

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

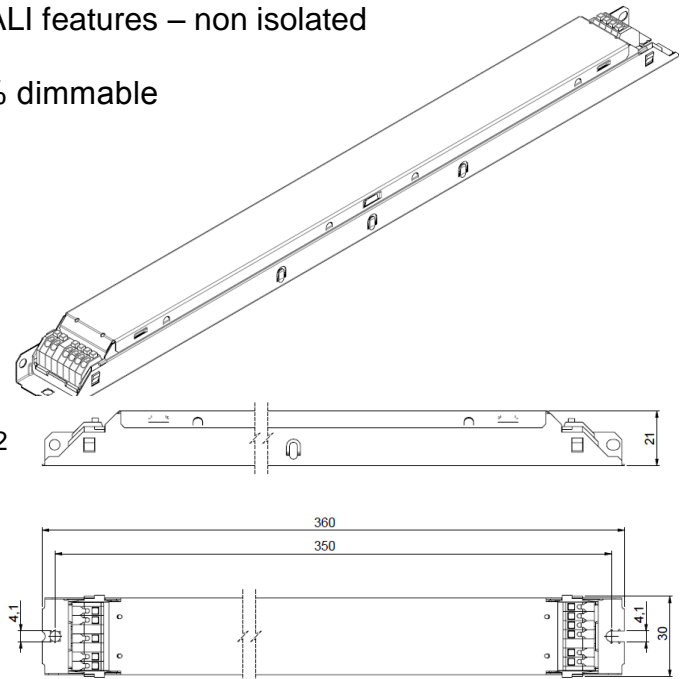
Flexible, reliable solution for energy saving lighting:
DALI dimmable & programmable, embedded
corridor functionality and advanced TouchDIM with
daylight harvesting, constant lumen output.
Automatic current set through the LEDSet interface.

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.
Following DALI Ed. 2

Applications

Linear and area lighting.
Office – industrial – shop

**Approval marks**

Housing material: metal, white painted

CE, ENEC, VDE, C-Tick, EMC, , 

In preparation, if not already printed on product label

Product Features

- Output current range 75 – 400 mA
- Fully digitally programmable
- Smart 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 $\leq 4\%$
- 100'000 h lifetime at $t_c = 65^\circ\text{C}$
- $T_c \text{ max} = 75^\circ\text{C}$
- Wide t_a range $-25\dots+60^\circ\text{C}$
- 5 years guarantee

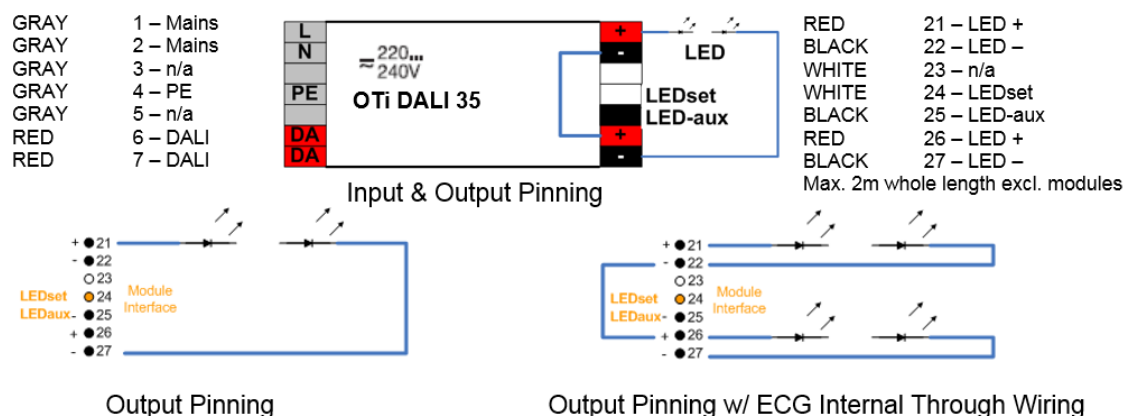
Electrical Specifications

	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	V _{AC}	2 h maximum, unit might not operate in this abnormal condition
	Nominal current	0.19	A	
	Total Harmonic Distortion (THD)	< 10	%	Full load, 220 - 240 V, 50 Hz / see graphs
	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
	Standby 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		Grid impedance 800mOhm
Output	Nominal voltage range	54 - 240	V	
	Maximum voltage	< 250	V _{dc}	w/ Open Circuit
	Nominal current range	75 - 400	mA	LEDset open: 35mA; LEDset short: 75 mA
	Current accuracy	+/- 5	%	With LEDset2 +/- 7%
	Current ripple	< 4	%	100 Hz, low freq. ripple is negligible
	Nominal power range	4.0 - 38	W	
	Maximum power	38	W	
	DC Output current (EL)	15	%	Preset value, adjustable via software, at DC or RAC
Dim	Galvanic isolation	no		Non-isolated
	Dimming control	yes		DALI and TouchDIM
	Dimming range	1...100		
Environment	Dimming standard	Acc. DALI 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 70'000	hrs	t _c = 75°C, 0.2% / 1'000 h failure rate, 24h ON t _c = 65°C, 0.1% / 1'000 h failure rate, 24h ON

