

## OT FIT 300/220-240/12 P

### 12 V Constant Voltage LED driver

#### Benefits

Small housing design for target application installation.  
 Versatile scope of application due to output power range of up to 300W.  
 Robust and durable design for outdoor application.



#### Applications

Signage lighting, channel letter lighting, backlighting, etc...  
 Suitable for indoor and outdoor SELV installations

#### Approvals



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

Housing material:  
 natural anodized aluminum

\* image for information purpose only

L	266 mm
L1	251 mm
B	83 mm
H	39,5 mm

## Product Features

- Suitable for Class I luminaire
- SELV, Vout: 12,5 V
- Wide  $t_a$  range  $-40^{\circ}\text{C} \dots +70^{\circ}\text{C}$
- Driver with output power range to 300 W
- High efficiency up to 91%
- Smart Power Supply
- THD <5% at full load
- High IP protection (IP66 / IP67)
- High surge protection: up to 6 kV (L-N), 6 kV (L/N-PE)
- Mains voltage: 220 – 240 V<sub>AC</sub>
- Overload protection
- Over temperature protection
- Short circuit protection
- 50'000 h lifetime at  $t_c$  90°C
- 5 years guarantee\*

\*10% cumulated failure,

## Electrical specification

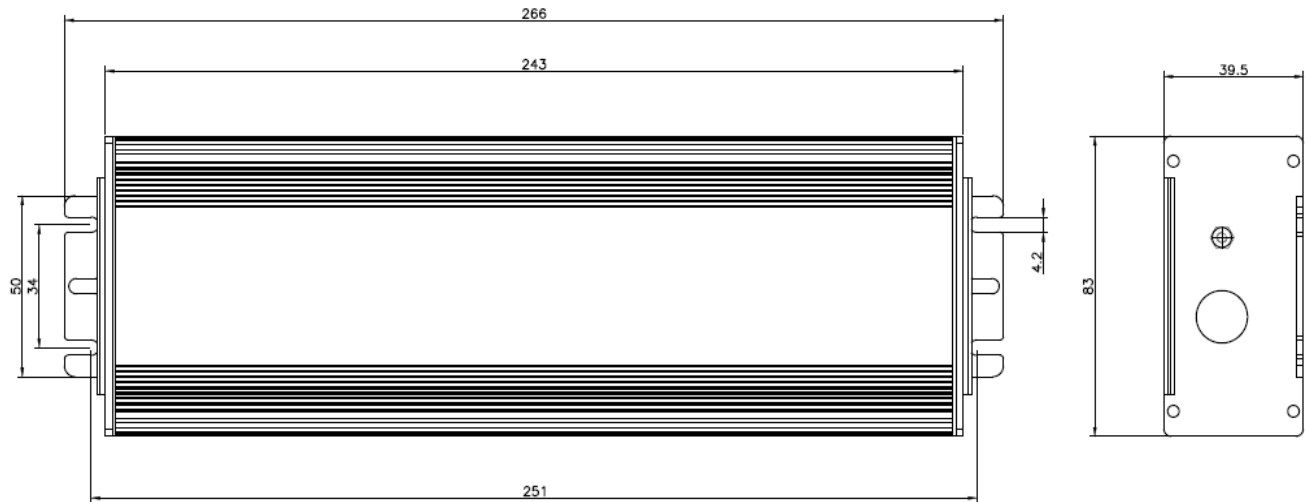
	Item	Value	Unit	Remarks
INPUT	Nominal voltage	220 - 240	V	
	Mains frequency	50 / 60	Hz	
	Input voltage AC	198 - 264	V	
	Nominal current	1.8	A	Full load, 230 V <sub>AC</sub> , 50 Hz / 60 Hz
	Total Harmonic Distortion (THD)	< 5	%	Full load, 230 V <sub>AC</sub> , 50 Hz / 60 Hz
	Power factor λ	0.96...0.99		50-100 % load, 230 Vac, 50 Hz. See graphs
	Efficiency in full load	91	%	Typical, Full load, 230 V <sub>AC</sub> , 50 Hz
	Device power loss	28	W	
	Intended for no-load application	No		Secondary switching not allowed
	Protection class	I		
	Suitable for fixtures with prot. Class	I		
	Inrush current	70	A	At Full Load ,240 V <sub>AC</sub> , Cold Start Duration=800 μs 50% I <sub>pk</sub> —50% I <sub>pk</sub>
	Max. ECG no. on circuit breaker 10 A (B)	2		
	Max. ECG no. on circuit breaker 16 A (B)	4		
	Max. ECG no. on circuit breaker 25 A (B)	6		
	Max. ECG no. on circuit breaker 10 A (C)	4		
Max. ECG no. on circuit breaker 16 A (C)	7			
Max. ECG no. on circuit breaker 25 A (C)	10			
OUTPUT	Nominal output voltage	12,5	V	
	Voltage accuracy	+/- 3	%	
	Voltage ripple	< 3	%	V <sub>pk-pk</sub> at 100 Hz; Full load
	Nominal output power	300	W	
	Maximum output power	300	W	At steady state
	Capacitive load	20	μF/A	Linear modules allowed
	Galvanic isolation	SELV		
	U-OUT (working voltage)	13	V	
ENVIRONMENTAL	Ambient temperature range	-40...+50	°C	At full load, t <sub>c</sub> not exceeded
		+50...+70		Load derating, t <sub>c</sub> not exceeded. See graphs
	Max. temperature at t <sub>c</sub> test point	90	°C	Measured on t <sub>c</sub> point, 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)	6	kV	L/N acc to. EN 61547
	Surge capability (L-N/PE)	6	kV	L-N/PE acc to. EN 61547
	Environmental rating	Outdoor		
	IP protection class	IP 66 / IP 67		
	Mains switching cycles	> 100'000	cycles	At t <sub>a</sub> = 25°C
	Expected ECG lifetime	50'000	h	t <sub>c</sub> = 90°C - 0,2% / 1'000 h failure rate
	No-load proof	Yes		Auto recovery
	Intended for no-load operation	No		
	Overheating protection	Yes		Auto recovery
Overload protection	Yes		Auto recovery	
Short-circuit protection	Yes		Auto recovery	
DIMENSION	Height	39.5	mm	
	Length	266	mm	Includes mounting hangers
	Width	83	mm	
	Casing material	Metal		natural anodized aluminum
	Mounting hole spacing, length	251	mm	
	Net weight	1510	g	

