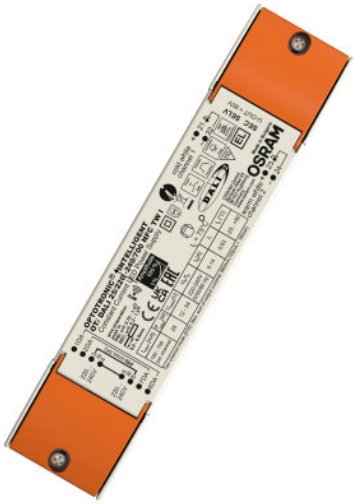
# OTi DALI 25/220...240/700 NFC TW I

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

## 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

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** | < 15 % [2)] |
| **Power factor λ** | 042C...095 |
| **Efficiency in full-load** | 87 % [3)] |
| **Inrush current** | 17 A [4)] |
| **Max. ECG no. on circuit breaker 10 A (B)** | 27 |
| **Max. ECG no. on circuit breaker 10 A (C)** | - |
| **Max. ECG no. on circuit breaker 16 A (B)** | 43 |
| **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** | 12...54 V [5)] |
| **U-OUT (working voltage)** | 60 V |
| **Nominal output current** | 180...700 mA |
| **Default output current, 2-channel DT6** | 300 mA [6)] |
| **Default output current, TW DT8** | 300 mA [7)] |
| **Output current tolerance** | ±3 % |
| **Output ripple current (100 Hz)** | < 2 % [8)] |
| **Output PSTLM** | <1 |
| **Output SVM** | <0.4 |
| **Nominal output power** | 25 W [9)] |
| **Maximum output power** | 27 W |
| **Power loss in stand-by mode** | <0.2 W |
| **Galvanic isolation primary/secondary** | SELV |
| **Current set** | DALI / NFC |
| **Default output current** | 300 mA |
| **Galvanic isolation DALI/mains** | Basic |
| **Galvanic isolation DALI/output** | SELV |
| **Networked standby power** | <0.20 W [3)] |

1) Permitted voltage range

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

3) at 230 V, 50 Hz

4) $t_{width}$ = 180 µs (measured at 50 % $I_{peak}$)

