

OTi DALI 50/220...240/1A4 Box

OPTOTRONIC Intelligent – DALI Box | Compact constant current LED driver – Dimmable



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
- Line harmonics according to EN 61000-3-2
- Immunity according to EN 61547
- Lifetime: up to 100,000 h
- Type of protection: IP20

Product family benefits

- Versatile DALI window driver due to flexible output characteristic
- Very high efficiency
- Protection of the system thanks to thermal management and Smart Control
- High-quality dimming of 1...100 % by amplitude dimming
- Driver with cable clamps, including resistors for typical output current set
- Easy and fast output current setting via NFC

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



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

Technical data

Electrical data

Nominal input voltage	220...240 V
Mains frequency	0/50/60 Hz
Input voltage AC	198...264 V ¹⁾
Total harmonic distortion	< 10 % ²⁾
Power factor λ	> 0.95
ECG efficiency	91 % ³⁾
Device power loss	7.5 W
Power loss in stand-by mode	0.15 W
Inrush current	30 A ⁴⁾
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 ⁵⁾
Surge capability (L-N)	1 kV
Nominal output voltage	15...54 V ⁶⁾
U-OUT (working voltage)	60 V
Nominal output current	600...1400 mA ⁷⁾
Output current tolerance	±3 %
Output ripple current (100 Hz)	< 2 % ⁸⁾
Output PSTLM	≤1
Output SVM	≤0.4
Nominal output power	55 W ⁹⁾
Galvanic isolation	SELV
Input voltage DC	176...276 V
Current set	DALI / LEDset2 / NFC
Output current LEDset open	300 mA
Output current LEDset shorted	1050 mA
Default output current	1050 mA ¹⁰⁾

¹⁾ Permitted voltage range

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

³⁾ Typical / At full load and 230 V

⁴⁾ $t_{\text{width}} = 200 \mu\text{s}$ (measured at 50 % I_{peak})

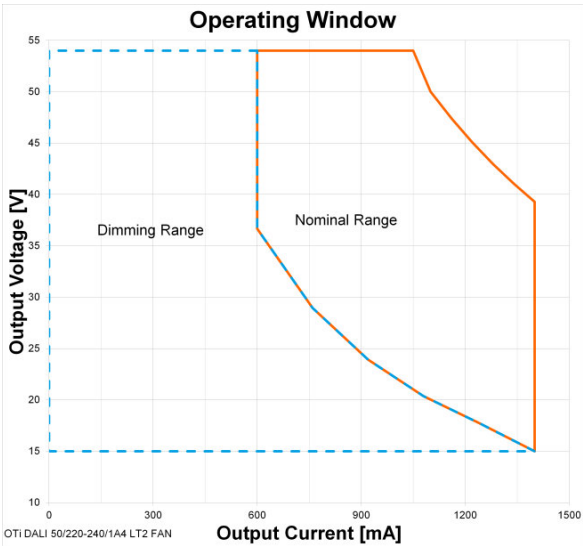
⁵⁾ Functional Earth

⁶⁾ Maximum 60 V

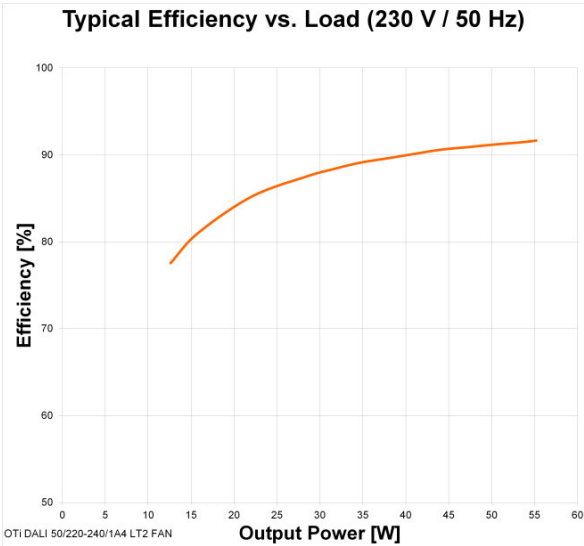
⁷⁾ ±5%

Product datasheet

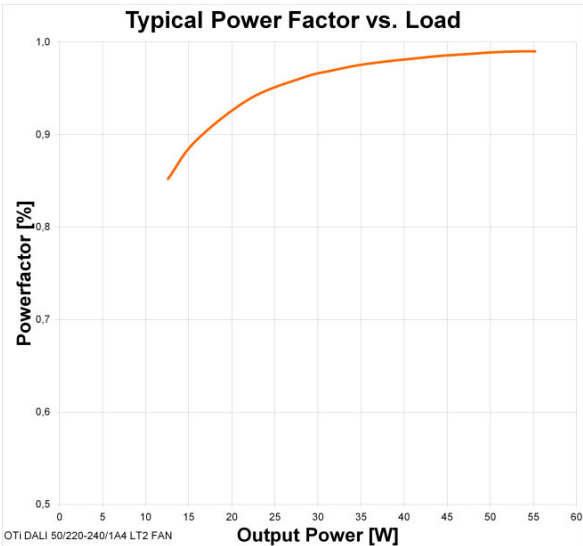
- 8) Ripple average at 100 Hz
- 9) Partial load 22...55 W
- 10) LEDset deactivated