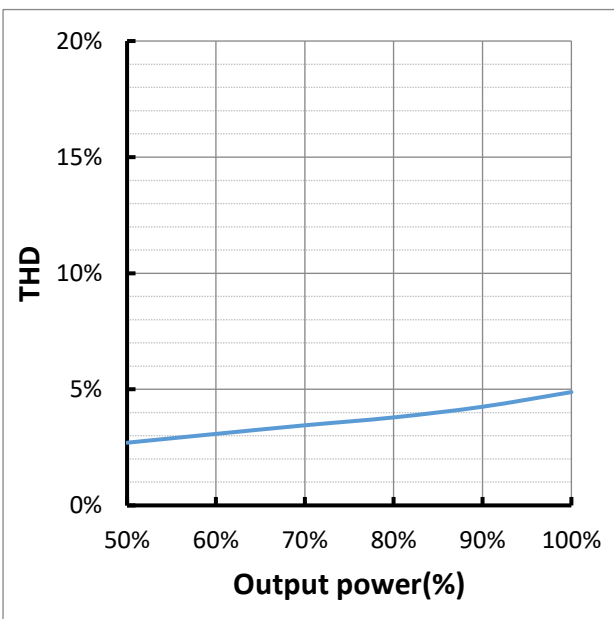
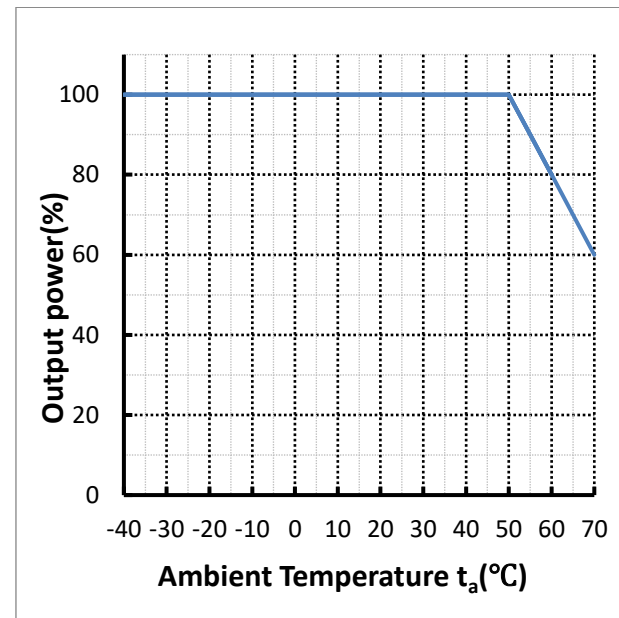
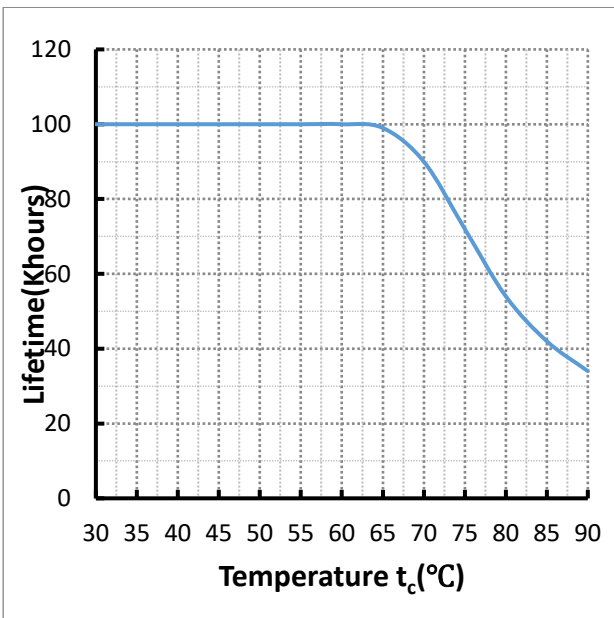
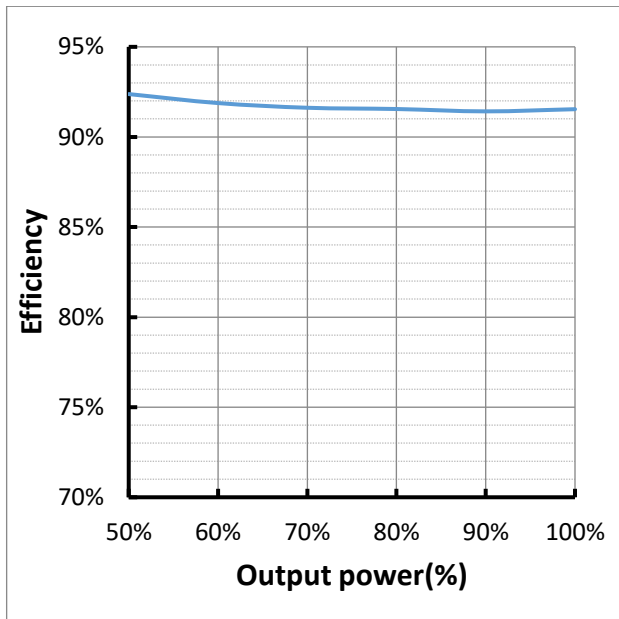
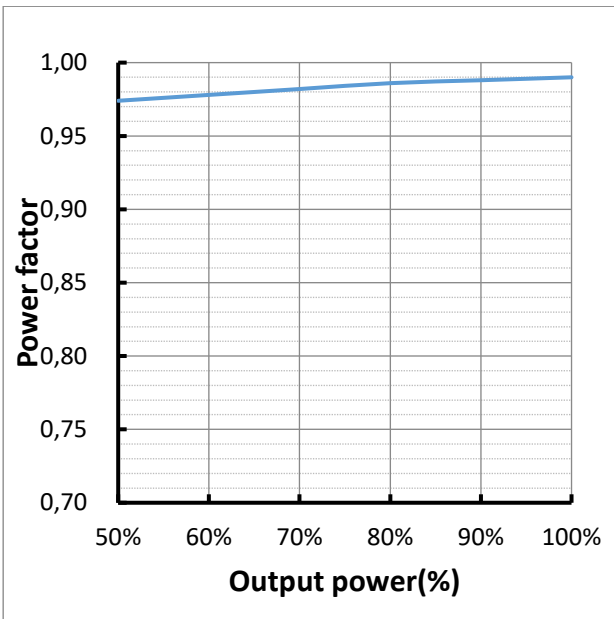
INPUT	Colour L / N / GND	Blue / Brown/ Yellow and Green		
	Cable cross selection	1,0	mm <sup>2</sup>	H05RN-F/3x1.0 mm <sup>2</sup>
	Wire preparation length	60	mm	
	Wire peeling length	10	mm	
	Lead length	300	mm	
OUTPUT	Colour + and -	Red / Black		
	Cable cross selection	2,5	mm <sup>2</sup>	H05RN-F/2x2.5 mm <sup>2</sup>
	Wire preparation length	60	mm	
	Wire peeling length	10	mm	
	Lead length	300	mm	

