

## OTi DALI 50/220...240/1A4 NFC

OPTOTRONIC Intelligent – DALI NFC | Compact constant current LED drivers



### Areas of application

- Installation in emergency lighting systems according to IEC 61347-2-13, appendix J
- Suitable for use in luminaires with flexible current setting
- Suitable for indoor SELV installations
- Suitable for luminaires of protection classes I and II
- Suitable for downlights, spotlights and LED panels
- Installation via Cable Clamp Kit possible (depending on version of product)

### Product family benefits

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

### Versatile scope of application due to OSRAM DALI Technology:

- Suitable for emergency installations (acc. to EN 60598-2-22 and IEC 61347-2-13, appendix J) thanks to DC detection (0 Hz, pulsating DC), on/off switchable
- Feedback of power consumption and operating hours (Fit for SMART GRID)
- Suitable for buildings according to EPBD/BREEAM/LEED due to automatic Constant Lumen Output setting



## Product datasheet

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### Product family features

- Supply voltage: 220...240 V
- Line frequency: 0 Hz | 50 Hz | 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
- Lifetime: up to 100,000 h
- Type of protection: IP20

## Technical data

### Electrical data

Nominal input voltage	220...240 V
Mains frequency	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 $\lambda$	> 0.95
ECG efficiency	91 % <sup>3)</sup>
Device power loss	6.2 W
Power loss in stand-by mode	<0.15 W
Inrush current	30 A <sup>4)</sup>
Max. ECG no. on circuit breaker 10 A (B)	12
Max. ECG no. on circuit breaker 10 A (C)	-
Max. ECG no. on circuit breaker 16 A (B)	20
Max. ECG no. on circuit breaker 16 A (C)	-
Max. ECG no. on circuit breaker 25 A (B)	-
Surge capability (L/N-Ground)	2 kV
Surge capability (L-N)	1 kV
Nominal output voltage	15...54 V <sup>5)</sup>
U-OUT (working voltage)	60 V
Nominal output current	600...1400 mA <sup>6)</sup>
Default output current	1050 mA
Output current tolerance	$\pm 3$ %
Output ripple current (100 Hz)	< 3 % <sup>7)</sup>
Output PSTLM	$\leq 1$
Output SVM	$\leq 0.4$
Nominal output power	55 W <sup>8)</sup>
Galvanic isolation	SELV
Current set	DALI / NFC

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

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

<sup>3)</sup> Typical / At full load and 230 V

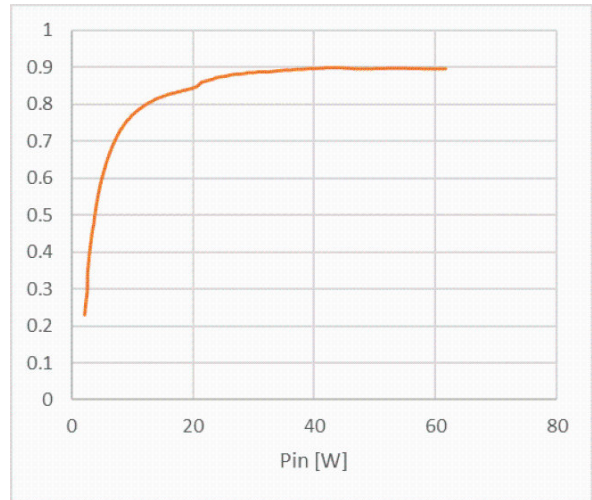
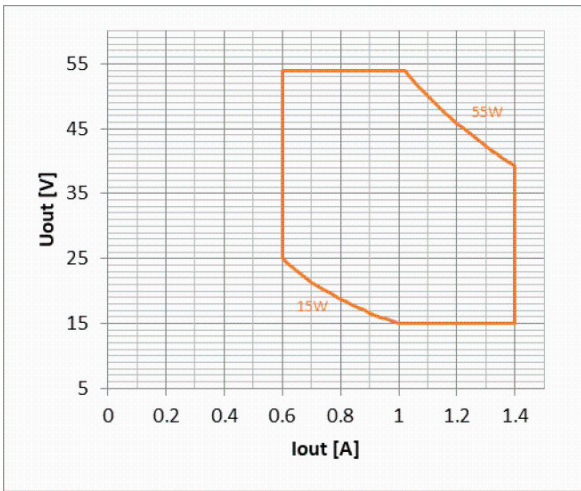
<sup>4)</sup>  $t_{width} = 200 \mu s$  (measured at 50 %  $I_{peak}$ )

