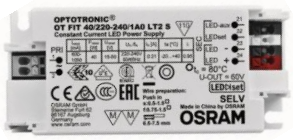
Light is OSRAM

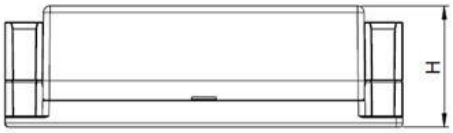
Product data sheet: OT FIT 40/220-240/1A0 LT2 S



SELV Constant current LED driver

Wide operating area up to 1050mA

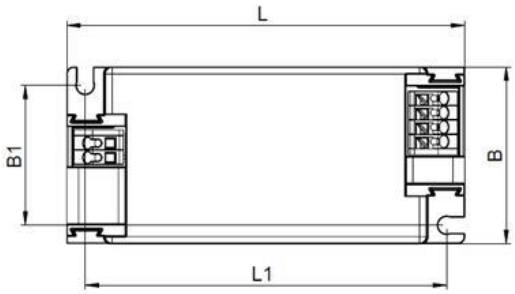
The reliable component when LEDset flexibility, small dimensions and low ripple are requested.



Benefits

Wide operating range: 500 – 1050 mA
Low ripple
Adjustable current via LEDset
Long lasting and high reliability

Built-in and independent mounting (with opt. kit)



Approvals (Under preparation if not shown on label)

SELV

Applications
Downlight and spot.
Office – industrial – shop

Housing material: plastic, white.

L	97 mm
L1	88 mm
B	43 mm
B1	34 mm
H	29.5 mm

Product Features

- Output current range 500 – 1050 mA
- Low ripple <1%
- Small and standard dimensions
- SELV, Uout: 15 – 50 V_{DC}
- Output power up to 40 W
- Mains voltage 220 – 240 V
- Overload protection
- Over temperature protection
- 80’000 h lifetime at t_c = 65°C
- t_c max = 75 °C
- Wide t_a range -20 – +40 °C
- 5 years guarantee

Electrical Specifications

	Item	Value	Unit	Remarks
Input	Nominal voltage	220 – 240	V	
	Nominal frequency	50 / 60	Hz	
	AC voltage range	198 – 264	V	
	DC voltage range	N.A.		
	Maximum voltage	280	Vac	2 h maximum, unit might not operate in this abnormal condition
	Nominal current	0,18	A	
	Total Harmonic Distortion (THD)	< 12	%	Full load
	Power factor	> 0.97		Full load
	Efficiency	typical 87.5	%	Full load
	Power losses	6	W	Maximum, full load
	No-load power	tbd	W	
	Protection class	II		Suitable for class I and II luminaires
	Inrush current	15	A pk	
	Max. units per circuit breaker	B16: 30 B10: 20 B25: 42		
Output	Nominal voltage range	15 – 50	V	
	Maximum voltage	60	V	No load protection,
	Nominal current range	500-1050	mA	
	Current accuracy	+/- 5	%	+/- 5% through the LEDset interface.
	Current ripple	< 1	%	Ripple / average @ 100 Hz; Full load
	Nominal power range	13 – 40	W	
	Maximum power	40	W	LED output
	Galvanic isolation Primary/ Secondary	SELV 3.75	kV	Output to earth - Touch current < 0.7 mA
Dimming	Dimming control	No		
	Dimming range	N.A.		
	Dimming technique	N.A.		
	Frequency	N.A.		
	Galvanic isolation	N.A.		
Environment	Ambient temperature range t_a	-20 …+40	°C	
	Maximum case temperature t_c	75	°C	Measured on t_c point indicated of the product label, t_a not exceeded
	Max. case temp. in fault condition	110	°C	
	Storage temperature range	-40 …+85	°C	
	Relative humidity	5 ... 85	%	Not condensing
	Surge transient protection	1 / 2	kV	L/N acc to. EN 61547
	Environmental rating	Indoor		
	IP rating	IP 20		
	Mains switching cycles	> 100’000		
	Expected lifetime	50’000 80’000	h	t_c = 75°C, 0.2% / 1’000 h failure rate t_c = 65°C, 0.1% / 1’000 h failure rate

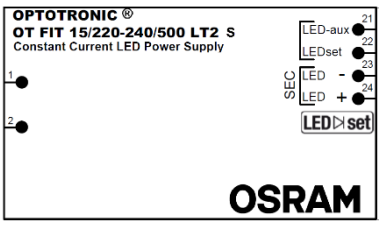
Protections

Overtemperature, Overload, No load, Short-circuit, Input overvoltage, Output overvoltage, Output undervoltage

See remarks on page 4.

