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

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_c)

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

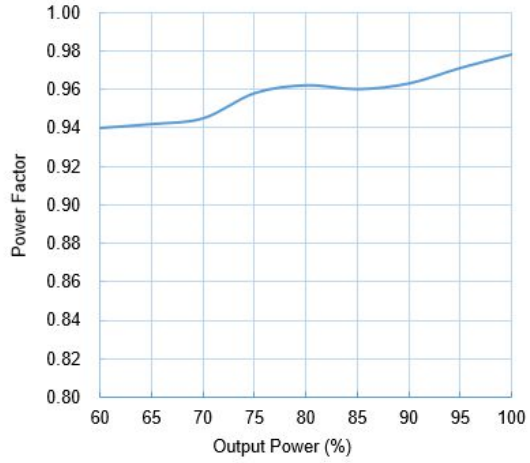
Technical data

Electrical data

Nominal input voltage	220…240 V
Mains frequency	50…60 Hz
Input voltage AC	198…264 V
Total harmonic distortion	< 10 % [1)]
Power factor λ	0.95 [2)]
Efficiency in full-load	92 % [3)]
Device power loss	23 W [4)]
Inrush current	60 A [5)]
Max. ECG no. on circuit breaker 10 A (B)	1
Max. ECG no. on circuit breaker 16 A (B)	3
Surge capability (L/N-Ground)	10 kV [6)]
Surge capability (L-N)	6 kV
Nominal output voltage	247…380 V
U-OUT (working voltage)	410 V
Nominal output current	1050…1400 mA
Default output current	1400 mA
Output current tolerance	±5 %
Output ripple current (100 Hz)	6 %
Output PSTLM	≤1
Output SVM	≤0.4
Nominal output power	400 W
Maximum output power	400 W [7)]
Galvanic isolation	basic

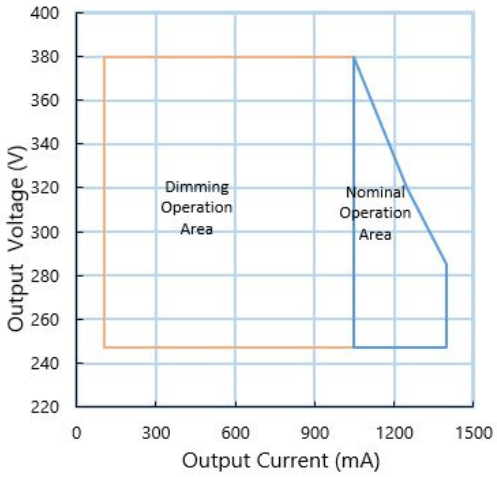
1) At full load
2) Full load at 230 V / 50 Hz
3) at 230 V, 50 Hz
4) Vin 230v 50Hz
5) Max, th = 630µs @ 50% Ipk
6) L - N acc to EN 61547 (>15 pulses) / L/N – PE acc to EN 61547 (>15 pulses)
7) LED output

Typical Power Factor v Load



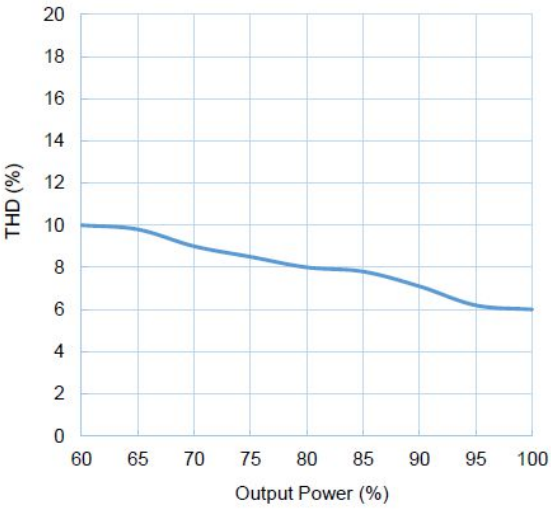
OT 400 1A4 2DIM P7 AUX12 Typical Power Factor vs. Load

Operating Window



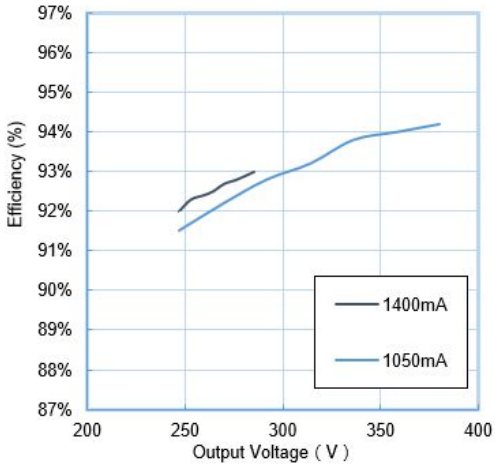
OT 400 1A4 2DIM P7 AUX12 Operating Window

