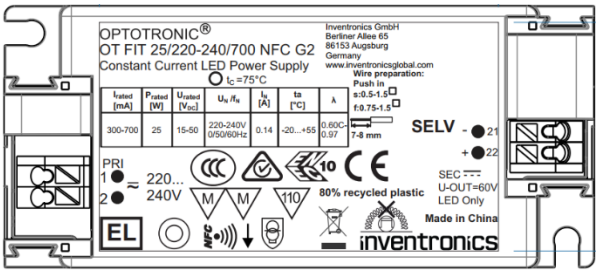
OPTOTRONIC®

OT FIT 25/220-240/700 NFC G2

Compact constant current LED driver
Wide operating window
NFC programming interface

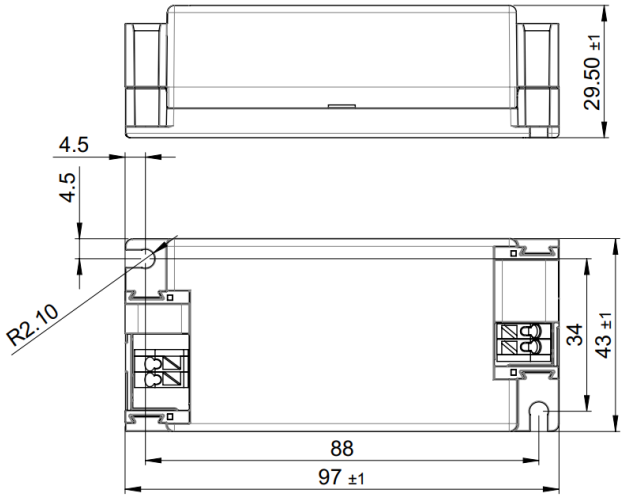


Benefits

Super compact SELV window LED driver 25W
Fast programming via NFC, including box programming
Suitable for emergency lighting units
For built-in installations
Independent installation possible with optional cable clamps
Housing made of 80% recycled plastic

Applications

Spots and downlights
Office, shop, hospitality



Approval marks
CE, ENEC, RCM, CCC, BIS, EL

- In preparation if not already printed on the label

Size (L x W x H) mm: 97 x 43 x 29.5
Housing material: 80% recycled plastic, white
Product Weight: 106g

Product Features

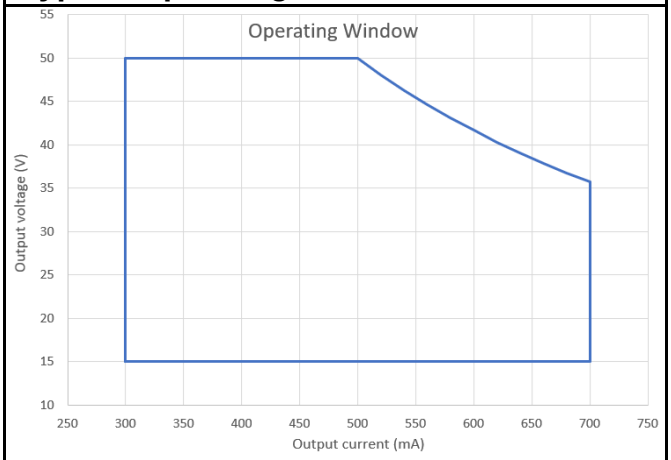
- Output current range: 300 – 700mA
- Wide output voltage range 15 – 50VDC
- Typ. Efficiency: 89 %
- Low output current ripple < 5 %
- NFC interface including Box Programming
- Suitable for emergency lighting
- 100’000h lifetime at tc max-10°C =65°C
- 5 years guarantee
- Suitable for class I and II luminaires
- Cable clamps for independent installation