Wiring Diagram

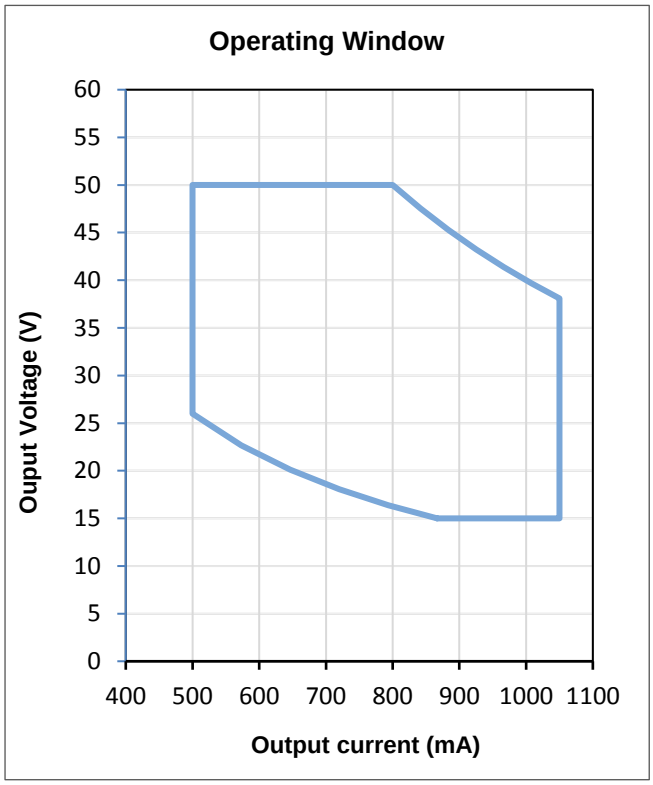
Input
Gray 1 - Mains
Gray 2 - Mains

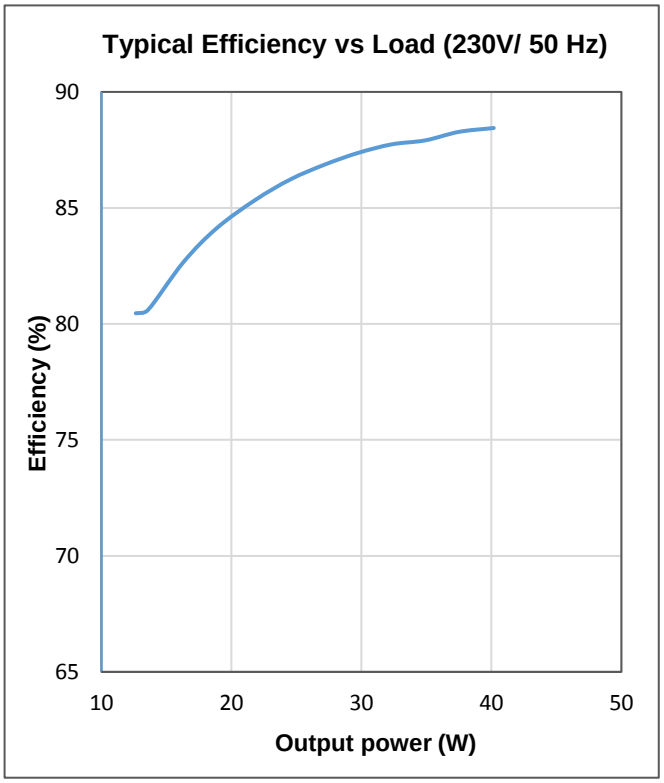


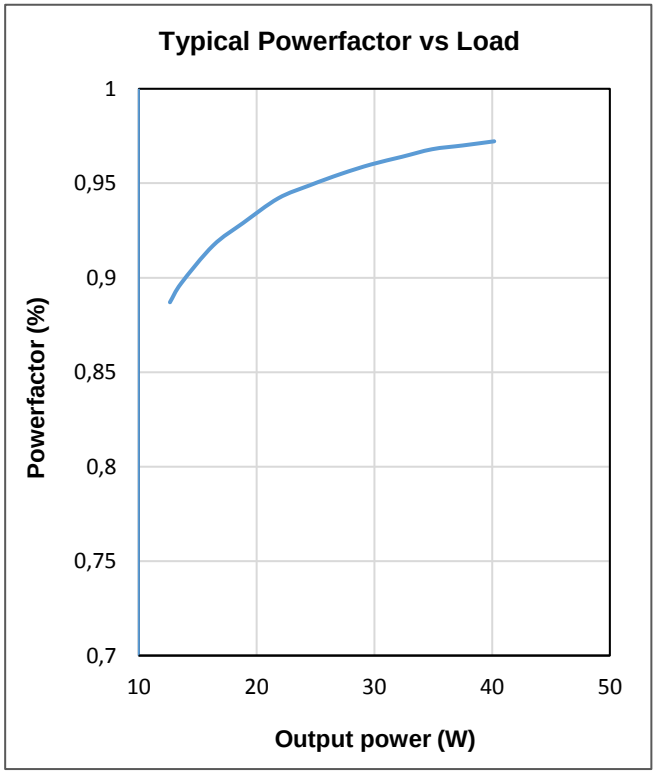
