

OT FIT 60/220-240/12 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 60W.
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	157 mm
L1	153 mm
B	53 mm
H	31,5 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 60 W
- High efficiency up to 87%
- 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_{AC}
- Overload protection
- Over temperature protection
- Short circuit protection
- 50'000 h lifetime at t_c 80°C
- 5 years guarantee*

*10% cumulated failure,

Electrical specification

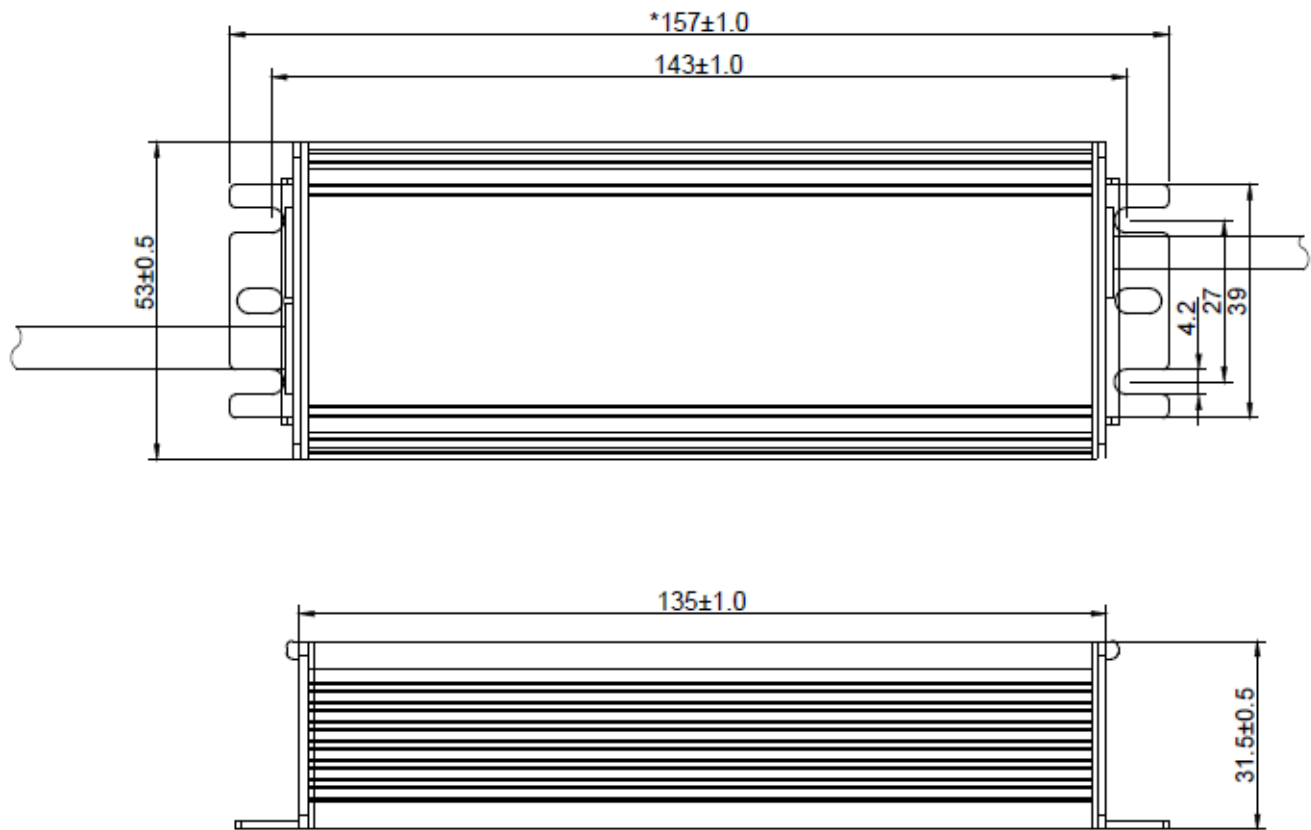
	Item	Value	Unit	Remarks
INPUT	Nominal voltage	220 - 240	V	
	Mains frequency	50 / 60	Hz	
	Input voltage AC	198 - 264	V	
	Nominal current	0.36	A	Full load, 230 V _{AC} , 50 Hz / 60 Hz
	Total Harmonic Distortion (THD)	< 5	%	Full load, 230 V _{AC} , 50 Hz / 60 Hz
	Power factor λ	0.90C...0.96		50-100 % load, 230 V _{AC} , 50 Hz. See graphs
	Efficiency in full load	87	%	Typical, Full load, 230 V _{AC} , 50 Hz
	Device power loss	8.6	W	
	Power loss in no load condition			Not applicable
	Protection class	I		
	Suitable for fixtures with prot. Class	I		
	Inrush current	45	A	At Full Load ,240 V _{AC} , Cold Start Duration = 250 μs 50% I _{pk} —50% I _{pk}
	Max. ECG no. on circuit breaker 10 A (B)	6		
	Max. ECG no. on circuit breaker 16 A (B)	13		
	Max. ECG no. on circuit breaker 25 A (B)	22		
	Max. ECG no. on circuit breaker 10 A (C)	14		
	Max. ECG no. on circuit breaker 16 A (C)	23		
	Max. ECG no. on circuit breaker 25 A (C)	36		
OUTPUT	Nominal output voltage	12,5	V	
	Voltage accuracy	+/- 3	%	
	Voltage ripple	< 3	%	V _{pk-pk} at 100 Hz; Full load
	Nominal output power	60	W	
	Maximum output power	60	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 _c not exceeded
		+50...+70		Load derating, t _c not exceeded. See graphs
	Max. temperature at t _c test point	80	°C	Measured on t _c point, t _a 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 _a = 25°C
	Expected ECG lifetime	50'000	h	t _c = 80°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	31.5	mm	
	Length	157	mm	Includes mounting hangers
	Width	53	mm	
	Casing material	Metal		natural anodized aluminum
	Mounting hole spacing, length	143	mm	
	Net weight	473	g	

