## IT DALI 200/220-240/1A0 E

ICUTRONIC - DALI (AstroDIM) IP20 | Constant current LED drivers



#### Product family features

- Supply voltage: 220...240 V
- AstroDim functionality
- Constant Lumen Output (CLO)
- Available with different wattage: 20 W, 40 W, 75 W, 110 W, 150 W, 200 W
- Output current range 350...1050 mA
- DALI-2 certified (Part 251, 252, 253)
- DALI dimming (min.10%)

#### Product family benefits

- Versatile DALI driver due to flexible output characteristic
- High surge protection: up to 10 kV (single pulse or more)
- Long lasting and high reliability
- Fully programmable via T4T software (DALI / AstroDIM / Constant Lumen)
- 5 years guarantee
- Great flexibility due to wide operating temperature range of up to -40...60 °C (+55°C for some products)
- Lifetime: up to 100,000 h (depending on T temperature, max. 10 % failure rate)
- High efficiency
- High-quality amplitude dimming



## Areas of application

- Street and urban lighting
- Industry
- Suitable for outdoor applications in luminaires with IP > 54
- Suitable for use in outdoor luminaires of protection class I and II



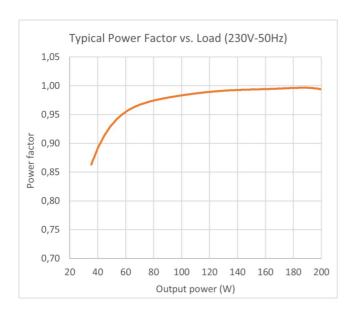
#### Technical data

#### Electrical data

Max. ECG no. on circuit breaker 10 A (B)	3 1)
Max. ECG no. on circuit breaker 16 A (B)	5 1)
Maximum output power	200 W
Minimum output current	70 mA <sup>2)</sup>
Nominal output current	3501050 mA <sup>3)</sup>
Nominal output power	200 W
Nominal output voltage	145285 V
Nominal input voltage	220240 V
Input voltage AC	198264 V
Device power loss	16.5 W <sup>4)</sup>
Efficiency in full-load	92.5 % <sup>5)</sup>
Inrush current	82 A <sup>6)</sup>
Power factor λ	> 0.95 <sup>7)</sup>
Mains frequency	50/60 Hz
Surge capability (L-N)	6 kV <sup>8)</sup>
Surge capability (L/N-Ground)	10 kV
U-OUT (working voltage)	400 V
Output current tolerance	±5 %
Output ripple current (100 Hz)	< ±5 % <sup>9)</sup>
Total harmonic distortion	< 10 % <sup>10)</sup>
Default output current	700 mA

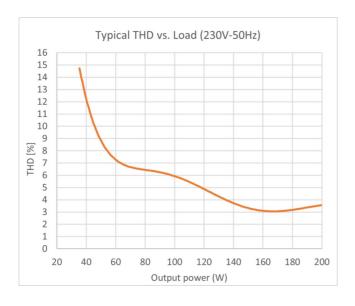
- 1) Type B
- 2) Physical Minimum Dimming Current
- 3) Default 700 mA; 200...1050 mA adjustable
- 4) At Full load, 230 V, 50 Hz
- 5) at 230 V, 50 Hz
- 6) Max, th = 298µs
- 7) Full load at 230 V / 50 Hz
- 8) @ 2 Ohm, acc. to EN61547
- 9) Ripple / average @ 100 Hz
- 10) At full load, 230 V, 50 Hz / see graphs

#### Typical Power Factor v Load



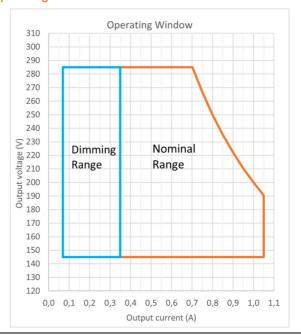
IT DALI 200 120-240 1A0 E Typical Power Factor vs Load 081222