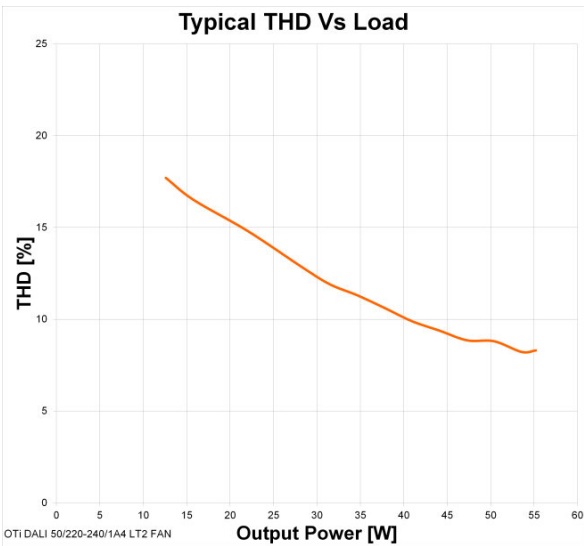
OTi DALI 50 Operating Window



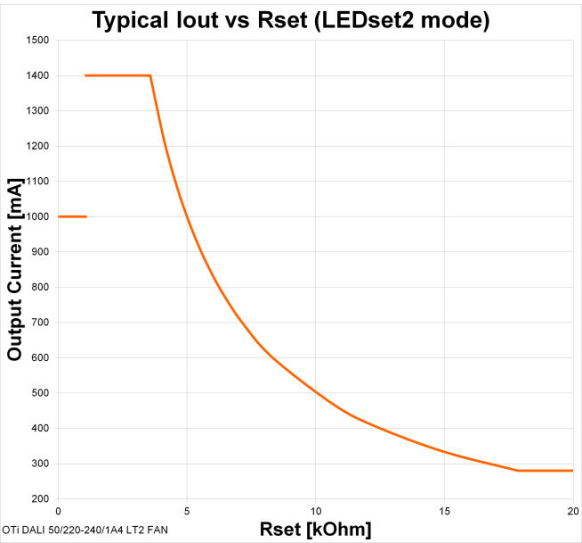
OTi DALI 50 Typicall Efficiency vs. Load



OTi DALI 50 Typical Power Factor vs. Load

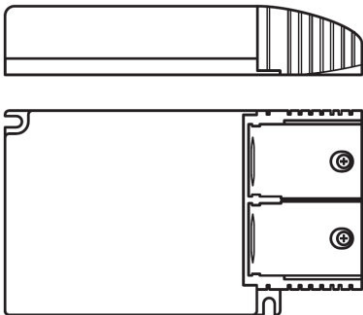
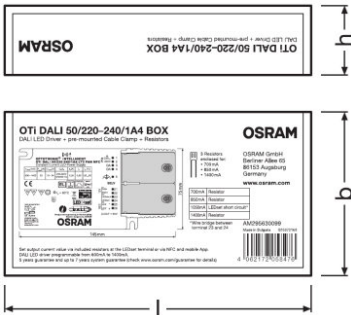


OTi DALI 50 Typical THD vs. Load



OTi DALI 50 Typical I_{out} vs. R_{set}

Dimensions & weight



Mounting hole spacing, length	99.0 mm
Mounting hole spacing, width	64.0 mm
Product weight	209.00 g
Cable cross-section, input side	0.2...1.5 mm ² 1)
Cable cross-section, output side	0.2...1.5 mm ² 1)
Wire preparation length, input side	8.0...9.0 mm
Wire preparation length, output side	8.0...9.0 mm
Length	145.0 mm
Width	75.0 mm
Height	25.0 mm

¹⁾ 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	80 °C ¹⁾
Max.housing temperature in case of fault	110 °C
Temperature range at storage	-40...+85 °C
Permitted rel. humidity during operation	5...85 % ²⁾

¹⁾ Maximum at the Tc-point

²⁾ Maximum 56 days/year at 85 %

Lifespan

ECG lifetime	50000 / 100000 h ¹⁾
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¹⁾ $T_c = 80^\circ\text{C}$, 0.2% / 1,000 h failure rate / $T_c = 70^\circ\text{C}$, 0.1% / 1,000 h failure rate

Capabilities

Dimming interface	DALI / Touch DIM / Touch DIM Sensor
Dimming range	1...100 % ¹⁾
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
Accessories	Resistors for current setting at LEDset2 terminal: 700mA, 850mA, 1400mA
Constant lumen function	Programmable
Programming interface	DALI, NFC, LEDset
Number of channels	1

¹⁾ For maximum nominal output current

Programming

Tuner4TRONIC Field App	Yes
Programming device	DALI / LEDset / NFC

Programmable features

Constant Lumen	Yes
Lamp Operating Time	Yes
Driver Guard	Yes
DALI Settings	Yes
Emergency Mode	Yes
Configuration Lock	Yes
Soft Switch Off	Yes
Dim to Dark	Yes
TouchDIM + Sensor	Yes
Corridor Functionality	Yes
OEM Key	No

Certificates & standards

Approval marks – approval	ENEC 10 / VDE / EMC / EL / CE / DALI-2
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	
 Product Datasheet Cable clamp A style DS 101219 (EN)	
 Certificates OT ENEC 40038447 210721	
 Certificates OT EMC 40044675 010321	
 Declarations of conformity OTI DALI NFC UK DoC 4291512 240221	
 Declarations of conformity EATON(CEAG) Conformity declaration AM12413_OTi_DALI_50_220-240_1A4_LT2_FAN_NFC	

Product datasheet



Declarations of conformity
INOTEC Conformity declaration AM12413_OTi_DALI_50_220-240_1A4_LT2_FAN_NFC



Declarations of conformity
OTI DALI NFC CE 3758701 240221



Declarations of conformity
OTI DALI LT2 CE 3365628 180221

Logistical Data

Product code	Product description	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Volume	Gross weight
4062172058476	OTi DALI 50/220...240/1A4 Box	Shipping carton box 10	188 mm x 163 mm x 181 mm	5.55 dm ³	2431.00 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.