

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 $T_C = 65\text{ }^\circ\text{C}$, 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



Product datasheet

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	< 20 % ²⁾
Power factor λ	≥ 0.95
Efficiency in full-load	90.5 % ³⁾
Networked standby power	<0.25 W 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
Galvanic isolation	SELV
Current set	DALI / NFC

¹⁾ Permitted voltage range

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

³⁾ at 230 V, 50 Hz

⁴⁾ $t_{width} = 205 \mu s$ (measured at 50 % I_{peak})

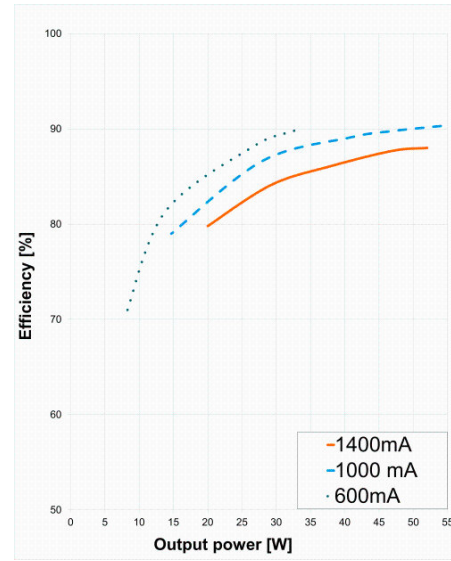
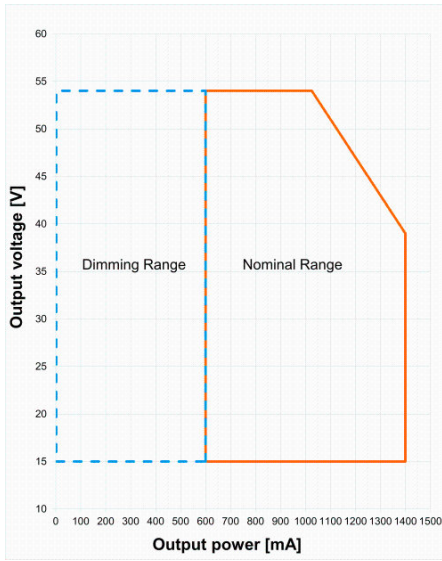
⁵⁾ Maximum 60 V

⁶⁾ Per channel

⁷⁾ Sum of both channels

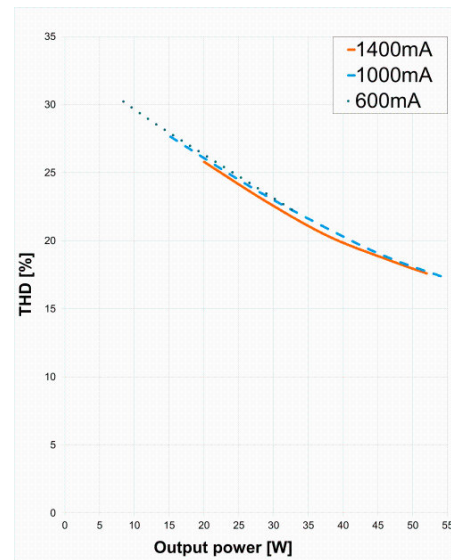
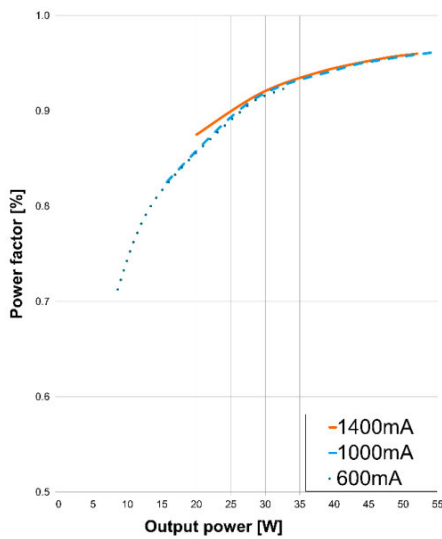
⁸⁾ Ripple average at 100 Hz

⁹⁾ Partial load 9...55 W



OTI DALI 50 NFC TW Operating window

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



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 mm ² ¹⁾
Cable cross-section, output side	0.5...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	135.0 mm
Width	75.0 mm
Height	25.0 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 T_c-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

Capabilities

Dimmable	Yes
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
Intended for no-load operation	No
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 emergency lighting	Yes
Constant lumen function	Programmable
Programming interface	DALI, NFC
Control interface	DALI
Number of channels	2 ²⁾

¹⁾ For maximum nominal output current

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

Programming

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

Product datasheet

Corridor Functionality	Yes
OEM Key	No












Certificates & standards

Approval marks – approval	CE / 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	850440829000
----------------	--------------

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 210721
	Certificates OT EMC 40044675 250621
	Declarations of conformity OTi DALI NFC TW CE 4274927 020921
	Declarations of conformity OTi DALI NFC TW UK CE 4281062 290121
	CAD data OTI DALI 50 NFC TW IGS 111220
	CAD data OTI DALI 50 NFC TW STEP 111220
	CAD Data 2-dim OTI DALI 50 NFC TW CAD2PDF 111220
	CAD data 3-dim OTI DALI 50 NFC TW CAD3PDF 111220

Product datasheet

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

Disclaimer

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