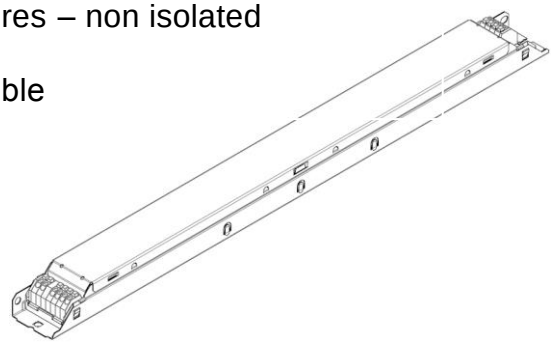
Light is OSRAM

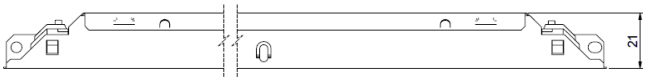
Product data sheet: OTi DALI 90/220-240/1A0 LT2 L

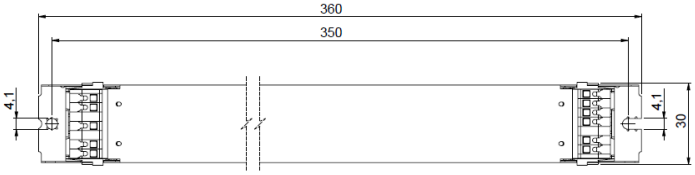
Constant current LED driver incl. OSRAM DALI features – non isolated

Wide operating area up to 1000mA, 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.





Housing material: metal, white painted.

Benefits
Wide operating range: 250 – 1000mA
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-EMC, RMC, 110 , EL
In preparation, if not already printed on product label

Product Features

- Output current range 250 – 1000mA
- Fully digitally programmable
- Smart dimming down to 1%
- Very high efficiency up to 94%
- Low stand-by consumption < 0.25W
- Output power up to 90W
- Suitable for emergency lighting
- Very wide operating window
- Overload & -temperature protection
- Very low ripple ≤ 1%
- 100’000 h lifetime at t_c = 65°C
- t_c max = 75 °C
- Wide t_a range -25… +50°C
- 5 years guarantee

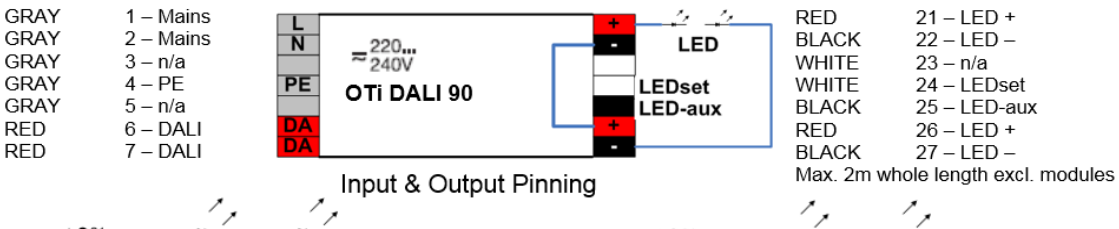
Electrical Specifications

	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	2 h maximum, unit might not operate in this abnormal condition
	Nominal current	0.43	A	
	Total Harmonic Distortion (THD)	< 10	%	Full load
	Power factor	> 0.95		Full load, 230 V, 50 Hz / see graphs
	Efficiency	Up to 94	%	Full load, 230 V, 50 Hz / typical/ see graphs
	Starting time	≤ 0.6	S	
	Standby power	< 0.25	W	
	Power losses	9	W	Maximum, full load
	Protection class	I		PE can be connected either to terminal or housing
	Inrush current	25	A pk	Th = 280 µs
	Max. units per circuit breaker	B16: 24 B10: 13		
	PE current	< 0.5	mA	Through PE
Output	Nominal voltage range	54 – 240	V	
	Maximum voltage	< 250	Vdc	w/ Open Circuit
	Nominal current range	250 - 1000	mA	LEDset open: 125mA; LEDset short: 250 mA
	Current accurancy	+/- 3	%	With LEDset2 +/- 5%
	Current ripple	< 1	%	100 Hz, low freq. ripple is negligible
	Nominal power range	13.5 – 90	W	
	Maximum power	90	W	
	DC Output current (EL)	15	%	Preset value, adjustable via software, at DC or RAC
	Galvanic isolation	no		Non-isolated
Dim	Dimming control	yes		DALI and TouchDIM
	Dimming range	1…100	%	
	Dimming standard	Acc. DALI 2		
Environment	Ambient temperature range t_a	-25…+50	°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	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

