

OPTOTRONIC - 1DIM NFC IP20

AstroDIM – constant current LED drivers



Product family features

- Supply voltage: 220...240 V
- Current output range: 70...1,050 mA
- AstroDIM for autonomous dimming with five independent levels (astro, time mode)
- Standby power consumption: < 0.5 W
- Constant Lumen Output (CLO)
- Integrated customizable thermal management (Driver Guard)

Product family benefits

- Easy and fast wireless luminaire programming
- Very high efficiency
- Optimized for AstroDIM operation
- Wide current output range: 200 mA...1050 mA
- High surge protection: up to 10 kV (in protection class I or II)
- Great flexibility due to wide operating temperature range of -40...55 °C
- Protection through double isolation between mains input and LED output

Areas of application

- Street and urban lighting
- Industry
- Suitable for outdoor applications in luminaires with IP > 65
- Suitable for use in outdoor luminaires of protection class I and II

Product family datasheet

Technical data

Product description	Electrical data					
	Nominal voltage	Input voltage AC	Nominal current	Mains frequency	Power factor λ	Total harmonic distortion
OT 110/170...240/1A0 1DIMLT2 G1 CE	220...240 V	170...264 V	054 A	50...60 Hz	074C099	< 10 %
OT 75/220...240/1A0 1DIM G2 CE	220...240 V	198...264 V	036 A	50...60 Hz	058C...099	< 5 %
OT 165/220...240/1A0 1DIM G2 CE	220...240 V	198...264 V	078 A	50...60 Hz	085C...099	< 5 % ⁹⁾

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 110/170...240/1A0 1DIMLT2 G1 CE	8.0 W	65 A ¹⁾	7	11	17	10 kV
OT 75/220...240/1A0 1DIM G2 CE	6.0 W	52 A ⁷⁾	8	13	20	10 kV
OT 165/220...240/1A0 1DIM G2 CE	13 W	77 A ⁷⁾	5	8	13	10 kV

Product description	Surge capability (L-N)	Nominal output power	Maximum output power	Efficiency in full-load	Nominal output current
OT 110/170...240/1A0 1DIMLT2 G1 CE	6 kV	110 W	110 W	93 % ²⁾	200...1050 mA
OT 75/220...240/1A0 1DIM G2 CE	6 kV	75 W	75 W	92 % ²⁾	200...1050 mA
OT 165/220...240/1A0 1DIM G2 CE	6 kV	165 W	165 W	93 % ²⁾	200...1050 mA

Product description	Output current LEDset open	Output current LEDset shorted	Default output current	Output current tolerance	Output ripple current (100 Hz)
OT 110/170...240/1A0 1DIMLT2 G1 CE	70 mA	Not allowed	700 mA	± 5 % ³⁾	< 5 %
OT 75/220...240/1A0 1DIM G2 CE				± 3 %	< 5 %
OT 165/220...240/1A0 1DIM G2 CE				± 3 %	< 5 %

Product description	Output PSTLM	Output SVM	Minimum output current	Galvanic isolation
OT 110/170...240/1A0 1DIMLT2 G1 CE	≤ 1	≤ 0.4	70 mA	Double
OT 75/220...240/1A0 1DIM G2 CE	≤ 1	≤ 0.4	70 mA	Double
OT 165/220...240/1A0 1DIM G2 CE	≤ 1	≤ 0.4	70 mA	Double

Product family datasheet

Product description	U-OUT (working voltage)	Max. no. of ECGs on 16A MCB with EBN-OS	Nominal output voltage	Max. ECG no. on circuit breaker 16 A (C)	Max. ECG no. on circuit breaker 10 A (C)
OT 110/170...240/1A0 1DIMLT2 G1 CE	250 V	30	80...220 V		
OT 75/220...240/1A0 1DIM G2 CE	150 V	30	35...115 V	22	14
OT 165/220...240/1A0 1DIM G2 CE	300 V	21	130...260 V	14	9

Product description	Dimensions & weight					
	Length	Width	Height	Mounting hole spacing, length	Mounting hole spacing, width	Product weight
OT 110/170...240/1A0 1DIMLT2 G1 CE	1500 mm	900 mm	400 mm	134.0 mm	-	79500 g
OT 75/220...240/1A0 1DIM G2 CE	1330 mm	770 mm	400 mm	122.5 mm	-	26000 g
OT 165/220...240/1A0 1DIM G2 CE	1500 mm	900 mm	395 mm	134.0 mm	-	78500 g

Product description	Cable cross-section, input side	Cable cross-section, output side	Wire preparation length, input side	Temperatures & operating conditions	
				Ambient temperature range	Temperature range at storage
OT 110/170...240/1A0 1DIMLT2 G1 CE	0.2...1.5 mm ²	0.2...1.5 mm ²	8.5...9.5 mm	-40...+55 °C	-25...85 °C
OT 75/220...240/1A0 1DIM G2 CE	0.2...1.5 mm ²	0.2...1.5 mm ²	8.5...9.5 mm	-40...+55 °C	-25...85 °C
OT 165/220...240/1A0 1DIM G2 CE	0.2...1.5 mm ²	0.2...1.5 mm ²	8.5...9.5 mm	-40...+55 °C ¹⁰⁾	-25...80 °C

