

OPTOTRONIC - 2DIM UNV IP67

2DIM/UNV (IP67) – constant current LED drivers



Areas of application

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

Product family benefits

- 2DIM functionality in one device (AstroDIM, 1...10 V)
- High surge protection: up to 10 kV
- High efficiency up to 92%
- Great flexibility due to wide operating temperature range of -40...60 °C
- IP rating: IP67

Product family features

- Available with different wattage: 100 W, 150 W, 200 W, 320 W
- Input voltage: 100...277 V
- Flexible current setting with programming tool
- AstroDIM for autonomous dimming
- Constant Lumen Output (CLO)

Technical data

Electrical data

Product description	Nominal voltage	Input voltage AC	Nominal current	Mains frequency	Power factor λ	Total harmonic distortion
OT 100 UNV 1A0 2DIM P7	120...240/277 V	90...305 V	0.55 A	47...63 Hz	0.95 ¹⁾	< 10 %
OT 150 UNV 1A0 2DIM P7	120...240/277 V	90...305 V	0.75 A	47...63 Hz	0.95	< 10 %
OT 200 UNV 1A0 2DIM P7	120...240/277 V	90...305 V	1 A	47...63 Hz	0.95	< 10 %
OT 320 UNV 1A1 2DIM P7	120...240/277 V	90...305 V	1.50 A	47...63 Hz	0.95	< 10 %

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 100 UNV 1A0 2DIM P7	8.5 W	52 A	3	6	9
OT 150 UNV 1A0 2DIM P7	13 W	65 A	3	4	7
OT 200 UNV 1A0 2DIM P7	17 W	68 A	3	4	7
OT 320 UNV 1A1 2DIM P7	28 W	60 A	2	3	5

Product description	Surge capability (L/N-Ground)	Surge capability (L-N)	Nominal output power	Maximum output power
OT 100 UNV 1A0 2DIM P7	10 kV	5 kV	105 W	105 W
OT 150 UNV 1A0 2DIM P7	10 kV	5 kV	150 W	150 W
OT 200 UNV 1A0 2DIM P7	10 kV	5 kV	200 W	200 W
OT 320 UNV 1A1 2DIM P7	10 kV	5 kV	320 W	320 W

Product description	Efficiency in full-load	Nominal output current	Default output current	Output current tolerance
OT 100 UNV 1A0 2DIM P7	92 % ²⁾	500...1050 mA	700 mA	±5 %
OT 150 UNV 1A0 2DIM P7	92 % ²⁾	520...1050 mA	700 mA	±5 %
OT 200 UNV 1A0 2DIM P7	92 % ²⁾	520...1050 mA	700 mA	±5 %
OT 320 UNV 1A1 2DIM P7	92 % ²⁾	520...1100 mA	700 mA	±5 %

Product description	Output ripple current (100 Hz)	Output PSTLM	Output SVM
OT 100 UNV 1A0 2DIM P7	10 %	≤1	≤0.4
OT 150 UNV 1A0 2DIM P7	10 %	≤1	≤0.4
OT 200 UNV 1A0 2DIM P7	10 %	≤1	≤0.4
OT 320 UNV 1A1 2DIM P7	10 %	≤1	≤0.4

Product description	Minimum output current	Galvanic isolation	Nominal output voltage	U-OUT (working voltage)
OT 100 UNV 1A0 2DIM P7	100 mA	double/reinforced	75...150 V	170 V

Product family datasheet

Product description	Minimum output current	Galvanic isolation	Nominal output voltage	U-OUT (working voltage)
OT 150 UNV 1A0 2DIM P7	110 mA	double/reinforced	107...214 V	240 V
OT 200 UNV 1A0 2DIM P7	110 mA	double/reinforced	143...286 V	300 V
OT 320 UNV 1A1 2DIM P7	110 mA	double/reinforced	228...457 V	480 V