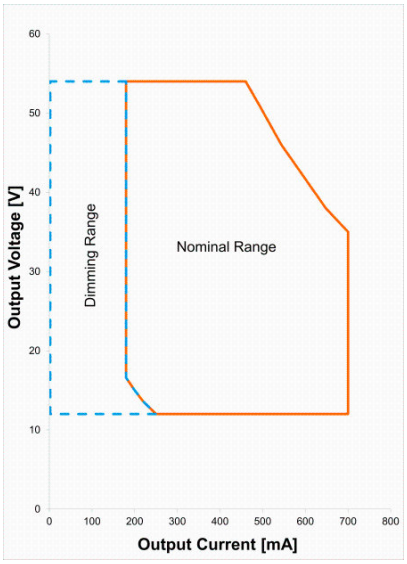
5) Maximum 60 V

6) Per channel

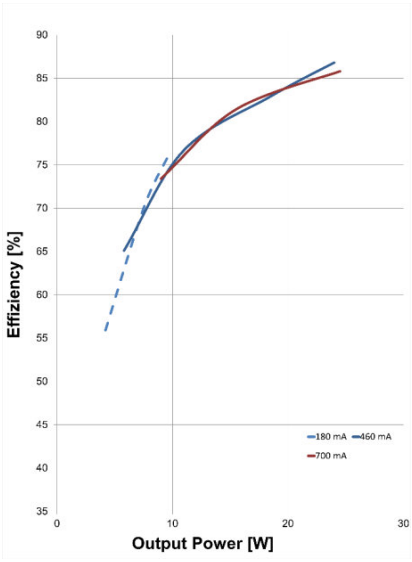
7) Sum of both channels

8) Ripple average at 100 Hz

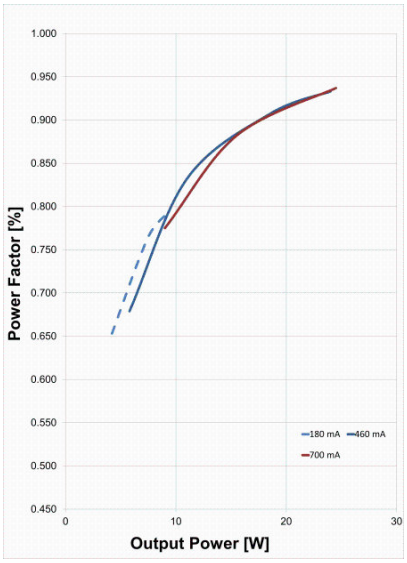
9) Partial load 3...25 W



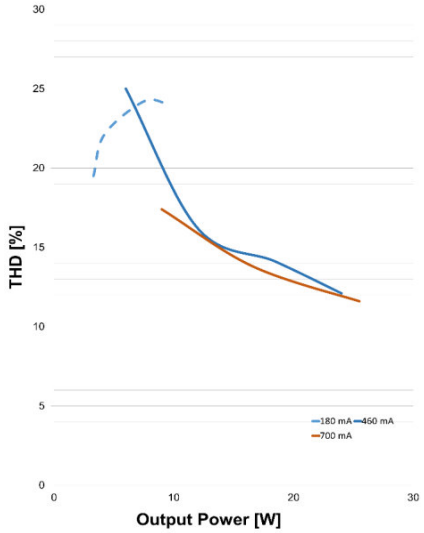

OTI DALI 25 NFC TW I Operating Window




OTI DALI 25 NFC TW I Typical Efficiency vs. Load 230 V 50 Hz

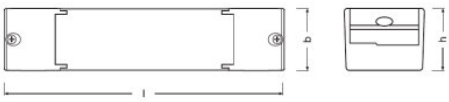


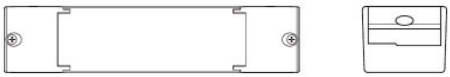

OTI DALI 25 NFC TW I Typical Power Factor vs. Load




OTI DALI 25 NFC TW I Typical THD Vs Load

## Dimensions & weight





| | |
|---|---|
| **Mounting hole spacing, length** | 167.8 mm |
| **Mounting hole spacing, width** | - |
| **Product weight** | 19000 g |
| **Cable cross-section, input side** | 0.75…1.5 mm² [1)] |
| **Cable cross-section, output side** | 0.2…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** | 2030 mm |
| **Width** | 445 mm |
| **Height** | 340 mm |

[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 |
| **Suitable for emergency lighting** | Yes |
| **Constant lumen function** | Programmable |
| **Programming interface** | DALI, NFC |
| **Control interface** | DALI-2 |

| | |
|---|---|
| **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 |

| | |
|---|---|
| **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** | 28-04-2023 |
| **Primary Article Identifier** | 4062172211567 |
| **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** | 9717d8f3-390e-49b2-84c8-110328b8b612 |

## Additional product information

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

## Download Data

| | File |
|---|---|
| | User instruction<br>OPTOTRONIC LED Power Supply |
| | Certificates<br>OT ENEC 40038447 260623 |
| | CAD data<br>OTI DALI 15 25 NFC TW I IGS 040221 |
| | CAD data<br>OTI DALI 15 25 NFC TW I STEP 040221 |
| | CAD Data 2-dim<br>OTI DALI 15 25 NFC TW I CAD2PDF 040221 |
| | CAD data 3-dim<br>OTI DALI 15 25 NFC TW I CAD3PDF 040221 |

## 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 |
|---|---|---|---|---|---|
| 4062172211567 | OTi DALI 25/220...240/700 NFC TW I | Shipping carton box 20 | 418 mm x 185 mm x 108 mm | 8.35 $dm^3$ | 4014.00 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 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

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