

## OTi DALI 210/220-240/24 1-4 CH P

24 V DALI Constant Voltage LED driver  
Dimmable range 0 - 0,1% - 100%

### Benefits

Long lasting and high reliability  
From 1 to 4 channels to arbitrary distribute the power  
Suitable for installation under Sunlight  
Salt mist resistant and DC functionality  
AstroDim functionality for automatic turn on/off

### Applications

In building's facades, cruises ships, luminous Signage,  
Public squares and architecture lighting  
Suitable for indoor and outdoor SELV installations

### Approvals

If are not printed on product label, they are under evaluation



L	340 mm
L1	324 mm
B	69 mm
H	36 mm

Housing material: aluminum, grey

\*the image is purely for information

### Product Features

- 1 up to 4 DALI addressable channels
- Lamp Failure detection
- Suitable for Class I luminaires
- Smart Power Supply
- SELV, Uout: 24 V
- Wide ta range -30...+55°C
- Driver with output power range of up to 210 W
- Overload/Over temperature/Short circuit protection
- tc max = 85 °C
- AstroDIM function
- Dimmable via DALI interface
- Very low dimming: 0,1%
- High surge protection: up to 4 kV (L-N), 8kV (L/N-PE)
- Mains voltage: 220–240 Vac / 176–276 Vdc
- 50'000 h lifetime at tc
- 5 years guarantee\*
- High IP protection (IP67)
- Output wire length up to 50 m

\*10% cumulated failure

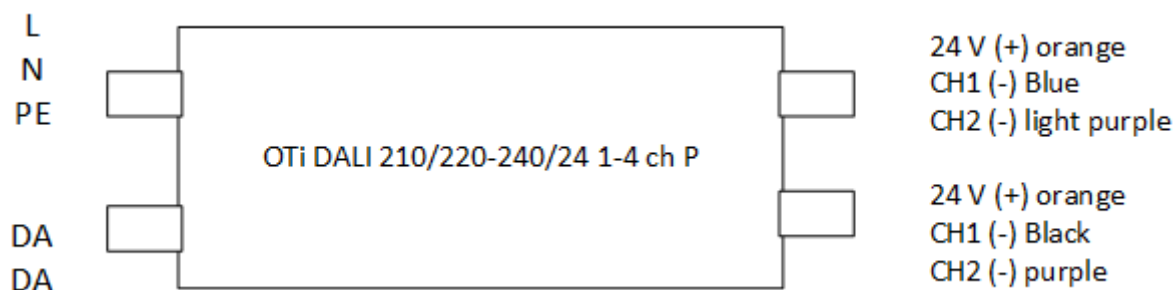
## Electrical specification

	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	
	Nominal current	1	A	Full load, 230 Vac, 50 Hz
	Total Harmonic Distortion (THD)	< 5	%	Full load, 230 Vac, 50 Hz, see graphs
	Power factor $\lambda$	0,95		Full load, 230 Vac, 50 Hz, see graphs
	ECG Efficiency	92	%	Typical, Full load, 230Vac, 50Hz, see graphs
	Power loss in stand-by mode	<500	mW	230Vac, 50Hz
	Protection class	I		
	Suitable for fixtures with prot. Class	I		
	Inrush current	Tbd	A	Full Load, 240 Vac, Cold Start Duration = 100uS, 50%l <sub>pk</sub> —50%l <sub>pk</sub>
	Max. units per circuit breaker	Tbd		
	Max. ECG no. on circuit breaker 10 A (B)	Tbd		
	Max. ECG no. on circuit breaker 16 A (B)	Tbd		
	Max. ECG no. on circuit breaker 25 A (B)	Tbd		
Max. ECG no. on circuit breaker 10 A (C)	Tbd			
Max. ECG no. on circuit breaker 16 A (C)	Tbd			
OUTPUT	Nominal output voltage	24,7	V	
	Voltage accuracy	+/- 5	%	
	Voltage ripple	< 10	%	Ripple / average @ 100 Hz; Full load
	Nominal output power	0 - 210	W	Power factor, harmonics and EMI verified between 78 – 210 W
	Device power loss	18.4	W	Full load, 230 Vac, 50 Hz
	Maximum power	210	W	
	Galvanic isolation	SELV		
DIMMING	Dimming interface	DALI 2.0		DALI ed2 compatible
	Dimming range	0,1 – 100	%	
	Dimming method	PWM		
	PWM frequency	2	kHz	
	Galvanic Isolation	Basic / Double		Basic DALI to Primary / Double DALI to Secondary
ENVIRONMENTAL	Ambient temperature range	-30...+55	°C	
	Max. temperature at t <sub>c</sub> test point	+85	°C	Measured on t <sub>c</sub> point indicated of the prod label, t <sub>a</sub> not exceeded
	Storage temperature range	-40...+85	°C	
	Permitted rel. humidity during operation	5 – 85	%	Not condensing
	Surge capability (L vs N / LN vs PE)	3 / 6	kV	acc to. EN 61547
	Environmental rating	Outdoor		
	IP protection class	IP 67, IP 66		
	Mains switching cycles	> 10'000	cycles	@ t <sub>a</sub> = 25°C
	Expected ECG lifetime	30'000	h	@ t <sub>a</sub> = 55°C, t <sub>c</sub> = 55°C and 10% failure rate, always ON
		50'000	h	@ t <sub>a</sub> = 55°C, t <sub>c</sub> = 55°C and 10% failure rate, 14 h ON and 10 h stand-by per day

