

## OT 600/220-240/ 2A1 2DIM P7 AUX12 (NEW)

OPTOTRONIC - 2DIM High Power IP67 AUX12 | 2DIM, AUX power, IP67 – constant current LED drivers



### 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>)

### 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

## Areas of application

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

## Technical data

### Electrical data

Max. ECG no. on circuit breaker 10 A (B)	1
Max. ECG no. on circuit breaker 16 A (B)	2
Maximum output power	600 W <sup>1)</sup>
Minimum output current	1750 mA
Nominal output current	1750...2100 mA
Nominal output power	600 W
Nominal output voltage	225...343 V
Nominal input voltage	220...240 V
Input voltage AC	198...264 V
Device power loss	34 W <sup>2)</sup>
Efficiency in full-load	94 % <sup>3)</sup>
Inrush current	55 A <sup>4)</sup>
Power factor $\lambda$	0.95 <sup>5)</sup>
Mains frequency	50...60 Hz
Surge capability (L-N)	6 kV
Surge capability (L/N-Ground)	10 kV <sup>6)</sup>
U-OUT (working voltage)	370 V
Output current tolerance	±5 %
Output ripple current (100 Hz)	6 %
Total harmonic distortion	< 10 % <sup>7)</sup>
Default output current	2100 mA

1) LED output

2) Vin 230v 50Hz

3) at 230 V, 50 Hz

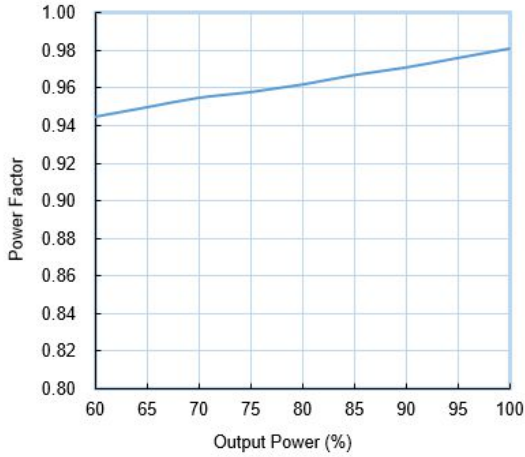
4) Max, th = 830µs @ 50% Ipk

5) Full load at 230 V / 50 Hz

6) L - N acc to EN 61547 (>15 pulses) / L/N – PE acc to EN 61547 (>15 pulses)

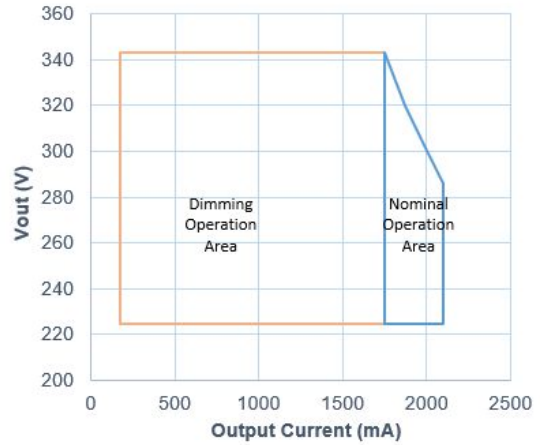
7) At full load

## Typical Power Factor v Load



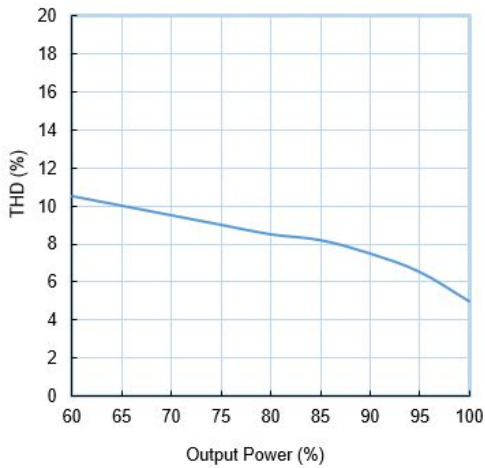
OT 600 2A1 2DIM P7 AUX12 Typical Power Factor vs. Load

## Operating Window



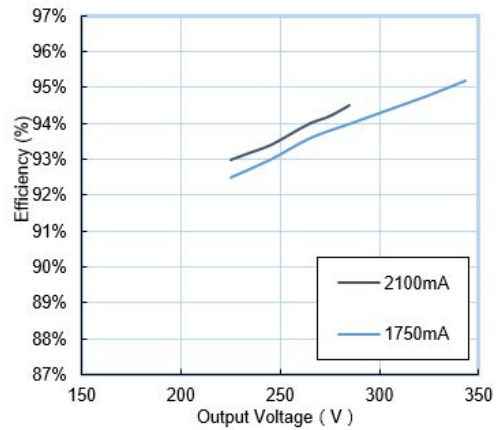
OT 600 2A1 2DIM P7 AUX12 Operating Window

## Typical THD v Load



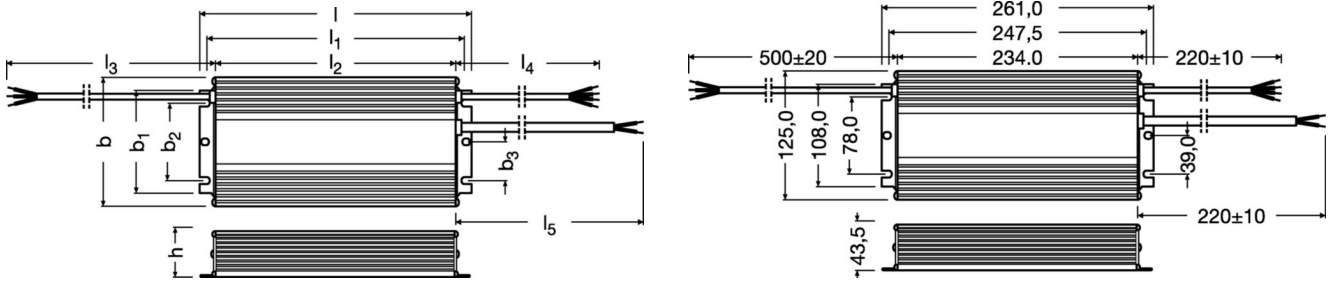
OT 600 2A1 2DIM P7 AUX12 Typical THD vs Load

