

LED Driver

EUCI BL Series

EUCI BL

Highlights & Features

- Constant current design
- EMEA AC input voltage from 220-240Vac
- Up to 88% efficiency
- IP20 built-in driver, for indoor use
- Optional strain-relief set for independent applications
- Build-in active PFC and confirm to harmonic current IEC/EN 61000-3-2, Class C
- Adjustable constant current level through DALI tool
- Bluetooth low energy and DALI dimming available
- 1% -100% dimming range

Safety Standards



Dimensions (L x W x D):

EUCI-020070BLA	150 x 45 x 30 mm
EUCI-040140BLA	150 x 45 x 30 mm
EUCI-020070BLAB	100 x 45 x 30 mm
EUCI-040140BLAB	100 x 45 x 30 mm

General Description

Delta EUCI BL series of output current LED drivers with Bluetooth low energy and DALI control comes with affordable and reliable features. Compatible with built-in and independent type with clip-in strain relief mechanical design. Output current level with DALI programming design for different lumen application. Meet major Europe safety certifications and are compliant with EN55015 Immunity / Emissions / Harmonic requirements. The products are designed and rigorously tested to work in various indoor LED lighting conditions.

Model Information

EUCI Bluetooth MESH + DALI LED Driver

Model Number	Input Voltage Range	Rated Output Voltage	Program Output Current Range	Constant Power Current Range
EUCI-020070BLA	220-240Vac Typical 198-264Vac Range	24Vdc-54Vdc	250-700mA	370-700mA
EUCI-040140BLA		20Vdc-50Vdc	500-1400mA	800-1400mA
EUCI-020070BLAB		24Vdc-54Vdc	250-700mA	370-700mA
EUCI-040140BLAB		20Vdc-50Vdc	500-1400mA	800-1400mA

Model Numbering

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Safety Approval CE CCC ENEC	Constant Current	Indoor		Output Power 020 – 20W 040 – 40W	Max Output Current 070 – 700mA 140 – 1400mA	Dimming Type B-Bluetooth Single Channel	Dimming Type L – DALI	Serial Number A Serial	Commercial Scope B-Built-in Type

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Specifications

Model Number	EUCI-020070BLA	EUCI-020070BLAB	EUCI-040140BLA	EUCI-040140BLAB
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Input Ratings / Characteristics

Normal Input Voltage		220-240Vac	
Input Voltage Range		198-264Vac	
Normal Input Frequency		50-60Hz	
Input Frequency Range		47-63Hz	
Max. Input Current	220Vac	0.13A	0.25A
Efficiency ¹⁾	230Vac	86.5%	88%
Inrush Current (Apk / 50% - μ S @ Cold Start)		25A / 150us @ 230Vac	
Max. no. of LED Drivers circuit breaker at 230Vac	B16	39 pcs	
Power Factor		> 0.95 @ full load	
Total Harmonic Distortion		THD < 20% with load $\geq$ 50% @ 230Vac	
Leakage Current		< 0.7mA	

1) 100% Load (typical) and tested after 30 minutes warm up.

Output Ratings / Characteristics

Output Voltage Range	24-54Vdc	20-50Vdc
Max. No Load Output Voltage	59V	59V
Output Power Range	20W	40W
Programmable Output Current (DALI)	250-700mA	500-1400mA
Constant Power Current Range	370-700mA	800-1400mA
Minimum Output Current	1% (Min dim level)	
Current Accuracy	$\pm$ 5% (@ Typical output current range)	
Line Regulation	$\pm$ 1% (@ 220-240Vac input)	
Load Regulation	$\pm$ 5% (@ Min-Max output voltage)	
Output Current LF Ripple	5% (ripple = peak-average/average) at full load (<100Hz)	
Start-up Time	1000ms max. @ 230Vac	

Mechanical

Casing	Plastic, Color: White, no potting		Plastic, Color: White, potting	
Dimensions (L x W x H) [mm]	150 x 45 x 30	100 x 45 x 30	150 x 45 x 30	100 x 45 x 30
Unit Weight [kg]	0.13	0.11	0.19	0.17
Cooling System	Convection			
Input connector :	Terminal, 4-pole (Neutral/Line/DALI/DALI), Conductor 0.75~1.5 mm ² , Strip length 8.5...9.5mm			
Output connector :	Terminal, 2-pole (Positive/Negative), Conductor 0.75~1.5 mm ² , Strip length 8.5...9.5mm			

