

## OT 180/120-277/700 P5

OPTOTRONIC - ON/OFF UNV IP65 | Constant current LED driver



### Product family features

- Available with different wattage: 50 W, 100 W, 180 W, 250 W
- Input voltage: 120...277 V
- Output current: 700 mA
- Overtemperature protection

### Product family benefits

- High surge protection: up to 6 kV (L-N) / 6 kV (L/N-PE)
- High efficiency
- Great flexibility due to wide operating temperature range of -40...50 °C or 55 °C
- IP rating: IP65

## Areas of application

- Street and urban lighting
- Industry
- Suitable for luminaires of protection class I

## Technical data

### Electrical data

Nominal input voltage	120...277 V
Nominal output current	700 mA <sup>1)</sup>
Nominal output power	180 W <sup>2)</sup>
Nominal output voltage	115...257 V
Maximum output power	180 W
Mains frequency	50...60 Hz
Input voltage AC	108...305 V <sup>3)</sup>
Input voltage DC	not relevant
Device power loss	18 W <sup>4)</sup>
Efficiency in full-load	90 % <sup>5)</sup>
Galvanic isolation primary/secondary	3.75 kV <sup>6)</sup>
Inrush current	110 A <sup>7)</sup>
Max. ECG no. on circuit breaker 10 A (B)	4 <sup>8)</sup>
Max. ECG no. on circuit breaker 16 A (B)	7 <sup>8)</sup>
Max. ECG no. on circuit breaker 25 A (B)	12 <sup>8)</sup>
Output current tolerance	±5 %
Output ripple current (100 Hz)	30 %
Power factor $\lambda$	0.95 / 0.90 <sup>9)</sup>
Surge capability (L-N)	6 kV <sup>10)</sup>
Surge capability (L/N-Ground)	6 kV
Total harmonic distortion	10 % <sup>11)</sup>
U-OUT (working voltage)	290 V

1) ±5%

2) Partial Load 80...180 W

3) Permitted voltage range

4) Maximum / At 230 V<sub>AC</sub>

5) at 230 V, 50 Hz

6) Basic insulation

7)  $t_{width} = 200 \mu s$  (measured at 50 %  $I_{peak}$ )

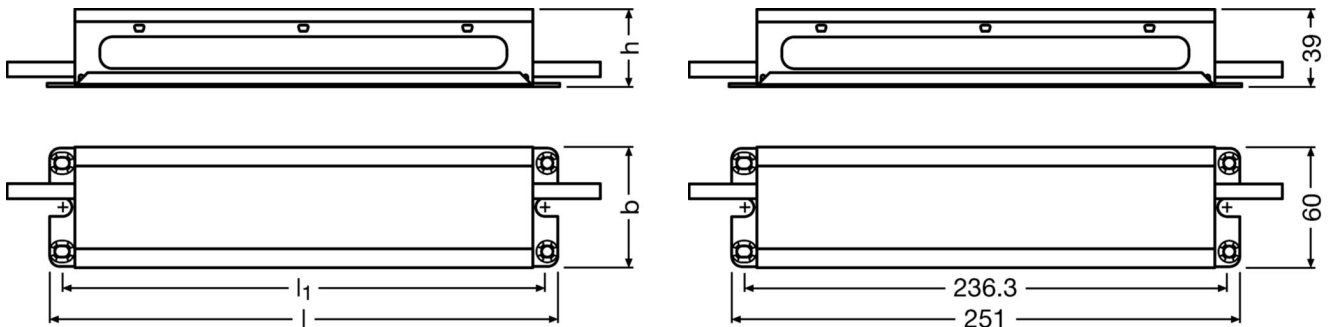
8) Type B

9) Minimum / Full load at 230 V / Half load at 230 V

10) @ 2 Ohm, acc. to EN61547

11) Max. output power at 230 V<sub>AC</sub>

## Dimensions & weight



<b>Length</b>	251.0 mm
<b>Height</b>	39.0 mm
<b>Width</b>	60.0 mm
<b>Product weight</b>	1000.00 g
<b>Cable cross-section, input side</b>	0.75 mm <sup>2</sup>
<b>Cable cross-section, output side</b>	0.5 mm <sup>2</sup>
<b>Cable/wire length, input side</b>	355 mm <sup>1)</sup>
<b>Cable/wire length, output side</b>	355 mm <sup>1)</sup>
<b>Wire preparation length, input side</b>	10 mm
<b>Wire preparation length, output side</b>	10 mm
<b>Mounting hole spacing, length</b>	236.3 mm

1) ± 30 mm

## Colors & materials

<b>Casing material</b>	Metal
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## Temperatures & operating conditions

