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

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



Product family features

- Line frequency: 0 Hz | 50 Hz | 60 Hz
- Supply voltage: 220...240 V
- Usable as DT6 (2-channel) or DT8 (Tunable White) driver
- Constant Lumen Output (CLO)
- Integrated customizable thermal management (Driver Guard)
- SELV driver

Product family benefits

- Control of standard white or Tunable White light acc. DALI device type 8 (DT8)
- TouchDIM Tunable White integrated for use without additional LMS
- Fully programmable via T4T software (NFC, DALI Interface)
- Lifetime: up to 100,000 h (temperature at T_c = 65 °C, max. 10 % failure rate)
- High-quality dimming of 1...100 % by amplitude dimming
- High quality of light thanks to <1% output ripple current
- Fulfill safety requirement due to overload, overtemperature, Hot Plug protection

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Areas of application

- Classrooms
- Conference rooms
- Daylight simulation for windowless rooms
- For Tunable White as well as for 2-channel use (e.g. direct/indirect lighting)
- Healthcare and hospitality with HCL functionality
- Independent mounting via Cable Clamp Kit possible
- Installation in emergency lighting systems according to IEC 61347-2-13, appendix J
- Office with high end HCL functionality
- Suitable for indoor and outdoor SELV installations

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Technical data

Electrical data

Nominal input voltage	220...240 V
Mains frequency	0/50/60 Hz
Input voltage AC	198...264 V [1)]
Input voltage DC	176...276 V
Total harmonic distortion	< 20 % [2)]
Power factor λ	0.83C...0.97
Efficiency in full-load	90.5 % [3)]
Inrush current	27 A [4)]
Max. ECG no. on circuit breaker 10 A (B)	14
Max. ECG no. on circuit breaker 10 A (C)	-
Max. ECG no. on circuit breaker 16 A (B)	23
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 [5)]
U-OUT (working voltage)	60 V
Nominal output current	600...1400 mA
Default output current, 2-channel DT6	600 mA [6)]
Default output current, TW DT8	600 mA [7)]
Output current tolerance	±3 %
Output ripple current (100 Hz)	< 1 % [8)]
Output PSTLM	<1
Output SVM	<0.4
Nominal output power	55 W [9)]
Maximum output power	55 W
Power loss in stand-by mode	<0.25 W
Galvanic isolation primary/secondary	SELV
Current set	DALI / NFC
Default output current	600 mA
Galvanic isolation DALI/mains	Basic
Galvanic isolation DALI/output	SELV
Networked standby power	<0.25 W [3)]

1) Permitted voltage range

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

3) at 230 V, 50 Hz

4) t_{width} = 205 µs (measured at 50 % I_{peak})

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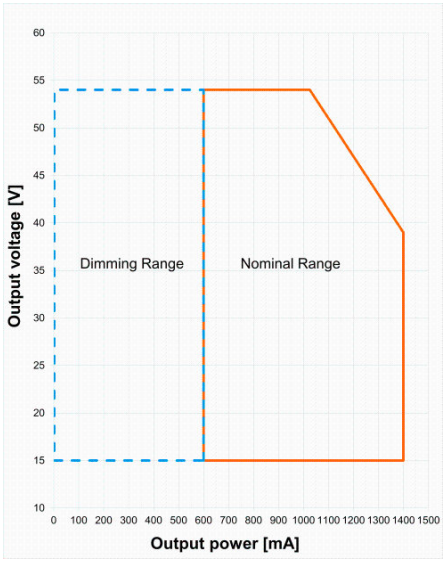
5) Maximum 60 V

