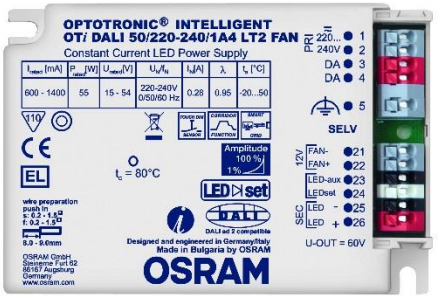
Light is OSRAM

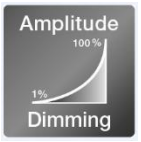
OTi DALI 50/220-240/1A4 LT2 FAN



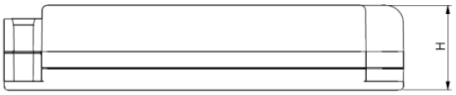
SELV Constant current LED driver
Wide operating area up to 1.4 A – dimmable

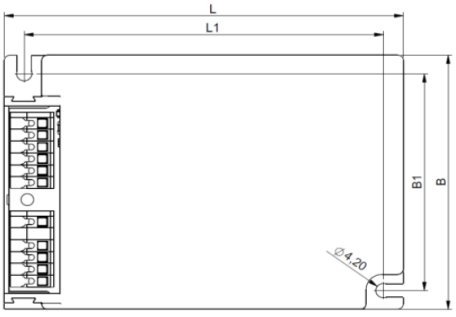
The reliable choice for the energy saving lighting: DALI dimmable, constant lumen output. Digitally programmable. Automatic current set through the LEDSet interface.

Benefits
Wide operating range: 0.6 – 1.4 A
Mobile camera friendly (Amplitude-dimming)
DALI ed 2 compatible
Soft switch off- function
Low standby < 150 mW
Suitable for emergency lighting: EL-sign
Auxiliary 12V output for driving active cooling



L	110mm
B	75mm
H	25.7mm





Approvals

In preparation, if not already printed on product label

Housing material: plastic, white.

Product Features

- Output current range 0.6 – 1.4 A
- Amplitude dimming down to 1%
- Fully digitally programmable
- SELV U_{out}: 15 – 54 V
- Output power up to 55 W
- Suitable for emergency lighting
- Mains voltage 220 – 240 V
- Overload, Overtemp. protection
- 12V Aux output
- Load hot plug protection
- 100’000 h lifetime at t_c = 70°C
- t_c max = 80 °C
- Wide t_a range -20 – +50 °C
- 5 years guarantee

Electrical Specifications

	Item	Value	Unit	Remarks
INPUT	Nominal Voltage	220 - 240	V	
	Nominal frequency	0 / 50 / 60	Hz	Incl. DC or pulse DC
	AC voltage range	198 – 264	V	
	DC voltage range	176 - 276	V	DC or pulse DC
	Maximum voltage	320	V_{AC}	2 h maximum, unit might not operate in this abnormal condition
	Nominal current	0.28	A	
	Total Harmonic Distortion (THD)	<10	%	Full load, 220 – 240 V, 50 Hz
	Power factor	> 0.95		Full load, 220 – 240 V, 50 Hz
	Efficiency	Up to 0.91	%	Full load, 220 – 240 V, 50 Hz
	Power losses	7.5	W	Maximum, full load, max. current
	No-load power	n/a	W	Load switching on output side is safe but not permitted
	Stand-by power	<150	mW	
	Protection class	II		FE can be connected to terminal, Suitable for class I and II luminaires
	Inrush current	30	A pk	Max, th = 200 µs
	Max. units per circuit breaker	B16: 20; B10: 12		I max = 30 A Th = 200 µs
	PE current	< 0.5	mA	Through PE, output floating
OUTPUT	Nominal voltage range	15-54	V	
	Maximum voltage	60	V_{DC}	No load protection, restart trials every 4 s
	Nominal current	600-1400	mA	LEDset open: 300 mA; LEDset short: 1.05 A (digitally programmable)
	Current accurancy	+/- 3	%	Digital programming. +/- 5% through the LEDset interface.
	Current ripple	< 2	%	Ripple / average @ 100 Hz
	Nominal power range	22 – 55	W	Dimmable down to 0.22W
	Maximum power	55+1	W	LED output + 1W Aux output
	Galvanic isolation	SELV		Output to mains - Touch current < 0.7 mA
	Aux. output (FAN)	12V (+0,1/-0,9V) 1W		short circuit and overload protected, ta max = 45°C @ full load.
DIM	Dimming control	Yes		DALI ed 2 compatible
	Dimming range	1 – 100	%	Of selected nominal current;
	Dimming technique	Amplitude		
	Galvanic isolation	basic / double		Basic DALI to primary / Double Primary to Functional earth / DALI to secondary
ENVIRONMENT	Ambient temperature range t_a	-20…+50	°C	
	Maximum case temperature t_c	80	°C	Measured on t_c point indicated of the product label; for MM-approval (mounting on easily inflammable surfaces) acc. DIN 57710 tc max = 75°C permitted
	Max. case temp. in fault condition	110	°C	
	Storage temperature range	-25…+85	°C	
	Relative humidity	5…85	%	Not condensing
	Surge transient protection	1I2	kV	L/N | LN/FE acc to. EN 61547-5.7
	Environmental rating	Indoor		
	IP rating	IP 20		
	Mains switching cycles	> 100'000		
	Expected lifetime	50`000 100`000	h	tc = 80°C, 0.2% / 1'000 h failure rate tc = 70°C, 0.1% / 1'000 h failure rate

