

Light is OSRAM

**OSRAM****Product data sheet: OTi DALI 35/220-240/400 D LT2 L**

Constant current LED driver incl. OSRAM DALI features – non isolated  
Wide operating area up to 400mA, 1...100% dimmable

Flexible, reliable solution for energy saving lighting:  
DALI dimmable & programmable, embedded  
corridor functionality and advanced TouchDIM with  
daylight harvesting, constant lumen output.  
Automatic current set through the LEDSet interface.

**Benefits**

Wide operating range: 75 – 400mA  
Adjustable current via DALI programmable or LEDset2  
Long lasting and high reliability  
Small, slim white metal housing 30 x 21 mm  
Suitable for emergency lighting units  
Smart analogue dimming 1...100%  
Following DALI Ed. 2

**Applications**

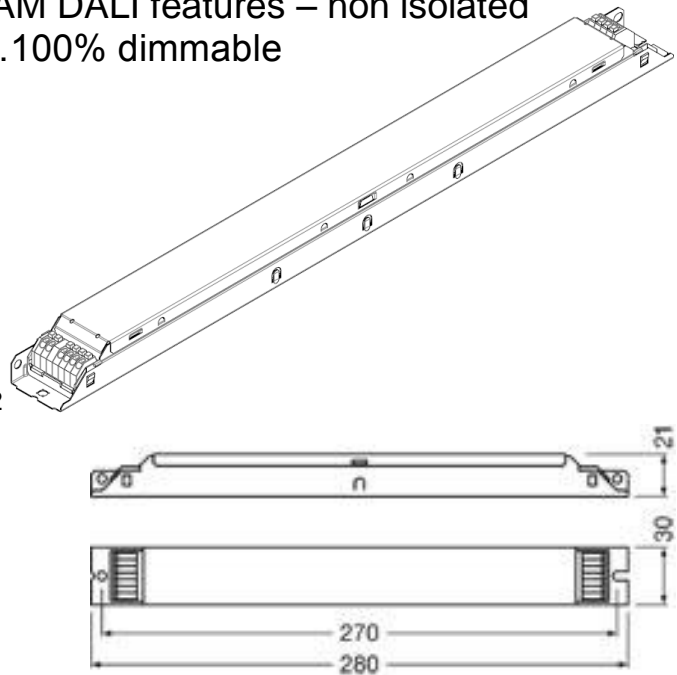
Linear and area lighting  
Office – industrial – shop

**Applications**

CE, ENEC, VDE-EMC, RMC, , EL

In preparation, if not already printed on the label

Housing material: metal, white painted

**Product Features**

- Output current range 75 – 400mA
- Fully digital programmable
- Analogue dimming down to 1%
- Very high efficiency up to 92%
- Low stand-by consumption <0.25 W
- Output power up to 38 W
- Suitable for emergency lighting
- Very wide operating window
- Overload & temperature protection
- Very low ripple  $\leq 1\%$
- 100'000 h lifetime at  $t_c = 65^\circ\text{C}$
- $t_c \text{ max} = 75^\circ\text{C}$
- Wide  $t_a$  range  $-25 - +60^\circ\text{C}$
- 5 years guarantee