	No-load proof	Yes		
	Overheating protection	Yes		Auto recovery
	Overload protection	Yes		Auto recovery
	Short-circuit protection	Yes		Auto recovery
	Type of connection	Cables		
<b>DIMENSIONS</b>	Height	36	mm	
	Length	340 (approximately)	mm	
	Width	69	mm	
	Casing material	Aluminium		
	Mounting hole spacing, length	324 (approximately)	mm	On two side
<b>INPUT</b>	Colour L, N and PE	Blue & Brown & Green/Yellow		
	Cable cross selection	1.0	mm <sup>2</sup>	H05RN-F/3x1.0 mm <sup>2</sup>
	Wire preparation length	90	mm	
	Wire peeling length	10	mm	
	Lead length	300	mm	
<b>OUTPUT</b>	Colour + and -	Orange & Blue & Light Purple / Orange & Black & Purple		24 V x 2 (Orange) CH1 x 1 (Blue) CH2 x 1 (Light Purple) CH3 x 1 (Black) CH4 x 1 (Purple)
	Cable cross selection	1,5	mm <sup>2</sup>	H07RN-F/3x1.5 mm <sup>2</sup>
	Wire preparation length	90	mm	
	Wire peeling length	15	mm	
	Lead length	300	mm	
<b>DIMMING</b>	Colour DALI cable	Black & Black		
	Cable cross selection	1,0	mm <sup>2</sup>	H05RN-F/2x1.0 mm <sup>2</sup>
	Wire preparation length	90	mm	
	Wire peeling length	10	mm	
	Lead length	300	mm	

**Protection**

Over temperature, Overload, Short-circuit, open-circuit. Reversible!



Full load on one channel only is allowed

## Remarks

- **Product performances below minimal load condition:** The output power is still generated if the load is below the minimum output power without any safety risk, but normal performance such as THD, EMI, etc. are not tested. See typical operation window graph for details.
- **Output short circuit protection:** Short circuit current is limited without damaging the unit. Verify the LED load is designed to operate during the short circuit current. See typical operation window graph for details. The short circuit protection is self-restoring.
- **Output overload protection:** in case of overload, the device automatically dims down to keep the output power below 210 W. When the overload exceeds the 130% of nominal load), the unit turns off.
- **No load operation:** Do not put a switch between load and unit.
- **Over temperature protection:** The driver is protected against temporary overheating, it automatically dims down when Tc is exceeded. The protection is self-restoring.
- **External flexible cable or cord:** The external flexible cable or cord of the LED driver cannot be replaced; if the cord is damaged, the LED driver shall be replaced.
- **Waterproof:** The driver is designed for outdoor installation with IP67 protection rate. Input and Output cables must be connected by means of a sealed cable clamp during and after installation.

## Standards

EN 61347-1

EN 61347-2-13

EN 55015

EN 61547

EN 61000-3-2

EN 61000-3-3

EN 60598-1

EN 62384

## Ordering information

Product name	EAN 10	EAN 40	Pieces / Box
OTi DALI 210/220-240/24 1-4Ch P	tbd	tbd	10/20

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