| OT 400/220...240/ 1A4 2DIM P7 AUX12 | 09-06-2023          | 4052899624221              | Lead                       |

| Product description                 | CAS No. of substance 1 | Safe Use Instruction   | Declaration No. in SCIP database     |
|-------------------------------------|------------------------|--|--------------------------------------|
| OT 600/220...240/ 2A1 2DIM P7 AUX12 | 7439-92-1              | The identification of the Candidate List substance is sufficient to allow safe use of the article. | 6d05a43f-729d-453b-bac6-f6646c52686b |
| OT 400/220...240/ 1A4 2DIM P7 AUX12 | 7439-92-1              | The identification of the Candidate List substance is sufficient to allow safe use of the article. | 2073e2ff-3039-4838-b1f2-0c17041401db |

Wiring Diagram



OT 600/220...240/ 2A1 2DIM P7 AUX12, OT 400/220...240/ 1A4 2DIM P7 AUX12

OT 600/220...240/ 2A1 2DIM P7 AUX12, OT 400/220...240/ 1A4 2DIM P7 AUX12

Application advice

For more detailed application information and graphics please see product datasheet.








Additional product information

- Input voltage range: Nominal operation at 198 – 264 Vac.
- Output short circuit protection: shut down of driver occur in case of output short circuit without damage to the unit.
- Output over load/voltage protection: In case the input voltage of the load exceeds the output voltage range which is auto defined by output current setting of the driver ( $V_o = P_o / I_o$ ), it automatically reduces the output current. Auto-reversible without mains power on/off;
- No load protection: the driver automatically adjusts the output voltage to the maximum output voltage which is auto defined by output current setting if no load is connected. Auto-reversible with the correct load connected;
- Over temperature protection: the driver is protected against temporary overheating by shutting down until the overheating eliminated; Auto-reversible when temperature back to normal;
- Disconnect the power before servicing. Terminal block is not included, installation must be performed by qualified person;
- The protective earth (GNYE/PE wire, housing) has to be connected to the heat sink of the LED module to improve the capability of the system to withstand a surge and EMI in critical luminaires.
- Not suitable to be mounted in ceiling corner
- The LED control gear cannot be abutted against or covered by normally flammable materials or used in installations where building insulation or debris is, or may be, present in normal use.
- The external flexible cable or cord of this driver cannot be replaced; if the cord is damaged, the driver shall be destroyed.
- The dimmer should fulfill at least basic insulation between control voltage and dimming circuit (for Australia and New Zealand).
- The startup time to reach the set output current is less than 2s.
- For further details please consult the application note;
- AUX 12V output for sensor and wireless node (max. 200 mA)
- For output cable > 2m EMC conformity is not guaranteed and must be ensured by OEM

Sales and Technical Support

Sales and Technical Support [www.osram.com](http://www.osram.com)

Download Data

| File  |  |
|---|--|
|  | User instruction<br>OPTOTRONIC 2DIM P7 AUX12                 |
|  | Certificates<br>CB certificate of OT 600 220-240 2A1 2DIM P7 |
|  | Certificates<br>ENEC of OT 600 220-240 2A1 2DIM P7           |
|  | Certificates<br>CCC certificate                              |
|  | Certificates<br>CCC certificate OT 400W 2DIM P7 AUX12        |
|  | Certificates<br>ENEC OT 400W 2DIM P7 AUX12                   |
|  | Certificates<br>CB certificate OT 400W 2DIM P7 AUX12         |



# Product family datasheet

|   |  |
|---|--|
|  | Certificates<br>RCM Certificate OT 400 2DIM P7 AUX12 |
|---|--|

## 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 |
|---------------|-------------------------------------|------------------------------|--------------------------------------|-----------------------|--------------|
| 4052899624238 | OT 600/220...240/ 2A1 2DIM P7 AUX12 | Shipping carton box 6        | 502 mm x 392 mm x 176 mm             | 34.63 dm <sup>3</sup> | 16445.00 g   |
| 4052899624221 | OT 400/220...240/ 1A4 2DIM P7 AUX12 | Shipping carton box 6        | 493 mm x 385 mm x 116 mm             | 22.02 dm <sup>3</sup> | 13000.00 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.

## References / Links

\* For more information on the multi-level guarantee and the terms and conditions of the guarantee visit <https://www.inventronics-light.com/multilevel-guarantees>

## Disclaimer

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