#### Typical THD v Load



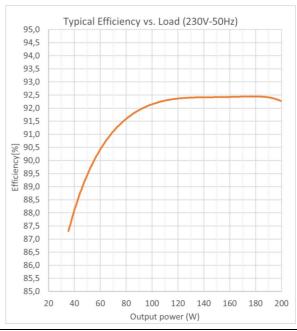
IT DALI 200 120-240 1A0 E Typical THD vs. Load 081222

## **Operating Window**



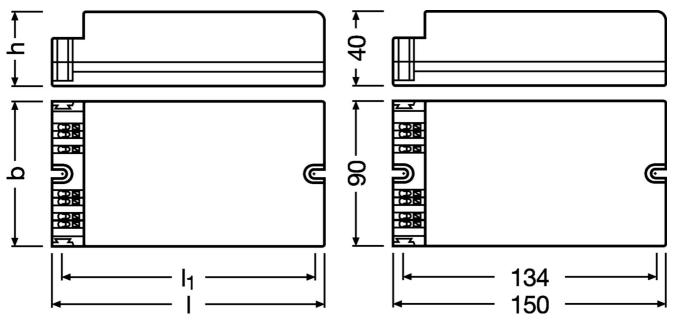
IT DALI 200 120-240 1A0 E Operating Window

## Typical Efficiency v Load 230 V 50 Hz



IT DALI 200 120-240 1A0 E Typical Efficiency vs Load

## **Dimensions & weight**



Product weight	780.00 g	
Length	170.0 mm	
Height	40.0 mm	
Width	100.0 mm	
Cable cross-section, input side	0.21.5 mm <sup>2</sup> 1)	
Cable cross-section, output side	0.21.5 mm <sup>2</sup> 1)	
Mounting hole spacing, length	160.0 mm	
Mounting hole spacing, width	90.0 mm	
Wire preparation length, input side	8.59.5 mm	
Wire preparation length, output side	8.59.5 mm	

<sup>1)</sup> Flexible / Solid leads

## Colors & materials

astic

## Temperatures & operating conditions

Ambient temperature range	-40+55 °C
Max.housing temperature in case of fault	120 °C
Maximum temperature at tc test point	90 °C <sup>1)</sup>
Permitted rel. humidity during operation	585 % <sup>2)</sup>
Temperature range at storage	-2580 °C

<sup>1)</sup> Measured on tc point indicated on the product label.

<sup>2)</sup> Non-condensing

## Lifespan

ECG lifetime	50000 h / 100000 h <sup>1)</sup>

1)  $T_c = 80^{\circ}$ C, 0.2% / 1,000 h failure rate /  $T_c = 70^{\circ}$ C, 0.1% / 1,000 h failure rate

## Capabilities

Max. cable length to lamp/LED module	2.0 m <sup>1)</sup>	
Number of channels	1	
Dimmable	Yes	
Dimming interface	AstroDIM / DALI-2	
Dimming range	10100 %	
Overload protection	Automatic reversible	
Overheating protection	Yes	
Short-circuit protection	Yes	
Suitable for fixtures with prot. class	1/11	
Type of connection, input side	Terminal	
Type of connection, output side	Terminal	
Constant lumen function	Programmable	
LEDset	No	
No-load proof	Yes	

<sup>1)</sup> Output wires must be routed as close as possible to each other

## **Programming**

Box programming	No
20x p. 03. u	

## Programmable features

AstroDIM	Yes
Configuration Lock	Yes
DALI-2 Luminaire Data	Yes 1)
Driver Guard	No
Emergency Mode	No
MainsDIM	No
StepDIM	No

<sup>1)</sup> Acc. DALI part 251

#### Certificates & standards

Type of protection	IP20	
Standards	Acc. to EN 61347-1 / Acc. to EN 61347-2-13 / Acc. to EN 55015 / Acc. to EN 61547 / Acc. to EN 61000-3-2 / Acc. to EN 62384 / Acc. to EN 62386	
Approval marks – approval	CCC / CE / DALI-2 / EAC / ENEC / RCM / UKCA	

