

OTi DALI 160/220-240/24 1-2 CH

24 V DALI Constant Voltage LED driver

Dimmable range 0% - 100%

Benefits

Slim form factor for mounting on the cove or in linear luminaires
From 1 to 2 channels to arbitrary distribute the power
Dimming down to zero - range 0 ... 100%
Smooth transition to dark, minimum light 0, 1%
EL compliant



Applications

Cove lighting, wall washer corridor, hospitality luminaires

Approval marks



L	300 mm
L1	258 mm
B	50 mm
H	35 mm

Housing material: plastic, white

Product Features

- 1 up to 2 DALI addressable channels set by DIP switch
- DALI steps: 0;1;...254
- **Minimum light 0,1%**
- Lamp Failure detection
- Slim form factor
- Touch DIM functionality
- Suitable for Class I and Class II luminaires
- Smart Power Supply
- Mains voltage: 220 – 240 V_{AC}
176 – 276 V_{DC}
- SELV, U_{out}: 24 V
- Overload protection
- Over temperature protection
- t_c max = 90°C
- Wide t_a range -20 ... +45 °C
- 50'000 h lifetime at t_c = 90°C
- 5 years guarantee

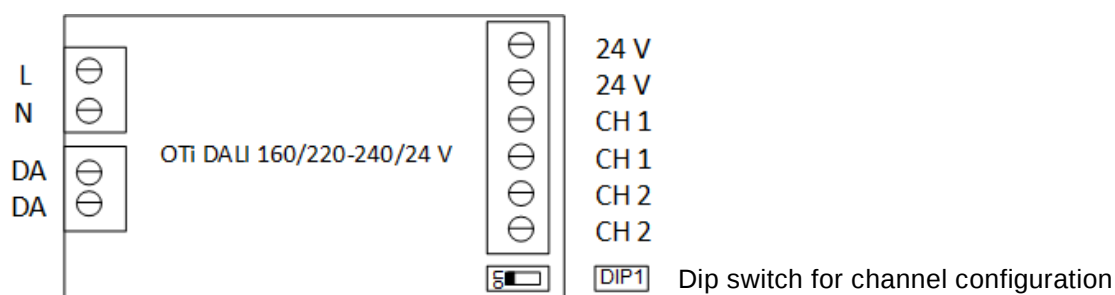
Electrical specifications

	Item	Value	Unit	Remarks
INPUT	Nominal voltage	220 – 240	V	
	Mains frequency	0 / 50 / 60	Hz	
	Input voltage AC	198 – 264	V	
	Input voltage DC	176 – 276	V	
	Maximum vooltage	264	V	
	Nominal current	770	mA	At 230 V _{ac} , 50 Hz
	Total Harmonic Distortion (THD)	< 5	%	Full load, 230 V _{ac} , 50 Hz / 60 Hz see graphs
	Power factor	0,99		Typical, Full load, 230 V _{ac} , 50 Hz / 60 Hz, see graphs
	ECG Efficiency	93	%	Typical, Full load, 230 V _{ac} , 50 Hz, see graphs
	Power loss in stand-by mode	360	mW	230 V _{ac} , 50 Hz
	Protection class	II		Suitable for safety class I and II luminaires
	Inrush current	69	A _{pk}	T _{width} 280 is measured at 50% I peak
	Suitable for fixtures with prot. Class	I / II		
	Inrush current			
	Max ECG no. on circuit breaker 10 A (B)	5		
	Max ECG no. on circuit breaker 16 A (B)	8		
	Max ECG no. on circuit breaker 25 A (B)	13		
OUTPUT	Nominal output voltage	24,2	V	
	Voltage accuracy	+/- 3	%	
	Voltage ripple	< 5	%	Ripple / average @ 100 Hz; Full load
	Nominal output power	0 – 160	W	Power Factor, Harmonics and EMI verified between: 60 - 160 W
	Maximum power AC	160	W	LED output
	Maximum power DC	140	W	LED output
	Galvanic isolation	SELV		
	DC Output power (EL)	15	%	Pre-set value, adjustable by Tuner4Tronic
	U-OUT (working voltage)	24,2	V	
DIMMING	Dimming interface	DALI 2.0		DALI ed2 compatible, Touch DIM
	Dimming range	0 – 100	%	DALI dimming steps (0-254)
	Dimming method	PWM		
	PWM frequency	1	kHz	
	Galvanic Insulation	Basic / Double		Basic DALI to Primary / Double DALI to Secondary
ENVIRONMENTAL	Ambient temperature	-20 ÷ +45	°C	
	Max. temperature at t _c test point	90	°C	Measured on t _c point indicated of the prod label, t _a not exceeded
	Max. case temp. in fault condition	115	°C	
	Storage temperature range	-25 ÷ +85	°C	
	Permitted rel. humidity during operation	5 – 85	%	Not condensing
	Surge capability (L/N)	1	kV	L/N acc. to EN 61547
	Environmental rating	Indoor		
	IP protection class	IP 20		
	Mains switching cycles	> 200'000		
	Expected lifetime	50'000 70'000	h	t _c = 90°C - 0,2% / 1'000 h failure rate t _c = 85°C - 0,1% / 1'000 h failure rate
	No-load proof	Yes		
	Overheating protection	Yes		Automatically restart
	Overload protection	Yes		Automatically restart

