

## OPTOTRONIC - 2DIM NFC IP67

2DIM, NFC – constant current LED drivers



### Product family features

- 2DIM functionality (AstroDIM, 1...10 V)
- Wide output current range
- Adjustable and Constant Lumen Output (CLO)
- Short-circuit, overload and overtemperature protection
- High IP protection (IP67)
- 1...10 V dimming (minimum 10%)

### Product family benefits

- Easily programmable by NFC (AstroDIM / Constant lumen)
- High surge protection: up to 10 kV
- High efficiency
- Lifetime: up to 100,000 h

### Areas of application

- Street and urban lighting
- Industry lighting
- Suitable for luminaires of protection class I



## Product family datasheet

### Technical data

Product description	Electrical data					
	Nominal voltage	Input voltage AC	Nominal current	Mains frequency	Power factor $\lambda$	Total harmonic distortion
OT 100/ 220-240/1A4 2DIM P7	220...240 V	198...264 V	0.50 A	50...60 Hz	$\geq 0.95$	$< 10\% ^1$
OT 150/ 220-240/1A4 2DIM P7	220...240 V	198...264 V	0.73 A	50...60 Hz	$\geq 0.95$	$< 10\% ^1$
OT 200/ 220-240/1A4 2DIM P7	220...240 V	198...264 V	1 A	50...60 Hz	$\geq 0.95$	$< 10\% ^1$
OT 240/ 220-240/1A0 2DIM P7	220...240 V	198...264 V	1.15 A	50...60 Hz	$\geq 0.95$	$< 10\% ^1$

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)	Surge capability (L/N-Ground)
OT 100/ 220-240/1A4 2DIM P7	11 W	62 A <sup>2)</sup>	8	13	21	10 kV
OT 150/ 220-240/1A4 2DIM P7	13 W	96 A <sup>7)</sup>	5	8	13	10 kV
OT 200/ 220-240/1A4 2DIM P7	17 W	98 A <sup>8)</sup>	3	5	7	10 kV
OT 240/ 220-240/1A0 2DIM P7	17 W	139 A <sup>8)</sup>	3	5	7	10 kV

Product description	Surge capability (L-N)	Nominal output power	Maximum output power	Efficiency in full-load	Nominal output current
OT 100/ 220-240/1A4 2DIM P7	6 kV	50...100 W	100 W	91 % <sup>3)</sup>	700...1400 mA
OT 150/ 220-240/1A4 2DIM P7	6 kV	75...150 W	150 W	92 % <sup>3)</sup>	700...1400 mA
OT 200/ 220-240/1A4 2DIM P7	6 kV	100...200 W	200 W	92 % <sup>3)</sup>	700...1400 mA
OT 240/ 220-240/1A0 2DIM P7	6 kV	120...240 W	240 W	93.5 % <sup>3)</sup>	700...1050 mA

Product description	Default output current	Output current tolerance	Output ripple current (100 Hz)	Minimum output current	Galvanic isolation
OT 100/ 220-240/1A4 2DIM P7	700 mA	$\pm 5\%$	$< \pm 5\%$	400 mA	Double
OT 150/ 220-240/1A4 2DIM P7	700 mA	$\pm 5\%$	$< \pm 5\%$	400 mA	basic
OT 200/ 220-240/1A4 2DIM P7	700 mA	$\pm 5\%$	$< \pm 5\%$	400 mA	basic
OT 240/ 220-240/1A0 2DIM P7	700 mA	$\pm 5\%$	$< \pm 5\%$	400 mA	basic

Product description	Dimensions & weight				
	U-OUT (working voltage)	Nominal output voltage	Length	Width	Height
OT 100/ 220-240/1A4 2DIM P7	200 V	72...144 V	164.4 mm	68.5 mm	39.6 mm
OT 150/ 220-240/1A4 2DIM P7	250 V	107...214 V	203.4 mm	68.5 mm	39.6 mm
OT 200/ 220-240/1A4 2DIM P7	350 V	121...286 V	228.4 mm	68.5 mm	39.6 mm