Electrical Specifications

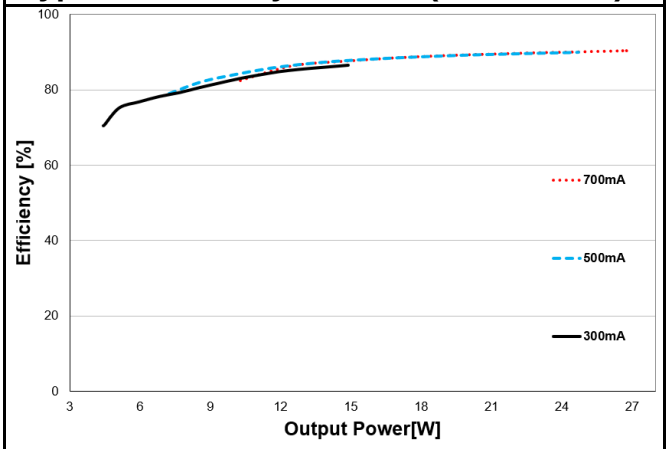
	Item	Value	Unit	Remarks
INPUT	Nominal Voltage	220 – 240	V	
	Nominal frequency	0 / 50 / 60	Hz	
	AC voltage range	198 – 264	V	
	DC voltage range	176 – 276	V	
	Maximum voltage	320	VAC	2 h maximum, will not operate in this abnormal condition
	AC Nominal current	0.14	A	Full load, 230V, 50Hz
	DC Nominal current	0.137	A	Full load, 230V
	Total Harmonic Distortion (THD)	< 20	%	Full load, 230 V, 50 Hz / see graphs
	Power factor	0.97		Full load, 230 V, 50 Hz / see graphs
	Efficiency (declared value)	89	%	Full load, 230 V, 50 Hz, typical / see graphs
	Power losses	2.8	W	@230V, Input power 27.8W max.
	No-load power	n/a	W	Load switching on output side is not permitted
	Networked stand-by power (declared value)	n.a.	W	
	Protection class	II		Suitable for fixtures with protection class I or II
	Leakage current	< 0.7	mApk	
	Inrush current	20	A pk	twidth = 160µs typical (measured at 50% Ipeak)
	Max. units per circuit breaker	B10: 25; C10: 43 B16: 41; C16: 69 B25: 64; C25: 108	pcs	
OUTPUT	Nominal voltage range	15 – 50	VDC	
	Maximum voltage	≤ 60	VDC	w/ Open Circuit
	Nominal current range	300 – 700	mA	Default current 300mA
	Current accuracy	+/- 5	%	
	Current ripple 100Hz	< 5	%	
	PSTLM	< 1		
	SVM	< 0.4		
	Nominal power range	4.5 – 25.0	W	
	Maximum power	25.0	W	
	Emergency output factor (EOFi)	0.3		EOFi = 0.3, @Ta=80 ℃
		1		EOFi = 1, @Ta=55 ℃
	Galvanic isolation	SELV		Mains to LED output
DIMMING	Dimming control	n.a.		
	Dimming range	n.a.	%	
	Dimming methode	n.a.		
	Radio frequency	n.a.	GHz	
	Max TX power	n.a.	dBm	
	Wireless protocol	n.a.		
	Wireless range	n.a.	m	Line of sight
FEATURES	Operating current	Yes		
	CLO	No		
	Tuning factor	No		
	Driver guard	No		
	Soft switch-off	No		
	Dim to dark	No		
	Emergency	Yes		
	Configuration lock	No		
	Box programming	Yes		
	DALI settings	No		
	DALI part 251	No		Luminaire info
	DALI part 252/253	No		Monitoring data
ENVIRONMENT	Ambient temperature range t_a	-20 …+55	°C	
	Maximum case temperature t_c	75	°C	Measured on t_c point indicated of the product label
	Max. case temp. in fault condition	110	°C	
	Storage temperature range	-25 …+85	°C	
	Relative humidity	5 ... 85	%	Not condensing
	Surge transient protection	1 | 2	kV	L/N | LN/PE acc to. EN 61547 Clause 5.7
	Environmental rating	Indoor		
	IP rating	IP 20		
	Mains switching cycles	> 150’000		
	Expected lifetime	50’000 100’000	hrs	@tcmax = 75 °C, 10% failure rate @tcmax -10°C = 65 °C, 10% failure rate
PROTECTIONS	Over temperature	Yes		
	Overload	Yes		Automatic, reversible
	No load	Yes		Limitation of Output voltage ≤ 60V
	Short-circuit	Yes		Automatic, reversible
	Output overvoltage	Yes		Limitation of Output voltage ≤ 60V

