

Light is OSRAM

OSRAM

Product data sheet: OPTOTRONIC® OTi DALI 60/220-240/1A4 NFC I

Compact constant current SELV LED driver

Wide operating area up to 1400mA
1...100% dimmable**Features:**

Perfect lighting quality thanks to low output ripple & DALI-2 dimming
High quality analog dimming
Dim to Dark, Soft Switch Off integrated

Benefits

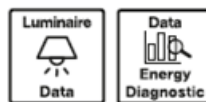
DiiA DALI2 certified incl. parts -251, -252, -253
Fast programming / current set via NFC* and DALI
Suitable for emergency lighting units
Amplitude dimming 1...100%
Integrated Cable Clamps for independent installation and through-looping

Applications

Spots, downlights, panels in Office – Shop – Hospitality

Approbations & Certifications

CE, UKCA, ENEC, RCM, EL, CCC, EAC, BIS
In preparation, if not already printed on the label

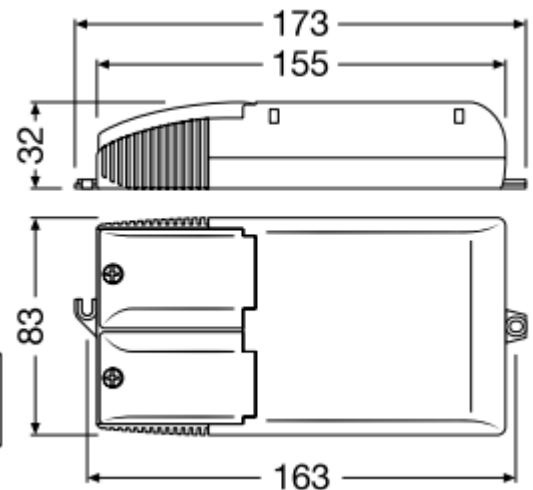


*For more information please refer to Tuner4TRONIC

Housing material: plastic

Product Features

- Analog dimming
- 1..100% amplitude dimming
- NFC interface
- PST <1%; SVM<0.4
- Output range 600-1400mA
- Wide ta range -20...+50°C
- Low stand-by consumption <0.18 W
- Suitable for emergency lighting
- 50000 h lifetime at tc max = 85°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	
	DC voltage range	176 – 276	V	DC or RAC
	Maximum voltage	320	V _{ac}	2 h maximum, unit might not operate in this abnormal condition
	Nominal current	0.35	A	Max through-looping current 3A
	Total Harmonic Distortion (THD)	< 10	%	Full load
	Power factor	≥ 0.95		Full load, 220 – 240 V, 50 Hz / see graphs
	Efficiency (declared value)	90%	%	Full load, 220 – 240 V, 50 Hz / see graphs
	Stand-by power (declared value)	< 0.18	W	
	Protection class	II		
	Inrush current	30	A pk	th = 200 μs
	Max. units per circuit breaker	B16: 20 B10: 12		
OUTPUT	Nominal voltage range	15 – 54	V	
	Maximum voltage	< 60	V _{dc}	w/ Open Circuit
	Nominal current range	600 – 1400	mA	Default output current 1050mA
	Current accuracy	+/- 5	%	
	Current ripple 100Hz	< 5	%	
	P _{ST} LM	< 1		
	SVM	< 0.4		
	Nominal power range	22 – 58	W	
	Maximum power	58	W	
	Galvanic isolation	SELV Basic		Mains to LED output Mains to DALI
DALI/ Dimm	Dimming control	yes		DALI/TouchDIM
	Dimming range/method	1...100	%	Analog dimming
	Dimming Standard	DALI 2		
FEATURES	Operating current	NFC / DALI		
	CLO	NFC / DALI		
	Tuning factor	NFC / DALI		
	Driver Guard	NFC / DALI		
	Soft switch-off	NFC / DALI		
	Dim to dark	NFC / DALI		
	Emergency	NFC / DALI		
	Configuration lock	NFC / DALI		
	DALI settings	NFC / DALI		
	DALI part 251	NFC / DALI		Luminaire info
DALI parts 252/253	NFC / DALI		Monitoring data	
ENVIRONMENT	Ambient temperature range t _a	-20 ...+50 -20 ...+45	°C	Output power ≤ 50W Output power > 50W
	Maximum case temperature t _c	85	°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	> 150'000		
Expected lifetime	50'000 100'000	h	t _c = 85°C, 0.2% / 1'000 h failure rate, 24h ON t _c = 75°C, 0.1% / 1'000 h failure rate, 24h ON	