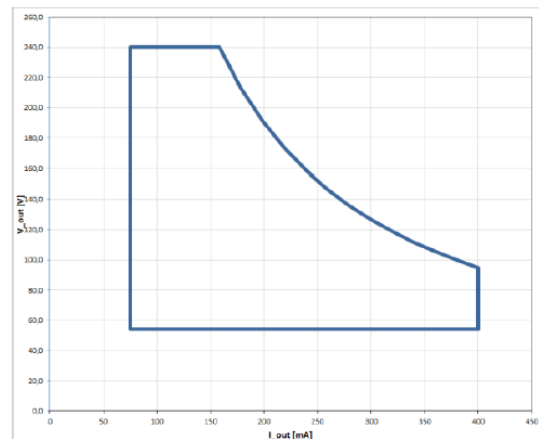
Protections

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

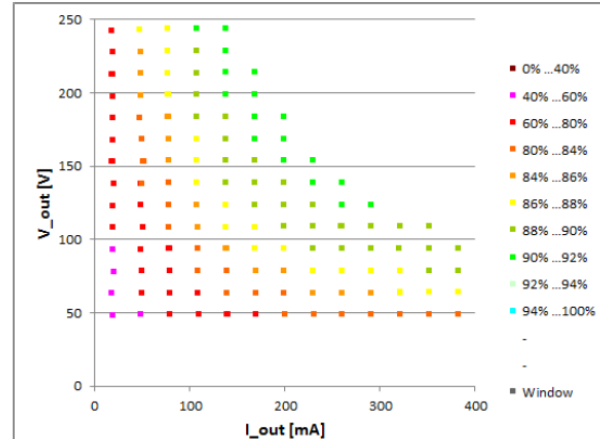
See remarks on page 4



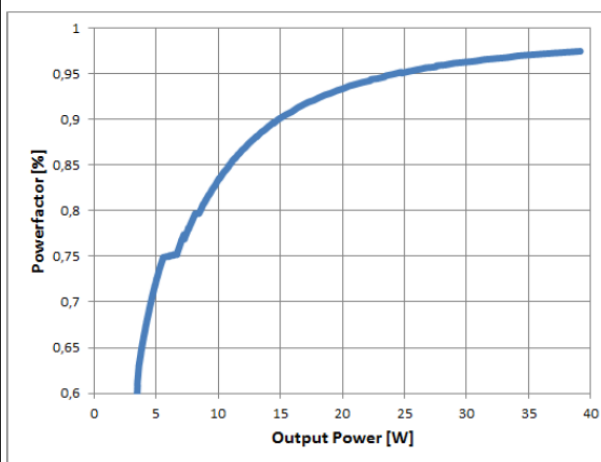
Typical Operating window



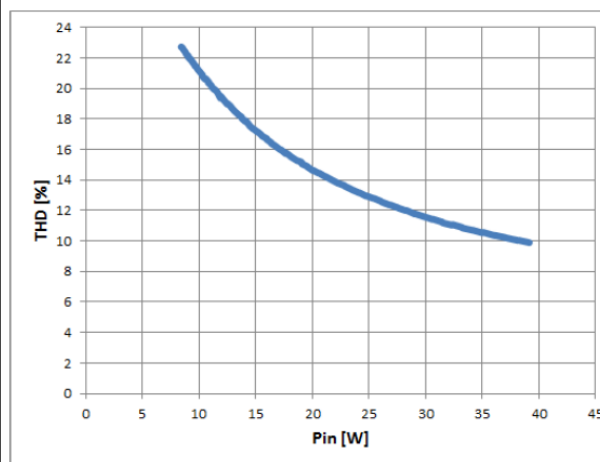
Typical Efficiency vs load



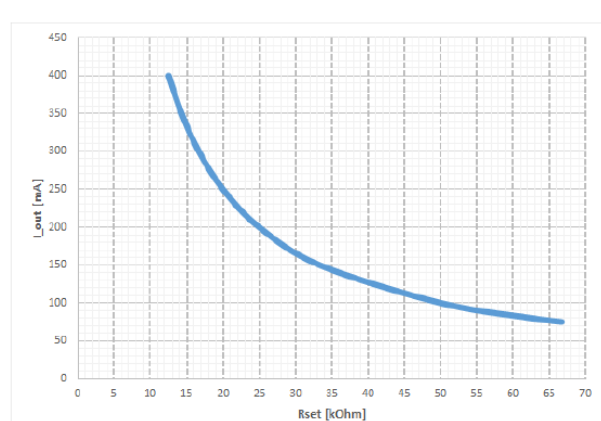
Typical Power factor vs load



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 77	62 (E24) 64.9 (E48)
125	128 124	39 (E24) 40.2 (E48)
250	250 255	20 (E24) 19.6 (E48)
400	385 394	13 (E24) 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 V_{out} 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 V_{out} exceeds 240V
 - **Step 1**: output current reduction to decrease V_{out}
 - **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

EN 61347-1	Product name	Type	EAN10	EAN40	NAED	Pieces / box
EN 61347-2-13	OTi DALI 35/220-240/400 LT2 L	AB3307800DG	4052899957053	4052899957121	n/a	20
EN 55015						
EN 61547						
EN 61000-3-2						
EN 62384						
EN 62386						

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