

## OT FIT 80/220-240/24 P

### Constant Voltage LED driver for outdoor

#### Benefits

- Small housing design
- Robust and reliable for outdoor applications
- UV resistant
- Salt mist resistant

#### Applications

- Outdoor areas for hotels, residentials, facades
- Public squares and architecture lighting
- Suitable for indoor and outdoor SELV installations



Housing material: metal

\* image for information purpose only

#### Approvals



Valid only if printed on product. When not printed on product label, they are under evaluation.

L	167 mm	Total length
L1	153 / 27 mm	Holes interaxis
B	53 mm	Width
H	31.5 mm	Height

### Product Features

- Suitable for Class I luminaires
- SELV,  $V_{out}$ : 24.2 V
- Wide  $t_a$  range -40...+50°C
- Overload/Over temperature/Short circuit protection, automatic, reversible
- Smart Power Supply
- $t_c$  max = 90°C
- Efficiency of 88.5%
- High surge protection: up to 4 kV (L-N) / 6 kV (L/N-PE)
- Low THD < 5%
- Low ripple < 2%
- Input voltage: 220–240 V<sub>AC</sub>
- 50'000 h lifetime at  $t_c$  80°C
- 5 years guarantee\*

\*10% cumulated failure

## Electrical specification

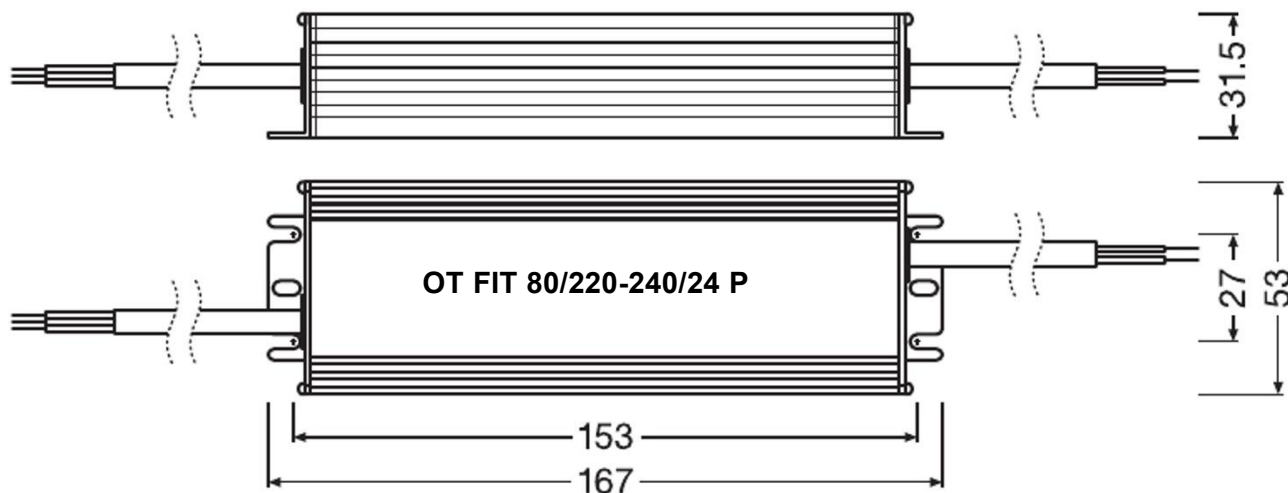
	Item	Value	Unit	Remarks
INPUT	Nominal line voltage	220 – 240	V <sub>ac</sub>	
	Mains line frequency	50 / 60	Hz	
	AC voltage range	198 – 264	V	Permitted voltage range
	Nominal current	0.41	A	Full load, 230 V <sub>ac</sub> , 50 Hz
	Total Harmonic Distortion (THD)	< 5	%	Full load, 230 V <sub>ac</sub> , 50 Hz, see graphs
	Power factor λ	0,95		Full load, 230 V <sub>ac</sub> , 50 Hz, see graphs
	Efficiency in full load	88.5	%	Typical, Full load, 230 V <sub>ac</sub> , 50 Hz, see graphs
	Device power loss	10.3	W	Full load, 230 Vac, 50 Hz, Typical
	Intended for no-load application	No		Secondary switching not allowed
	Protection class	I		
	Suitable for fixtures with prot. Class	I		
	Inrush current	50	A	Full Load, 240 V <sub>ac</sub> , Cold Start Duration = 250 μs, 50% / 50% I <sub>pk</sub>
	Max. units per circuit breaker:			
	Max. ECG no. on circuit breaker 10 A (B)	17		
	Max. ECG no. on circuit breaker 16 A (B)	27		
	Max. ECG no. on circuit breaker 25 A (B)	60		
	Max. ECG no. on circuit breaker 10 A (C)	22		
Max. ECG no. on circuit breaker 16 A (C)	35			