## Product family datasheet

Product description	U-OUT (working voltage)	Nominal output voltage	Dimensions & weight		
			Length	Width	Height
OT 240/ 220-240/1A0 2DIM P7	450 V	228...343 V	252.4 mm	68.5 mm	39.6 mm

Product description	Mounting hole spacing, length	Mounting hole spacing, width	Product weight	Cable cross-section, input side	Cable cross-section, output side	Wire preparation length, input side
OT 100/ 220-240/1A4 2DIM P7	151.6 mm	42.9 mm	720.00 g	1.0 mm <sup>2</sup>	1.0 mm <sup>2</sup>	10 mm
OT 150/ 220-240/1A4 2DIM P7	190.6 mm	42.9 mm	920.00 g	1.0 mm <sup>2</sup>	1.0 mm <sup>2</sup>	10 mm
OT 200/ 220-240/1A4 2DIM P7	215.6 mm	42.9 mm	1000.00 g	1.0 mm <sup>2</sup>	1.0 mm <sup>2</sup>	10 mm
OT 240/ 220-240/1A0 2DIM P7	239.6 mm	42.9 mm	1200.00 g	1.0 mm <sup>2</sup>	1.0 mm <sup>2</sup>	10 mm

Product description	Cable/wire length, control input	Wire preparation length, output side	Cable/wire length, output side	Cable/wire length, input side
OT 100/ 220-240/1A4 2DIM P7	220±20 mm	10 mm	300±20 mm	590±20 mm
OT 150/ 220-240/1A4 2DIM P7	220±20 mm	10 mm	300±20 mm	590±20 mm
OT 200/ 220-240/1A4 2DIM P7	220±20 mm	10 mm	300±20 mm	590±20 mm
OT 240/ 220-240/1A0 2DIM P7	220±20 mm	10 mm	300±20 mm	590±20 mm

Product description	Colors & materials	Temperatures & operating conditions			
	Casing material	Ambient temperature range	Temperature range at storage	Maximum temperature at tc test point	Max.housing temperature in case of fault
OT 100/ 220-240/1A4 2DIM P7	Aluminium	-40...+55 °C	-40...+85 °C	85 °C	120 °C
OT 150/ 220-240/1A4 2DIM P7	Aluminium	-40...+55 °C	-40...+85 °C	85 °C	120 °C
OT 200/ 220-240/1A4 2DIM P7	Aluminium	-40...+55 °C	-40...+85 °C	90 °C	120 °C
OT 240/ 220-240/1A0 2DIM P7	Aluminium	-40...+55 °C	-40...+85 °C	85 °C	120 °C

Product description	Permitted rel. humidity during operation	Lifespan	Capabilities		
		ECG lifetime	Dimmable	Dimming interface	Dimming range
OT 100/ 220-240/1A4 2DIM P7	5...95 % <sup>4)</sup>	50000 / 100000 h <sup>5)</sup>	Yes	AstroDIM / 1...10 V / Pulse Width Modulation	10...100 %
OT 150/ 220-240/1A4 2DIM P7	5...95 % <sup>4)</sup>	50000 / 100000 h <sup>5)</sup>	Yes	AstroDIM / 1...10 V / Pulse Width Modulation	10...100 %
OT 200/ 220-240/1A4 2DIM P7	5...95 % <sup>4)</sup>	50000 / 100000 h <sup>5)</sup>	Yes	AstroDIM / 1...10 V / Pulse Width Modulation	10...100 %

## Product family datasheet

Product description	Permitted rel. humidity during operation	Lifespan	Capabilities		
		ECG lifetime	Dimmable	Dimming interface	Dimming range
OT 240/ 220-240/1A0 2DIM P7	5...95 % <sup>4)</sup>	50000 / 100000 h <sup>9)</sup>	Yes	AstroDIM / 1...10 V / Pulse Width Modulation	10...100 %