Product description	Maximum temperature at tc test point	Max.housing temperature in case of fault	Permitted rel. humidity during operation	Lifespan	Capabilities
				ECG lifetime	Dimmable
OT 110/170...240/1A0 1DIMLT2 G1 CE	85 °C	110 °C	5...85 % ⁴⁾	50000 / 100000 h ⁵⁾	Yes
OT 75/220...240/1A0 1DIM G2 CE	85 °C	120 °C	5...85 % ⁴⁾	50000 / 100000 h ⁸⁾	Yes
OT 165/220...240/1A0 1DIM G2 CE	90 °C ¹¹⁾	130 °C	5...85 % ⁴⁾	50000 / 100000 h ⁸⁾	Yes

Product description	Dimming interface	Dimming range	Suitable for fixtures with prot. class	Constant lumen function
OT 110/170...240/1A0 1DIMLT2 G1 CE	AstroDIM	10...100 %	I / II	Programmable
OT 75/220...240/1A0 1DIM G2 CE	AstroDIM	10...100 %	I / II	Programmable
OT 165/220...240/1A0 1DIM G2 CE	AstroDIM	10...100 %	I / II	Programmable

Product family datasheet

Product description	Short-circuit protection	No-load proof	Intended for no-load operation	Max. cable length to lamp/LED module
OT 110/170...240/1A0 1DIMLT2 G1 CE	Automatic reversible	Yes	No	2.0 m ⁶⁾
OT 75/220...240/1A0 1DIM G2 CE	Automatic reversible	Yes	No	2.0 m ⁶⁾
OT 165/220...240/1A0 1DIM G2 CE	Automatic reversible	Yes	No	2.0 m ⁶⁾

			Programming	
Product description	Overload protection	Number of channels	Box programming	Programming device
OT 110/170...240/1A0 1DIMLT2 G1 CE	Automatic reversible	1	Yes	NFC
OT 75/220...240/1A0 1DIM G2 CE	Automatic reversible	1		NFC
OT 165/220...240/1A0 1DIM G2 CE	Automatic reversible	1		NFC

		Certificates & standards		Logistical data
Product description	Type of protection	Standards	Approval marks – approval	Commodity code
OT 110/170...240/1A0 1DIMLT2 G1 CE	IP20	Acc. to EN 61347-1/Acc. to EN 61347-2-13/Acc. to EN 62384/Acc. to EN 55015:2006 + A1:2007 + A2:2009/Acc. to EN 61547/Acc. to FCC 47 part 15 class B/Acc. to IEC 61000-3-2/Acc. to IEC 61000-3-3/Acc. to IEC 62386-101/Acc. to IEC 62386-102/UL-8750	CE / ENEC / VDE / VDE-EMC / CCC	85044083900
OT 75/220...240/1A0 1DIM G2 CE	IP20	Acc. to EN 61347-1:2015/Acc. to EN 61347-2-13:2014 + A1:2017/Acc. to EN 62384:2006 + A1:2009-09/Acc. to EN 55015:2013 + A1:2015/Acc. to EN 61000-3-2:2014/Acc. to EN 61000-3-3:2013/Acc. to EN 61547:2009/Acc. to ETSI EN 301 489-3 V2.1.1 (2019-03)	CE / ENEC / VDE / VDE-EMC / CCC / EAC	85044083900

Product family datasheet

Product description	Certificates & standards			Logistical data
	Type of protection	Standards	Approval marks – approval	Commodity code
OT 165/220...240/1A0 1DIM G2 CE	IP20	Acc. to EN 61347-1:2015/Acc. to EN 61347-2-13:2014 + A1:2017/Acc. to EN 62384:2006 + A1:2009-09/Acc. to EN 55015:2013 + A1:2015/Acc. to EN 61000-3-2:2014/Acc. to EN 61000-3-3:2013/Acc. to EN 61547:2009/Acc. to ETSI EN 301 489-3 V2.1.1 (2019-03)	CE / ENEC / VDE / VDE-EMC / CCC / EAC	85044083900

Product description	Environmental information Information according Art. 33 of EU Regulation (EC) 1907/2006 (REACH)			
	Date of Declaration	Primary Article Identifier	Candidate List Substance 1	CAS No. of substance 1
OT 110/170...240/1A0 1DIMLT2 G1 CE	21-07-2023	4052899541115 4050732430879	Lead	7439-92-1
OT 75/220...240/1A0 1DIM G2 CE	05-10-2023	4052899605367	Lead	7439-92-1
OT 165/220...240/1A0 1DIM G2 CE	29-03-2024	4052899605381 8010703816763 4050732430831	Lead	7439-92-1