Max. ECG no. on circuit breaker 25 A (C)	60			
OUTPUT	Nominal voltage	24.2	V	
	Voltage accuracy	± 3	%	
	U-OUT (working voltage)	<25.5	V	
	Voltage ripple	< 2	%	Ripple / average @ 100 Hz; Full load
	Nominal output power	80	W	Smart Power Supply
	Power range	40 – 80	W	EMI verified. PF (λ) and THD between 56-80 W
	Capacitive load	20	μF/A	Linear modules allowed
	Galvanic isolation	SELV		
ENVIRONMENTAL	Ambient temperature range	-40...+50 +50...+70	°C	Full load, t <sub>c</sub> not exceeded Load derating, t <sub>c</sub> not exceeded, refer to graph
	Max. temperature at t <sub>c</sub> test point	+90	°C	Measured on t <sub>c</sub> point indicated of the prod label, t <sub>a</sub> not exceeded
	Storage temperature range	-40...+85	°C	
	Permitted rel. humidity during operation	5 – 85	%	Not condensing
	Surge capability (L / N)	4	kV	acc to. EN 61547
	Surge capability (L – N / PE)	6	kV	acc to. EN 61547
	Environmental rating	Outdoor		
	IP protection class	IP 66 & IP 67		
	Mains switching cycles	> 100000	cycles	@ t <sub>a</sub> = 25°C
	Expected ECG lifetime	50000	h	@ t <sub>c</sub> = 80°C – 0.2% / 1000 h failure rate
	No-load proof	Yes		
	Intended for no-load operation	No		
	Overheating protection	Yes		Auto reversible
	Overload protection	Yes		Auto reversible
	Short-circuit protection	Yes		Auto reversible
	Type of connection	Cables		
	Dimensions	167 x 53 x 31.5	mm	L x W x H
	Holes interaxis	153	mm	
	Weight	500	g	
Casing material	Metal			

<b>INPUT</b>	Colour L / N / GND	Blue / Brown / Yellow and green		
	Cable cross section	1.0	mm <sup>2</sup>	H05RN-F/3x1.0 mm <sup>2</sup>
	Wire preparation length	60	mm	
	Wire peeling length	10	mm	
<b>OUTPUT</b>	Lead length	300	mm	
	Colour + and -	Red / Black		
	Cable cross section	1.0	mm <sup>2</sup>	H05RN-F/2x1.0 mm <sup>2</sup>
	Wire preparation length	60	mm	
	Wire peeling length	10	mm	
	Lead length	300	mm	

### Led wire length

EMI pass verified with wire length from the ECG to the LED module at full load at 3 m.  
 Longer wiring is possible, with recommendation up to 10 m length. Site installation conditions may interfere with EMI with such longer cables.  
 For longer lengths than 10 m, cable cross section must be increased to reduce voltage drop. EMI not verified in this condition.