NFC compatible with MD SIG standard

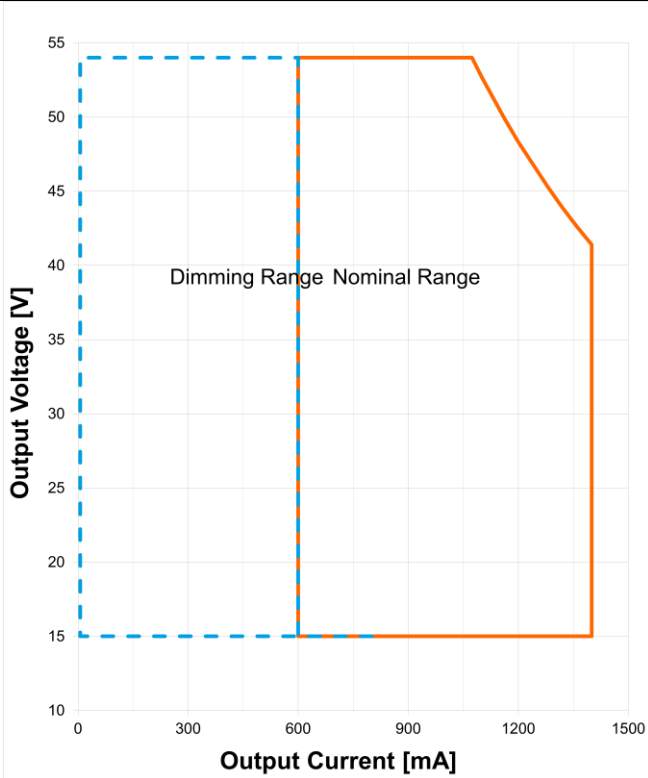
Additional Features

Driver Guard – Tuning Factor – Dim to Dark – Configuration Lock

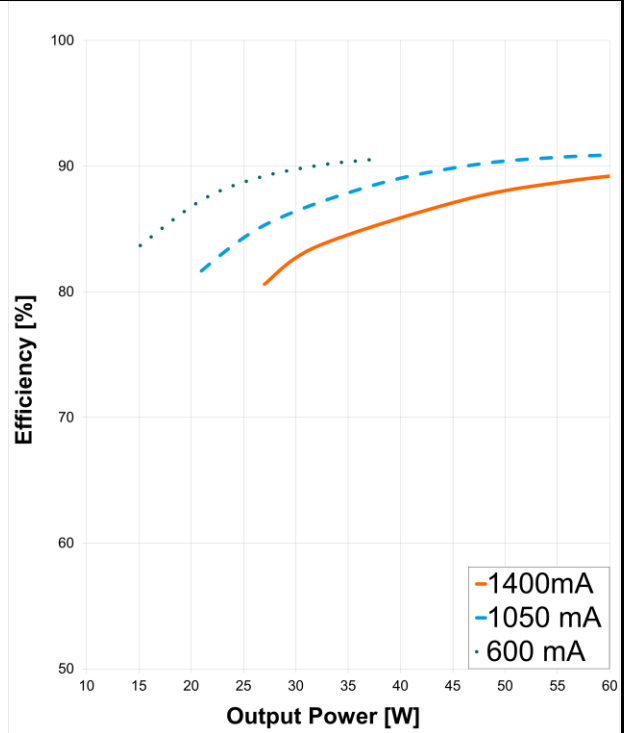
Protections

