OTi DALI 20/220...240/500 NFC S

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



Product family features

- Supply voltage: 220...240 V
- Line frequency: 0 Hz, 50...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
- Type of protection: IP20

Product family benefits

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

Areas of application

- Suitable for downlights, spotlights and LED panels
- Suitable for use in luminaires with flexible current setting
- Installation in emergency lighting systems according to IEC 61347-2-13, appendix J
- Suitable for indoor SELV installations
- Suitable for luminaires of protection classes I and II

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Technical data

Electrical data

Nominal input voltage	220…240 V
Mains frequency	0…60 Hz
Input voltage AC	198…264 V [1)]
Input voltage DC	176…276 V
Total harmonic distortion	< 10 % [2)]
Power factor λ	≥ 0.95
Efficiency in full-load	88 % [3)]
Networked standby power [GMS]	≤0.18 W [3)]
Inrush current	< 20 A [4)]
Max. ECG no. on circuit breaker 10 A (B)	20
Max. ECG no. on circuit breaker 16 A (B)	30
Surge capability (L/N-Ground)	2 kV
Surge capability (L-N)	1 kV
Nominal output voltage	20…50 V [5)]
U-OUT (working voltage)	60 V
Nominal output current	200…500 mA [6)]
Default output current	350 mA
Output current tolerance	±5 %
Output ripple current (100 Hz)	< 5 % [7)]
Output PSTLM	≤1
Output SVM	≤0.4
Nominal output power	20 W [8)]
Maximum output power	20 W
Galvanic isolation primary/secondary	SELV
Current set	DALI / NFC
Galvanic isolation DALI/mains	Basic
Galvanic isolation DALI/output	SELV

1) Permitted voltage range

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

3) at 230 V, 50 Hz

4) t_{width} = 200 µs (measured at 50 % I_{peak})

