

## PRODUCT DATASHEET

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

OPTOTRONIC® Intelligent – DALI NFC | Compact constant current LED drivers



#### Areas of application

- 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 benefits

- Versatile DALI window driver due to flexible output characteristic
- Locking and unlocking of luminaire/driver data
- Advanced luminaire/driver data (power, energy, operating hours...) for analytics
- DALI-2 certified incl. Parts 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 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: to EN 55015/CISPR 15
- Immunity according to EN 61547
- Lifetime: up to 100,000 h
- Type of protection: IP20

## TECHNICAL DATA

### Electrical data

|                                |                             |
|--------------------------------|-----------------------------|
| Nominal wattage                | 50.00 W                     |
| Nominal output power           | 55 W <sup>1)</sup>          |
| Nominal voltage                | 220...240 V                 |
| Nominal output voltage         | 15...54 V <sup>2)</sup>     |
| Input voltage range            | 220...240 V                 |
| Input voltage AC               | 198...264 V <sup>3)</sup>   |
| Input voltage DC               | 176...276 V                 |
| U-OUT (working voltage)        | 60 V                        |
| Nominal output current         | 600...1400 mA <sup>4)</sup> |
| Inrush current                 | 30 A <sup>5)</sup>          |
| Output current tolerance       | ±3 %                        |
| Output ripple current (100 Hz) | < 3 % <sup>6)</sup>         |
| Mains frequency                | 0/50/60 Hz                  |
| Total harmonic distortion      | < 10 % <sup>7)</sup>        |
| Power factor $\lambda$         | > 0.95                      |
| ECG efficiency                 | 91 % <sup>8)</sup>          |
| Device power loss              | 6.2 W                       |
| Surge capability (L/N-Ground)  | 2 kV                        |
| Surge capability (L-N)         | 1 kV                        |
| Galvanic isolation             | SELV                        |
| Power loss in stand-by mode    | < 0.15 W                    |
| Flickering metric (Pst LM)     | ≤1                          |

1) Partial load 22...55 W

2) Maximum 60 V

3) Permitted voltage range

4) ±3%

5)  $t_{\text{width}} = 200 \mu\text{s}$  (measured at 50 %  $i_{\text{peak}}$ )

6) Ripple average at 100 Hz %

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

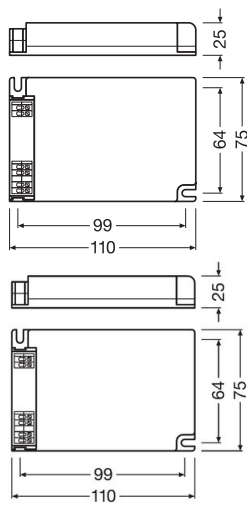
8) at 230 V, 50 Hz

### Photometrical data

|                            |    |
|----------------------------|----|
| Flickering metric (Pst LM) | ≤1 |
|----------------------------|----|

|                                 |      |
|---------------------------------|------|
| Stroboscope effect metric (SVM) | ≤0.4 |
|---------------------------------|------|

Dimensions & Weight



|                                      |                              |
|--------------------------------------|------------------------------|
| Length                               | 110.00 mm                    |
| Mounting hole spacing, length        | 99,0 mm                      |
| Width                                | 75.00 mm                     |
| Height                               | 25.00 mm                     |
| Cable cross-section, input side      | 0.2...1.5 mm <sup>2</sup> 1) |
| Cable cross-section, output side     | 0.2...1.5 mm <sup>2</sup> 1) |
| Wire preparation length, input side  | 8.0...9.0 mm                 |
| Wire preparation length, output side | 8.0...9.0 mm                 |
| Product weight                       | 175.00 g                     |

1) Solid or flexible leads

Colors & materials

|                 |         |
|-----------------|---------|
| Product color   | White   |
| Casing material | Plastic |
| Body 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                 |
| Permitted rel. humidity during operation | 5...85 % <sup>2)</sup> |

1) Maximum at the T<sub>c</sub>-point

2) Maximum 56 days/year at 85 %

### Lifespan

|              |                                  |
|--------------|----------------------------------|
| ECG lifetime | 50000 h / 100000 h <sup>1)</sup> |
|--------------|----------------------------------|

