

OT 20/170...240/1A0 4DIMLT2 G2 CE

OT 4DIM NFC IP20 Outdoor | DALI-2, AstroDIM, StepDIM, MainsDIM – constant current LED drivers



Areas of application

- Street and urban lighting
- Industry
- Suitable for outdoor applications in luminaires with IP > 54
- Suitable for use in outdoor luminaires of protection class I and II

Product family benefits

- 4DIM functionality in one device (StepDIM, AstroDIM, MainsDIM, DALI)
- DALI-2 certified incl. Parts 251, 252, 253
- Easy and fast wireless luminaire programming
- Very high efficiency
- 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 or 60 °C
- Protection through double isolation between mains input and LED output



Product datasheet

Product family features

- Supply voltage: 220...240 V
- Current output range: 70...1,050 mA
- Easy and fast wireless luminaire programming via NFC
- Flexible current setting with one additional wire (LEDset2)
- AstroDIM for autonomous dimming with five independent levels (astro, time mode)
- Allows for energy saving in twilight phases
- MainsDIM function for dimming via reduction of line voltage amplitude
- Isolated DALI interface for bidirectional telemanagement systems
- Standby power consumption: < 0.35 W
- Constant Lumen Output (CLO)
- Overtemperature protection via external NTC
- Integrated customizable thermal management (Driver Guard)

Technical data

Electrical data

Nominal voltage	220...240 V
Input voltage AC	170...264 V
Nominal current	0.12 A
Mains frequency	50...60 Hz ¹⁾
Power factor λ	> 0.98 ²⁾
Total harmonic distortion	< 10 % ³⁾
Device power loss	3.5 W
Inrush current	25 A ⁴⁾
Max. ECG no. on circuit breaker 10 A (B)	22
Max. ECG no. on circuit breaker 16 A (B)	35
Max. ECG no. on circuit breaker 25 A (B)	55
Surge capability (L/N-Ground)	10 kV
Surge capability (L-N)	6 kV
Nominal output power	22 W
ECG efficiency	87 %
Nominal output voltage	10...38 V
Nominal output current	200...1050 mA
Output current LEDset open	70 mA
Output current LEDset shorted	Not allowed
Default output current	700 mA
Output current tolerance	± 3 % ⁵⁾
Output ripple current (100 Hz)	< 5 %
Minimum output current	70 mA
Galvanic isolation	SELV
U-OUT (working voltage)	60 V
Max. no. of ECGs on 16A MCB with EBN-OS	93
Surge capability (SD – Ground)	10 kV
Surge capability (L/N – SD)	6 kV
Nominal input voltage (SD port)	220...277 V

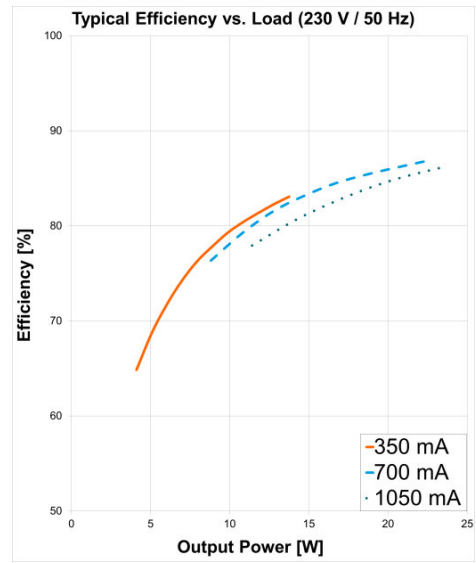
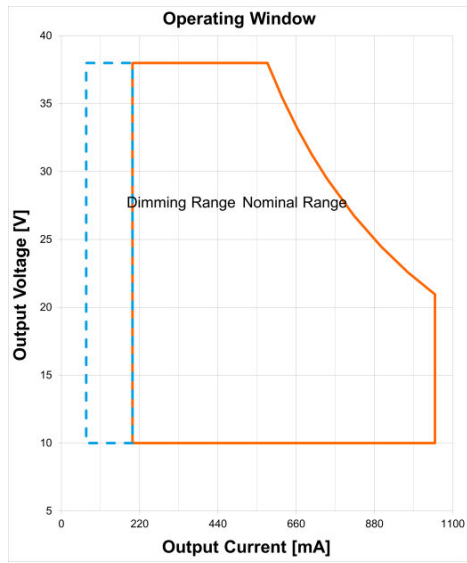
¹⁾ Additional fuse needed in DC operation