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

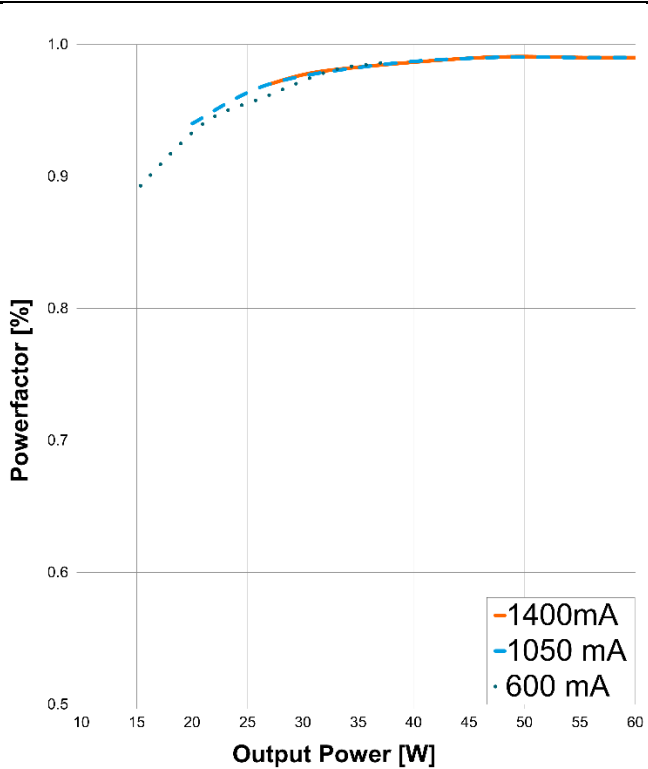
Typical Operating window



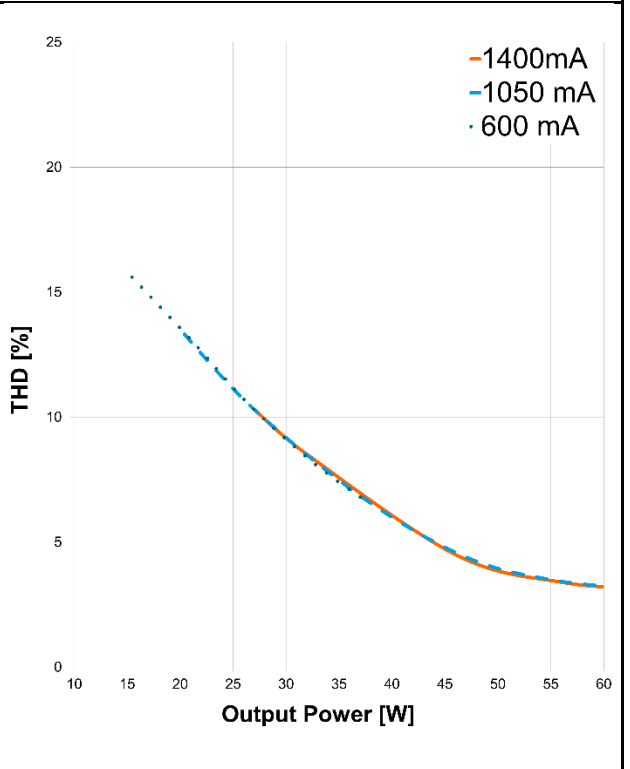
Typical Efficiency vs Load (230V/ 50Hz,)