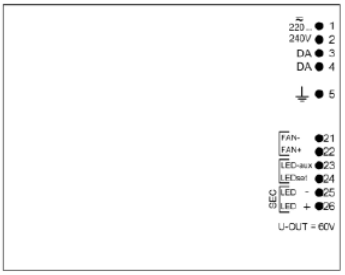
Protections

Overtemperature, Overload, No load, Short-circuit, Input overvoltage, Output overvoltage, Output undervoltage
12V FAN output: ShortCircuit, OverCurrent, Open circuit protected
See remarks on page 4.

Wiring Diagram

Input

Gray	1 – Mains
Gray	2 – Mains
Red	3 – DALI / N
Red	4 – DALI / L
Gray	5 – Functional Earth



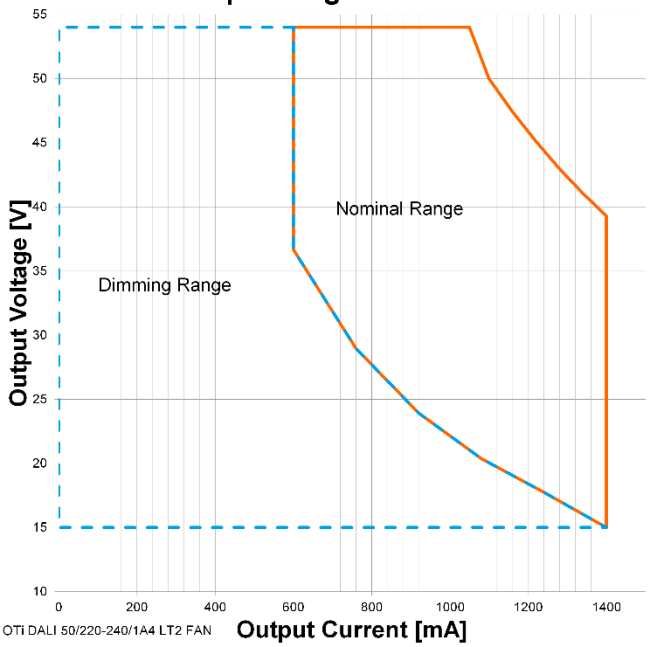
Output

Gray	21 - FAN -
Gray	22 - FAN +
Black	23 - LEDset- (Aux-)
White	24 - LEDset
Black	23 - LED -
Red	24 – LED +

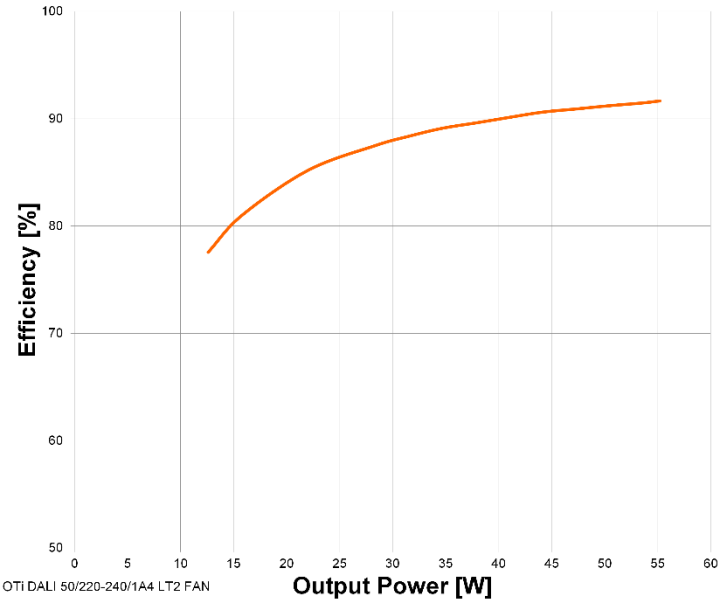
Load wires length: 2m max.