²⁾ Full load

³⁾ At full power

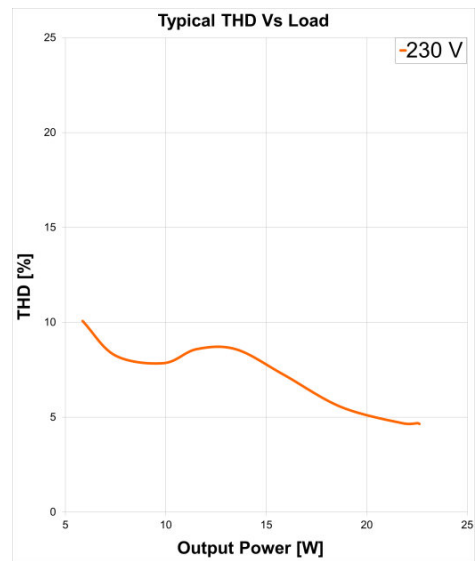
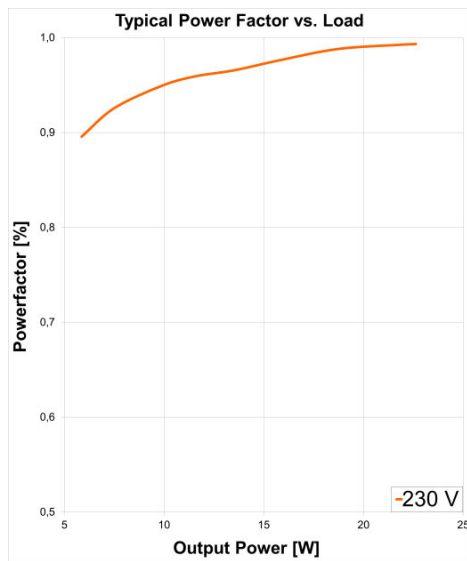
⁴⁾ At 150 μ s

⁵⁾ +/- 5% for LEDset down to 300mA



Operating Window

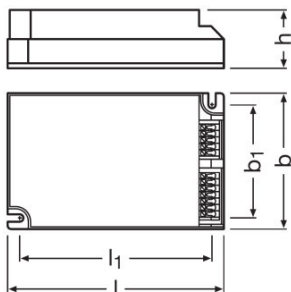
Typical Efficiency v Load 230 V 50 Hz



Typical Power Factor v Load

Typical THD v Load

Dimensions & weight



Length	123.0 mm
Width	79.0 mm
Height	33.0 mm
Mounting hole spacing, length	111.0 mm
Mounting hole spacing, width	67.0 mm
Product weight	210.00 g
Cable cross-section, input side	0.2...1.5 mm ²
Cable cross-section, output side	0.2...1.5 mm ²
Wire preparation length, input side	8.5...9.5 mm

Temperatures & operating conditions

Ambient temperature range	-40...+60 °C
Temperature range at storage	-25...85 °C
Maximum temperature at tc test point	75 °C
Max.housing temperature in case of fault	120 °C
Permitted rel. humidity during operation	5...85 % ¹⁾

¹⁾ Maximum 56 days/year at 85 %

Lifespan

ECG lifetime	50000 / 100000 h ¹⁾
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¹⁾ At maximum $T_c = 75^\circ\text{C} / 10\%$ failure rate / At $T_c = 63^\circ\text{C} / 10\%$ failure rate

Product datasheet

Expected Lifetime

Product name				
OT 20/170...240/1A0 4DIMLT2 G2 CE	ECG ambient temperature [ta]	60	50	48
	Temperature at tc-point [°C]	75	65	63
	Lifetime [h]	50000	85000	100000

