

## OTi DALI 20/220...240/500 NFC I

OPTOTRONIC Intelligent – DALI NFC I | Compact constant current LED driver – Dimmable



### Product family features

- Supply voltage: 220...240 V
- Line frequency: 0 Hz, 50...60 Hz
- Line voltage: 198...264 V
- According to EN 61347-1, 61347-2-13, 62384
- RI suppression: to EN 55015/CISPR 15
- Immunity according to EN 61547
- Type of protection: IP20
- Integrated cable clamp for luminaire and independent installation

### Product family benefits

- Versatile DALI window driver due to flexible output characteristic
- Locking and unlocking of luminaire/driver data
- Easy and fast output current setting via NFC
- Very high efficiency
- High-quality dimming of 1...100 % by amplitude dimming
- DALI-2 certified incl. Parts 251, 252, 253

### Areas of application

- Suitable for downlights, spotlights and LED panels
- Suitable for use in luminaires with flexible current setting
- Installation in emergency lighting systems according to IEC 61347-2-13, appendix J
- Suitable for indoor SELV installations
- Suitable for luminaires of protection classes I and II



## Technical data

### Electrical data

Nominal input voltage	220...240 V
Mains frequency	0,50,60 Hz
Input voltage AC	198...264 V <sup>1)</sup>
Input voltage DC	176...276 V
Total harmonic distortion	< 10 % <sup>2)</sup>
Power factor $\lambda$	0.61C...0.95
Efficiency in full-load	88 % <sup>3)</sup>
Inrush current	< 20 A <sup>4)</sup>
Max. ECG no. on circuit breaker 10 A (B)	20
Max. ECG no. on circuit breaker 16 A (B)	30
Surge capability (L/N-Ground)	2 kV
Surge capability (L-N)	1 kV
Nominal output voltage	20...50 V <sup>5)</sup>
U-OUT (working voltage)	60 V
Nominal output current	200...500 mA <sup>6)</sup>
Default output current	350 mA
Output current tolerance	$\pm 5$ %
Output ripple current (100 Hz)	< 5 % <sup>7)</sup>
Output PSTLM	$\leq 1$
Output SVM	$\leq 0.4$
Nominal output power	20 W <sup>8)</sup>
Maximum output power	20 W
Power loss in stand-by mode	<0.15 W
Galvanic isolation primary/secondary	SELV
Current set	DALI / NFC
Galvanic isolation DALI/mains	Basic
Galvanic isolation DALI/output	SELV
Networked standby power	$\leq 0.18$ W <sup>3)</sup>

<sup>1)</sup> Permitted voltage range

<sup>2)</sup> At full load, 220...240 V, 50 Hz / see graphs

<sup>3)</sup> at 230 V, 50 Hz

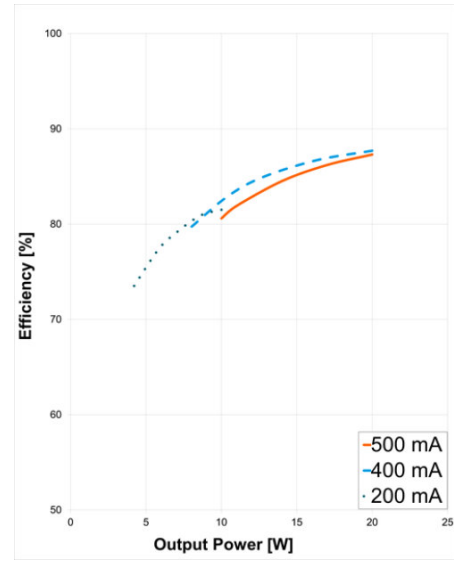
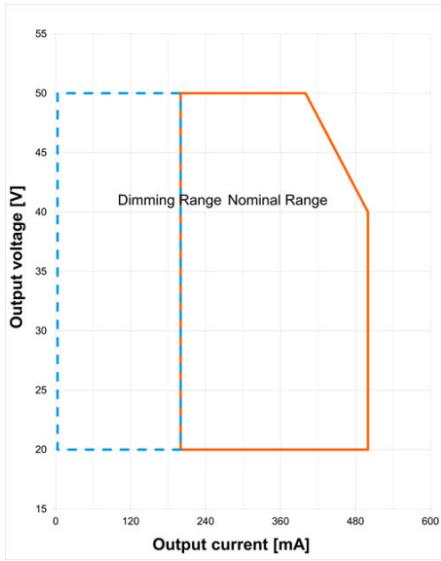
<sup>4)</sup>  $t_{width} = 200 \mu s$  (measured at 50 %  $I_{peak}$ )