Environment

Ambient Temperature	Operating	-25 ~+60°C	-25 ~+50°C
	Storage	-25°C to +85°C	
Maximum Case Temperature		85°C	90°C
Lifetime Case Temperature		75°C	80°C
Relative Humidity	Operating	10 to 90% RH (Non-Condensing)	
	Storage	10 to 95% RH (Non-Condensing)	

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Protections

Over Voltage	Max. 59V, If it continues to exceed the operating voltage range for 15 seconds, this driver will latch off until AC re-power on.
Open Load	When it keep open load more than 15 seconds, the driver will latch off until AC re-power on.
Short Circuit	Auto-Recovery when the fault is removed
Over Temperature	Auto-Recovery when the fault is removed
Ingress Protection Classification	IP20
Suitable for Luminaires Class	Class II. Insulation Class according to IEC 60598

Reliability Data

Lifetime	50,000 hrs. @ lifetime case temperature		
MTTF	500,000 hrs.@ 50°C ambient temperature as per Telcordia SR-332	500,000 hrs.@ 40°C ambient temperature as per Telcordia SR-332	

Safety Standards / Directives

Electrical Safety	CB scheme to IEC 61347-1, IEC 61347-2-13 ENEC to EN 61347-1, EN 61347-2-13, EN 62384 CCC, GB19510.1, GB19510.14 SELV			
CE	In conformance with EMC Directive and Low Voltage Directive			
Material and Parts	RoHS Directive Compliant			
Galvanic Isolation		Mains (Input)	Output	DALI
	Mains (Input)	N/A	3,000V	1,500V
	Output	3,000V	N/A	1,500V

EMC

Emissions (CE & RE)	Compliance to EN 55015 Class B	
Immunity	Compliance to EN 61547	
Electrostatic Discharge	IEC 61000-4-2	Air Discharge: 8kV ; Contact Discharge: 4kV Criteria A ¹⁾ or B ²⁾
Radiated Disturbances	IEC 61000-4-3	80MHz-1GHz, 3V/m with 1kHz Sine Wave / 80% AM Modulation Criteria A ¹⁾
Electrical Fast Transient / Burst	IEC 61000-4-4	1kV; Criteria A ¹⁾ or B ²⁾
Surge	IEC 61000-4-5	1.2/50μs, 8/20μs Combination Wave with 2ohms (L-N), 12ohms (L-PE & N-PE) source impedance Criteria A ¹⁾ or B ²⁾ Common Mode ³⁾ : 2kV; Differential Mode ⁴⁾ : 1kV
Conducted Disturbances	IEC 61000-4-6	150kHz-80MHz, 3Vrms; Criteria A ¹⁾
Power Frequency Magnetic Fields	IEC 61000-4-8	3A/Meter; Criteria A ¹⁾
Voltage Dips	IEC 61000-4-11	100% dip; 0.5 cycle; Self Recoverable 30% dip; 10 cycle; Self Recoverable Criteria A ¹⁾ or B ²⁾
Harmonic Current Emission	IEC 61000-3-2	Class C (230Vac @ 100% load)
Voltage Fluctuation and Flicker	IEC 61000-3-3	P _{st} ≤ 1.0 ; d _{max} ≤ 4% ; P _{lt} ≤ 0.65 ; d _c ≤ 3.3% ; T _{max} ≤ 500ms

1) Criteria A: Normal performance within the specification limits

2) Criteria B: Temporary degradation or loss of function which is self-recoverable

3) Asymmetrical: Common mode (Line to earth)

