

# PRODUCT DATASHEET

## OT 165/170-240/1A0 4DIM NFC G3 CE

OPTOTRONIC 4DIM NFC IP20 | Constant Current - Outdoor - dimmable



### Areas of application

- Street and urban lighting
- Industry
- Suitable for outdoor applications in luminaires with IP > 54
- Suitable for use in outdoor luminaires of protection class I and II

### Product benefits

- 4DIM functionality in one device (StepDIM, AstroDIM, MainsDIM, DALI)
- DALI-2 certified incl. Parts 251, 252, 253
- Easy and fast wireless luminaire programming
- Very high efficiency
- High surge protection: up to 10 kV (in protection class I or II)
- Great flexibility due to wide operating temperature range of -40...55 °C or 60 °C
- High surge DALI protection: 1 kV
- Protection through double isolation between mains input and LED output
- Optimized NFC for programming from the top: easy accessibility in luminaires

### Product features

- Supply voltage: 220...240 V
- Wide current output range: 150 mA...1050 mA or 1500 mA
- Easy and fast wireless luminaire programming via NFC
- Flexible current setting with one additional wire (LEDset2)
- AstroDIM for autonomous dimming with five independent levels (astro, time mode)
- Allows for energy saving in twilight phases
- MainsDIM function for dimming via reduction of line voltage amplitude
- Isolated DALI interface for bidirectional telemanagement systems
- Standby power consumption: < 0.35 W

- Constant Lumen Output (CLO)
- Integrated customizable thermal management (Driver Guard)

## TECHNICAL DATA

### Electrical data

Nominal wattage	165.00 W
Nominal output power	165 W <sup>1)</sup>
Nominal voltage	220...240 V
Nominal output voltage	90...260 V
Input voltage range	220...277 V
Input voltage AC	170...264 V <sup>2)</sup>
Input voltage DC	176...276 V <sup>3)</sup>
U-OUT (working voltage)	320 V
Nominal current	1.05 A
Nominal output current	150...1050 mA
Inrush current	71 A <sup>4)</sup>
Output current tolerance	±3 % <sup>5)</sup>
Output ripple current (100 Hz)	> 4 %
Mains frequency	0/50/60 Hz
Total harmonic distortion	> 5 % <sup>6)</sup>
Power factor $\lambda$	0.99 <sup>7)</sup>
ECG efficiency	94 % <sup>8)</sup>
Device power loss	11.5 W
Max. ECG no. on circuit breaker 10 A (B)	6
Max. ECG no. on circuit breaker 16 A (B)	10
Max. ECG no. on circuit breaker 25 A (B)	16
Surge capability (L/N-Ground)	10 kV
Surge capability (L-N)	6 kV
Galvanic isolation	Double
Flickering metric (Pst LM)	≤1

1) Max. 75% in DC operating mode

2) Permitted voltage range

3) Additional fuse needed in DC operation

4) At 175 µs

5) +/- 5% for LEDset down to 150mA

6) At full power

7) At full load

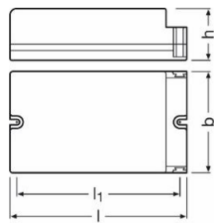
8) at 230 V, 50 Hz

### Photometrical data

Flickering metric (Pst LM)	≤1
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Stroboscope effect metric (SVM)	≤0.4
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Dimensions & Weight



l	150,0 mm
l1	134,0 mm
b	90,0 mm
h	40,0 mm

Length	150.00 mm
Mounting hole spacing, length	134,0 mm
Width	90.00 mm
Height	40.00 mm
Cable cross-section, input side	0.2...1.5 mm <sup>2</sup>
Cable cross-section, output side	0.2...1.5 mm <sup>2</sup>
Wire preparation length, input side	8,5...9,5 mm
Wire preparation length, output side	8,5...9,5 mm
Product weight	780.00 g

Colors & materials

Product color	Black
Casing material	Plastic
Body material	Plastic

Temperatures & operating conditions

Ambient temperature range	-40...+55 °C
Maximum temperature at tc test point	90 °C
Max.housing temperature in case of fault	120 °C
Permitted rel. humidity during operation	5...95 % <sup>1)</sup>

1) The luminaire manufacturer must ensure that condensation water cannot be created within the fixture.

Lifespan

ECG lifetime	50000 h / 100000 h <sup>1)</sup>
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1) At maximum  $T_c = 85^\circ\text{C}$  / 10% failure rate / At  $T_c = 73^\circ\text{C}$  / 10% failure rate

## Capabilities

Dimmable	Yes
Dimming interface	4DIM / AstroDIM / DALI / MainsDIM / StepDIM
Dimming range	10...100 %
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>1)</sup>
Suitable for fixtures with prot. class	I / II
Suitable for emergency lighting	Yes
Type of connection, output side	Push terminal

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

## Certificates & Standards

Approval marks – approval	CCC / CE / DALI-2 / EL / ENEC / RCM / VDE
Standards	Acc. to EN 61347-1 / Acc. to ENEC 61347-2-13 / Acc. to EN 62384 / Acc. to EN 55015:2006 + A1:2007 + A2:2009 / Acc. to EN 61547 / Acc. to FCC 47 part 15 class B / Acc. to IEC 61000-3-2 / Acc. to IEC 61000-3-3 / Acc. to IEC 62386-101 / Acc. to IEC 62386-102 / Acc. to IEC 62386-207 / UL-8750
Protection class	I/II
Type of protection	IP20

## LOGISTICAL DATA

Temperature range at storage	-40...+85 °C
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## Energy labelling regulation data acc EU 2019/2015







Networked standby power for CLS	< 0.35 W
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## Safety advice

- All electrical connections must be made by a qualified person.
- Caution, risk of electric shock.

## DOWNLOAD DATA

Documents and certificates		Document name
	User instruction / safety instructions	OT 110/165/40/75 /170-240/1A0 4DIM

Documents and certificates		Document name
	Declarations of conformity	OT 110/165/40/75 /170-240/1A0 4DIM
	Declarations of conformity UKCA	OT 110/165/40/75 /170-240/1A0 4DIM
	Certificates	OT 110/165/40/75 /170-240/1A0 4DIM
	Certificates	OT 110/170-240/1A0 4DIM NFCG3CE
	Certificates	OT 165/170-240/1A0 4DIM NFCG3CE
	Certificates	OT 165/170-240/1A0 4DIM NFCG3CE

## LOGISTICAL DATA

Product code	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Gross weight	Volume
4062172219075	Unpacked 1	150 mm x 90 mm x 40 mm	780.00 g	0.54 dm <sup>3</sup>
4062172219082	Shipping box 12	319 mm x 210 mm x 156 mm	9748.00 g	10.45 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.