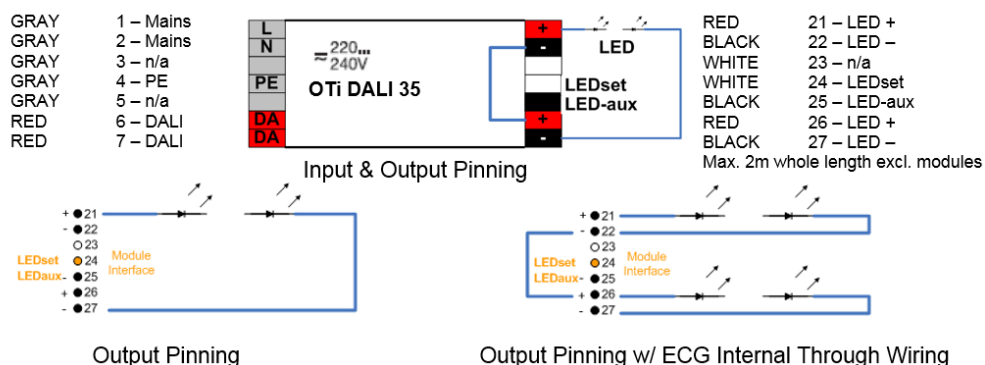
## Electrical Specifications

	Item	Value	Unit	Remarks
INPUT	Nominal voltage	220 – 240	V	
	Nominal frequency	0 / 50 / 60	Hz	
	AC voltage range	198 – 264	V	AC or RAC
	DC voltage range	176 – 276	V	DC
	Maximum voltage	350	Vac	2 h maximum, unit might not operate in this abnormal condition
	Nominal current	0.19	A	
	Total Harmonic Distortion (THD)	< 10	%	Full load
	Power factor	> 0.95		Full load, 220 – 240 V, 50 Hz / see graphs
	Efficiency	Up to 92	%	Full load, 220 – 240 V, 50 Hz / see graphs
	Starting time	≤ 0.6	s	
	Power losses	4	W	Maximum, full load
	Stand-by power	< 0.25	W	
	Protection class	I		PE can be connected either to terminal or housing
	Inrush current	17	A pk	th = 170 µs
	Max. units per circuit breaker	B16: 28 B10: 17		
OUTPUT	PE current	< 0.5	mA	Through PE
	Nominal voltage range	54 – 240	V	
	Maximum voltage	< 250	Vdc	w/ Open Circuit
	Nominal current range	75 – 400	mA	LEDset open: 35mA; LEDset short: 75mA
	Current accuracy	+/- 3	%	With LEDset2 +/-5%
	Current ripple	< 1	%	100 Hz., low freq. ripple is negligible
	Nominal power range	4.0 – 38	W	
	Maximum power	38	W	
DIM	DC Output current (EL)	15	%	Preset value, adjustable via software, at DC or RAC
	Galvanic isolation	no		Non-isolated
	Dimming control	yes		DALI and TouchDIM
ENVIRONMENT	Dimming range	1...100	%	Complete analogue Dimming
	Dimming Standard	Acc. DALI Ed.2		
	Ambient temperature range $t_a$	-25 ... +60	°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	> 100'000		
	Expected lifetime	50'000 100'000	h	$t_c = 75^\circ\text{C}$ , 0.2% / 1'000 h failure rate, 24h ON $t_c = 65^\circ\text{C}$ , 0.1% / 1'000 h failure rate, 24h ON