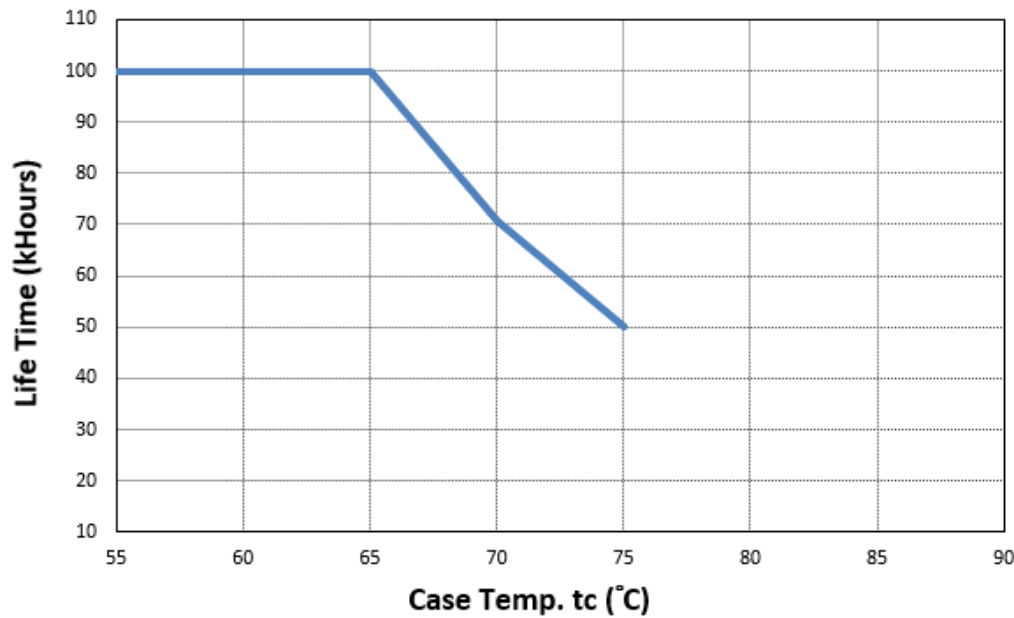
4) Symmetrical: Differential mode (Line to line)

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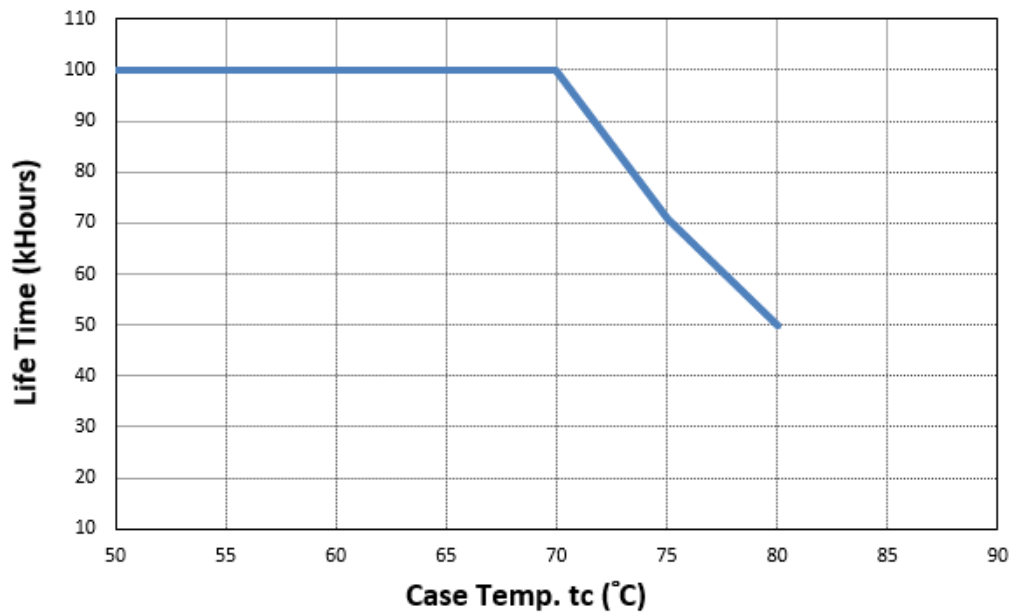
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Lifetime VS Case Temperature