## Typical Efficiency v Load 230 V 50 Hz



OT 600 2A1 2DIM P7 AUX12 Typical Efficiency vs. Load (230V / 50 Hz)

## Dimensions & weight



<b>Product weight</b>	2550.00 g
<b>Length</b>	261.0 mm
<b>Height</b>	43.5 mm
<b>Width</b>	125.0 mm
<b>Cable cross-section, input side</b>	1.0 mm <sup>2 1)</sup>
<b>Cable cross-section, output side</b>	1.0 mm <sup>2 2)</sup>
<b>Mounting hole spacing, length</b>	247.5 mm
<b>Mounting hole spacing, width</b>	78.0 mm
<b>Wire preparation length, input side</b>	10 mm
<b>Wire preparation length, output side</b>	10 mm

1) L (Brown/BN), N (Blue/BU), PE(Green/Yellow, GNYE )

2) LED+ (Brown/BN), LED- (Blue/BU)

## Temperatures & operating conditions

<b>Ambient temperature range</b>	-40...+55 °C
<b>Max.housing temperature in case of fault</b>	120 °C
<b>Maximum temperature at tc test point</b>	90 °C <sup>1)</sup>
<b>Permitted rel. humidity during operation</b>	5...85 % <sup>2)</sup>
<b>Temperature range at storage</b>	-40...+85 °C

1) Measured on tc point indicated of the product label.

2) Maximum 56 days/year at 85 %

## Lifespan

<b>ECG lifetime</b>	50000 h / 100000 h <sup>1)</sup>
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1) At maximum  $T_c = 85^\circ\text{C}$  / 10% failure rate / At maximum  $T_c = 70^\circ\text{C}$  / 10% failure rate

## Capabilities

<b>Max. cable length to lamp/LED module</b>	2.0 m <sup>1)</sup>
<b>Number of channels</b>	1
<b>Dimmable</b>	Yes
<b>Dimming interface</b>	1...10 V / 2DIM
<b>Dimming range</b>	10...100 %
<b>Overload protection</b>	Yes
<b>Short-circuit protection</b>	Yes
<b>Suitable for fixtures with prot. class</b>	I
<b>Type of connection, input side</b>	Wires
<b>Type of connection, output side</b>	Wires
<b>Constant lumen function</b>	Yes
<b>LEDset</b>	Yes
<b>No-load proof</b>	Yes

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

## Programmable features

AstroDIM	Yes
StepDIM	No
Thermal Protection	Yes

## Certificates & standards

Type of protection	IP67
Standards	Acc. to EN 61347-1:2015 / Acc. to EN 61347-1:2015/A1:2021 / Acc. to EN 61347-2-13:2014 / Acc. to EN 62384:2006 / Acc. to EN 62384:2006/A1:2009 / CB / CCC / ENEC
Approval marks – approval	CCC / CE / ENEC / RCM / CB

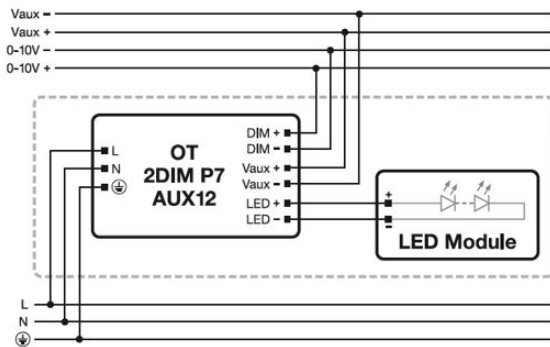
## Logistical data

Commodity code	85044083900
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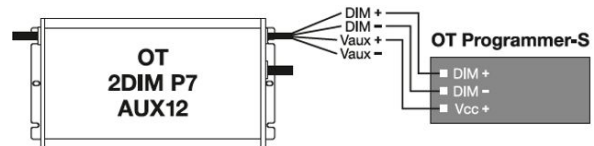
## Environmental information

Information according Art. 33 of EU Regulation (EC) 1907/2006 (REACH)	
Date of Declaration	04-06-2024
Primary Article Identifier	4052899624238
Declaration No. in SCIP database	In work
SCIP_STATUS	In work
SCIP_ID	

## Wiring Diagram



Wiring Diagram of OT 2DIM P7 AUX12



Programming Diagram of OT 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.



## 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

## Download Data

File		
Certificates	PDF	▶ ENEC of OT 600 220-240 2A1 2DIM P7
Certificates	PDF	▶ CCC certificate
Mandatory Publications	PDF	▶ OT 2DIM P7 WP CE 3978163 060921
Mandatory Publications	PDF	▶ OT 2DIM P7 UK DoC 4332168 300721
Mandatory Publications	PDF	▶ OT 2DIM P7 CE 4332170 060921
User instruction	PDF	▶ OPTOTRONIC 2DIM P7 AUX12

## 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 Pieces	502 x 392 x 176 mm	34.63 dm <sup>3</sup>	2740.83 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.