

Light is OSRAM

OSRAM

Product data sheet: OTi DALI 60/220-240/550 D LT2 L

Constant current LED driver incl. OSRAM DALI features – non isolated

Wide operating area up to 550mA, 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: 120 – 550mA
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

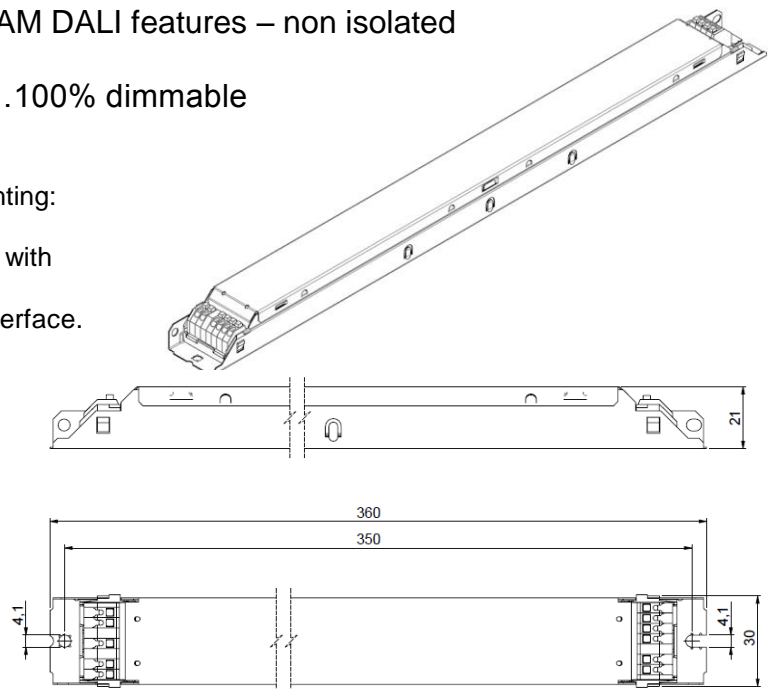
Applications

Linear and area lighting.
Office – industrial – shop

Approval marks

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

In preparation, if not already printed on product label



Housing material: metal, white painted.

Product Features

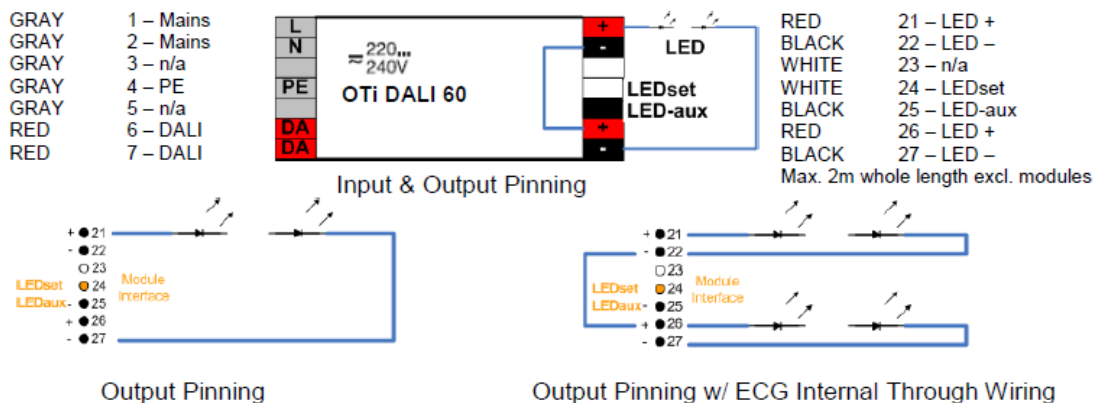
- Output current range 120 – 550 mA
- Fully digitally programmable
- Smart dimming down to 1 %
- Very high efficiency up to 93 %
- Low stand-by consumption < 0.25 W
- Output power up to 60 W
- Suitable for emergency lighting
- Very wide operating window
- Overload & -temperature protection
- Very low 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

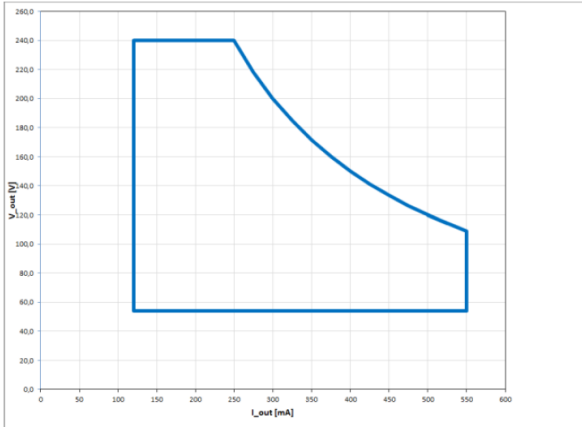
	Item	Value	Unit	Remarks
Input	Nominal Voltage	220 - 240	V	
	Nominal frequency	0/ 50 / 60	Hz	
	AC voltage range	198 – 264	V	AC, Safety voltage range
	DC voltage range	176-276	V	
	Maximum voltage	350	V	2 h maximum, unit might not operate in this abnormal condition
	Nominal current	0.30	A	
	Total Harmonic 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 93	%	Full load, 230 V, 50 Hz / typical/ see graphs
	Starting time	≤ 0.6	S	
	Standby power	< 0.25	W	
	Power losses	5	W	Maximum, full load
	Protection class	I		PE can be connected either to terminal or housing
	Inrush current	24	A	Th = 210 μs
	Max. units per circuit breaker	B16: 24 B10: 15		Grid impedance 800 mOhm
PE current	< 0.5	mA	Through PE	
Output	Nominal voltage range	54 – 240	Vdc	
	Maximum voltage	< 250	Vdc	w/ Open Circuit
	Nominal current range	120 – 550	mA	LEDset open: 125mA; LEDset short: 250 mA
	Current accuracy	+/- 5	%	With LEDset2 +/- 7%
	Current ripple	< 4	%	100 Hz, low freq. ripple is negligible
	Nominal power range	6.4 – 40	W	
	Maximum power	60	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
	Environmental rating	Indoor		
	IP rating	IP 20		
	Mains switching cycles	> 100'000		
Expected lifetime	50'000 100'000	hrs	$t_c = 75^\circ\text{C}$, 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

