OTI DX 50/220...240/1A4 NFC

OPTOTRONIC Intelligent – DEXAL | Compact constant current LED drivers

Areas of application

- DEXAL, easy connection to different partner BMS systems
- Suitable for "Works with OSRAM DEXAL" partner components
- 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
- Installation via Cable Clamp Kit possible (depending on version of product)

Product family benefits

- Versatile DALI window driver due to flexible output characteristic
- Integrated DEXAL Bus power supply for sensors and wireless radios
- Simplified luminaire design for wireless lighting control system and sensors
- Locking and unlocking of luminaire/driver data
- Advanced luminaire/driver data (power, energy, operating hours...) for analytics
- D4i certified incl. Parts 250, 251, 252, 253
- Easy and fast output current setting via NFC
- Very high efficiency
- High-quality dimming of 1...100 % by amplitude dimming

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

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 according to EN 55015:2007+A1:2007/CDN
- Immunity according to EN 61547
- Lifetime: up to 100,000 h
- Type of protection: IP20

Technical data

Electrical data

Nominal input voltage	220…240 V
Mains frequency	50…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
ECG efficiency	91 % [3)]
Device power loss	6.2 W
Power loss in stand-by mode	<0.15 W [4)]
Inrush current	30 A [5)]
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
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)]
Default output current	1050 mA
Output current tolerance	±3 %
Output ripple current (100 Hz)	< 3 %
Nominal output power	55 W [8)]
Galvanic isolation	SELV
Current set	DALI / NFC
DEXAL Supply Voltage	15 V
DEXAL Peak Supply Current	60 mA
DEXAL Guaranteed Supply Current	53 mA

1) Permitted voltage range

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

3) Typical / At full load and 230 V

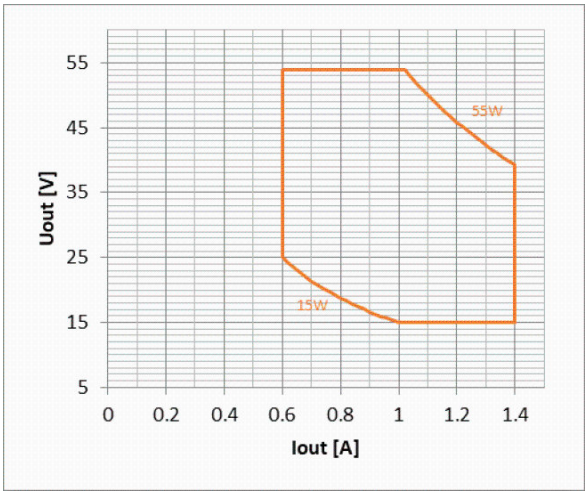
4) DEXAL"OFF"