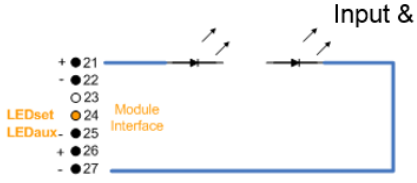
Protections

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

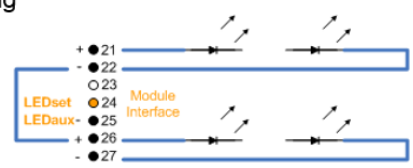
See remarks on page 4



Input & Output Pinning

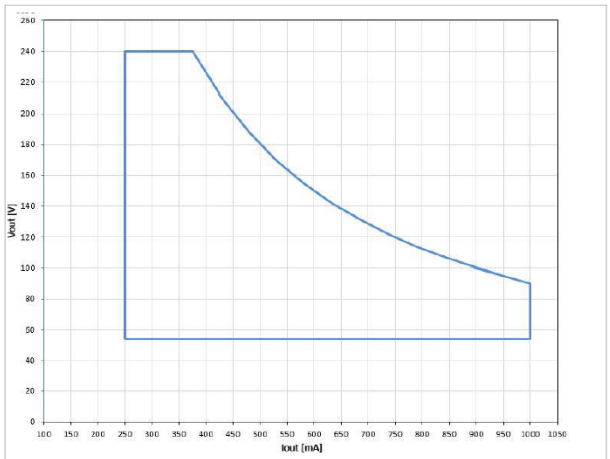


Output Pinning

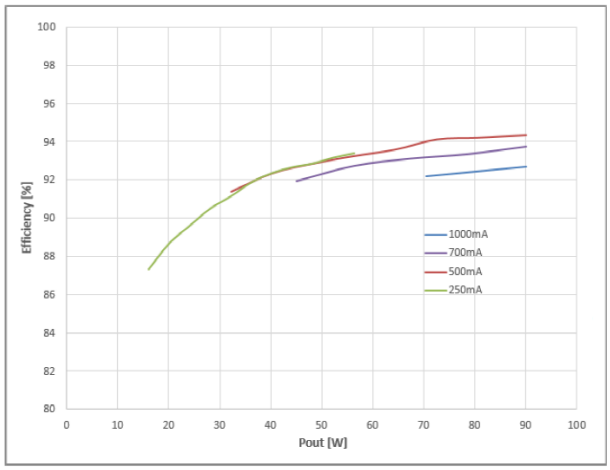


Output Pinning w/ ECG Internal Through Wiring

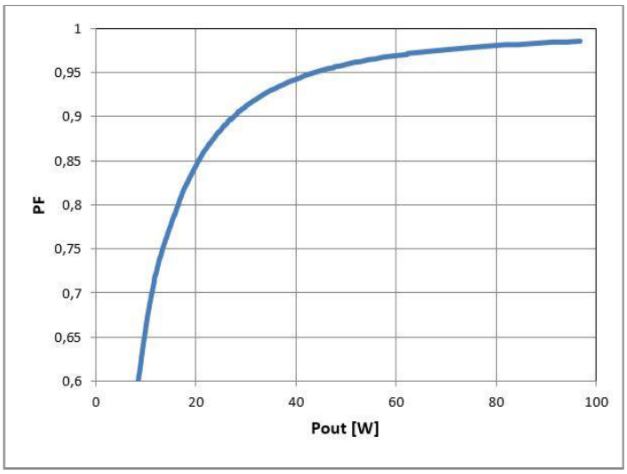
Typical Operating window



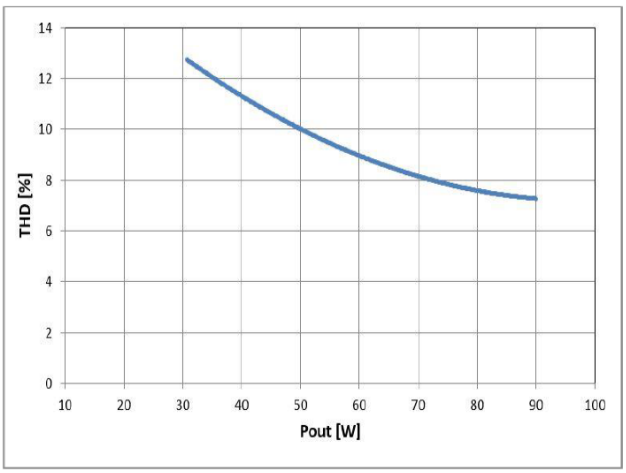
Typical Efficiency vs load



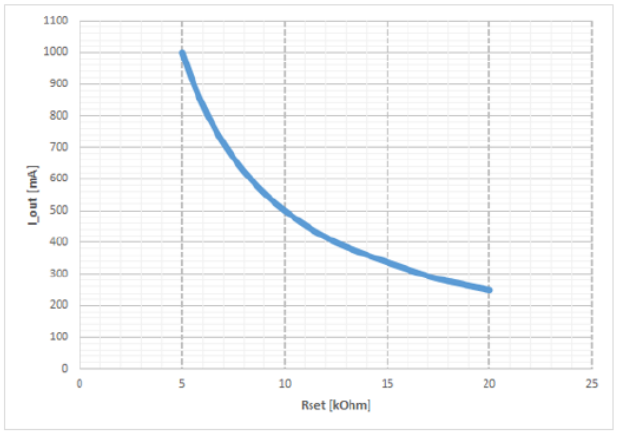
Typical Power factor vs load



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]**
250	250 255	20 (E24) 19.6 (E48)
350	333 350	15 (E24) 14.3 (E48)
500	500 500	10 (E24) 10.0 (E48)
1000	892 978	5.6 (E24) 5.11 (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 90W.
- **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 tc > 75°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 90/220-240/1A0 LT2 L	AM0014102OL	4052899494268	4052899494275	n/a	20

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