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## IT DIM 20/220-240/500 CS I

ICUTRONIC DIM CS I (0-10V) | Compact constant current LED driver – Dimmable



### Product family features

- Dimmable via 0-10V interface
- Cable clamp housing for independent mounting
- Flexible current setting (DIPswitch – 8 currents)

### Product family benefits

- 1-100% dimming
- Dim to off
- Compact housing for mounting in very tight spaces
- Flicker-free dimming
- Higher quality of light thanks to < 3% output ripple current



Specifications are subject to changes without notice.

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### Areas of application

- Decorative illumination
- Downlights, flat luminaires
- Hospitality
- Living areas
- Museums, residential buildings
- Offices
- Shop lighting
- Suitable for indoor SELV installations
- Suitable for luminaires of protection class I and II

### Technical data

#### Electrical data

Nominal input voltage	220...240 V
Mains frequency	50/60 Hz
Input voltage AC	198...264 V <sup>1)</sup>
Input voltage DC	not relevant
Nominal input current at 230 V	0.14 A
Total harmonic distortion	< 15 % <sup>2)</sup>
Power factor $\lambda$	0.73C...0.97 <sup>3)</sup>
Efficiency in full-load	84 % <sup>4)</sup>
Device power loss	3.8 W <sup>5)</sup>
Networked standby power	<0.50 W
Inrush current	26 A <sup>6)</sup>
Max. ECG no. on circuit breaker 10 A (B)	50
Max. ECG no. on circuit breaker 16 A (B)	80
Surge capability (L-N)	1 kV
Surge capability (L/N-Ground)	2 kV
Protective conductor current	<0.7 mA
Nominal output voltage	23...42 V <sup>7)</sup>
U-OUT (working voltage)	60 V
Nominal output current	150 mA / 200 mA / 250 mA / 300 mA / 350 mA / 400 mA / 450 mA / 500 mA <sup>8)</sup>
Default output current	500 mA
Output current tolerance	±5 %
Output ripple current (100 Hz)	< 3 % <sup>9)</sup>
Output PSTLM	≤1
Output SVM	≤0.4
Nominal output power	3.5...21 W
Maximum output power	21 W <sup>10)</sup>
Galvanic isolation primary/secondary	SELV
Galvanic isolation dimming/mains	Double
Galvanic isolation dimming/output	Basic

1) Permitted voltage range

2) Full load, 230V, 50 Hz

3) Full load at 230 V / Minimum load at 230 V

4) at 230 V, 50 Hz

5) Maximum

6)  $t_{width} = 1.4 \mu s$  (measured at 50 %  $I_{peak}$ )

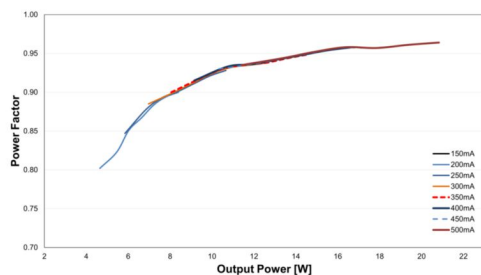
7) Maximum 60 V

8) ±5%

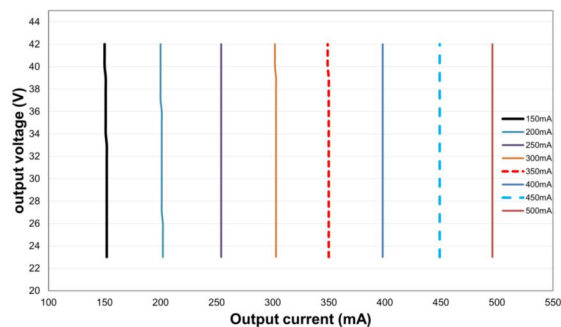
9) Ripple / average @ 100 Hz

10) Partial load 3.5...21 W

## Typical Power Factor v Load

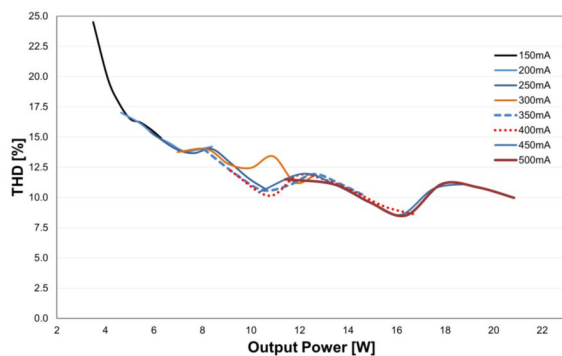


## Operating Window



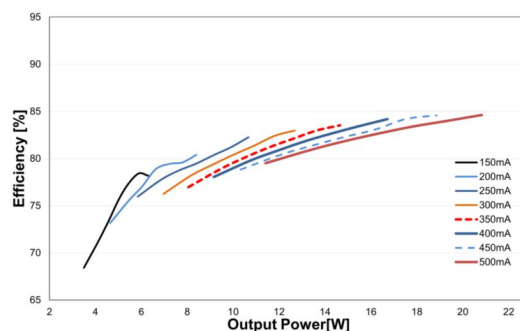
## IT DIM 20 CS | Typical Power Factor vs. Load