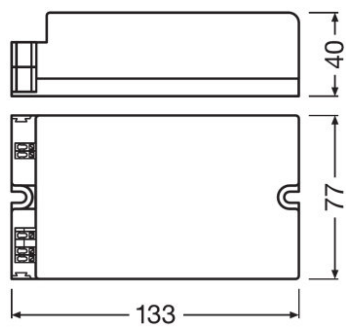
Product description	Safe Use Instruction	Declaration No. in SCIP database
OT 110/170...240/1A0 1DIMLT2 G1 CE	The identification of the Candidate List substance is sufficient to allow safe use of the article.	c3d91ab7-514e-484d-9004-999d8d361fe9 109716a9-2a0d-44fe-b581-b3a36a83cf04
OT 75/220...240/1A0 1DIM G2 CE	The identification of the Candidate List substance is sufficient to allow safe use of the article.	0d4d02cb-ba62-49da-a198-f21a4f16826b
OT 165/220...240/1A0 1DIM G2 CE	The identification of the Candidate List substance is sufficient to allow safe use of the article.	58a9c88b-0d67-4087-b213-381b32d0bee1 33086005-6e9a-4925-8b1d-8d4993a3aff1 5df14b72-4d90-4d71-8e2e-bccadc2fa0ad

1) At 160 µs
2) at 230 V, 50 Hz
3) +/- 5% for LEDset down to 300mA

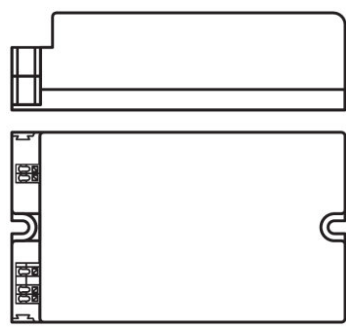
Product family datasheet

- 4) Maximum 56 days/year at 85 %
- 5) At maximum $T_c = 85^\circ\text{C}$ / 10% failure rate
- 6) Output wires must be routed as close as possible to each other
- 7) At 192 μs
- 8) $T_c = 85^\circ\text{C}$, with max. 10% failure rate
- 9) At full load
- 10) $T_a(\text{max}) = 50^\circ\text{C}$ for output current >800 mA
- 11) $T_c(\text{max}) = 85^\circ\text{C}$ for output current >800 mA

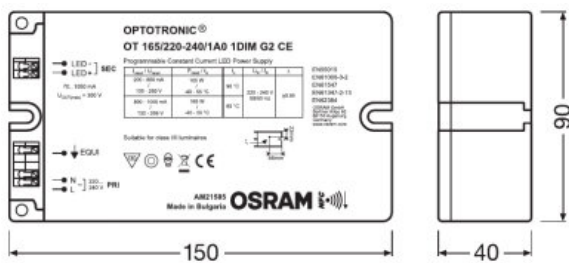
Product family datasheet



OT 75220-2401A0 1DIM G2 CE



OT 75220-2401A0 1DIM G2 CE



OT 165170-2401A0 1DIM G2 CE



OT 165170-2401A0 1DIM G2 CE

Application advice

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

Sales and Technical Support

Sales and Technical Support www.osram.com

Download Data

File	
	User instruction OPTOTRONIC Outdoor
	Brochures Technical application guide - 1DIMLT2 G1 LED drivers (EN)

Product family datasheet

	Brochures 4 DIM NFC G3 CE LED drivers and T4T C (EN)
	Certificates RCM Certificate CS10824N
	Certificates OT VDE ENEC 40050684 290923
	Certificates OT Outdoor CB DE1 62952A1 220920
	Certificates OT EMC 40050085 200220
	Certificates OT Outdoor CB DE1 62952A2 220920
	Certificates OT Outdoor VDE TESTREPORT 276377 220920
	Certificates VDE ENEC Certificate 40043863
	Certificates VDE ENEC Certificate 40043863 appendix
	Certificates OT EMC 40044675 031022
	Certificates CB Test Certificate DE1-60243
	Certificates CCC Certificate 2018171002002265
	Declarations of conformity OT 1DIMLT2 G1 4DIMLT2 G2 CE 3806542 061221
	Declarations of conformity OT DIM LT2 CE UK DoC 4291524 260221
	Declarations of conformity EU Declaration of Conformity 3629845
	CAD data CAD data STEP OT 110170-2401A0 1DIMLT2 G1 CE
	User instruction OPTOTRONIC Outdoor
	Declarations of conformity OT 1DIM G2 CE 756820 061221
	Declarations of conformity EU Declaration of Conformity 3979050

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
4052899541115	OT 110/170...240/1A0 1DIMLT2 G1 CE	Shipping carton box 10	385 mm x 300 mm x 125 mm	14.44 dm ³	8291.00 g
4052899605367	OT 75/220...240/1A0 1DIM G2 CE	Shipping carton box 10	300 mm x 210 mm x 100 mm	6.30 dm ³	2823.00 g
4052899605381	OT 165/220...240/1A0 1DIM G2 CE	Shipping carton box 10	385 mm x 300 mm x 125 mm	14.44 dm ³	8191.00 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.

Data privacy

This OSRAM driver can be configured using the Tuner4TRONIC software. This requires registering on 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.

Disclaimer

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