6) Per channel

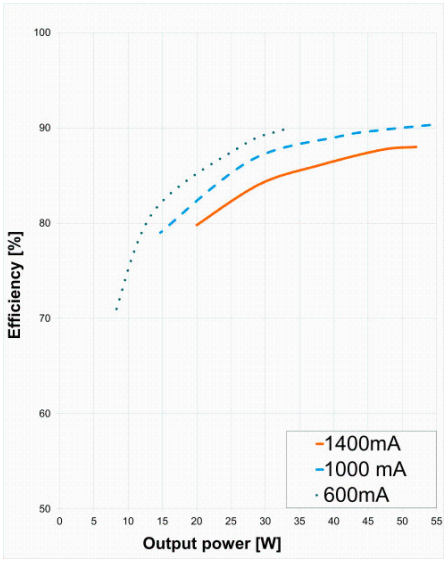
7) Sum of both channels

8) Ripple average at 100 Hz

9) Partial load 9...55 W

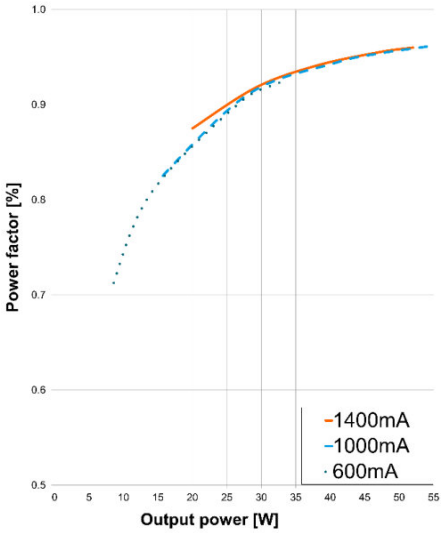


OTI DALI 50 NFC TW Operating window

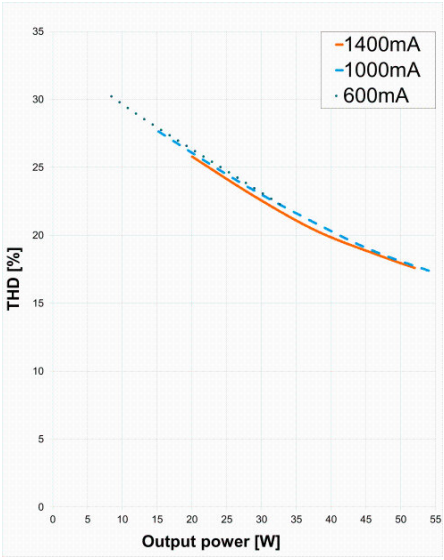


OTI DALI 50 NFC TW Typical Efficiency vs. Load (230 V 50 Hz)

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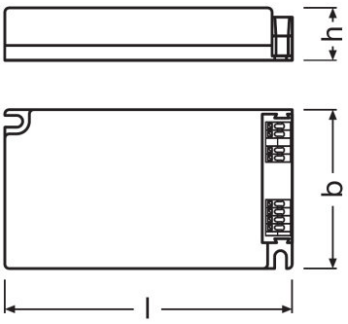


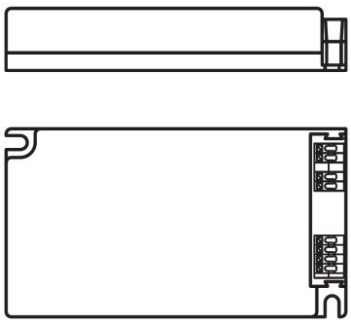
OTI DALI 50 NFC TW Typical Power Factor vs. Load



OTI DALI 50 NFC TW Typical THD Vs Load

Dimensions & weight





Mounting hole spacing, length	124.0 mm
Mounting hole spacing, width	64.0 mm
Product weight	220.00 g
Cable cross-section, input side	0.5…1.5 mm² 1)
Cable cross-section, output side	0.5…1.5 mm² 1)
Wire preparation length, input side	8.0…9.0 mm
Wire preparation length, output side	8.0…9.0 mm
Length	135.0 mm
Width	75.0 mm
Height	25.0 mm

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1) Solid or flexible leads

Colors & materials

Casing material	Plastic

Temperatures & operating conditions

Ambient temperature range	-25…+50 °C
Maximum temperature at tc test point	75 °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)