Output
Black 21 - LED-aux
White 22 - LEDset
Black 23 - LED -
Red 24 - LED +

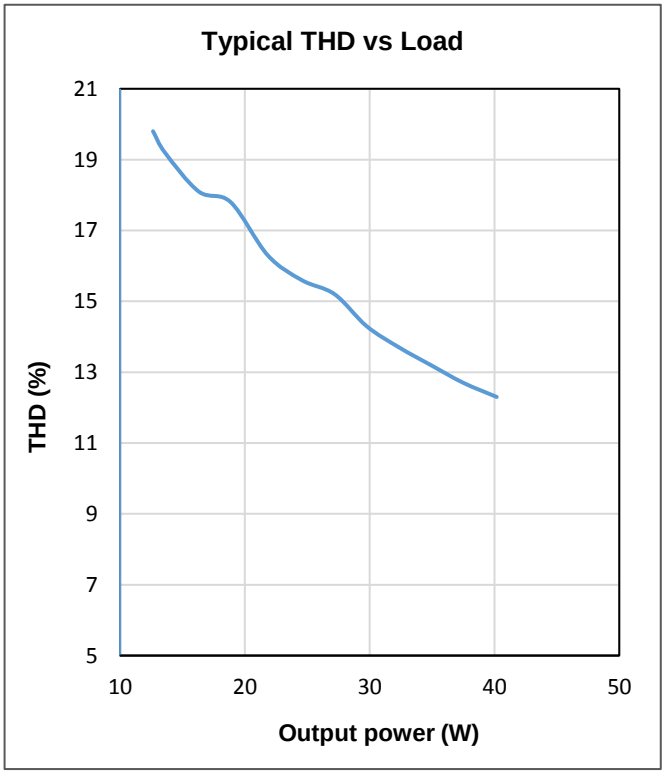
Load wires length: 2m max.