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

<sup>6)</sup>  $\pm 3\%$

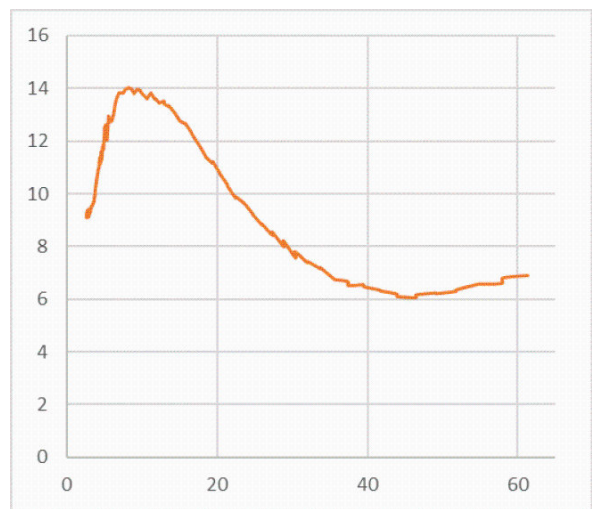
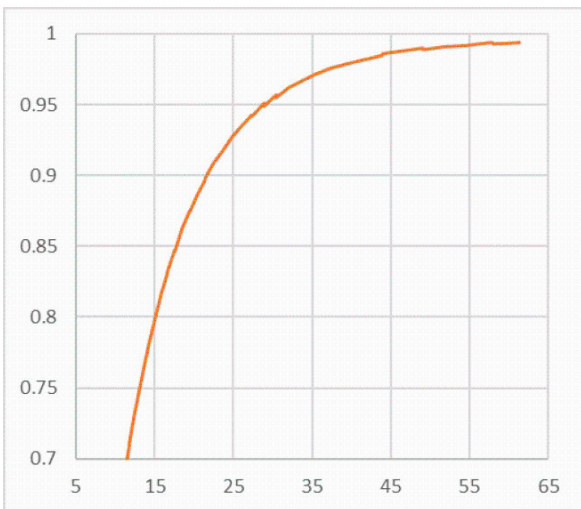
<sup>7)</sup> Ripple average at 100 Hz

<sup>8)</sup> Partial load 22...55 W



Operating Window

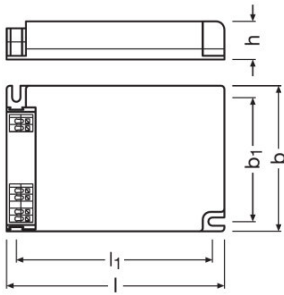
Typical Efficiency v Load 230 V 50 Hz



Typical Power Factor v Load

Typical THD v Load

## Dimensions & weight



<b>Mounting hole spacing, length</b>	99.0 mm
<b>Mounting hole spacing, width</b>	64.0 mm
<b>Product weight</b>	175.00 g
<b>Cable cross-section, input side</b>	0.2...1.5 mm <sup>2</sup> <sup>1)</sup>
<b>Cable cross-section, output side</b>	0.2...1.5 mm <sup>2</sup> <sup>1)</sup>
<b>Wire preparation length, input side</b>	8.0...9.0 mm
<b>Wire preparation length, output side</b>	8.0...9.0 mm
<b>Length</b>	110.0 mm
<b>Width</b>	75.0 mm
<b>Height</b>	25.0 mm

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

## Colors & materials

<b>Casing material</b>	Plastic
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## Temperatures & operating conditions

<b>Ambient temperature range</b>	-20...+50 °C
<b>Maximum temperature at tc test point</b>	80 °C <sup>1)</sup>
<b>Max.housing temperature in case of fault</b>	110 °C
<b>Temperature range at storage</b>	-40...+85 °C
<b>Permitted rel. humidity during operation</b>	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

<b>ECG lifetime</b>	50000 / 100000 h <sup>1)</sup>
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<sup>1)</sup> T<sub>c</sub> = 80°C, 0.2% / 1,000 h failure rate / T<sub>c</sub> = 70°C, 0.1% / 1,000 h failure rate

### Additional product data

Encapsulated	No
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### Capabilities

Dimmable	Yes
Dimming interface	DALI
Dimming range	1...100 % <sup>1)</sup>
Dimming method	Amplitude Modulation
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
Suitable for fixtures with prot. class	I / II
Type of connection, input side	Push 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
Number of channels	1
DALI-2 Energy Data	Yes <sup>2)</sup>
DALI-2 Diagnostic Data	Yes <sup>3)</sup>

<sup>1)</sup> For maximum nominal output current

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

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

### Programming

Tuner4TRONIC	Yes
Tuner4TRONIC Field App	No
Programming device	DALI / NFC

### Programmable features

Operating Current	Yes
Tuning Factor	Yes
Constant Lumen	Yes
Lamp Operating Time	Yes
End of Life	-
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	850440829000
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### Download Data

File	
	User instruction OPTOTRONIC LED Power Supply
	User instruction OPTOTRONIC LED Power Supply
	Certificates OTI DALI 50 NFC EATON AM35222 180220
	Certificates OTI DALI 50 NFC INOTEC AM35222 180220
	Certificates OTI DX DALI NFC CB DE1 63108 190220
	Certificates OT ENEC 40038447 030720
	Certificates OT EMC 40044675 080920
	Declarations of conformity OTI DX DALI NFC CE 3770568 041219

## Product datasheet



CAD data  
CAD data OTi DALI 50220-2401A4 NFC built in IGS



CAD data  
CAD data OTi DALI 50220-2401A4 NFC built in STEP



CAD data PDF  
CAD data OTi DALI 50220-2401A4 NFC built in pdf

### Logistical Data

Product code	Product description	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Volume	Gross weight
4062172061889	OTi DALI 50/220...240/1A4 NFC	Shipping carton box 20	389 mm x 234 mm x 72 mm	6.55 dm <sup>3</sup>	4018.00 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](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.

### Disclaimer

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