EUCI-020070BLA



EUCI-040140BLA

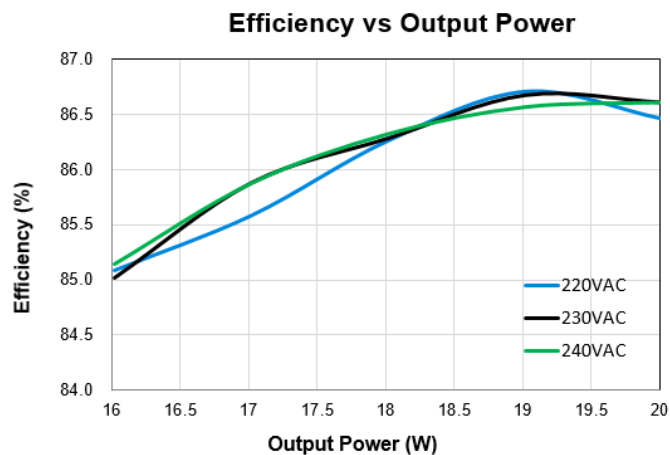


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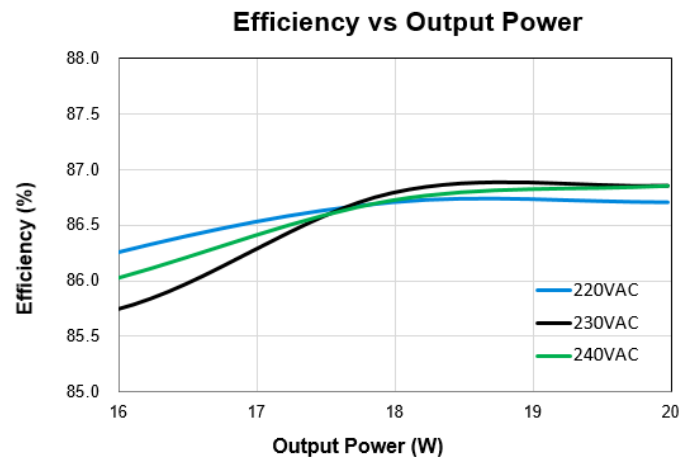
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Efficiency VS Output Power