1) T_c = 75°C, 0.2% / 1,000 h failure rate / T_c = 65°C, 0.1% / 1,000 h failure rate

Additional product data

Encapsulated	No

Capabilities

Dimmable	Yes
Dimming interface	DALI-2 / Touch DIM / Touch DIM Sensor
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 1)
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 with optional cable clamp
Suitable for emergency lighting	Yes
Constant lumen function	Programmable
Programming interface	DALI, NFC
Control interface	DALI-2

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Detection angle (Light sensor)	-
Detection angle (PIR)	-
Number of channels	2 [2)]
DALI-2 Energy Data	Yes [3)]
DALI-2 Diagnostic Data	Yes [4)]

[1)] Output wires must be routed as close as possible to each other

[2)] Default operation mode: tunable white DT8; optional operation mode: 2-channel DT6

[3)] Acc. DALI part 252

[4)] Acc. DALI part 253

Programming

Box programming	Yes
Tuner4TRONIC	Yes
Tuner4TRONIC Field App	No
Programming device	DALI / NFC

Programmable features

Operating Current	Yes
Constant Lumen	Yes
Lamp Operating Time	Yes
End of Life	-
Driver Guard	Yes
DALI Settings	Yes
Emergency Mode	Yes
DALI-2 Luminaire Data	Yes [1)]
Configuration Lock	Yes
Soft Switch Off	Yes
Dim to Dark	Yes
TouchDIM + Sensor	Yes
Corridor Functionality	Yes
OEM Key	No

[1)] Acc. DALI part 251

Certificates & standards

Approval marks – approval	CE / UKCA / EAC / DALI-2 / EL
Standards	Acc. to IEC 61347-1/Acc. to IEC 61347-2-13/Acc. to IEC 62384/Acc. to EN 55015/Acc. to IEC 62386/Acc. to IEC 61000-3-2/Acc. to IEC 61000-3-3/Acc. to IEC 61547/Acc. to CISPR 15/Acc. to ETSI EN 300 330/Acc. to ETSI EN 301 489 - 1/Acc. to ETSI EN 301 489-3
Protection class	II

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Type of protection	IP20

Logistical data

Commodity code	85044083900

Environmental information

Information according Art. 33 of EU Regulation (EC) 1907/2006 (REACh)	
Date of Declaration	21-07-2023
Primary Article Identifier	4062172123525 | 4050732497315
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	129a71b3-1c82-4a8f-8d0c-870827f842e9 | e34b9cb6-8048-4a46-9c3b-5f3bd2b2c48d

Additional product information

– Electrical connections between the two output channels are not allowed.

Download Data

	File
	User instruction OPTOTRONIC LED Power Supply
	User instruction OPTOTRONIC LED Power Supply
	Certificates OTI DALI NFC TW CB DE1 64955 010621
	Certificates OT ENEC 40038447 260623
	Certificates OT EMC 40044675 031022
	Declarations of conformity OTi DALI NFC TW CE 4274927 161023
	Declarations of conformity OTi DALI NFC TW UK CE 4281062 040923
	CAD data OTI DALI 50 NFC TW IGS 111220
	CAD data OTI DALI 50 NFC TW STEP 111220

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	CAD Data 2-dim OTI DALI 50 NFC TW CAD2PDF 111220
	CAD data 3-dim OTI DALI 50 NFC TW CAD3PDF 111220

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
4062172123525	OTi DALI 50/220...240/1A4 NFC TW	Shipping carton box 20	303 mm x 262 mm x 98 mm	7.78 dm^3	4685.00 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.

Accessories Optional

Product description	Accessory name	Accessory code
OTi DALI 50/220...240/1A4 NFC TW	OT CABLE CLAMP A-STYLE	4052899089570
OTi DALI 50/220...240/1A4 NFC TW	OT CABLE CLAMP A-STYLE TL	4052899325982

Data privacy

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This OSRAM driver can be configured using the Tuner4TRONIC software. This requires registering on www.myosram.com and downloading theTuner4TRONIC 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

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