Product description	Suitable for fixtures with prot. class	Constant lumen function	NTC input	Short-circuit protection
OT 100/ 220-240/1A4 2DIM P7	I	Yes	No	Automatic reversible
OT 150/ 220-240/1A4 2DIM P7	I	Yes	No	Automatic reversible
OT 200/ 220-240/1A4 2DIM P7	I	Yes	No	Automatic reversible
OT 240/ 220-240/1A0 2DIM P7	I	Yes	No	Automatic reversible

Product description	No-load proof	Intended for no-load operation	Max. cable length to lamp/LED module	Overload protection
OT 100/ 220-240/1A4 2DIM P7	Automatic reversible	No	2.0 m <sup>6)</sup>	Automatic reversible
OT 150/ 220-240/1A4 2DIM P7	Automatic reversible	No	2.0 m <sup>6)</sup>	Automatic reversible
OT 200/ 220-240/1A4 2DIM P7	Automatic reversible	No	2.0 m <sup>6)</sup>	Automatic reversible
OT 240/ 220-240/1A0 2DIM P7	Automatic reversible	No	2.0 m <sup>6)</sup>	Automatic reversible

Product description	Number of channels	Programming		Certificates & standards
		Tuner4TRONIC	Programming device	Type of protection
OT 100/ 220-240/1A4 2DIM P7	1	Yes	NFC	IP67
OT 150/ 220-240/1A4 2DIM P7	1	Yes	NFC	IP67
OT 200/ 220-240/1A4 2DIM P7	1	Yes	NFC	IP67
OT 240/ 220-240/1A0 2DIM P7	1	Yes	NFC	IP67

Product description	Standards	Approval marks – approval	Logistical data	Environmental information according Art. 33 of EU Regulation (EC) 1907/2006 (REACH)
			Commodity code	Date of Declaration
OT 100/ 220-240/1A4 2DIM P7	Acc. to EN 61347-1/Acc. to EN 61347-2-13/Acc. to EN 55015/Acc. to EN 61547/Acc. to EN 61000-3-2/Acc. to EN 61000-3-3/Acc. to EN 62384/EN 60598-1(ED.8)	CE / CCC / RCM / ENEC 05 / TISI	850440829000	14-04-2022

## Product family datasheet

Product description	Standards	Approval marks – approval	Logistical data	Environmental information according Art. 33 of EU Regulation (EC) 1907/2006 (REACH)
			Commodity code	Date of Declaration
OT 150/ 220-240/1A4 2DIM P7	Acc. to EN 61347-1/Acc. to EN 61347-2-13/Acc. to EN 55015/Acc. to EN 61547/Acc. to EN 61000-3-2/Acc. to EN 61000-3-3/Acc. to EN 62384/EN 60598-1(ED.8)	CE / CCC / RCM / ENEC 05 / TISI	850440829000	14-04-2022
OT 200/ 220-240/1A4 2DIM P7	Acc. to EN 61347-1/Acc. to EN 61347-2-13/Acc. to EN 55015/Acc. to EN 61547/Acc. to EN 61000-3-2/Acc. to EN 61000-3-3/Acc. to EN 62384/EN 60598-1(ED.8)	CE / CCC / RCM / ENEC 05 / TISI	850440829000	14-04-2022
OT 240/ 220-240/1A0 2DIM P7	Acc. to EN 61347-1/Acc. to EN 61347-2-13/Acc. to EN 55015/Acc. to EN 61547/Acc. to EN 61000-3-2/Acc. to EN 61000-3-3/Acc. to EN 62384/EN 60598-1(ED.8)	CE / CCC / RCM / ENEC 05 / TISI	850440829000	14-04-2022

Product description	Primary Article Identifier	Candidate List Substance 1	CAS No. of substance 1	Safe Use Instruction
OT 100/ 220-240/1A4 2DIM P7	4062172060677	Lead	7439-92-1	The identification of the Candidate List substance is sufficient to allow safe use of the article.
OT 150/ 220-240/1A4 2DIM P7	4062172060691	Lead	7439-92-1	The identification of the Candidate List substance is sufficient to allow safe use of the article.
OT 200/ 220-240/1A4 2DIM P7	4062172069649	Lead	7439-92-1	The identification of the Candidate List substance is sufficient to allow safe use of the article.