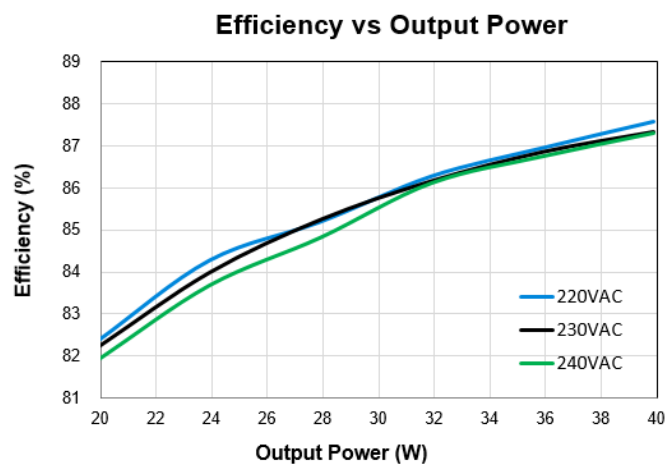
EUCI-020070BLA 700mA



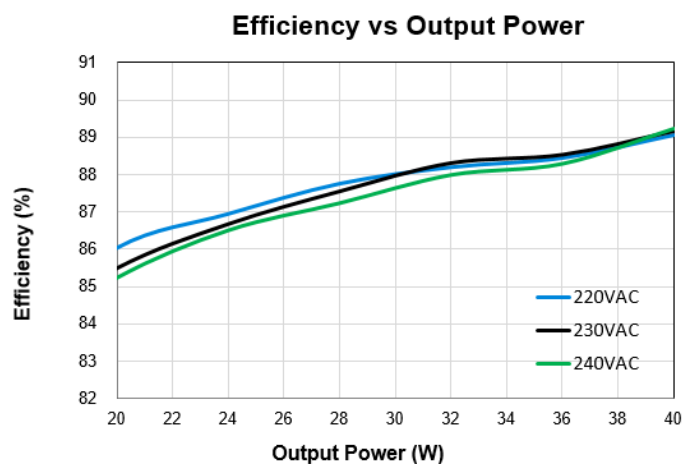
EUCI-020070BLA 370mA



EUCI-040140BLA 1400mA



EUCI-040140BLA 800mA

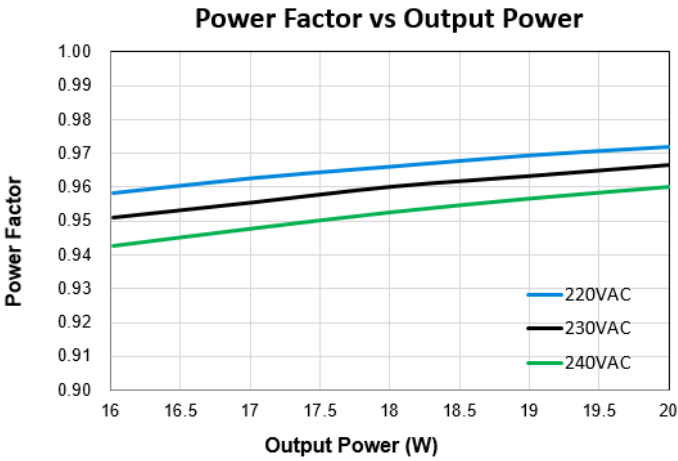


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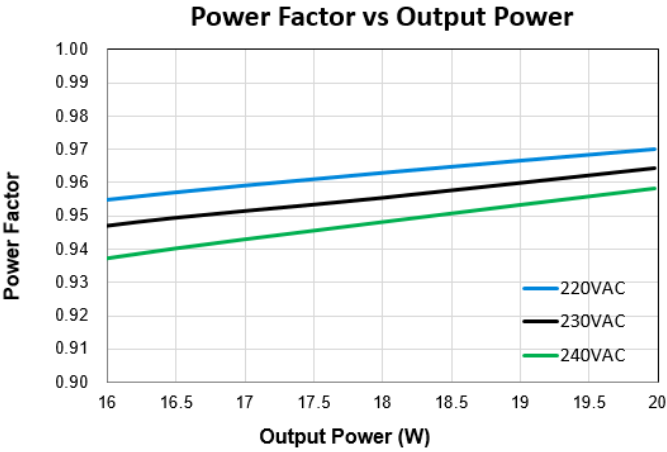
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Power Factor VS Output Power