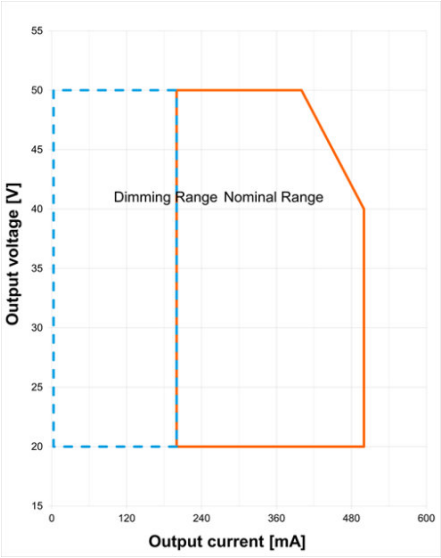
5) Maximum 60 V

6) ±5%

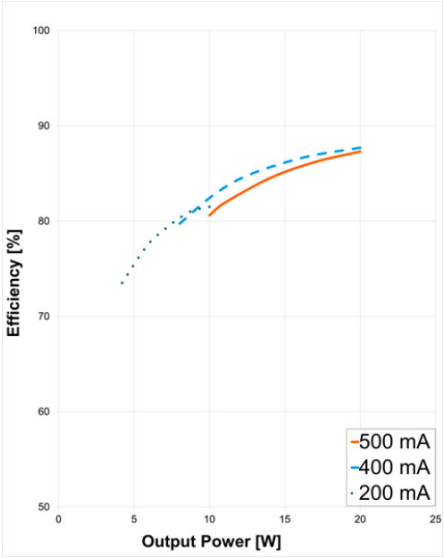
7) Ripple average at 100 Hz

8) Partial load 4…20 W

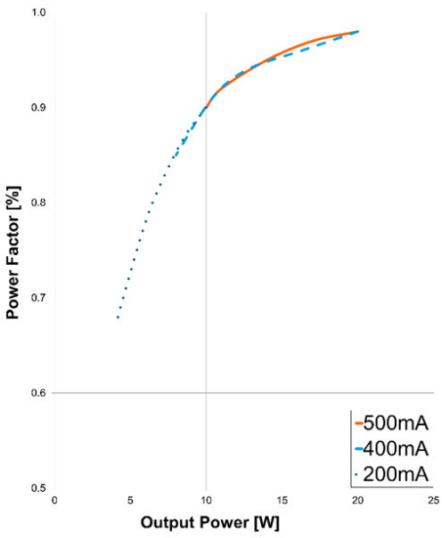
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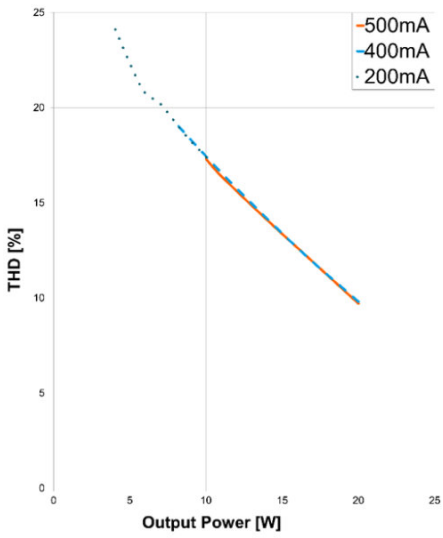
OTI QBM DALI 20 Operating Window



OTI QBM DALI 20 Typical Efficiency vs. Load



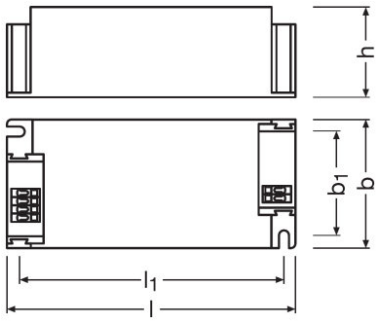
OTI QBM DALI 20 Typical Power Factor vs. Load



OTI QBM DALI 20 Typical THD Vs Load

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Dimensions & weight



Mounting hole spacing, length	88.0 mm
Mounting hole spacing, width	34.0 mm
Product weight	110.00 g
Cable cross-section, input side	0.2…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	97.0 mm
Width	43.0 mm
Height	29.5 mm

[1)] Solid or flexible leads

Colors & materials

Casing material	Plastic

Temperatures & operating conditions

Ambient temperature range	-20…+50 °C
Maximum temperature at tc test point	75 °C [1)]
Max.housing temperature in case of fault	110 °C
Temperature range at storage	-25…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

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Capabilities

Dimmable	Yes
Dimming interface	DALI-2
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	No
Suitable for emergency lighting	Yes
Constant lumen function	Programmable
Programming interface	DALI, NFC
Control interface	DALI
Number of channels	1
DALI-2 Energy Data	Yes [2)]
DALI-2 Diagnostic Data	Yes [3)]

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

[2)] Acc. DALI part 252

[3)] Acc. DALI part 253

Programming

Box programming	Yes
Tuner4TRONIC	Yes
Tuner4TRONIC Field App	Yes
Programming device	DALI / NFC

Programmable features

Constant Lumen	Yes
Lamp Operating Time	Yes
Driver Guard	Yes
DALI Settings	Yes
Emergency Mode	Yes
DALI-2 Luminaire Data	Yes [1)]

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Configuration Lock	Yes
Soft Switch Off	Yes
Dim to Dark	Yes
OEM Key	No

[1] Acc. DALI part 251

Certificates & standards

Approval marks – approval	CE / EL / DALI-2 / EAC / CCC / ENEC
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

Environmental information

Information according Art. 33 of EU Regulation (EC) 1907/2006 (REACh)	
Date of Declaration	01-08-2022
Primary Article Identifier	4062172110068
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	d64e2fb8-e21c-4644-b53a-1401ff0c6156

Download Data

	File
	User instruction OPTOTRONIC LED Power Supply
	Certificates OTI DALI NFC S CB DE1 63171 270220
	Certificates OTI DALI 20 NFC S EATON AM31177 050320
	Certificates OTI DALI 20 NFC S INOTEC AM31177 050320

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	Certificates OTI DALI NFC S RCM CS10925N 180821
	Certificates OT ENEC 40038447 130722
	Certificates OT EMC 40044675 250621
	Declarations of conformity OTI DALI NFC S I CE 4169161 110222
	Declarations of conformity OTI DALI NFC S I UK DoC 4281113 110222
	CAD data OTI DALI NFC S IGS 140220
	CAD data OTI DALI NFC S STEP 140220
	CAD Data 2-dim OTI DALI NFC S CAD2PDF 140220
	CAD data 3-dim OTI DALI NFC S CAD3PDF 140220

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
4062172110068	OTi DALI 20/220...240/500 NFC S	Shipping carton box 20	208 mm x 158 mm x 107 mm	3.52 dm^3	2315.00 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

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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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