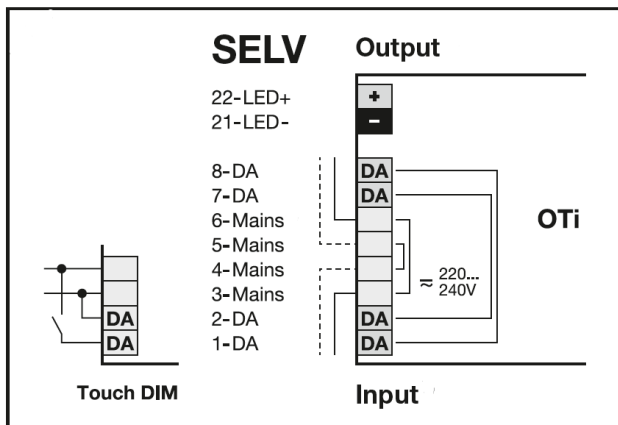
Typical Powerfactor vs Load



Typical THD vs Load



Wiring Diagram



Input wires

Wire cross-section: 0.75-1.5 mm²

Wire peeling length: 8-9 mm

Load wires length: 2m max.

Wire cross-section: 0.2-1.5 mm²

Wire peeling length: 8-9 mm

Product type	EAN10
OTI DALI 60/220-240/1A4 NFC I	4062172201834

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 U_{rated} is below 15V. The unit automatically tries to switch on the load again every 4-5 sec for 0.1 sec the selected nominal current.
- **Output overload protection:** the unit automatically reduces the output current to keep the output power below the max limit.
- **Output over voltage protection:** the unit tries to stabilize the voltage by reducing the current as necessary down to 50%; if U_{rated} still exceeds 54V shutdown will occur; the unit tries to automatically switch on the load again every 4-5 sec for 0.1 sec delivering the selected nominal output current.
- **No load operation:** the unit tries to automatically switch on the load again every 4-5 sec for 0.1 sec delivering the selected nominal output current; this operation mode is safe for the unit but 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 $t_c > t_{c \text{ max}}$. The protection is self-restoring.
- **Touch current:** lower than 0.7 mA, according to EN 60598-1 ann. G and EN 61347-1 annex A
- **Emergency lighting:** this LED power supply is suitable for emergency lighting fixtures acc. to EN 60598-2-22., with emergency output factor $EOF_{\text{I}}=0.5$ (default value, can be programmed up to $EOF_{\text{I}}=1$) and related duration time of 1h at least. Function in emergency is ensured up to $t_a=80^\circ\text{C}$.
- **Glow-effects** (LED glowing very weak when switched off via DALI) can occur in rare cases, when the LED module has a high capacitive coupling to PE. To avoid such effects the neutral conductor (N from mains voltage) must be connected to the power terminal number 2.
- This OSRAM driver can be configured using the Tuner4TRONIC software. This requires registering on www.myosram.com and downloading the Tuner4TRONIC software from the Internet. The Tuner4TRONIC software enables users to access and view the operational data of a luminaire or driver via the corresponding programming interfaces. A password key (Config Lock) must be set up in the driver via the Tuner4TRONIC software in order to control which users can access and view operational data. Follow the instructions for password setup. To grant an external person or company rights to access or view operational data, you can assign password keys. In this case, however, you are responsible for ensuring that the third party concerned takes notice of the information described here. However, OSRAM can read out operating data from devices for maintenance and service purposes even when a password key has been assigned. In individual cases, OSRAM will also use its access rights in order to optimize or improve driver hardware and driver functions. In accordance with data privacy principles, any user of operating data (luminaire manufacturers, third parties with access rights) must ensure that personal data (e.g. name, address, location IDs) are only merged with the prior written consent of the person (end user) concerned. The respective user of the operating data is responsible for providing evidence of consent.

Standards

IEC 61347-1; IEC 61347-2-13; IEC 62384; EN 55015; IEC 62386; IEC 61000-3-2; IEC 61000-3-3
IEC 61547; CISPR 15; ETSI EN 300 330; ETSI EN 301 489-1; ETSI EN 301 489-3

OSRAM GmbH

Head Office:

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

OSRAM