- Wires cross section: massive leads 0.2-1.5 mm2 / flexible leads 0.2 – 1.5 mm2
- Wire peeling length: 8-9 mm

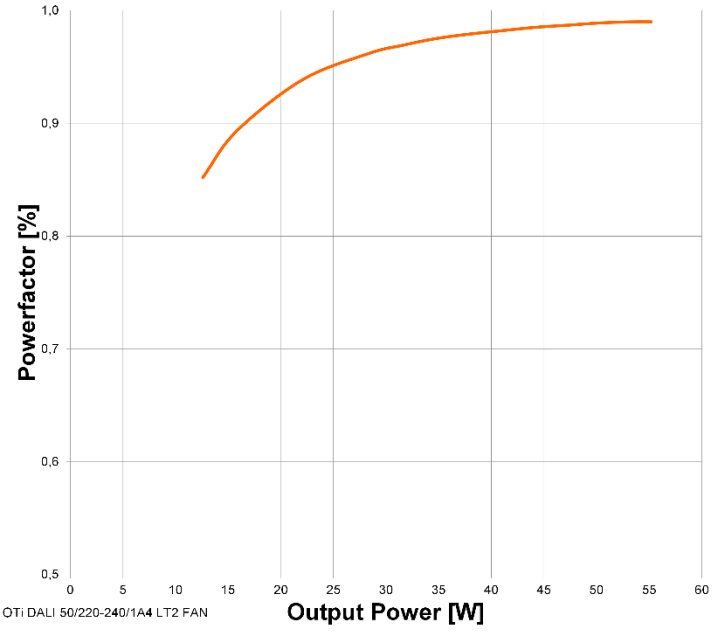
Operating Window



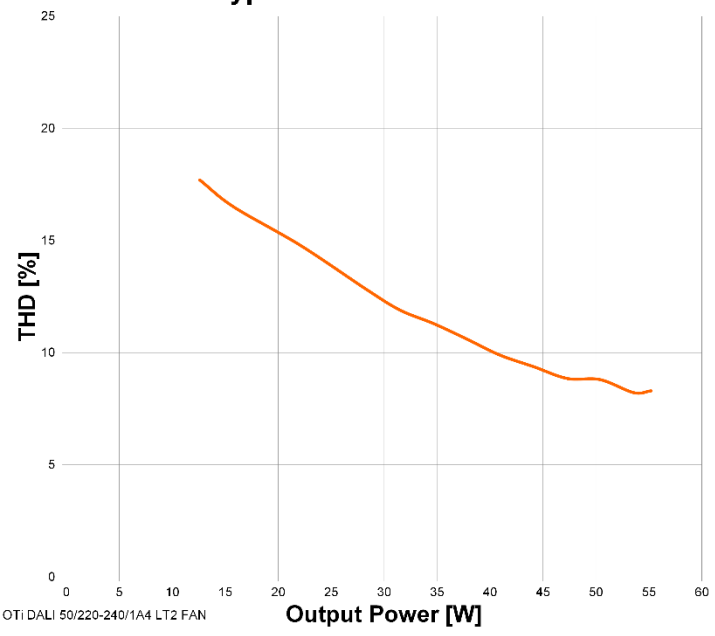
Typical Efficiency vs. Load (230 V / 50 Hz)