Capabilities

Dimmable	Yes
Dimming interface	4DIM / AstroDIM / DALI / MainsDIM / StepDIM
Dimming range	10...100 %
Suitable for fixtures with prot. class	I / II
Constant lumen function	Programmable
NTC input	Yes
Overheating protection	Automatic reversible
Overload protection	Automatic reversible
Short-circuit protection	Automatic reversible
No-load proof	Yes
Max. cable length to lamp/LED module	2.0 m
LEDset	Yes
Number of channels	1
DALI-2 Energy Data	Yes
DALI-2 Diagnostic Data	Yes

Programming

Tuner4TRONIC	Yes
Tuner4TRONIC Field App	Yes
Programming device	DALI / NFC

Programmable features

Operating Current	Yes
Tuning Factor	Yes
Constant Lumen	Yes
Lamp Operating Time	Yes
End of Life	Yes
Thermal Protection	Yes
Driver Guard	Yes

Product datasheet

AstroDIM	Yes
StepDIM	Yes
MainsDIM	Yes
Presence Detection	Yes
DALI Settings	Yes
Emergency Mode	Yes
Configuration Lock	Yes











Certificates & standards

Type of protection	IP20
Standards	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/Acc. to IEC 62386-207/UL-8750
Approval marks – approval	CE / ENEC / VDE / VDE-EMC / CCC / EL / RCM











Logistical data

Commodity code	850440829000
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Download Data

File	
	Brochures Technical Application Guide - 4DIMLT2 G2 CE LED drivers (EN)
	Certificates RCM Certificate CS10824N
	Certificates OT ENEC 40050684 090620
	Certificates OT Outdoor CB DE1 62952 100220
	Certificates OT EMC 40050085 200220
	Certificates OT 20 4DIM LT2 G2 EATON AM35336 210520
	Certificates OT 20 4DIM LT2 G2 INOTEC AM35336 210520
	Certificates VDE ENEC Certificate 40043863
	Certificates CB Certificate DE1-59452
	Certificates VDE ENEC Certificate 40043863 appendix

Product datasheet

	Certificates CCC Certificate 2018171002002021
	Declarations of conformity EU Declaration of Conformity 3806542
	Declarations of conformity EATON(CEAG)-Conformity declaration AM04626_OT20_170-240_1A0_4DIMLT2_G2_CE
	Declarations of conformity INOTEC- Conformity declaration AM04626_OT20_170-240_1A0_4DIMLT2_G2_CE
	Declarations of conformity EU Declaration of Conformity 3584649
	CAD data CAD data STEP OT 20170-2401A0 4DIMLT2 G2 CE
	CAD data OT 20 4DIMLT2G2CE IGS 060820
	CAD data OT 20 4DIMLT2G2CE STEP 060820
	CAD Data 2-dim OT 20 4DIMLT2G2CE CAD2PDF 060820
	CAD data 3-dim OT 20 4DIMLT2G2CE CAD3PDF 060820

ISOLATION	Input / Mains	SD	EQUI	DALI	LEDset	LED Output	Case	NTC
Input / Mains	-	-	Double	Basic	SELV	SELV	Double	SELV
SD	-	-	Double	Basic	Double	Double	Double	Double
EQUI	Double	Double	-	Double	Basic	Basic	Basic	Double
DALI	Basic	Basic	Double	-	Double	Double	Double	Double
LEDset	SELV	Double	Basic	Double	-	-	Basic	-
LED Output	SELV	Double	Basic	Double	-	-	Basic	-
Case	Double	Double	Basic	Double	Basic	Basic	-	Basic
NTC	SELV	Double	Double	Double	-	-	Basic	-

Logistical Data

Product code	Product description	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Volume	Gross weight
4052899981928	OT 20/170...240/1A0 4DIMLT2 G2 CE	Shipping carton box 20	400 mm x 277 mm x 122 mm	13.52 dm ³	4651.00 g

Product datasheet

Product code	Product description	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Volume	Gross weight
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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.