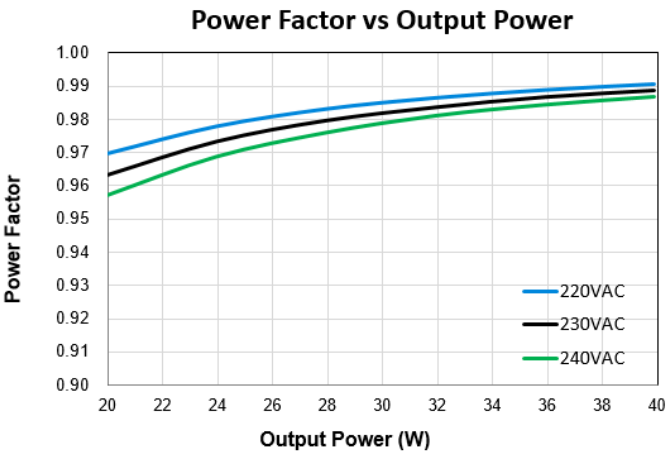
EUCI-020070BLA 700mA



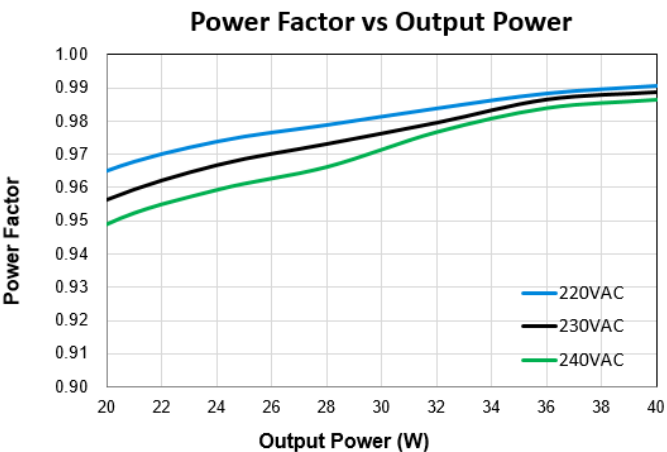
EUCI-020070BLA 370mA



EUCI-040140BLA 1400mA



EUCI-040140BLA 800mA

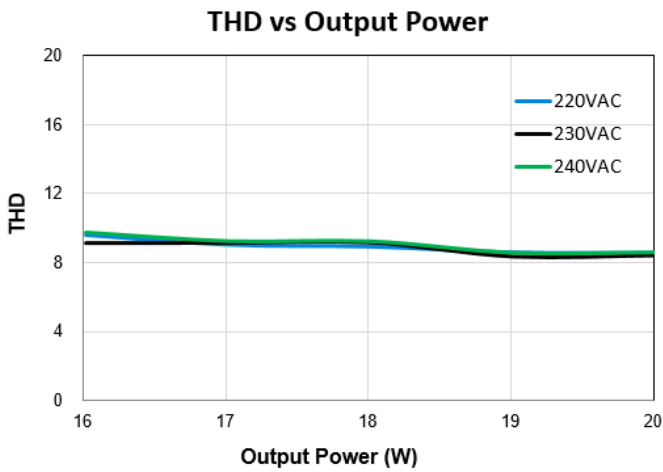


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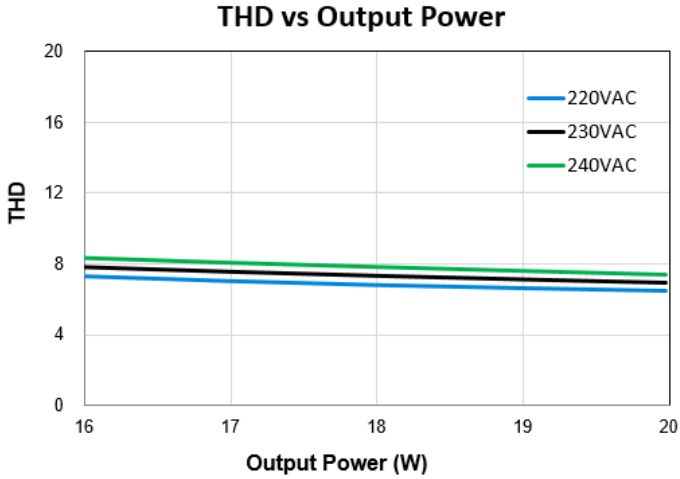
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Total Harmonic Distortion VS Output Power