Electrical characteristics

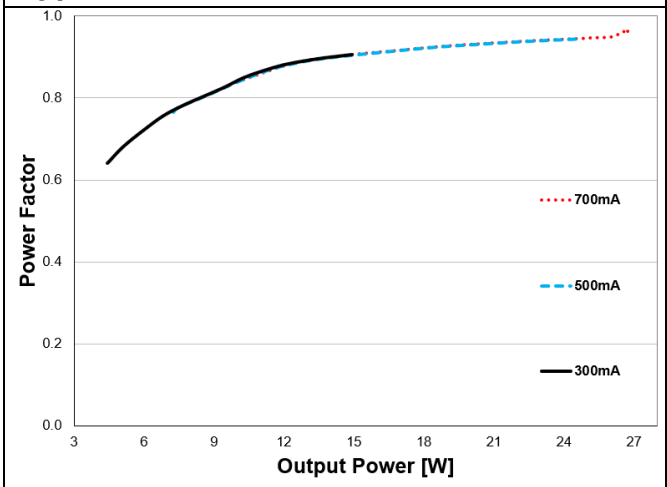
Typical Operating window



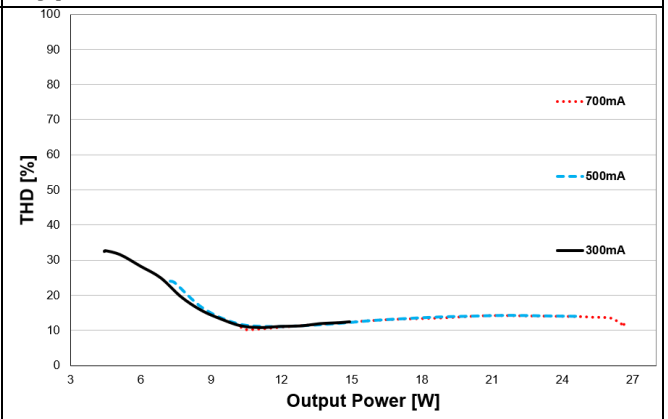
Typical Efficiency vs Load (230V/ 50Hz,)



Typical Power factor vs Load



Typical THD vs Load



Reset

n.a.

Wiring Diagram

Input wires
Wire cross-section:
with D-style cable clamp: 0.75-1.5 mm²;
with D-style TL cable clamp: 0.75-2.5 mm²;
without cable clamp: 0.5-1.5 mm²
Wire peeling length: 7-8 mm

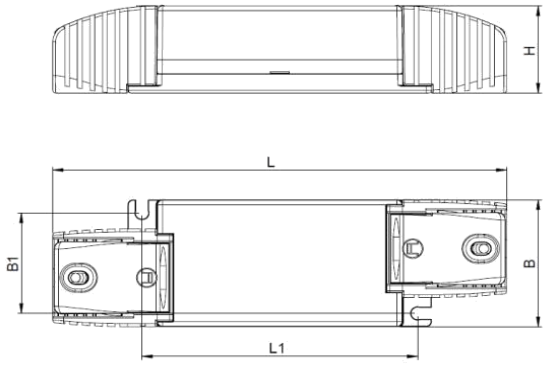
Load wires length: 2m max.