## Product family datasheet

Product description	Primary Article Identifier	Candidate List Substance 1	CAS No. of substance 1	Safe Use Instruction
OT 240/ 220-240/1A0 2DIM P7	4062172069663	Lead	7439-92-1	The identification of the Candidate List substance is sufficient to allow safe use of the article.

Product description	Declaration No. in SCIP database
OT 100/ 220-240/1A4 2DIM P7	dd02d336-2443-49bb-bd00-3d7ca233d5cb
OT 150/ 220-240/1A4 2DIM P7	19846064-a789-44fb-8c35-eba27eee41ea
OT 200/ 220-240/1A4 2DIM P7	f9327dc7-ae42-40a0-a5d6-4f4e72df6c55
OT 240/ 220-240/1A0 2DIM P7	78aea16c-f4d7-4d2d-b794-32f3cb7b6d50

1) At full load

2) Max, th = 155µs

3) at 230 V, 50 Hz

4) Non condensing, absolute humidity: 36g/m<sup>3</sup>

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

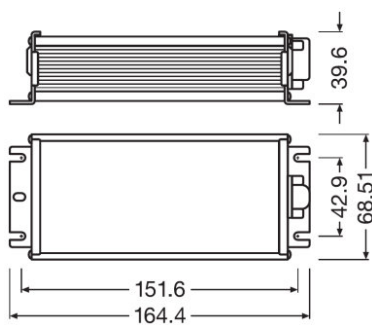
6) Output wires must be routed as close as possible to each other