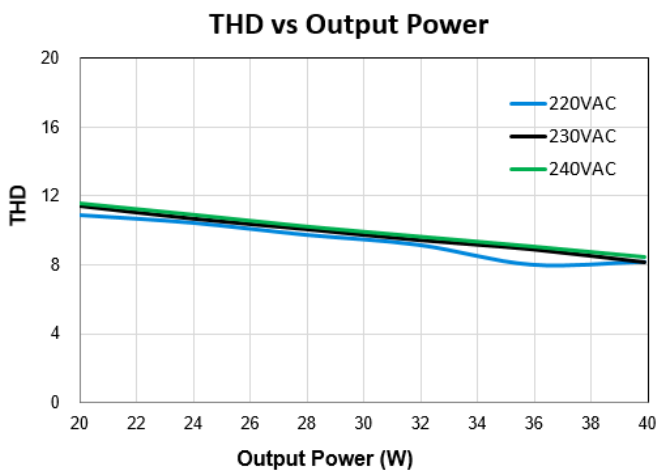
EUCI-020070BLA 700mA



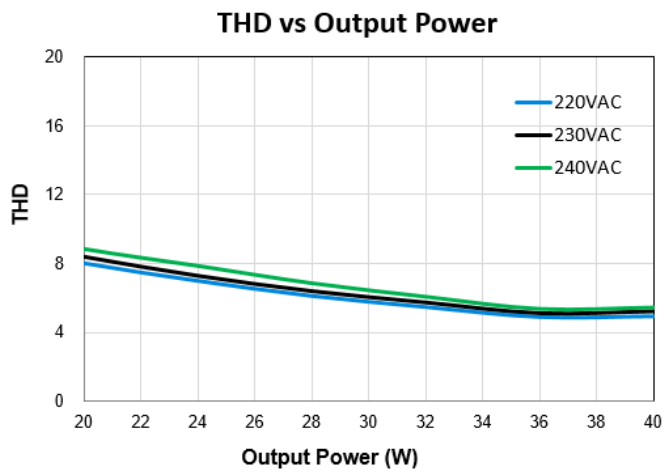
EUCI-020070BLA 370mA



EUCI-040140BLA 1400mA



EUCI-040140BLA 800mA

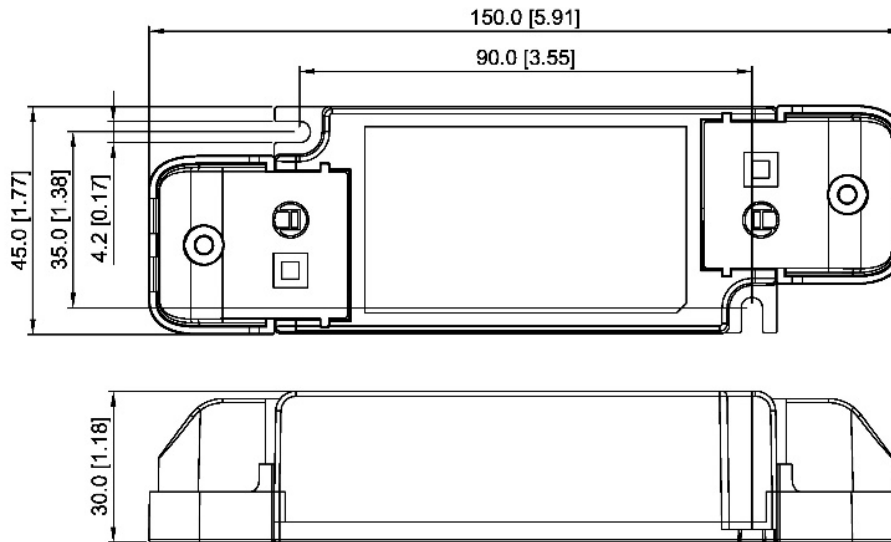


LED Driver

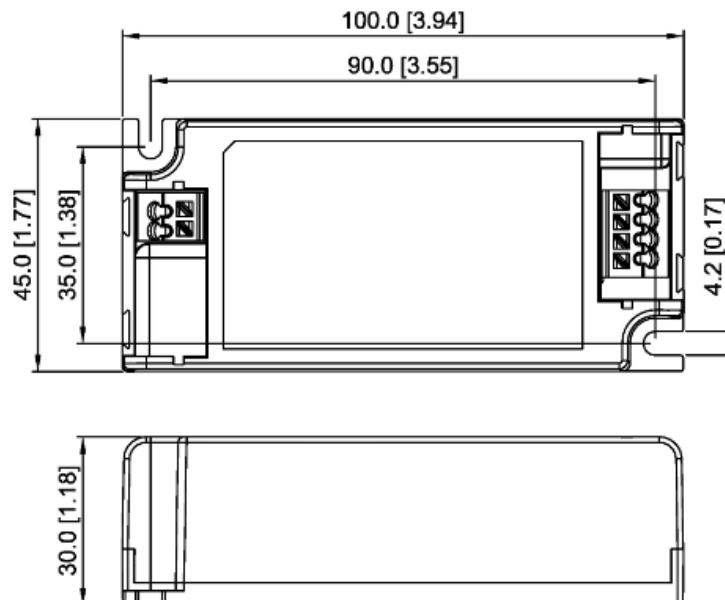
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Dimensions

EUCI-020070BLA / EUCI-040140BLA



EUCI-020070BLAB / EUCI-040140BLAB



Unit: mm [inch]

Others

Warranty Policy

Please reach out our [Warranty Policy](#) should you require any further clarification.