1) Full load at 230 V/50 Hz

2) at 230 V, 50 Hz

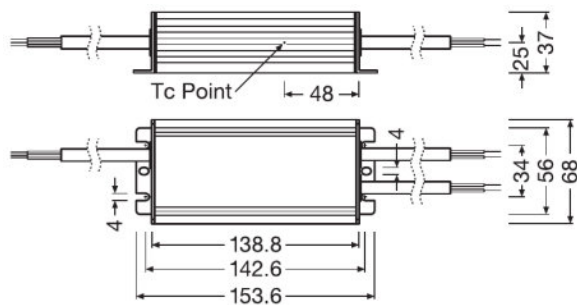
Dimensions & weight

Product description	Length	Width	Height	Mounting hole spacing, length	Mounting hole spacing, width	Product weight
OT 100 UNV 1A0 2DIM P7	153.6 mm	68.0 mm	37.0 mm	142.6 mm	34.0 mm	700.00 g
OT 150 UNV 1A0 2DIM P7	173.6 mm	68.0 mm	37.0 mm	162.6 mm	34.0 mm	800.00 g
OT 200 UNV 1A0 2DIM P7	193.6 mm	68.0 mm	39.0 mm	182.6 mm	34.0 mm	940.00 g
OT 320 UNV 1A1 2DIM P7	231.0 mm	98.0 mm	42.0 mm	220.0 mm	40 mm	1700.00 g

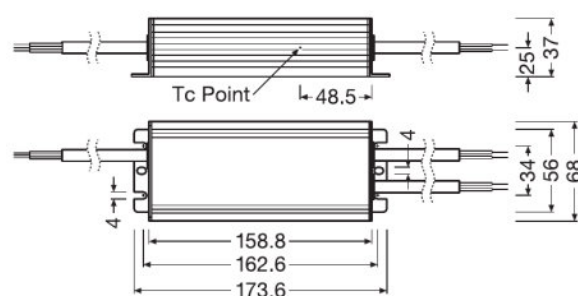
Product description	Cable cross-section, input side	Cable cross-section, output side	Wire preparation length, input side	Cable/wire length, input side
OT 100 UNV 1A0 2DIM P7	1.0 mm ²	1.0 mm ²	10 mm	300 mm
OT 150 UNV 1A0 2DIM P7	1.0 mm ²	1.0 mm ²	10 mm	300 mm
OT 200 UNV 1A0 2DIM P7	1.0 mm ²	1.0 mm ²	10 mm	300 mm
OT 320 UNV 1A1 2DIM P7	1.0 mm ²	1.0 mm ²	10 mm	300 mm

Product description	Cable/wire length, control input	Cable/wire length, output side
OT 100 UNV 1A0 2DIM P7	350 mm	300 mm
OT 150 UNV 1A0 2DIM P7	350 mm	300 mm
OT 200 UNV 1A0 2DIM P7	350 mm	300 mm
OT 320 UNV 1A1 2DIM P7	350 mm	300 mm

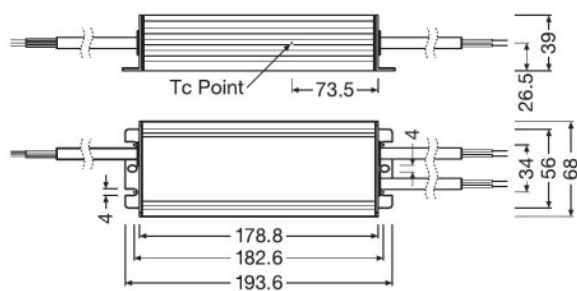
Product line drawing



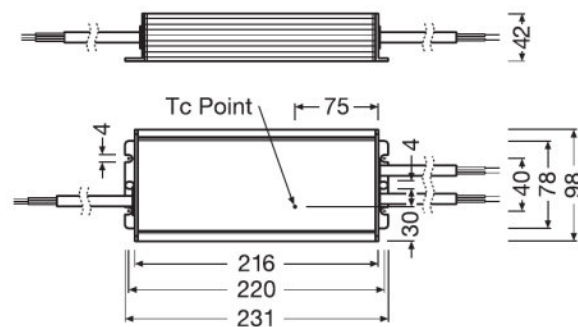
OT 100 UNV 1A0 2DIM P7



OT 150 UNV 1A0 2DIM P7



OT 200 UNV 1A0 2DIM P7



OT 320 UNV 1A1 2DIM P7

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 100 UNV 1A0 2DIM P7	-40...+60 °C ¹⁾	-40...+80 °C	85 °C	110 °C
OT 150 UNV 1A0 2DIM P7	-40...+60 °C ¹⁾	-40...+80 °C	85 °C	110 °C
OT 200 UNV 1A0 2DIM P7	-40...+60 °C ¹⁾	-40...+80 °C	85 °C	110 °C
OT 320 UNV 1A1 2DIM P7	-40...+60 °C ¹⁾	-40...+80 °C	85 °C	110 °C