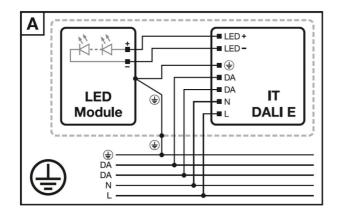
## Logistical data

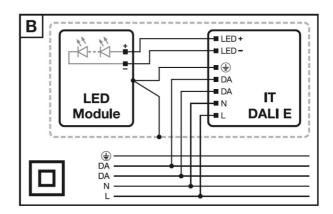
Commodity code	85044083900

#### **Environmental information**

Information according Art. 33 of EU Regulation (EC) 1907/2006 (REACh)		
Date of Declaration	22-07-2024	
Primary Article Identifier	4062172286619	
Declaration No. in SCIP database	In work	
SCIP_STATUS	In work	
SCIP_ID		

#### Wiring Diagram





IT DALI 220-240 1A0 E Wiring Diagram

IT DALI 220-240 1A0 E Wiring Diagram

## Ecodesign regulation information:

Intended for use with LED modules.

The forward voltage of the LED light source shall be within the defined operating window of the control gear in all operating conditions including dimming if applicable.

Separate control gear and light sources must be disposed of at certified disposal companies in accordance with Directive 2012/19/EU (WEEE) in the EU and with Waste Electrical and Electronic Equipment (WEEE) Regulations 2013 in the UK. For this purpose, collection points for recycling centres and take-back systems (CRSO) are available from retailers or private disposal companies, which accept separate control gear and light sources free of charge. In this way, raw materials are conserved and materials are recycled.



#### Additional product information

- The driver withstands an input voltage of up to 300 V AC for a maximum of two hours. An output load shutdown can occur in case the supply voltage exceeds the input voltage range defined.
- Shut down of output load happens if the input voltage of the load is below the allowed minimum output voltage of the driver. The driver automatically tries to switch on the load cyclically.
- The driver automatically switches into protection mode when output voltage exceeds limit and return to normal when the fault condition is removed.
- The driver automatically reduces the output current in case the maximum allowed output power is exceeded.
- The driver automatically reduces the output current in case the maximum allowed output power is exceeded, as long as the input voltage of the load is within the declared output voltage range of the driver. In all other cases the driver may shut down the load.
- The driver is protected against temporary overheating by automatically reduction of the output current.
- The EQUI pin shall be connected to the heat sink of the LED module to improve the surge withstand capability of the system and EMI in critical luminaires.
- The constant lumen feature is disabled by default.
- If any output level is below the physical min level, the physical min level will be used.

#### **Download Data**

File		
Certificates	PDF	►IT DALI 200 1A0 E ENEC 35 123254 01 200923
Certificates	PDF	►OT constant current EAC PA01 B 01618 21 220223
CAD data	Compressed	►IT DALI 200 1A0 E STEP 300323
Mandatory Publications	PDF	►IT DALI 200 1A0 E CE 4403323 02 040523
Mandatory Publications	PDF	►IT DALI 200 1A0 E UK DoC 4403324 01 220923
User instruction	PDF	►User Instruction



## **Logistical Data**

Product code	Product description	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Volume	Gross weight
4062172286619	IT DALI 200/220-240/1A0 E	Shipping carton box 10 Pieces	303 x 285 x 205 mm	17.70 dm³	827.10 g

The mentioned product code describes the smallest quantity unit which can be ordered. One shipping unit can contain one or more single products. When placing an order, for the quantity please enter single or multiples of a shipping unit

#### References / Links

\* For more information on the multi-level guarantee and the terms and conditions of the guarantee visit https://www.inventronics-light.com/multilevel-guarantees

#### **Accessories Optional**

Product description	Accessory name	Accessory code
IT DALI 200/220-240/1A0 E	DALI magic	▶6977078996907
IT DALI 200/220-240/1A0 E	DALI magic	<b>►</b> 6977078997416

#### Disclaimer

Subject to change without notice. Errors and omission excepted. Always make sure to use the most recent release.