<sup>5)</sup> Maximum 60 V

<sup>6)</sup>  $\pm 5$  %

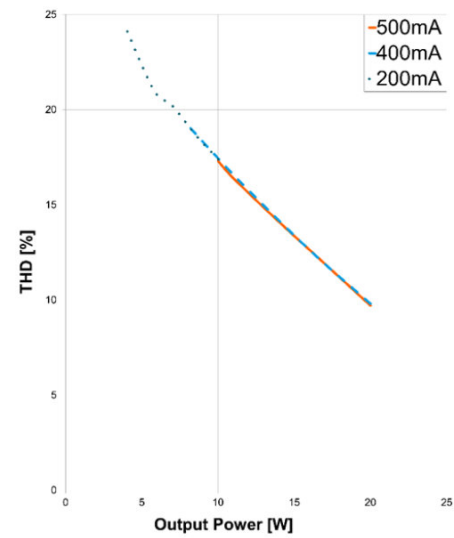
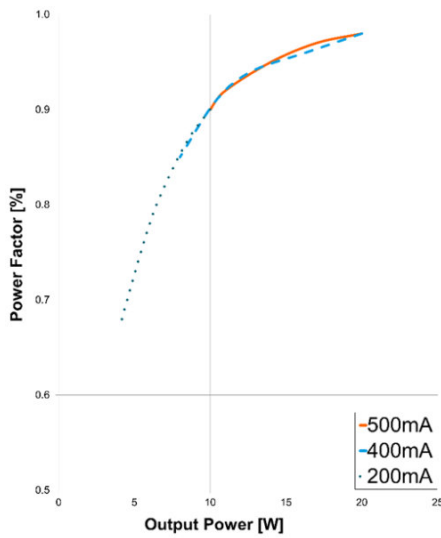
<sup>7)</sup> Ripple average at 100 Hz

<sup>8)</sup> Partial load 4...20 W



OTI QBM DALI 20 Operating Window

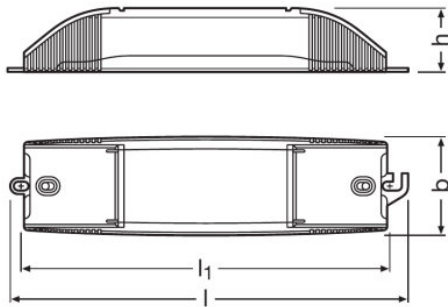
OTI QBM DALI 20 Typical Efficiency vs. Load



OTI QBM DALI 20 Typical Power Factor vs. Load

OTI QBM DALI 20 Typical THD Vs Load

## Dimensions & weight



Mounting hole spacing, length	186.5 mm
Product weight	160.00 g
Cable cross-section, input side	0.2...2.5 mm <sup>2</sup> <sup>1)</sup>
Cable cross-section, output side	0.2...1.5 mm <sup>2</sup> <sup>1)</sup>
Wire preparation length, input side	7...8 mm
Wire preparation length, output side	8.0...9.0 mm
Length	204.0 mm
Width	50.0 mm
Height	32.0 mm

<sup>1)</sup> Solid or flexible leads

## Colors & materials

Casing material	Plastic
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## Temperatures & operating conditions