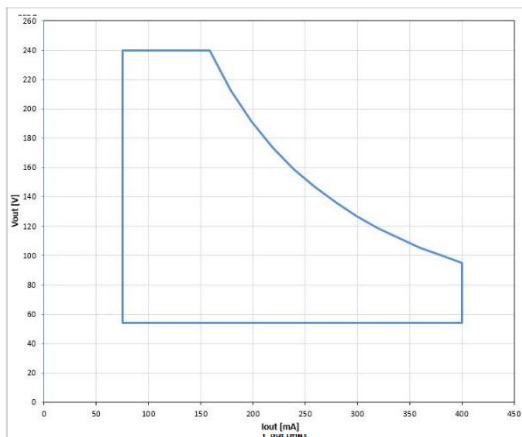
### Protections

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

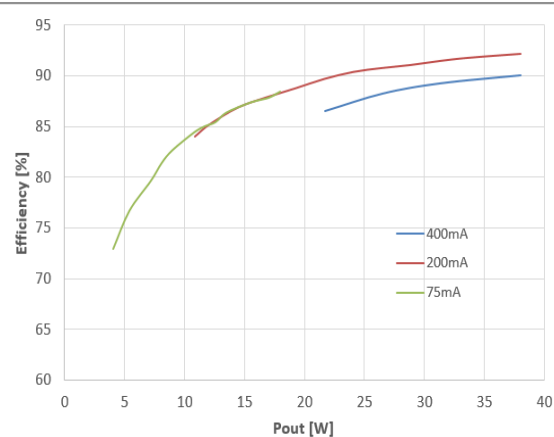
See remarks on page 4



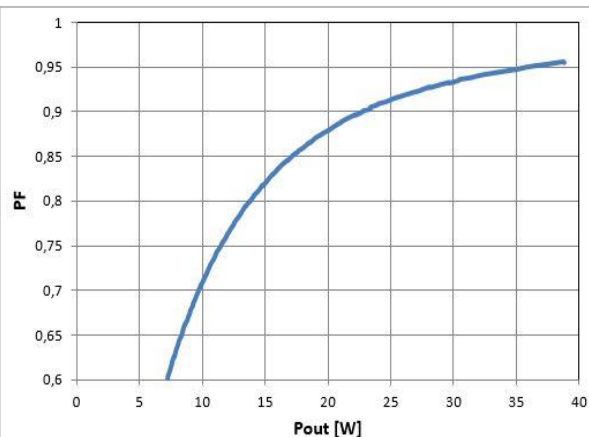
### Typical Operating window



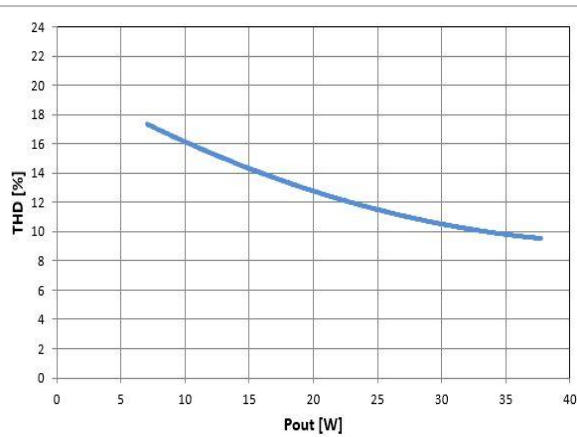
### Typical Efficiency vs load



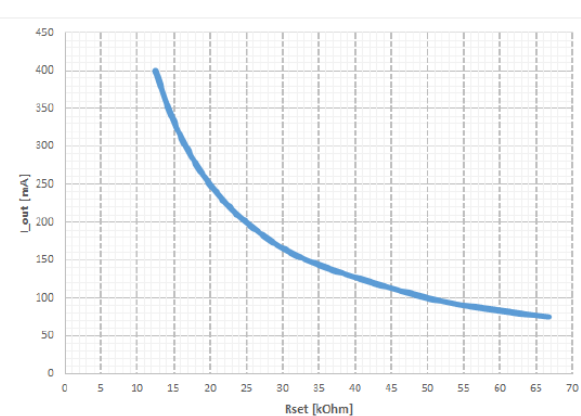
### Typical Power factor vs load



### Typical THD vs load



### Typical Iout vs Rset



### Rset formula and standard Iout values

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

Iout [mA] nominal	Iout [mA] set, +/-5%	Rset [kOhm]
75	80	62 (E24)
	77	64.9 (E48)
125	128	39 (E24)
	124	40.2 (E48)
250	250	20 (E24)
	255	19.6 (E48)
400	385	13 (E24)
	394	12.7 (E48)

Refer to the LEDset2 application note and/or instruction sheet for further details

## Remarks

- **Input over voltage protection: mains up to 350 Vac**, for two hours maximum, will not destroy both the unit and the load; shut down of load might occur in this condition.
- **Output short circuit / undervoltage protection**: shut down of load happens if Vout is out of operating range
- **Output overload protection**: the unit automatically reduces the output current to keep the output power below 38W.
- **Output over voltage protection**: shut down of load happens if Vout exceeds 240V
  - **Step 1**: output current reduction to decrease Vout
  - **Step 2**: shut down of load at longer or extreme overvoltage
- **No load operation**: the unit automatically switches off.
- **Over temperature protection**: the unit is protected against temporary overheating by automatic reduction of the output current when  $t_c > 75^\circ\text{C}$
- **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; according to IEC 61347-2-13 Annex J.
- **Emergency Escape Lighting**: this LED power supply is suitable for emergency escape lighting systems acc. to EN 50172

## Standards

## Ordering information

	Product name	Type	EAN10	EAN40	NAED	Pieces / box
EN 61347-1	OTI DALI 35/220-240/400 D LT2 L	AM0013901OL	4052899494220	4052899494237	n.a.	20
EN 61347-2-13						
EN 55015						
EN 61547						
EN 61000-3-2						
EN 62384						
EN 62386						

OSRAM GmbH

Head Office:

Marcel-Breuer-Strasse 6  
80807 Munich, Germany  
Phone +49 89 6213-0  
www.osram.com

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**OSRAM**