Product description	Permitted rel. humidity during operation
OT 100 UNV 1A0 2DIM P7	5...85 % ²⁾
OT 150 UNV 1A0 2DIM P7	5...85 % ²⁾
OT 200 UNV 1A0 2DIM P7	5...85 % ²⁾
OT 320 UNV 1A1 2DIM P7	5...85 % ²⁾

¹⁾ Input voltage 200 – 277V, for Input voltage < 200V max. ta = 50°C

²⁾ Maximum 56 days/year at 85 %

Lifespan

Product description	ECG lifetime
OT 100 UNV 1A0 2DIM P7	50000 / 100000 h ¹⁾
OT 150 UNV 1A0 2DIM P7	50000 / 100000 h ¹⁾
OT 200 UNV 1A0 2DIM P7	50000 / 100000 h ¹⁾
OT 320 UNV 1A1 2DIM P7	50000 / 100000 h ¹⁾

¹⁾ At maximum T_c = 85°C / 10% failure rate / At maximum T_c = 75°C / 10% failure rate

Capabilities

Product description	Dimmable	Dimming interface	Dimming range	Suitable for fixtures with prot. class
OT 100 UNV 1A0 2DIM P7	Yes	2DIM / 1...10 V / AstroDIM	10...100 %	I
OT 150 UNV 1A0 2DIM P7	Yes	2DIM / 1...10 V / AstroDIM	10...100 %	I
OT 200 UNV 1A0 2DIM P7	Yes	2DIM / 1...10 V / AstroDIM	10...100 %	I
OT 320 UNV 1A1 2DIM P7	Yes	2DIM / 1...10 V / AstroDIM	10...100 %	I

Product description	Constant lumen function	NTC input	Short-circuit protection	No-load proof
OT 100 UNV 1A0 2DIM P7	Programmable	No	Automatic reversible	Yes
OT 150 UNV 1A0 2DIM P7	Programmable	No	Automatic reversible	Yes
OT 200 UNV 1A0 2DIM P7	Programmable	No	Automatic reversible	Yes
OT 320 UNV 1A1 2DIM P7	Programmable	No	Automatic reversible	Yes

Product family datasheet

Product description	Intended for no-load operation	Max. cable length to lamp/LED module	Number of channels
OT 100 UNV 1A0 2DIM P7	No	2.0 m ¹⁾	1
OT 150 UNV 1A0 2DIM P7	No	2.0 m ¹⁾	1
OT 200 UNV 1A0 2DIM P7	No	2.0 m ¹⁾	1
OT 320 UNV 1A1 2DIM P7	No	2.0 m ¹⁾	1

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

Programming

Product description	Tuner4TRONIC	Programming device
OT 100 UNV 1A0 2DIM P7	No	OT PROGRAMMER/5
OT 150 UNV 1A0 2DIM P7	No	OT PROGRAMMER/5
OT 200 UNV 1A0 2DIM P7	No	OT PROGRAMMER/5
OT 320 UNV 1A1 2DIM P7	No	OT PROGRAMMER/5

Certificates & standards

Product description	Type of protection	Standards	Approval marks – approval
OT 100 UNV 1A0 2DIM P7	IP67	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 62384/Acc. to EN 62386/GB 19510.1/GB 19510.14/GB 17625.1/UL-8750/FCC part 15/SASO 2927:2019	CCC / CE / ENEC / UL
OT 150 UNV 1A0 2DIM P7	IP67	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 62384/Acc. to EN 62386/GB 19510.1/GB 19510.14/GB 17625.1/UL-8750/FCC part 15/SASO 2927:2019	CCC / CE / ENEC / UL
OT 200 UNV 1A0 2DIM P7	IP67	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 62384/Acc. to EN 62386/GB 19510.1/GB 19510.14/GB 17625.1/UL-8750/FCC part 15/SASO 2927:2019	CCC / CE / ENEC / UL
OT 320 UNV 1A1 2DIM P7	IP67	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 62384/Acc. to EN 62386/GB 19510.1/GB 19510.14/GB 17625.1/UL-8750/FCC part 15/SASO 2927:2019	CCC / CE / ENEC / UL

Logistical data

Product description	Commodity code
OT 100 UNV 1A0 2DIM P7	85044083900
OT 150 UNV 1A0 2DIM P7	85044083900
OT 200 UNV 1A0 2DIM P7	85044083900
OT 320 UNV 1A1 2DIM P7	85044083900