<b>Ambient temperature range</b>	-40...+55 °C
<b>Max.housing temperature in case of fault</b>	120 °C
<b>Maximum temperature at tc test point</b>	90 °C <sup>1)</sup>
<b>Permitted rel. humidity during operation</b>	5...85 % <sup>2)</sup>
<b>Temperature range at storage</b>	-25...80 °C

1) Maximum at the Tc-point

2) Non condensing, absolute humidity: 36g/m<sup>3</sup>

## Expected Lifetime

Product name				
OT 180/120-277/700 P5	ECG ambient temperature [ta]	55	50	45
	Temperature at tc-point [°C]	90	85	80
	Lifetime [h]	50000	65000	80000

## Lifespan

<b>ECG lifetime</b>	80000 h <sup>1)</sup>
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1) At  $T_{case} = 80^{\circ}C$  at  $T_c$  point / 10% failure rate

## Capabilities

<b>Dimmable</b>	No
<b>Max. cable length to lamp/LED module</b>	10 m <sup>1)</sup>
<b>Overload protection</b>	Automatic reversible
<b>Overheating protection</b>	Automatic reversible
<b>Suitable for fixtures with prot. class</b>	I
<b>Type of connection, output side</b>	Wires
<b>Constant lumen function</b>	No
<b>Intended for no-load operation</b>	No
<b>No-load proof</b>	Yes
<b>Number of channels</b>	1
<b>Short-circuit protection</b>	Automatic reversible

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

## Programming

Programming device	not relevant
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## Certificates & standards

Type of protection	IP65
Approval marks – approval	CE / CQC
Standards	Acc. to IEC 61347-1 / Acc. to IEC 61347-2-13 / Acc. to IEC 62384 / Acc. to CISPR 15 / Acc. to IEC 61547 / Acc. to FCC 47 part 15 class B / Acc. to IEC 61000-3-2 / Acc. to IEC 61000-3-3

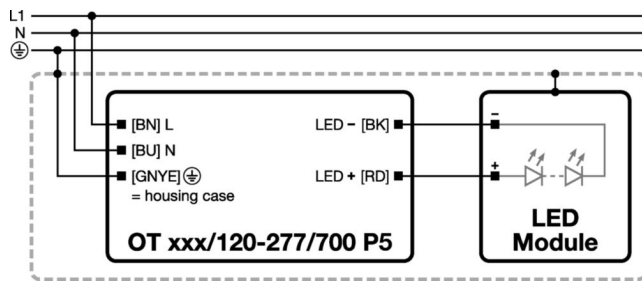
## Logistical data

Commodity code	85044083900
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## Environmental information

Information according Art. 33 of EU Regulation (EC) 1907/2006 (REACH)	
Declaration No. in SCIP database	In work
Date of Declaration	14-06-2024
Primary Article Identifier	4052899259027
SCIP_STATUS	In work
SCIP_ID	

## Wiring Diagram



544450\_Wiring Diagramm OT xxx/120-277/700 P5

## 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.

## Additional product information

- The driver withstands an input voltage of up to 350 Vac for a maximum of two hours. Shut down of output load might occur in case the supply voltage exceeds the declared input voltage range.
- The driver may increase the output current up to a maximum of 1.5 A in case the input voltage of the load is lower than the allowed minimum output voltage until the short circuit is removed or the correct load is connected. Make sure the system is safely operated, if this event might occur.
- In case the input voltage of the load exceeds the output voltage range of the driver, it automatically reduces the output current to keep the output voltage controlled to the maximum allowed output voltage.
- The driver automatically reduces the output current in case the maximum allowed output power is exceeded.
- Hot-plug of the load or external switching on the secondary side is not allowed.
- The protective earth (GNYE/PE wire, housing) has to be connected to the heat sink of the LED module to improve the capability of the system to withstand a surge and EMI in critical luminaires.
- Time to reach the set output current upon start-up is less than 2 s.
- The driver is intended for built-in use. The luminaire manufacturer is responsible to prevent direct exposure for example to sunlight, water, snow, ice.



## Download Data

File		
Brochures	PDF	▶ 4 DIM NFC G3 CE LED drivers and T4T C (EN)
Certificates	PDF	▶ 664067_CB Certificate OT100-180-250P5
CAD data 3-dim	Compressed	▶ 730732_CAD data OT 180
Mandatory Publications	PDF	▶ OT P5 WP UK DoC 4307611 030621
Declarations of conformity	PDF	▶ OT P5 WP CE 3218662 180823

## Logistical Data

Product code	Product description	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Volume	Gross weight
4052899259027	OT 180/120-277/700 P5	Shipping carton box 10 Pieces	491 x 330 x 140 mm	22.68 dm <sup>3</sup>	1108.70 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

## Disclaimer

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