Wire cross-section: 0.5-1.5 mm²

Wire peeling length: 7-8 mm

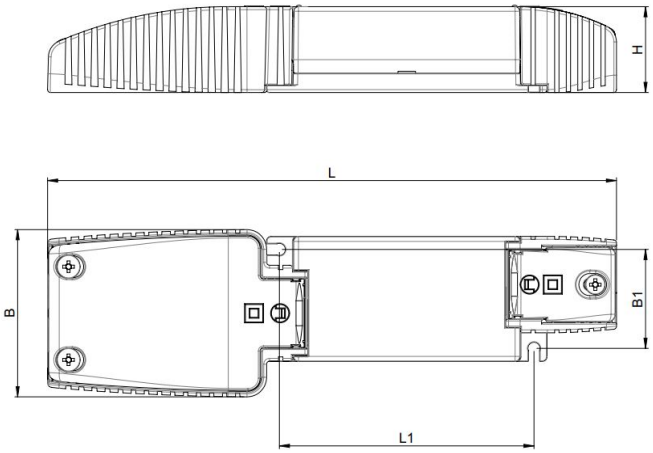
For independent type

An optional cable clamp is available. This cable clamp can be snapped into the driver and thus converts it into an independent installation.



L	145mm
L1	88mm
B	43mm
B1	34mm
H	29.5mm

A special input cable clamp with through-looping possibility is also available (Max. through-looping current: 10A).



L	197mm
L1	88mm
B	58mm
B1	34mm
H	29.5mm

Remarks

- Input over voltage protection: mains up to 320 Vac, for 2 hours maximum, will not destroy both the unit and the load; shut down of load will occur, if line voltage exceeds typically 285V.
- The output wires to the LED module shall be in parallel and close together
- Output short circuit protection: short circuit operation indicated if output voltage is typically below 15V. No shut down occur. This operation mode is safe for the unit but is not recommended.
- Output overload protection: the unit automatically reduces the output current to keep the output power below the max limit.
- Output over voltage protection: the unit tries to stabilize the output voltage below 50V by reducing the current as necessary down to 50%; if output voltage still exceeds 50V shutdown will occur; the unit tries to automatically switch on the load again every 4-5 sec for 0.1 sec delivering the selected nominal output current.
- No load operation: the unit tries to automatically switch on the load again every 4-5 sec for 0.1 sec delivering the selected nominal output current; this operation mode is safe for the unit but is not recommended. Do not put a switch between load and unit.
- Over temperature protection: the unit is protected against temporary overheating by automatic reduction of the output current (up to a complete power off) when tc > tc max. The protection is self-restoring.
- Emergency lighting: this LED power supply is suitable for emergency lighting fixtures acc. to EN 60598-2-22., with emergency output factor EOFI=0.40 (default value, can be programmed up to EOFI=1) and related duration time of 4h at least. Function in emergency is ensured up to ta=80°C.
- For built-in type: Controlgear relies upon the luminaire enclosure for protection against accidental contact with live parts.
-  : Double or reinforced insulation between live parts and external parts which contact with the luminaire.
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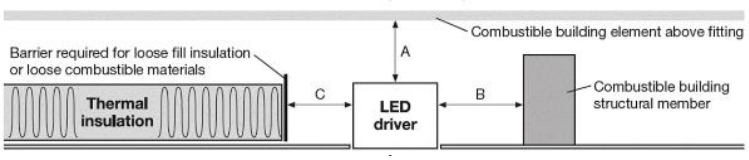
- Hot plug-in or secondary switching of LEDs is not permitted and may cause a very high current to the LEDs
- **For <u>Australia / New Zealand</u>**: Do-not-cover (LED driver with cable clamp)
- The independent LED driver cannot be abutted against or covered by normally flammable materials or used in installations where building insulation or debris is, or may be, present in normal use. No use for residential installations. The minimum clearance distance from the top and sides of the independent LED driver to normally flammable building elements is A=B=C=**10mm**.
- 

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 IEC 55015; EN 61547; EN IEC 61000-3-2; EN 61000-3-3; EN IEC 62384; ETSI EN 300 330; ETSI EN 301 489-3; ETSI EN 301 489-1

Ordering information

Product name	EAN10	Pieces / box
OT FIT 25/220-240/700 NFC G2	6977078993487	20
OT CABLE CLAMP D-STYLE	4062172345507	40
OT CABLE CLAMP D-STYLE TL	4062172349185	20

Disclaimer

Subject to change without notice. Errors and omission accepted. Always make sure to use the most recent release. The latest release of the datasheet is available under the following link www.inventronicsglobal.com

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