7) Max, th = 160µs

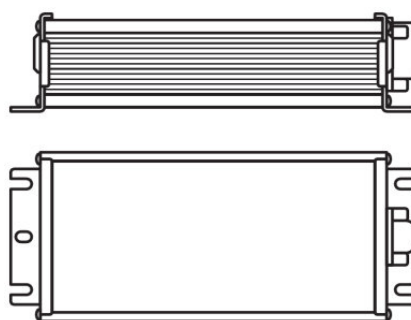
8) Max, th = 260µs

9) At maximum T<sub>c</sub> = 80°C / 10% failure rate

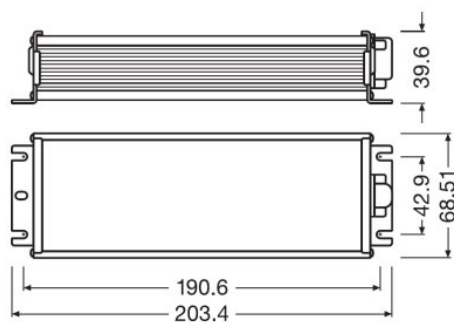
## Product family datasheet



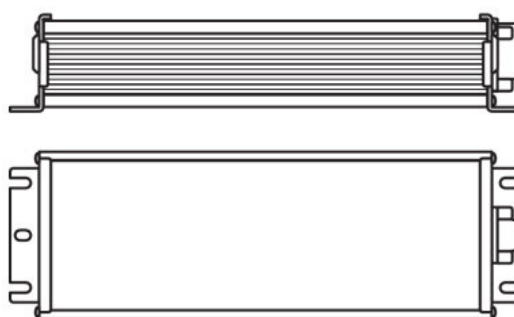
OT 100W 2DIM P7



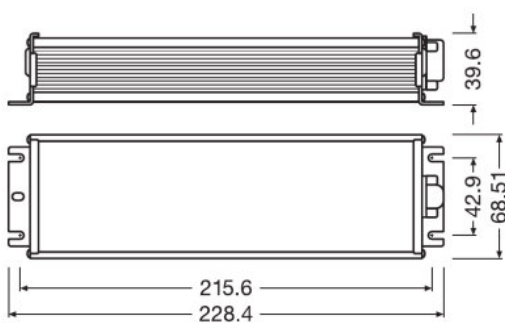
OT 100W 2DIM P7



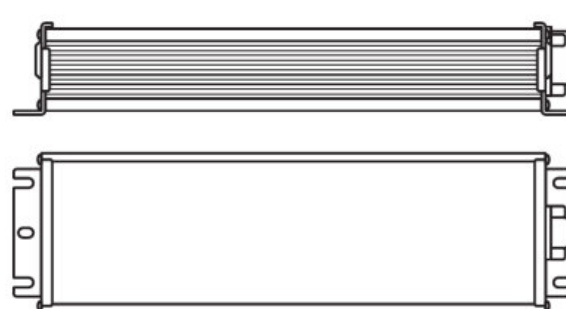
OT 150W 2DIM P7



OT 150W 2DIM P7

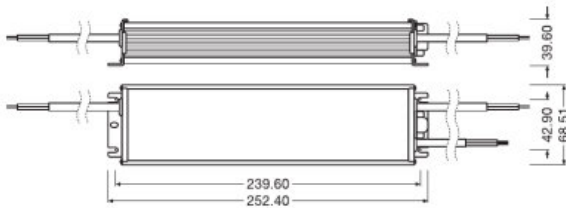


OT 200W 2DIM P7



OT 200W 2DIM P7

## Product family datasheet



Line Drawing of OT 240W 2DIM P7

### Application advice

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

### Additional product information

- Input overvoltage protection: the driver withstands an input voltage up to 350 Vac for a maximum of two hours, shut down of the output load might occur in case the supply voltage exceeds the declared input voltage range;
- Output short circuit protection: short circuit current is limited to the actual output current setting without damage to the unit. See typical operating window graph for details;
- 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;
- Over temperature protection: the driver is protected against temporary overheating by shutting down until the overheating eliminated; Auto-reversible when temperature back to normal;
- 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.
- 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.
- For further details please consult the 2DIMLT2 application guide.
- 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;






### Sales and Technical Support

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



## Product family datasheet

### Download Data

File	
	User instruction OPTOTRONIC 2DIM P7
	Certificates ENEC Certificate
	Certificates CB certification OT 240W 2DIM P7
	Certificates CCC certificate OT 240W 2DIM P7
	Certificates ENEC certification OT 240W 2DIM P7

### 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
4062172060677	OT 100/ 220-240/1A4 2DIM P7	Shipping carton box 10	469 mm x 253 mm x 128 mm	15.19 dm <sup>3</sup>	8010.00 g
4062172060691	OT 150/ 220-240/1A4 2DIM P7	Shipping carton box 10	469 mm x 289 mm x 128 mm	17.35 dm <sup>3</sup>	10136.00 g
4062172069649	OT 200/ 220-240/1A4 2DIM P7	Shipping carton box 10	495 mm x 309 mm x 130 mm	19.88 dm <sup>3</sup>	10994.00 g
4062172069663	OT 240/ 220-240/1A0 2DIM P7	Shipping carton box 10	495 mm x 333 mm x 130 mm	21.43 dm <sup>3</sup>	13078.00 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 family datasheet

Product description	Accessory name	Accessory code
OT 100/ 220-240/1A4 2DIM P7	NFC Scanner by TERTIUM Technology	▶ 4055462290281
OT 150/ 220-240/1A4 2DIM P7	NFC Scanner by TERTIUM Technology	▶ 4055462290281
OT 200/ 220-240/1A4 2DIM P7	NFC Scanner by TERTIUM Technology	▶ 4055462290281
OT 240/ 220-240/1A0 2DIM P7	NFC Scanner by TERTIUM Technology	▶ 4055462290281

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### Data privacy

This OSRAM driver can be configured using the Tuner4TRONIC software. This requires registering on [www.myosram.com](http://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.

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### Disclaimer

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