

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_c)

Product family datasheet

Technical data

Electrical data

Product description	Nominal voltage	Input voltage AC	Nominal current	Mains frequency	Power factor λ	Total harmonic distortion
OT 600/220...240/ 2A1 2DIM P7 AUX12	220...240 V	198...264 V	3.3 A ¹⁾	50...60 Hz	0.95 ²⁾	< 10 % ³⁾
OT 400/220...240/ 1A4 2DIM P7 AUX12	220...240 V	198...264 V	2.2 A ¹⁾	50...60 Hz	0.95 ²⁾	< 10 % ³⁾
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 ¹⁾	55 A ⁴⁾	1	2	3	
OT 400/220...240/ 1A4 2DIM P7 AUX12	23 W ¹⁾	60 A ⁸⁾	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 ⁵⁾	6 kV	600 W	600 W ⁶⁾		
OT 400/220...240/ 1A4 2DIM P7 AUX12	10 kV ⁵⁾	6 kV	400 W	400 W ⁶⁾		
Product description	Efficiency in full-load	Nominal output current	Default output current	Output current tolerance		
OT 600/220...240/ 2A1 2DIM P7 AUX12	94 % ⁷⁾	1750...2100 mA	2100 mA	±5 %		
OT 400/220...240/ 1A4 2DIM P7 AUX12	92 % ⁷⁾	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				
OT 600/220...240/ 2A1 2DIM P7 AUX12	1750 mA	basic				
OT 400/220...240/ 1A4 2DIM P7 AUX12	1050 mA	basic				

¹⁾ Vin 230V 50Hz

²⁾ Full load at 230 V/50 Hz

³⁾ At full load

⁴⁾ Max, th = 830µs @ 50% Ipk

Product family datasheet

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% lpk

Dimensions & weight

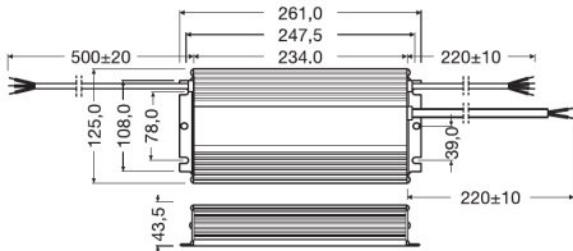
Product description	Length	Width	Height	Mounting hole spacing, length	Mounting hole spacing, width	Product weight
OT 600/220...240/ 2A1 2DIM P7 AUX12	261.0 mm	125.0 mm	43.5 mm	247.5 mm	78.0 mm	2550.00 g
OT 400/220...240/ 1A4 2DIM P7 AUX12	252.0 mm	89.5 mm	44.5 mm	238.5 mm	40 mm	1980.00 g
Product description	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 ² ¹⁾	1.0 mm ² ²⁾	10 mm			
OT 400/220...240/ 1A4 2DIM P7 AUX12	1.0 mm ² ¹⁾	1.0 mm ² ²⁾	10 mm			

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

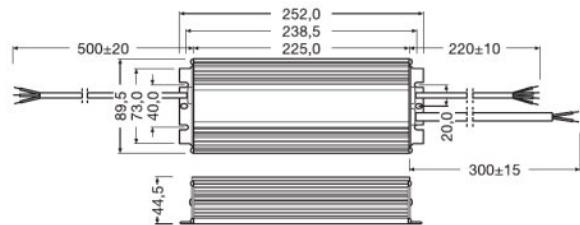
²⁾ LED+ (Brown/BN), LED- (Blue/BU)

Product family datasheet

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 ¹⁾	120 °C
OT 400/220...240/ 1A4 2DIM P7 AUX12	-40...+55 °C	-40...+85 °C	90 °C ¹⁾	120 °C
Product description	Permitted rel. humidity during operation			
OT 600/220...240/ 2A1 2DIM P7 AUX12	5...85 % ²⁾			
OT 400/220...240/ 1A4 2DIM P7 AUX12	5...85 % ²⁾			

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

²⁾ Maximum 56 days/year at 85 %

Product family datasheet

Lifespan

Product description	ECG lifetime
OT 600/220...240/ 2A1 2DIM P7 AUX12	50000 / 100000 h ¹⁾
OT 400/220...240/ 1A4 2DIM P7 AUX12	50000 / 100000 h ¹⁾

¹⁾ At maximum $T_c = 85^\circ\text{C}$ / 10% failure rate / At maximum $T_c = 70^\circ\text{C}$ / 10% failure rate

Capabilities

Product description	Dimmable	Dimming interface	Dimming range	Suitable for fixtures with prot. class
OT 600/220...240/ 2A1 2DIM P7 AUX12	Yes	1...10 V / 2DIM	10...100 %	I
OT 400/220...240/ 1A4 2DIM P7 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 AUX12	Yes	Yes	Yes	No
OT 400/220...240/ 1A4 2DIM P7 AUX12	Yes	Yes	Yes	No
Product description	Max. cable length to lamp/LED module	Number of channels		
OT 600/220...240/ 2A1 2DIM P7 AUX12	2.0 m ¹⁾	1		
OT 400/220...240/ 1A4 2DIM P7 AUX12	2.0 m ¹⁾	1		

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

Programming

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

Product family datasheet

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/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	CCC / CE / ENEC / RCM / CB
OT 400/220...240/ 1A4 2DIM P7 AUX12	IP67	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	CCC / CE / CB / ENEC / RCM

Logistical data

Product description	Commodity code
OT 600/220...240/ 2A1 2DIM P7 AUX12	850440829000
OT 400/220...240/ 1A4 2DIM P7 AUX12	850440829000

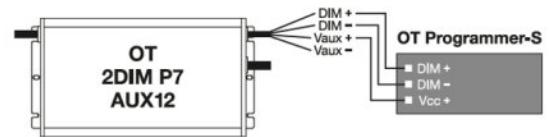
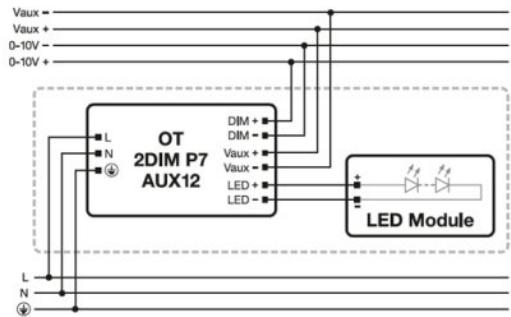
Environmental information

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	17-02-2022	4052899624238	Lead
OT 400/220...240/ 1A4 2DIM P7 AUX12	04-03-2022	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.	e19b7057-ee21-4be7-ae64-3e1fd9ee290f
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.	55191251-7c21-4420-a0da-0d3cf4441a48

Product family datasheet

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.

Product family 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.
- Input voltage range: Nominal operation at 198 – 264Vac. Workable at 120 – 277Vac without safety issue (refer to [8] Typical Input Voltage vs. Load), but normal performance such as THD, EMI, lifetime etc are not guaranteed;
- 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;
- 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 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

Download Data

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

Product family datasheet

	Certificates ENEC OT 400W 2DIM P7 AUX12
	Certificates CB certificate OT 400W 2DIM P7 AUX12
	Certificates 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 ³	16445.00 g
4052899624221	OT 400/220...240/ 1A4 2DIM P7 AUX12	Shipping carton box 6	506 mm x 398 mm x 136 mm	27.39 dm ³	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

- ▶ www.osram.com/system-guarantee

Disclaimer

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