### Protection

Over temperature, Overload, Short-circuit, open-circuit, Reversible.

### Dimensions:



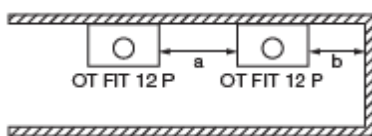


— OT FIT 300/220-240/12 P

## Remarks

- **Output short circuit protection:** self-restoring.
- **Output overload protection:** auto reversible when fault removed.
- **Over temperature protection:** the unit is protected against temporary overheating by hiccup protection, auto reversible when temperature decreases. Temperature on  $t_c$  point must not exceed  $t_c$  max. Derating for LED load is necessary if  $t_a$  is higher than  $50^\circ\text{C}$ .
- **No load operation:** please take care to switch off the driver via L. Hot plug-in or secondary switching of LEDs is not permitted.
- 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.
- **Waterproof:** the driver is designed for outdoor installation with IP66 / IP67 protection grade. Input and output cables must be connected by means of a sealed cable clamp.
- **LED wire length:** 10 m EMI verified. Max cable length of 10 m recommended. EMI may be interfered by on site installation condition with longer cable. For longer cable ( $> 10$  m), cable with larger cross section area is needed to cover voltage drop.
- **Exit cables:** the supplied, internally wired cables cannot be replaced; if the cord is damaged, the LED driver must be replaced.
- Keep enough distance from the ceiling corner or other drivers to avoid overheat. The driver must not 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, distance can be shorter but temperature at  $t_c$  point must be within  $t_c$  max.

### Top



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

### Bottom

For detailed application notes, please refer to user instructions.

- **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**

EN 61347-1  
EN 61347-2-13  
EN 55015  
EN 61547  
EN 61000-3-2  
EN 61000-3-3  
EN 60598-1  
EN 62384

**Ordering information**

Product name	EAN 10	EAN 40	Pieces / Box
OT FIT 300/220-240/12 P	6977770438651	6977770438668	10

Inventronics S.r.l.  
Via Castagnole 65/A  
31100 Treviso  
Italy  
[www.inventronicsglobal.com](http://www.inventronicsglobal.com)

The logo for Inventronics, featuring the word "inventronics" in a bold, lowercase, orange sans-serif font.