Short-circuit protection	Yes		Automatically restart
Type of connection, output side	Terminal screw		0,5 – 2,5 mm ²
Height	50	mm	
Length	300	mm	
Width	35	mm	
Product weight	418	g	
Casing material	Plastic		
Wire preparation length, input side	6	mm	
Wire preparation length, output side	6	mm	
Mounting hole spacing, length	258	mm	

Protections

Over temperature, Overload, Short-circuit, Input overvoltage, Output overvoltage.



- Input wires cross section: 0.5 – 2.5 mm²
- Output wires cross section 0.5 – 2.5 mm²
- Wire peeling length: input 6 mm, output 6 mm
- Load wires length: 10 m certified

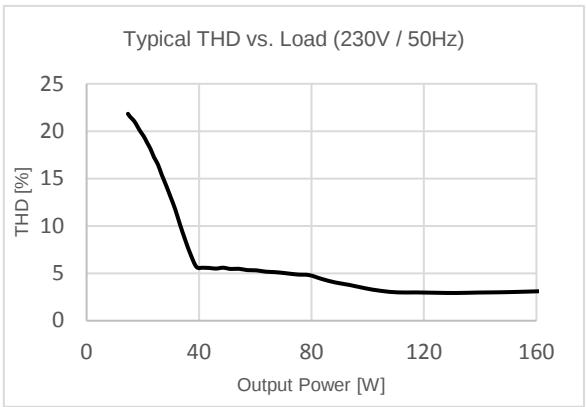
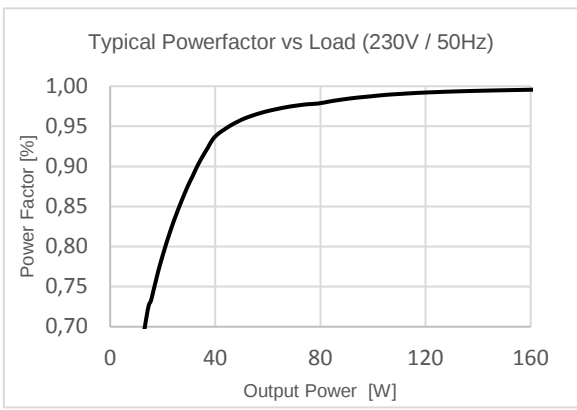
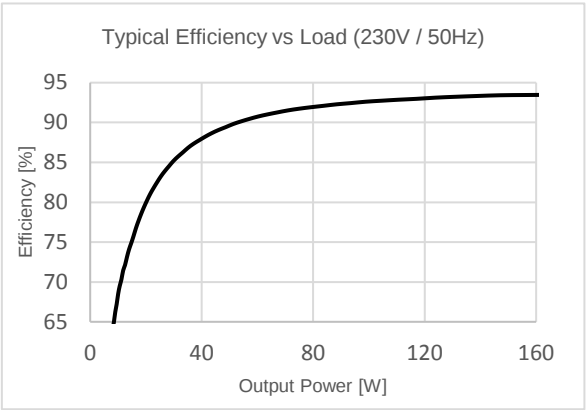
Wiring