### Typical THD v Load



## IT DIM 20 CS | Operating window

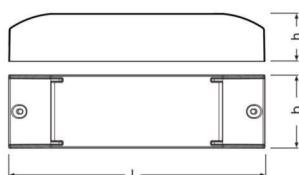
### Typical Efficiency v Load 230 V 50 Hz



## IT DIM 20 CS | Typical THD Vs Load

## IT DIM 20 CS | Typical Efficiency vs. Load

### Dimensions & weight



Product weight	112.50 g
Length	150.0 mm
Width	43.0 mm
Height	28.0 mm
Mounting hole spacing, length	136.0 mm
Mounting hole spacing, width	27.5 mm
Cable cross-section, input side	0.75...1.5 mm <sup>2 1)</sup>
Cable cross-section, output side	0.75...1.5 mm <sup>2 1)</sup>
Wire preparation length, input side	7...8 mm
Wire preparation length, output side	7...8 mm
Cable/wire length, output side	2000 mm

1) Flexible / Solid leads

### Colors & materials

Casing material	Plastic
Product color	White

### Temperatures & operating conditions

Ambient temperature range	-20...+50 °C
Maximum temperature at tc test point	80 °C <sup>1)</sup>
Max.housing temperature in case of fault	110 °C
Temperature range at storage	-40...+85 °C
Permitted rel. humidity during operation	5...85 % <sup>2)</sup>

1) Maximum at the Tc-point

2) Maximum 56 days/year at 85 %

### Lifespan

ECG lifetime	50000 h <sup>1)</sup>
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1) At maximum  $T_c = 80^\circ\text{C}$  / 10% failure rate

### Additional product data

Encapsulated	No
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### Capabilities

Programming interface	Dipswitch
Control interface	0-10V
Dimmable	Yes
Dimming interface	0-10V
Dimming range	1...100 %
Dimming method	Amplitude Modulation
Constant lumen function	No
Max. cable length to lamp/LED module	2.0 m <sup>1)</sup>
Suitable for fixtures with prot. class	I / II
Suitable for emergency lighting	No
Type of connection, input side	Push terminal
Type of connection, output side	Push terminal
Suitable for through-wiring	No
Number of channels	1
Overheating protection	Automatic reversible
Overload protection	Automatic reversible
Short-circuit protection	Automatic reversible
Intended for no-load operation	No
No-load proof	Yes

1) Output wires must be routed as close as possible to each other

### Programming

Programming device	DIPswitch
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### Certificates & standards

Approval marks – approval	CE / UKCA / CCC / RCM / ENEC
Standards	IEC 61347-1 / IEC 61347-2-3 / IEC 62384 / IEC 61000-3-2 / IEC 61547 / IEC 61000-3-3
Type of protection	IP20

### Logistical data

Commodity code	85044083900
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### Environmental information

Information according Art. 33 of EU Regulation (EC) 1907/2006 (REACH)	
Date of Declaration	13-02-2025
Primary Article Identifier	4062172321402
Declaration No. in SCIP database	In work
SCIP_STATUS	In work
SCIP_ID	

#### 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.



### Download Data

File		
Certificates	PDF	▶ IT DIM CS I ENEC 35 126718 02 221023
Certificates	PDF	▶ IT DIM 20 CCC 2022171002004778 040324
Certificates	PDF	▶ IT DIM 20 40 CS I Safety cert. 130123
Certificates	PDF	▶ IT DIM CS I NSW 28523 4 240123
CAD data 3-dim	Compressed	▶ IT DIM 20 40 CS I CAD3PDF 110724
CAD data	Compressed	▶ IT DIM 20 40 CS I STEP 110724
Mandatory Publications	PDF	▶ IT DIM CS I CE 4453914 03 100125
Mandatory Publications	PDF	▶ IT DIM CS I UK DoC 4453916 02 120724
User instruction	PDF	▶ UI IT DIM CS I

#### Logistical Data

Product code	Product description	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Volume	Gross weight
4062172321402 OSRAM	IT DIM 20/220-240/500 CS I	Shipping carton box 20 Pieces	225 x 170 x 139 mm	5.32 dm <sup>3</sup>	235.00 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

#### Disclaimer

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