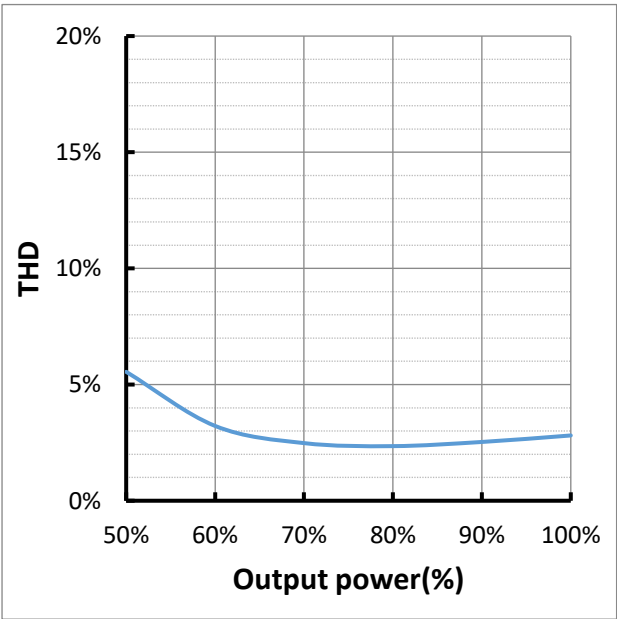
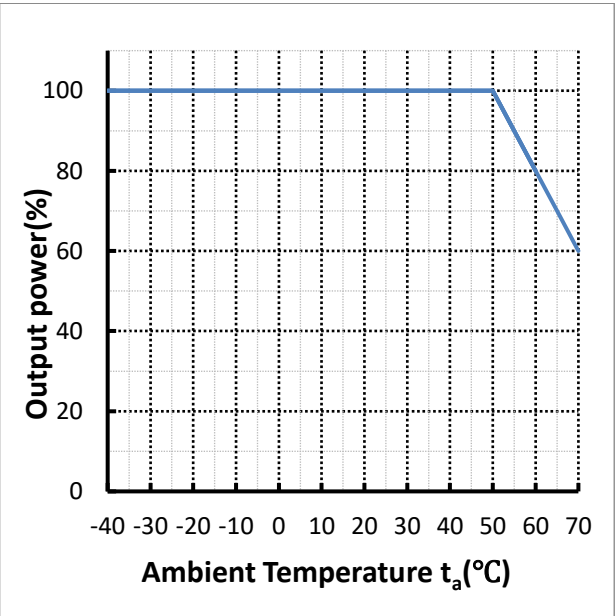
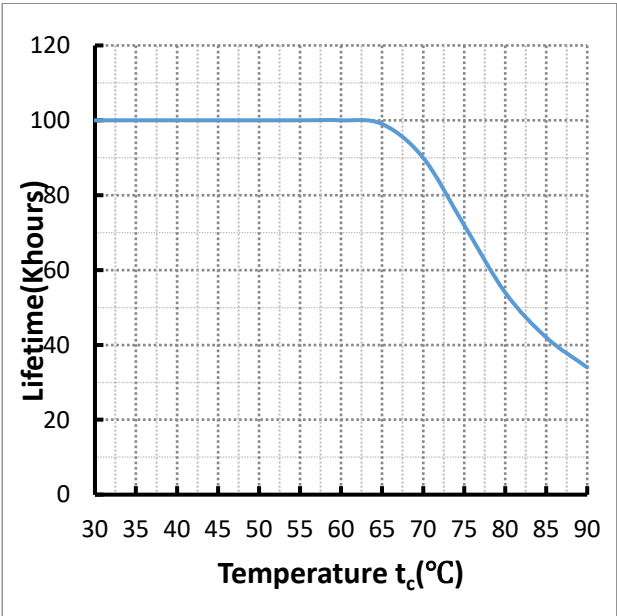
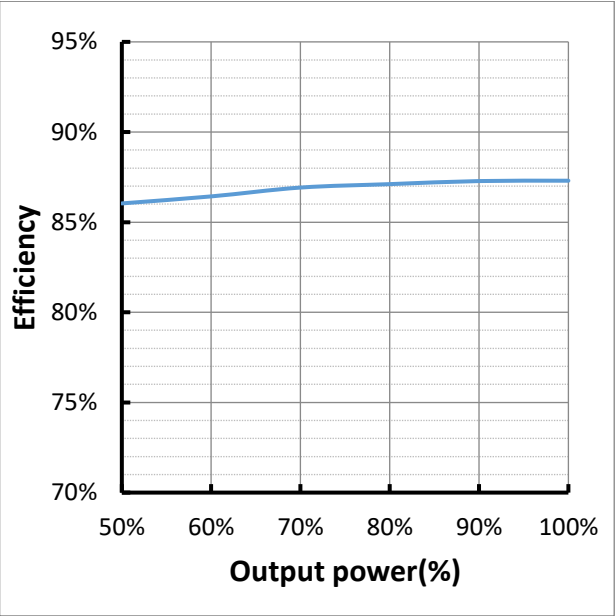
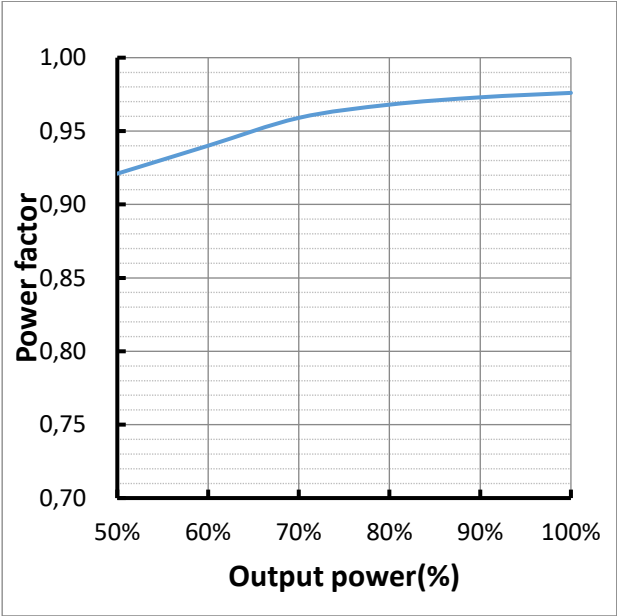
INPUT	Colour L / N / GND	Blue / Brown/ Yellow and Green		
	Cable cross selection	1,0	mm²	H05RN-F/3x1.0 mm²
	Wire preparation length	60	mm	
	Wire peeling length	10	mm	
	Lead length	300	mm	
OUTPUT	Colour + and -	Red / Black		
	Cable cross selection	1,0	mm²	H05RN-F/2x1.0 mm²
	Wire preparation length	60	mm	
	Wire peeling length	10	mm	
	Lead length	300	mm	

Protection

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

Dimensions:

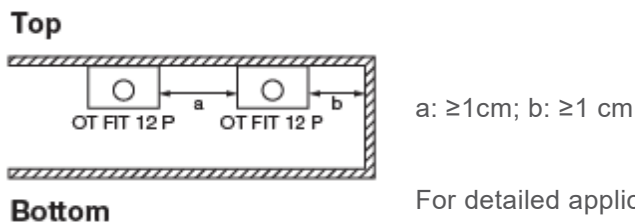




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Remarks

- **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°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.



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 60/220-240/12 P	6977770438613	6977770438620	15

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