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

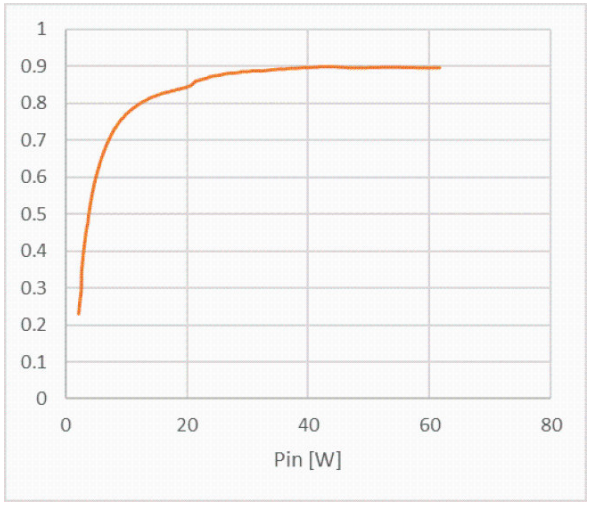
6) Maximum 60 V

7) ±3%

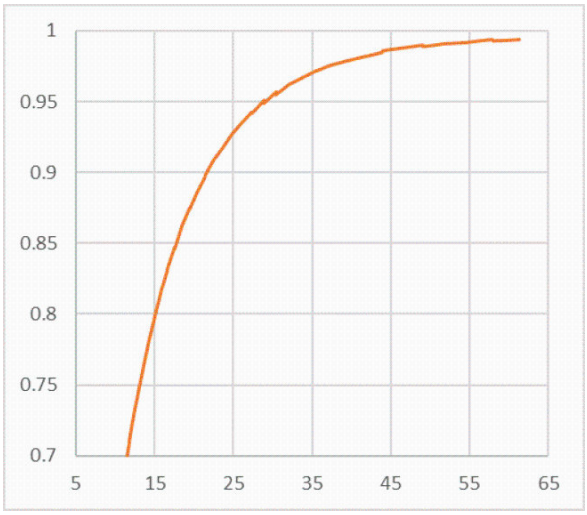
8) Partial load 22…55 W



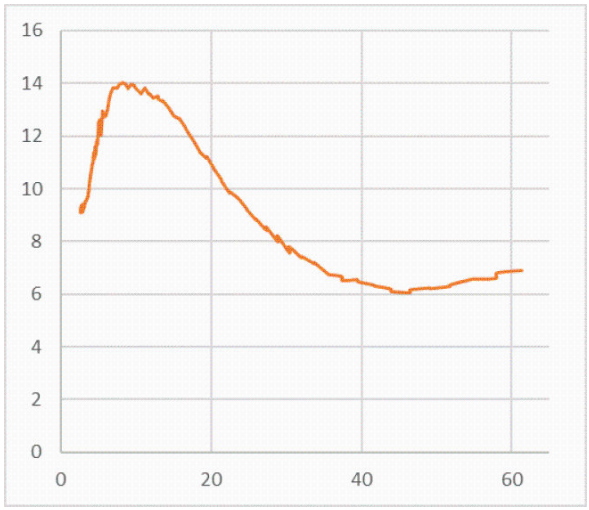
Operating Window



Typical Efficiency v Load 230 V 50 Hz

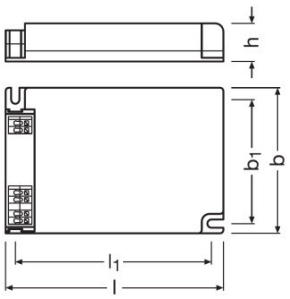


Typical Power Factor v Load



Typical THD v Load

Dimensions & weight



Mounting hole spacing, length	99.0 mm
Mounting hole spacing, width	64.0 mm
Product weight	185.00 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	110.0 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	-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]

[1] T_c = 80°C, 0.2% / 1,000 h failure rate / T_c = 70°C, 0.1% / 1,000 h failure rate

Additional product data

Encapsulated	No

Capabilities

Dimmable	Yes
Dimming interface	DALI/DEXAL/D4i
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
Suitable for through-wiring	Yes
Suitable for emergency lighting	Yes
Constant lumen function	Programmable
Programming interface	DALI, NFC
Number of channels	1
DALI-2 Energy Data	Yes [2)]
DALI-2 Diagnostic Data	Yes [3)]

[1)] For maximum nominal output current

[2)] Acc. DALI part 252

[3)] Acc. DALI part 253

Programming

Tuner4TRONIC	Yes
Tuner4TRONIC Field App	No
Programming device	DALI / NFC

Programmable features

Operating Current	Yes
Tuning Factor	Yes
Constant Lumen	Yes
Lamp Operating Time	Yes
End of Life	-
Driver Guard	Yes

DALI Settings	Yes
DEXAL Power Supply Unit	Yes
Emergency Mode	Yes
DALI-2 Luminaire Data	Yes [1)]
Configuration Lock	Yes
Soft Switch Off	Yes
Dim to Dark	Yes
OEM Key	Yes

[1)] Acc. DALI part 251

Certificates & standards

Approval marks – approval	ENEC 10 / VDE / EMC / EL / CE / DALI-2 / CCC / EAC / D4i
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/Acc. to IEC 62386-250/Acc. to IEC 62386-251, -252, -253
Protection class	II
Type of protection	IP20

Logistical data

Commodity code	850440829000

Additional product information

- The DEXAL interface is polarity sensitive, even if the DEXAL bus power supply in the driver is turned off. Therefore the polarity of all connected drivers should not be mixed.

Download Data

	File
	User instruction OPTOTRONIC LED Power Supply
	Brochures Technical application guide DEXAL LED drivers (EN)
	Certificates OTI DX DALI NFC CB DE1 63108 190220
	Certificates OT ENEC 40038447 180520
	Certificates OT EMC 40044675 280520

	Declarations of conformity OTI DX DALI NFC CE 3770568 041219
	CAD data CAD data OTi DALI 50220-2401A4 NFC built in IGS
	CAD data CAD data OTi DALI 50220-2401A4 NFC built in STEP
	CAD data PDF CAD data OTi DALI 50220-2401A4 NFC built in pdf

Logistical Data

Product code	Product description	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Volume	Gross weight
4062172061865	OTI DX 50/220...240/1A4 NFC	Shipping carton box 20	389 mm x 234 mm x 72 mm	6.55 dm^3	4218.00 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.