Typical THD v Load



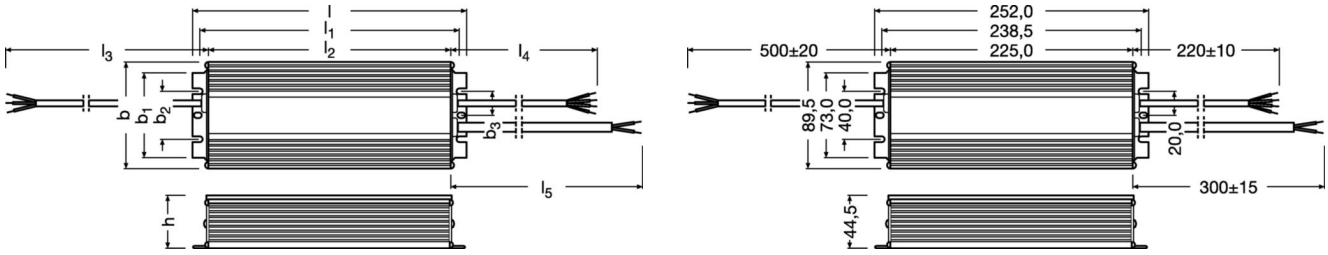
OT 400 1A4 2DIM P7 AUX12 Typical THD vs Load

Typical Efficiency v Load 230 V 50 Hz



OT 400 1A4 2DIM P7 AUX12 Typical Efficiency vs. Load (230V / 50 Hz)

Dimensions & weight



Length	252.0 mm
Width	89.5 mm
Height	44.5 mm
Mounting hole spacing, length	238.5 mm
Mounting hole spacing, width	40 mm
Cable cross-section, input side	1.0 mm² 1)
Cable cross-section, output side	1.0 mm² 2)
Wire preparation length, input side	10 mm
Wire preparation length, output side	10 mm
Product weight	1980.00 g

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

Temperatures & operating conditions

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

1) Measured on tc point indicated of the product label.
2) Maximum 56 days/year at 85 %

Lifespan

ECG lifetime	50000 h / 100000 h [1)]

1) At maximum T_c = 85°C / 10% failure rate / At maximum T_c = 70°C / 10% failure rate

Capabilities

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

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

Programming

Programming device	OT Programmer-S - EAN [4052899629172]

Programmable features

AstroDIM	Yes
StepDIM	No
Thermal Protection	Yes

Certificates & standards

Approval marks – approval	CCC / CE / CB / ENEC / RCM
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 61347-2-13:2014/A1:2017 / Acc. to EN 62384:2006 / Acc. to EN 62384:2006/A1:2009 / CB / CCC / ENEC
Type of protection	IP67
Protection class	I

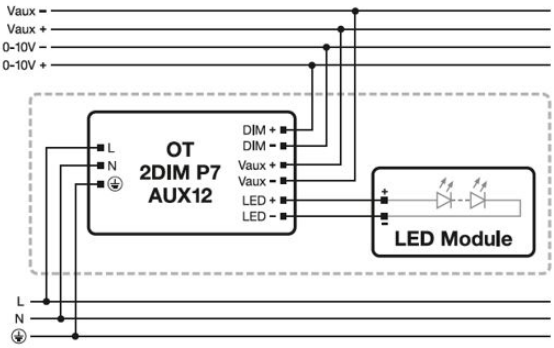
Logistical data

Commodity code	85044083900

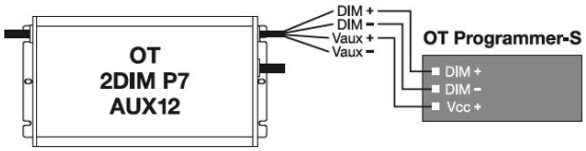
Environmental information

Information according Art. 33 of EU Regulation (EC) 1907/2006 (REACh)	
Date of Declaration	04-06-2024
Primary Article Identifier	4052899624221
Declaration No. in SCIP database	In work

Wiring Diagram



Wiring Diagram of OT 2DIM P7 AUX12



Programming Diagram of OT 2DIM P7 AUX12

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 (Vo=Po/Io), 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 celling 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	►CCC certificate OT 400W 2DIM P7 AUX12
Certificates	PDF	►ENEC OT 400W 2DIM P7 AUX12
Certificates	PDF	►RCM Certificate OT 400 2DIM P7 AUX12
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

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
4052899624221	OT 400/220-240/ 1A4 2DIM P7 AUX12	Shipping carton box 6 Pieces	493 x 385 x 116 mm	22.02 dm³	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.