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 voltage	120…277 V
Input voltage AC	108…305 V [1)]
Nominal current	0.86 A [2)]
Mains frequency	50…60 Hz
Power factor λ	0.95/0.90 [3)]
Total harmonic distortion	10 % [4)]
Device power loss	18 W [5)]
Inrush current	110 A [6)]
Max. ECG no. on circuit breaker 10 A (B)	4 [7)]
Max. ECG no. on circuit breaker 16 A (B)	7 [7)]
Max. ECG no. on circuit breaker 25 A (B)	12 [7)]
Surge capability (L/N-Ground)	6 kV
Surge capability (L-N)	6 kV [8)]
Nominal output power	180 W [9)]
Maximum output power	180 W
Efficiency in full-load	90 % [10)]
Nominal output voltage	115…257 V
U-OUT (working voltage)	290 V
Nominal output current	700 mA [11)]
Output current tolerance	±5 %
Galvanic isolation	basic

1) Permitted voltage range

2) At 230 V/1.67 A for 120 V_{AC}

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

4) Max. output power at 230 V_{AC}

5) Maximum / At 230 V_{AC}

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

7) Type B

8) @ 2 Ohm, acc. to EN61547

9) Partial Load 80…180 W

10) at 230 V, 50 Hz

11) ±5%

Dimensions & weight

Length	251.0 mm
Width	60.0 mm
Height	39.0 mm
Mounting hole spacing, length	236.3 mm
Product weight	1000.00 g
Cable cross-section, input side	0.75 mm²
Cable cross-section, output side	0.5 mm²
Wire preparation length, input side	10 mm
Cable/wire length, output side	355 mm [1)]
Cable/wire length, input side	355 mm [1)]

1) ± 30 mm

Temperatures & operating conditions

Ambient temperature range	-40…+55 °C
Temperature range at storage	-25…80 °C
Maximum temperature at tc test point	90 °C [1)]
Max.housing temperature in case of fault	120 °C

1) Maximum at the Tc-point

Lifespan

ECG lifetime	80000 h [1)]

1) At T_{case} = 80°C at T_c point / 10% failure rate

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 [1)]	65000 [1)]	80000 [1)]

[1)] Max. 10% failure rate at tc max and input voltage 230 V_{AC}

Capabilities

Dimmable	No
Suitable for fixtures with prot. class	I
Intended for no-load operation	No
Number of channels	1

Certificates & standards

Type of protection	IP65
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
Approval marks – approval	CE / CQC

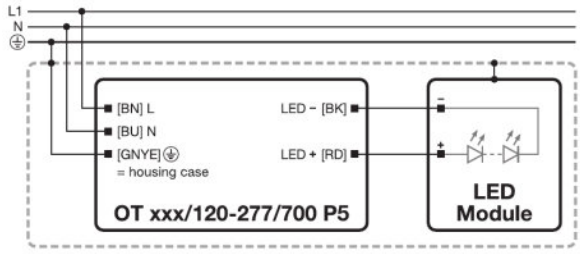
Logistical data

Commodity code	85044083900

Environmental information

Information according Art. 33 of EU Regulation (EC) 1907/2006 (REACh)	
Date of Declaration	02-06-2023
Primary Article Identifier	4052899259027
Candidate List Substance 1	Lead
CAS No. of substance 1	7439-92-1
Safe Use Instruction	The identification of the Candidate List substance is sufficient to allow safe use of the article.
Declaration No. in SCIP database	9cf5f668-535b-48a3-8ec1-729e5d242b5e

Wiring Diagram



544450_Wiring Diagramm OT xxx120-277700 P5

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 4 DIM NFC G3 CE LED drivers and T4T C (EN)

	Certificates 664067_CB Certificate OT100-180-250P5
	Declarations of conformity OT P5 WP CE 3218662 180823
	CAD data 3-dim 730732_CAD data OT 180

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.

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	491 mm x 330 mm x 140 mm	22.68 dm^3	11087.00 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.

Disclaimer

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