LED wire length

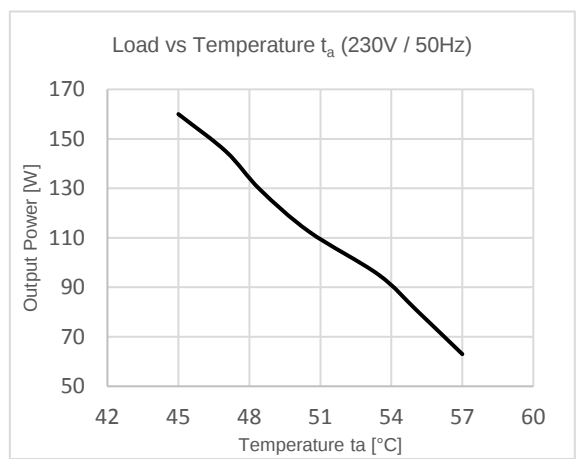
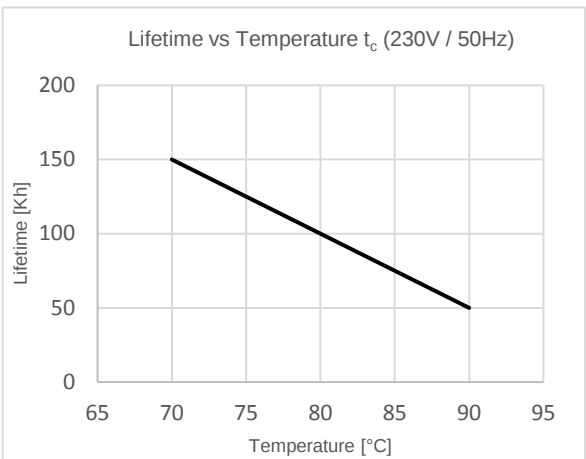
OSRAM internally verified the wire length from LED driver to LED module at full load is up to 50m
Chose a proper wire thickness to reduce the voltage drop effect

wires	mm ²	1	1,5	2,5	4
cross section	AWG	17	15	13	11
maximum cable length		10m	18m	30m	45m

The values are indicative. Each connection may increase the total voltage drop



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Configuration	DIP
1- channel device (1 DALI address): 160 W at channel 1	ON
2- channel device (2 DALI addresses): 160 W split between channel 1 and 2	OFF

Remarks

- **Output overload protection:** the unit automatically dims down to keep the output power below 160 W.
- **No load operation:** Do not put a switch between load and unit.
- **Over temperature protection:** the unit is protected against temporary overheating by automatic dimming down when t_c exceeds. The protection is self-restoring.
- **Touch current:** lower than 0.7 mA, according to EN 60598-1 annex G and EN 61347-1 annex A.
- **Lamp Failure detection:** minimum load per channel that not trigger open circuit detection is 15 W.
- **Emergency lighting:** this LED power supply is suitable for emergency lighting fixtures acc. to EN 60598-2-22, with emergency output factor EOFI = 0.15 (default value, can be programmed up to EOFI = 1 with P_{max} 21 W) and related duration time of 10 h at least. Function in emergency is ensured up to $t_a = 80^\circ\text{C}$ and $t_c = 110^\circ\text{C}$.

Standards

EN 62386
 EN 61347-1
 EN 61347-1
 EN 61347-2-13
 EN 61547
 EN 61000-3-2
 EN 62384
 EN 60598-2-22

Ordering information

Product name	EAN 10	EAN 40	Pieces / box
OTi DALI 160/220-240/24 1-2 CH	4052899986305	4052899986329	20

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