

## PRODUCT DATASHEET

### OT 180/120...277/700 P5

OPTOTRONIC® Outdoor | Constant current LED drivers



#### Areas of application

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

#### Product 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

#### Product features

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

## TECHNICAL DATA

### Electrical data

Nominal wattage	180.00 W
Nominal output power	180 W <sup>1)</sup>
Nominal voltage	120...277 V
Nominal output voltage	115...257 V
Input voltage AC	108...305 V <sup>2)</sup>
U-OUT (working voltage)	290 V
Nominal current	0.86 A <sup>3)</sup>
Nominal output current	700 mA <sup>4)</sup>
Inrush current	110 A <sup>5)</sup>
Output current tolerance	±5 %
Output ripple current (100 Hz)	30 %
Mains frequency	50/60 Hz
Total harmonic distortion	10 % <sup>6)</sup>
Power factor $\lambda$	0.95 <sup>7)</sup>
ECG efficiency	90 % <sup>8)</sup>
Device power loss	18 W <sup>9)</sup>
Max. ECG no. on circuit breaker 10 A (B)	4 <sup>10)</sup>
Max. ECG no. on circuit breaker 16 A (B)	7 <sup>10)</sup>
Max. ECG no. on circuit breaker 25 A (B)	12 <sup>10)</sup>
Surge capability (L/N-Ground)	6 kV
Surge capability (L-N)	6 kV <sup>11)</sup>
Galvanic isolation	basic

1) Partial Load 80...180 W

2) Permitted voltage range

3) At 230 V / 1.67 A for 120 V<sub>AC</sub>

4) ±5%

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

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

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

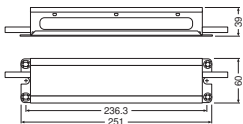
8) At full load and 230 V

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

10) Type B

11) @ 2 Ohm, acc. to EN61547

### Dimensions & Weight



Length	251.00 mm
Mounting hole spacing, length	236,3 mm
Width	60.00 mm
Height	39.00 mm
Cable cross-section, input side	0.75 mm <sup>2</sup>
Cable cross-section, output side	0.5 mm <sup>2</sup>
Wire preparation length, input side	10 mm
Wire preparation length, output side	10 mm
Product weight	1000.00 g

Colors & materials

Casing material	Metal
Body material	Metal

Temperatures & operating conditions

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

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

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

Lifespan

ECG lifetime	80000 h <sup>1)</sup>
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1) At T<sub>case</sub> = 80°C at T<sub>c</sub> point / 10% failure rate

Additional product data

Encapsulated	Yes
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Capabilities

Dimmable	No
Overheating protection	Automatic reversible
Overload protection	Automatic reversible
No-load proof	Yes

Short-circuit protection	Automatic reversible
Max. cable length to lamp/LED module	10 m
Suitable for fixtures with prot. class	I
Type of connection, output side	Wires

### Certificates & Standards

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
Protection class	III
Type of protection	IP65



### LOGISTICAL DATA

Temperature range at storage	-25...80 °C
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### 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

Documents and certificates	Document name
 Declarations of conformity	EU Declaration of Conformity 3218662
 Certificates	664067_CB Certificate OT100-180-250P5

### LOGISTICAL DATA

Product code	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Gross weight	Volume
4052899259027	Unpacked 1		1000.00 g	

Product code	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Gross weight	Volume
4052899281158	Shipping box 10	491 mm x 330 mm x 140 mm	11087.00 g	22.68 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.