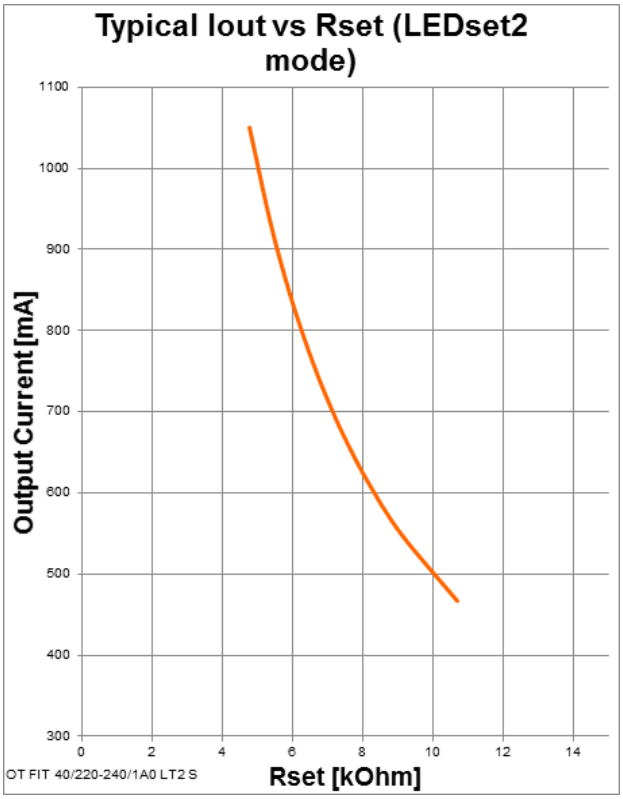
- Wires cross section: massive leads 0,5-1,5 mm^2 / flexible leads 0,5 – 1,5 mm^2
- Wire peeling length: 8-9 mm


Operating Window
Ouput Voltage (V)
60
55
50
45
40
35
30
25
20
15
10
5
0
400
500
600
700
800
900
1000
1100
Output current (mA)


Typical Efficiency vs Load (230V/ 50 Hz)
Efficiency (%)
90
85
80
75
70
65
10
20
30
40
50
Output power (W)


Typical Powerfactor vs Load
Powerfactor (%)
1
0,95
0,9
0,85
0,8
0,75
0,7
10
20
30
40
50
Output power (W)


Typical THD vs Load
THD (%)
21
19
17
15
13
11
9
7
5
10
20
30
40
50
Output power (W)



Rset formula and standard Iout values

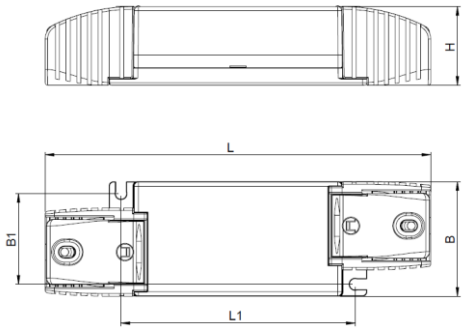
$$I_{OUT[A]} = \frac{5V}{R_{set[\Omega]}} \times 1000$$

Iout [mA] nominal	Iout [mA] actual	Rset [kOhm] E48 series
500	500	10
700	699	7.15
1000	978	5.11
1050	1078	4.64

Remarks

- **Input over voltage protection: mains up to 280 Vac,** for 2 hours maximum, will not destroy both the unit and the load; shut down of load might occur in this condition.
- **Output short circuit / under voltage protection:** no destruction of unit
- **Output overload protection**: the unit automatically reduces the output current to keep the output power below 42W.
- **Output over voltage protection**: the unit reducing the current to maximum power; if Urated still exceeds 56V unit goes into blinking mode
- **No load operation:** repetitive start trials, safe for unit. 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 when tc > xx °C. The protection is self-restoring.
- **Touch current**: lower than 0.7 mA, according to EN 60598-1 ann. G and EN 61347-1 ann. A

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



L	145mm
L1	88mm
B	43mm
B1	34mm
1	29.5mm

Standards

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

Ordering information

Product name	Type	EAN10	EAN40	NAED	Pieces / box
OT FIT 40/220-240/1A0 LT2 S		4052899957015	4052899957084		20
OT Cable Clamp D-Style		4052899077904	4052899077911		40

Disclaimer (Engineering Samples)

This product is a demonstration model from our development laboratories made available for your information only.
The model is not binding in respect to its fitness for use, i.e. service life, luminous flux, color temperature and performance.
Take heed of additional safety and handling notes. Prior to production the design, including dimensions, is subject to modification.
You will, therefore, appreciate that at this stage of development we are unable to assume any liability also for damages which may be caused by this product, as legally allowed, and insofar as OSRAM provides evidence for the permission of this exclusion.
Should you urgently require binding information for the preparation of construction data for your applications, please contact your OSRAM contact person.

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Created on 30.06.2017