### Product drawing

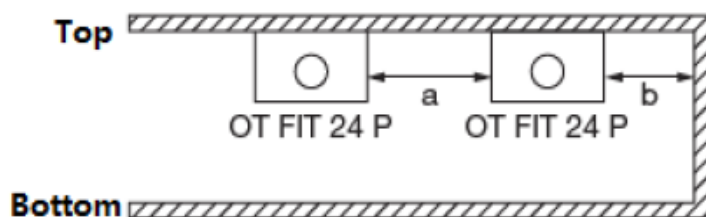


### Protection

Over temperature, Overload, Short-circuit. Auto reversible.

### Installation requirements

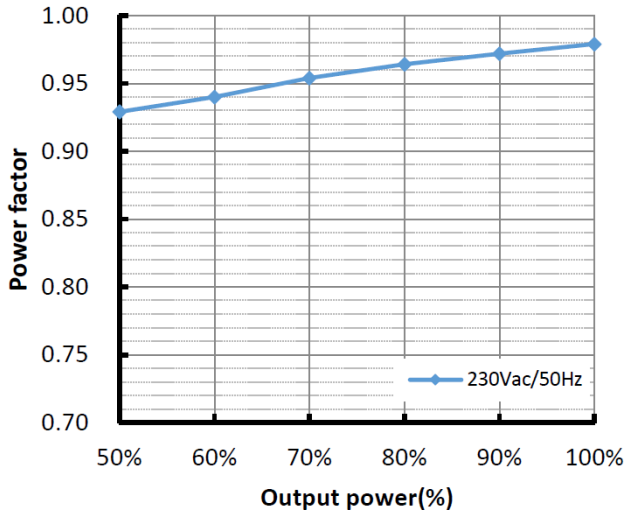
Keep enough distance from the ceiling corner or other drivers to avoid overheat. The driver is not allowed to be covered by flammable materials. At critical conditions showed by below picture (Full load,  $t_a=50^\circ\text{C}$ , driver on the corner of ceiling), refer to below distances. At normal installation conditions, distances can be shorter but temperature at  $t_c$  point must within  $t_c$  max.



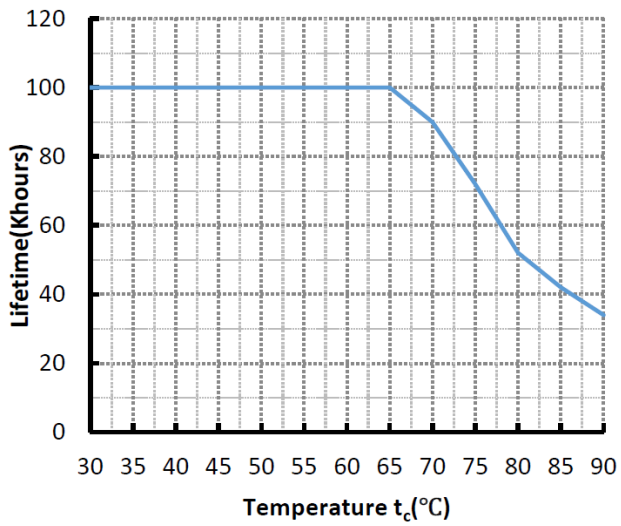
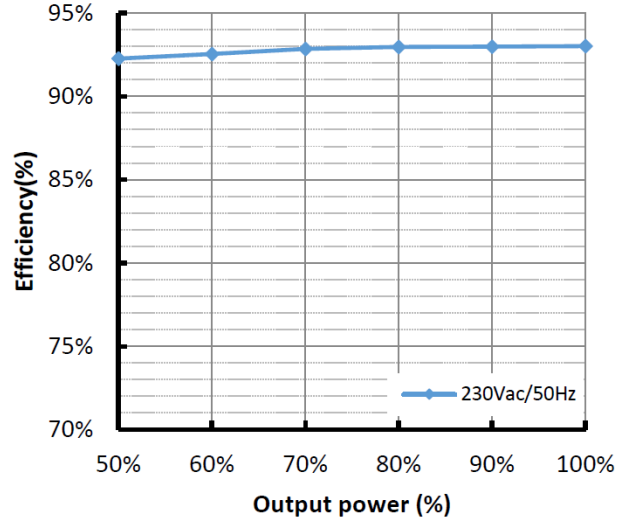
a:  $\geq 1\text{cm}$ ; b:  $\geq 1\text{cm}$

