OT 100/120...277/700 P5

OPTOTRONIC | Constant current ECG for LED modules

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 and reliability
- Great flexibility due to wide operating temperature range of -40...50 °C or 55 °C
- High IP protection (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 voltage	120…277 V
Input voltage AC	108…305 V [1)]
Nominal current	0.49 A [2)]
Mains frequency	50…60 Hz
Power factor λ	0.95/0.90 [3)]
Total harmonic distortion	10 %
Device power loss	12 W [4)]
Inrush current	100 A [5)]
Max. ECG no. on circuit breaker 10 A (B)	4 [6)]
Max. ECG no. on circuit breaker 16 A (B)	7 [6)]
Max. ECG no. on circuit breaker 25 A (B)	12 [6)]
Surge capability (L/N-Ground)	6 kV
Surge capability (L-N)	6 kV [7)]
Nominal output power	100 W [8)]
ECG efficiency	90 % [9)]
Nominal output voltage	55…152 V
U-OUT (working voltage)	220 V
Nominal output current	700 mA [10)]
Output current tolerance	±5 %
Galvanic isolation	double/reinforced

1) Permitted voltage range

2) At 230 V/1.00 A for 120 V_{AC}

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

4) Maximum / At 230 V_{AC}

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

6) Type B

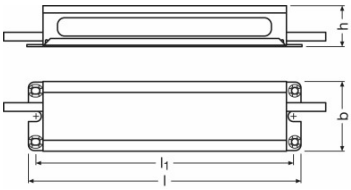
7) @ 2 Ohm, acc. to EN61547

8) Partial Load 39…100 W

9) At full load and 230 V

10) ±5%

Dimensions & weight



Length	168.0 mm
Width	60.0 mm
Height	39.0 mm
Mounting hole spacing, length	152.0 mm
Product weight	665.00 g
Cable cross-section, input side	0.5 mm²
Cable cross-section, output side	0.5 mm²
Wire preparation length, input side	10 mm
Cable/wire length, output side	280 mm [1)]
Cable/wire length, input side	280 mm [1)]
Cable/wire length, control input	-

1) ± 30 mm

Temperatures & operating conditions

Ambient temperature range	-40…+55 °C
Maximum temperature at tc test point	85 °C [1)]
Max.housing temperature in case of fault	120 °C
Permitted rel. humidity during operation	5…85 %

1) Maximum at the Tc-point

Lifespan

ECG lifetime	80000 h [1)]

1) At T_{case} = 75°C at T_c point / 10% failure rate

Expected Lifetime

Product name				
OT 100/120…277/700 P5	ECG ambient temperature [ta]	55	50	45
	Temperature at tc-point [°C]	85	80	75
	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
NTC input	No
Overheating protection	Automatic reversible
Overload protection	Automatic reversible
Short-circuit protection	Automatic reversible
No-load proof	Yes
Max. cable length to lamp/LED module	10 m

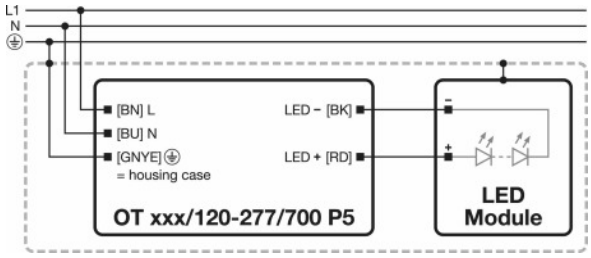
Certificates & standards

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 / CCC

Logistical data

Temperature range at storage	-25…80 °C

Wiring Diagram



Wiring diagram

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
	Certificates CB Certificate OT100-180-250P5
	Declarations of conformity CE Conformity OT xx700 P5

Logistical Data

Product code	Product description	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Volume	Gross weight
4052899259065	OT 100/120...277/700 P5	Shipping carton box 20	491 mm x 287 mm x 217 mm	30.58 dm^3	14475.00 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.