Product family datasheet

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 100 UNV 1A0 2DIM P7	28-04-2023	4062172158169	Lead
OT 150 UNV 1A0 2DIM P7	09-06-2023	4062172158183	Lead
OT 200 UNV 1A0 2DIM P7	09-06-2023	4062172158206	Lead
OT 320 UNV 1A1 2DIM P7	28-04-2023	4062172158220	Lead

Product description	CAS No. of substance 1	Safe Use Instruction	Declaration No. in SCIP database
OT 100 UNV 1A0 2DIM P7	7439-92-1	The identification of the Candidate List substance is sufficient to allow safe use of the article.	e78c1538-1fa5-4028-8b2c-ae0cf2a8796d
OT 150 UNV 1A0 2DIM P7	7439-92-1	The identification of the Candidate List substance is sufficient to allow safe use of the article.	61c693ad-49a4-4bc2-933e-8bd2f5f7daa8
OT 200 UNV 1A0 2DIM P7	7439-92-1	The identification of the Candidate List substance is sufficient to allow safe use of the article.	b7b13a9f-d3f4-4f86-884f-c20cf7e6180d
OT 320 UNV 1A1 2DIM P7	7439-92-1	The identification of the Candidate List substance is sufficient to allow safe use of the article.	850797dd-39c0-411e-9a49-17ccfea642c9

Application advice

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

Additional product information

- The driver withstands an input voltage of up to 305 Vac. Shut down of output load might occur in case the supply voltage exceeds the declared input voltage range.
- For short circuit protection the driver automatically switches into hiccup mode and auto recovery. No damage will occur when any output is short circuited. The output shall return to normal when the fault condition is removed.
- The driver automatically switches into protection mode when output voltage exceeds limit and return to normal when the fault condition is removed.
- The constant lumen feature is disabled by default.
- If any output level is below the physical min level, the physical min level will be used.
- External control devices connected to the 1-10V interface shall be double/reinforced insulated.
- For configuration of the product USB Programming Tool OT PROGRAMMER (4062172171632) and Software OPTOTRONIC 2DIM P7 Programming Tool (<https://www.osram.com/ds/tools/software.jsp>) is required.
- Important note: OSRAM products must never be directly exposed to external influences. Always provide adequate protection for relevant applications (covers, housings etc.), otherwise the warranty claim will be invalid.

Product family datasheet

Sales and Technical Support

Sales and Technical Support www.osram.com

Download Data

File	
	User instruction OPTOTRONIC UNV 2DIM P7
	Certificates OT 2DIMP7 ENEC 50357504 260421
	Certificates OT 100 2DIMP7 EMC 50195029 230321
	Certificates OT UNV 2DIM P7 UL E320395 310321
	Declarations of conformity OT 2DIMP7 CE 4224289 061221
	CAD data OT 100 2DIM UNV P7 STEP 040221
	Certificates OT 150 2DIMP7 EMC 50195029 230321
	CAD data OT 150 2DIM UNV P7 STEP 040221
	Certificates OT 200 2DIMP7 EMC 50195029 230321
	CAD data OT 200 2DIM UNV P7 STEP 040221
	Certificates OT 320 2DIMP7 ENEC 50357505 260421
	Certificates OT 320 2DIMP7 EMC 50195033 140720
	CAD data OT 320 2DIM UNV P7 STEP 040221

Product family datasheet

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
4062172158169	OT 100 UNV 1A0 2DIM P7	Shipping carton box 10	500 mm x 310 mm x 160 mm	24.80 dm ³	8110.00 g
4062172158183	OT 150 UNV 1A0 2DIM P7	Shipping carton box 10	500 mm x 310 mm x 160 mm	24.80 dm ³	9110.00 g
4062172158206	OT 200 UNV 1A0 2DIM P7	Shipping carton box 10	500 mm x 370 mm x 160 mm	29.60 dm ³	10600.00 g
4062172158220	OT 320 UNV 1A1 2DIM P7	Shipping carton box 5	610 mm x 370 mm x 100 mm	22.57 dm ³	9600.00 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 description	Accessory name	Accessory code
OT 100 UNV 1A0 2DIM P7	OT PROGRAMMER/5	▶ 4062172171632
OT 150 UNV 1A0 2DIM P7	OT PROGRAMMER/5	▶ 4062172171632
OT 200 UNV 1A0 2DIM P7	OT PROGRAMMER/5	▶ 4062172171632
OT 320 UNV 1A1 2DIM P7	OT PROGRAMMER/5	▶ 4062172171632

Disclaimer

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