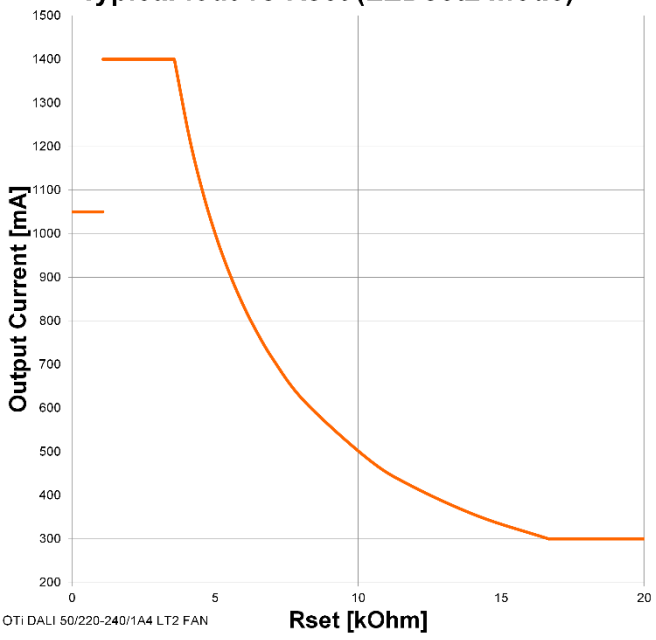
Typical Power Factor vs. Load



Typical THD Vs Load



Typical Iout vs Rset (LEDset2 mode)

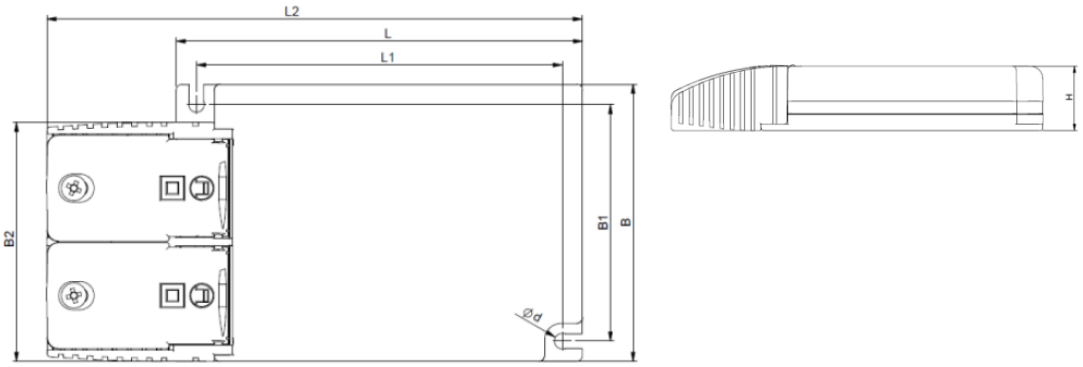


Rset formula and standard Iout values

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

Iout [mA] **nominal**	Iout [mA] actual	**Rset [kOhm]** **E48 series**
600	610	8.2
700	699	7.15
1050	1078	4.64
1400	1400	3.48

L	110mm
L1	99mm
L2	145mm
B	75mm
B1	64mm
B2	64,7mm
H	25mm



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 might occur in this condition.
- **Output short circuit / under voltage protection:** shut down of load happens if Uout is below 15V (typ. 12V); the unit automatically tries to switch on the load again every 4-5 s for 0.1 s delivering the selected nominal current.
- **Output overload protection**: the unit automatically reduces the output current to keep the output power below 55W .
- **Output over voltage protection**: shut down of load happens if Uout exceeds 54V (typ. 56V); the unit automatically tries to switch on the load again every 4-5 s for 0.1 s delivering the selected nominal current.
- **No load operation:** the unit automatically tries to switch on the load every 4-5 s for 0.1 s delivering the selected nominal current; despite this operation mode is safe for both unit and load, it 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 > 80 °C (typ. 85°C). The protection is self restoring.
- **Touch current**: lower than 0.7 mA, according to EN 60598-1 ann. G and EN 61347-a ann. A
- **Switchover time:** lower than 0.5 s, both AC and DC mains.
- **Output power hold time**: > 4 ms, in case of mains dips.
- **Emergency lighting**: this LED power supply is suitable for emergency lighting fixtures acc. to EN 60598-2-22
- **HOT Plug/Deplug**: connection/disconnection of LED on secondary is allowed without damage of LED. No restart necessary.
- **FAN output**: No influence of the FAN state to the light output. When the FAN output is switched off due to an overload, the LED current will not be reduced. FAN output is switched off when LED are off (DALI light level 0).
- For DALI LED drivers (version **DALI ed 2 compatible**), the **corridor function is not available when the Touch Dim function is activated**. To Switch from corridor function to Touch DIM function is only by use of T4T software possible.

Standards

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

Product name	EAN10	EAN40	NAED	Piece s/ box
OTi DALI 50/220-240/1A4 LT2 FAN	4052899488182	4052899488199	n/a	20
OT CABLE CLAMP A-STYLE		4052899089587	n/a	20
OT CABLE CLAMP A-STYLE TL	4052899325982	405289918359	n/a	20

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