For further details on application, please refer to user instruction

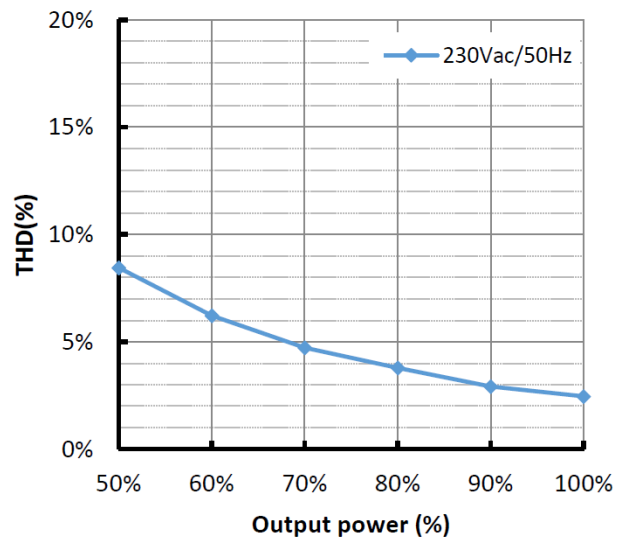
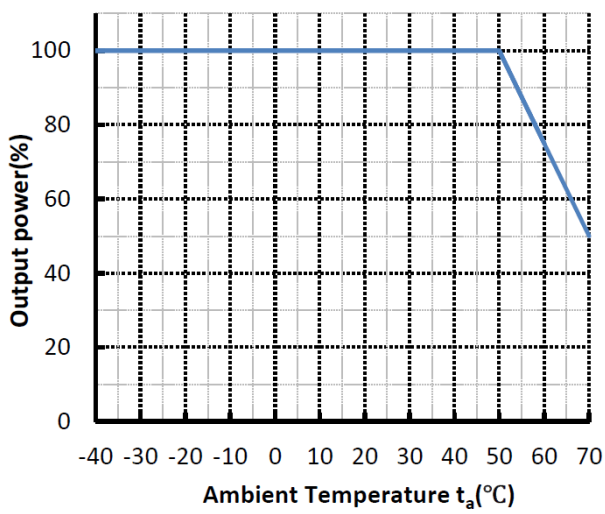
OPTOTRONIC® LED Power Supply



OT FIT 80/220-240/24 P



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## Remarks

- **Output short circuit protection:** auto reversible when fault removed.
- **Output overload protection:** auto reversible when fault removed.
- **Over temperature protection:** the unit is protected against temporary overheating by shutting the unit down, auto reversible when temperature decreases.
- Temperature on  $t_c$  point must not exceed indicated  $t_c$  max. Derating for LED load is necessary if  $t_a$  is higher than 50°C.
- **Waterproofing:** use waterproof connectors (IP66&IP67) for the connection between driver and mains, driver and LED modules.
- Replacing driver cables will damage the driver
- **Dimming compatibility:** the OT FIT driver is able work with Inventronics dimmer as dimmable solution. It is recommended to check the performance of total system in design-in stage.
- **No-load conditions:** hot plug-in or secondary switching of LEDs is not permitted. Please take care to switch the driver off via L. Do not put switch between ECG and LED load.
- 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.
- **Application:** the driver is intended for supply power to 24 V LED light sources like – but not limited to – Inventronics LINEARlight FLEX® and TecFlex LED flexible strips, Inventronics BackLED® and BoxLED® 24 V modules, Inventronics LINEARlight® Rigid FINESSE systems.
- **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.

## Standards

## Ordering information

EN 61347-1

EN 61347-2-13

EN 55015

EN 61547

EN 61000-3-2

EN 61000-3-3

EN 60598-1

EN 62384

Product name	EAN 10	EAN 40	Pieces / box
OT FIT 80/220-240/24 P	6937186115034	6937186115041	15

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