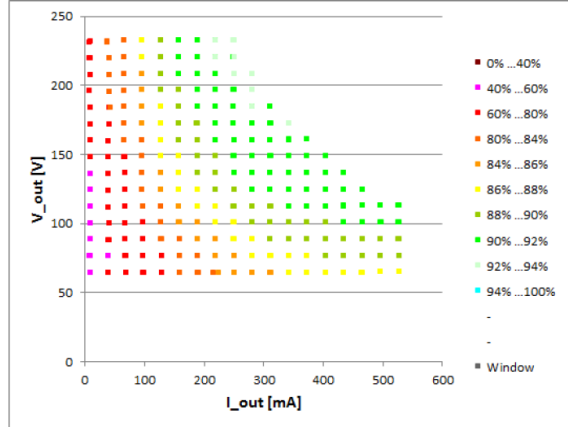
Overtemperature, Overload, No load, Short-circuit, Input overvoltage, Output overvoltage, Output undervoltage
See remarks on page 4



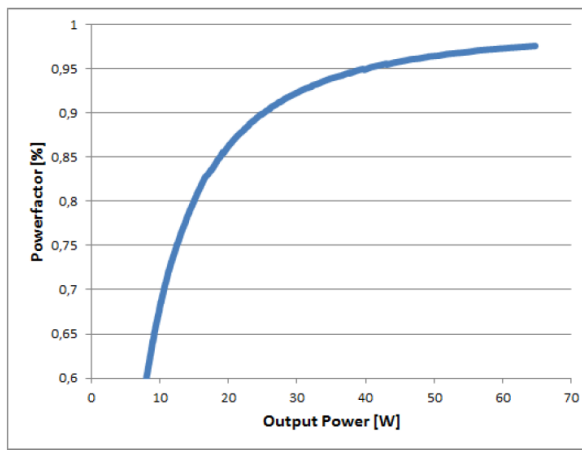
Typical Operating window



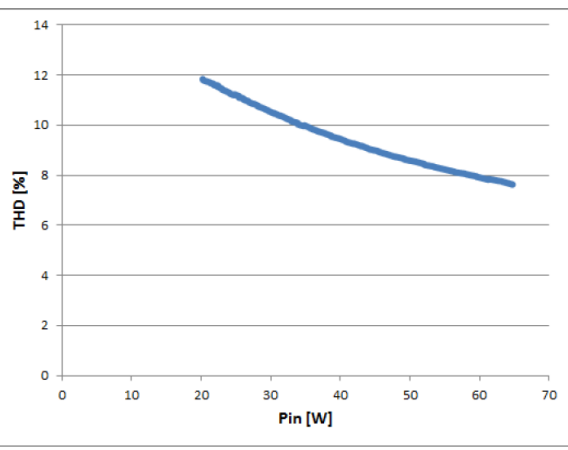
Typical Efficiency vs load



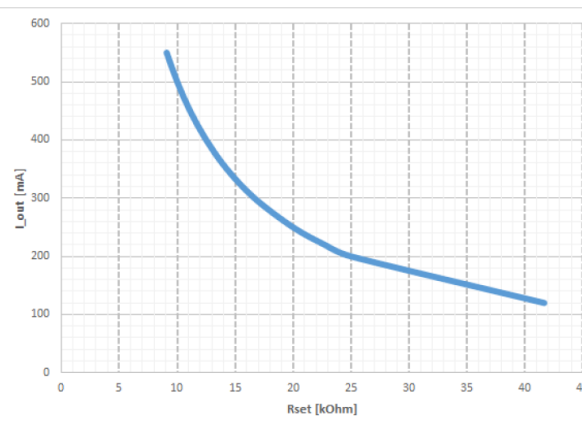
Typical Power factor vs load



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]
120	-- 121	-- (E24) 41.2 (E48)
250	250 250	20 (E24) 20.0 (E48)
350	333 350	15 (E24) 14.3 (E48)
550	549 550	9.1 (E24) 9.09 (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 60W.
- **Output over voltage protection:** shut down of load happens if V_out exceeds 240V
 - o **Step 1:** output current reduction to decrease V_out
 - o **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

EN 61347-1
 EN 61347-2-13
 EN 55015
 EN 61547
 EN 61000-3-2
 EN 62384
 EN 62386

Ordering information

Product name	Type	EAN10	EAN40	NAED	Pieces / box
OTi DALI 60/220-240/550 D LT2 L	AB3600300DG	4052899188662	4052899188679	n/a	20

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