1) T<sub>c</sub> = 80°C, 0.2% / 1,000 h failure rate / T<sub>c</sub> = 70°C, 0.1% / 1,000 h failure rate

### Additional product data

|              |    |
|--------------|----|
| Encapsulated | No |
|--------------|----|

### Capabilities

|                                        |                                     |
|----------------------------------------|-------------------------------------|
| Dimmable                               | Yes                                 |
| Dimming interface                      | DALI / Touch DIM / Touch DIM Sensor |
| Dimming range                          | 1...100 % <sup>1)</sup>             |
| Overheating protection                 | Automatic reversible                |
| Overload protection                    | Automatic reversible                |
| No-load proof                          | Yes                                 |
| Short-circuit protection               | Automatic reversible                |
| Max. cable length to lamp/LED module   | 2,0 m <sup>2)</sup>                 |
| Suitable for fixtures with prot. class | I / II                              |
| Suitable for emergency lighting        | Yes                                 |
| Type of connection, output side        | Push terminal                       |

1) For maximum nominal output current

2) Output wires must be routed as close as possible to each other

### Certificates & Standards

|                           |                                                                                                                                                                                                                                             |
|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Approval marks – approval | CE / EL / DALI-2 / EAC                                                                                                                                                                                                                      |
| Standards                 | Acc. to EN 61347-1 / Acc. to EN 61347-2-13 / Acc. to EN 55015 /<br>Acc. to EN 61547 / Acc. to EN 61000-3-2 / Acc. to EN 62384 / Acc.<br>to EN 62386 / Acc. to IEC 62386-101:Ed2 / Acc. to IEC 62386-<br>102:Ed2 / Acc. to IEC 62386-207:Ed1 |
| Protection class          | II                                                                                                                                                                                                                                          |
| Type of protection        | IP20                                                                                                                                                                                                                                        |
| Energy efficiency class   | A1                                                                                                                                                                                                                                          |

## LOGISTICAL DATA

|                              |              |
|------------------------------|--------------|
| Temperature range at storage | -40...+85 °C |
|------------------------------|--------------|

## Energy labelling regulation data acc EU 2019/2015

|                                 |  |
|---------------------------------|--|
| Networked standby power for CLS |  |
|---------------------------------|--|

## DOWNLOAD DATA

| Documents and certificates                                                         |                                        | Document name                                        |
|------------------------------------------------------------------------------------|----------------------------------------|------------------------------------------------------|
|    | User instruction / safety instructions | OTI DALI 50/220-240/1A4 NFC                          |
|    | Declarations of conformity             | OTI DX DALI NFC CE 3770568 041219                    |
|    | Certificates                           | OTI DX DALI NFC CB DE1 63108 190220                  |
|    | Certificates                           | OTI DALI 50 NFC EATON AM35222 180220                 |
|   | Certificates                           | OTI DALI 50 NFC INOTEC AM35222 180220                |
|  | Certificates                           | VDE EMC Certificate 40044675 (EN)                    |
|  | Certificates                           | VDE ENEC Certificate 40038447                        |
|  | Certificates                           | OTI DALI 50 NFC INOTEC 080121                        |
|  | Certificates                           | OTI DALI 50 NFC EATON 080121                         |
|  | Certificates                           | OT ENEC 40038447 161221                              |
|  | Certificates                           | OT EMC 40044675 250621                               |
|  | EU Data Act                            | Connected Products and Related Software and Services |
| CAD/BIM files                                                                      |                                        | Document name                                        |
|  | CAD STEP 3D                            | OTi DALI 50 220-240 1A4 NFC                          |
|  | CAD data 3D PDF                        | CAD data OTi DALI 50/220-240/1A4 NFC built in pdf    |

LOGISTICAL DATA

| Product code  | Packaging unit (Pieces/Unit) | Dimensions (length x width x height) | Gross weight | Volume               |
|---------------|------------------------------|--------------------------------------|--------------|----------------------|
| 4062172061889 | Unpacked<br>1                |                                      | 167.00 g     |                      |
| 4062172061896 | Shipping box<br>20           | 262 mm x 253 mm x 98 mm              | 3754.00 g    | 6.50 dm <sup>3</sup> |

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.

DISCLAIMER

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