Ambient temperature range	-20...+50 °C
Maximum temperature at tc test point	75 °C <sup>1)</sup>
Max.housing temperature in case of fault	110 °C
Temperature range at storage	-25...85 °C
Permitted rel. humidity during operation	5...85 % <sup>2)</sup>

<sup>1)</sup> Maximum at the T<sub>c</sub>-point

<sup>2)</sup> Maximum 56 days/year at 85 %

## Lifespan

ECG lifetime	50000 / 100000 h <sup>1)</sup>
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<sup>1)</sup> T<sub>c</sub> = 75°C, 0.2% / 1,000 h failure rate / T<sub>c</sub> = 65°C, 0.1% / 1,000 h failure rate

## Additional product data

## Product datasheet

Encapsulated	No
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### Capabilities

Dimmable	Yes
Dimming interface	DALI-2
Dimming range	1...100 %
Dimming method	Amplitude Modulation
Overheating protection	Automatic reversible
Overload protection	Automatic reversible
Short-circuit protection	Automatic reversible
No-load proof	Yes
Intended for no-load operation	No
Max. cable length to lamp/LED module	2.0 m <sup>1)</sup>
Suitable for fixtures with prot. class	I / II
Type of connection, input side	Screw terminal
Type of connection, output side	Push terminal
Suitable for through-wiring	Yes
Suitable for emergency lighting	Yes
Constant lumen function	Programmable
Programming interface	DALI, NFC
Control interface	DALI-2
Number of channels	1
DALI-2 Energy Data	Yes <sup>2)</sup>
DALI-2 Diagnostic Data	Yes <sup>3)</sup>

<sup>1)</sup> Output wires must be routed as close as possible to each other

<sup>2)</sup> Acc. DALI part 252

<sup>3)</sup> Acc. DALI part 253

### Programming

Box programming	Yes
Tuner4TRONIC	Yes
Tuner4TRONIC Field App	Yes
Programming device	DALI / NFC

### Programmable features

Operating Current	Yes
Constant Lumen	Yes
Lamp Operating Time	Yes
Driver Guard	Yes

## Product datasheet

DALI Settings	Yes
Emergency Mode	Yes
DALI-2 Luminaire Data	Yes <sup>1)</sup>
Configuration Lock	Yes
Soft Switch Off	Yes
Dim to Dark	Yes
TouchDIM + Sensor	No
Corridor Functionality	No
OEM Key	No

<sup>1)</sup> Acc. DALI part 251

### Certificates & standards

Approval marks – approval	CE / EL / DALI-2 / EAC
Standards	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/Acc. to IEC 62386-101:Ed2/Acc. to IEC 62386-102:Ed2/Acc. to IEC 62386-207:Ed1
Protection class	II
Type of protection	IP20


### Logistical data

Commodity code	850440839000
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### Environmental information

Information according Art. 33 of EU Regulation (EC) 1907/2006 (REACH)	
Date of Declaration	28-04-2023
Primary Article Identifier	4062172114967
Candidate List Substance 1	Lead
CAS No. of substance 1	7439-92-1
Safe Use Instruction	The identification of the Candidate List substance is sufficient to allow safe use of the article.
Declaration No. in SCIP database	4091d053-f0ca-4748-84b0-fea365ceb59b

### Download Data

File
 User instruction OPTOTRONIC LED Power Supply

## Product datasheet

	Certificates OT ENEC 40038447 260623
	Certificates OT EMC 40044675 031022
	Declarations of conformity OTI DALI NFC S I CE 4169161 110222
	Declarations of conformity OTI DALI NFC S I UK DoC 4281113 110222
	CAD data 3-dim PTi 20 I CAD3PDF
	CAD data 3-dim PTi 20 I IGS
	CAD data 3-dim PTi 20 I STEP
	CAD data PDF PTi 20 I CAD2PDF

### 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
4062172114967	OTi DALI 20/220...240/500 NFC I	Shipping carton box 20	428 mm x 173 mm x 121 mm	8.96 dm <sup>3</sup>	3467.00 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

## Product datasheet

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.