

LED Driver

EUCI MINI Series

EUCI MINI



Highlights & Features

- Constant current design
- Input voltage from 220-240Vac/ 176-280Vdc
- Built-in or independent type with clip-in strain-relief
- Meets IEC/EN 61000-3-2, Class C
- Output current adjustable by programming tool
- DALI control and emergency lighting is available
- IP20 assembly for indoor applications

Safety Standards



Dimensions (L x W x D):

Built-in type

97 x 43 x 30 mm (3.82 x 1.69 x 1.18 inch)

Independent type clip-in strain-relief

147 x 43 x 30 mm (5.79 x 1.69 x 1.18 inch)

General Description

Delta EUCI-Mini series of output current LED drivers with i-Programming and DALI control comes with affordable and reliable features. Compatible with built-in and independent type with clip-in strain relief from any LED manufacturer. Output current with i-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 MINI LED Driver

Model Number	Input Voltage Range	Rated Output Voltage	Rated Output Current
EUCI-020070GLA	220-240Vac/Vdc Typical 198-264Vac Range 176-280Vdc Range	24-54Vdc	250-700mA

Model Numbering

EU	C	I -	□□□	□□□	□□	□
Safety EMEA	Output Type C: Constant Current	Application Indoor	Output Power 020 – 20W	Output Current 070 – 700mA	Function/Interface GL – i-Programming +DALI Control	Variable A – standard

LED Driver

EUCI MINI Series

Specifications

Model Number	EUCI-020070GLA
--------------	----------------

Input Ratings / Characteristics

Normal Input Voltage	220-240Vac 220-240Vdc
Input Voltage Range	198-264Vac 176-280Vdc
Normal Input Frequency	50/60 Hz
Input Frequency Range	47-63 Hz
Normal Input Current	0.13A @ 220-240Vac / 0.11A @ 220-240Vdc
Efficiency ¹⁾ 230Vac	86% typ.
Stand By Power Consumption	< 0.5W
Inrush Current (Apk / 50%-us) (Cold Start)	50A/150us @ 230Vac
Max. no. of LED Driver for Circuit Breaker	B16 17pcs
Power Factor	>0.95 @ 230Vac/50Hz
Total Harmonic Distortion	< 15% @ 230Vac/50Hz at 100% load
Leakage Current	< 0.7mA @ 230Vac

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

Output Ratings / Characteristics

Nominal Output Current	250-700mA
Output Voltage Range	24-54Vdc
Max. No Load Output Voltage	60Vdc
Output Power Range	6-20W
Output Current Tolerance	± 5%
Line Regulation	± 1%
Load Regulation	± 5%
Output Current Ripple(<100Hz)	5% @full load(ripple = pk-avg/avg)
Rise Time	< 100ms @ 230Vac
Start-up Time	< 200ms @230Vac

Mechanical

Casing	Plastic, Color : White
Dimensions (L x W x H) [mm] [inch]	Built-in : 97.0 x 43.0 x 30.0, Independent : 147.0 x 43.0 x 30.0 Built-in : 3.82 x 1.69 x 1.18, Independent : 5.79 x 1.69 x 1.18
Unit Weight [kg] [lb]	Built-in : 0.16, Independent : 0.19 Built-in : 0.35, Independent : 0.42
Cooling System	Convection
Input connector :	Terminal, 6-pole (Neutral/Line/DALI1/DALI2/GND/PRG), Conductor 0.75~1.5 mm ² , Strip length 8.5...9.5mm
Output connector	Terminal, 2-pole (LED+/LED-), Conductor 0.75~1.5 mm ² , Strip length 8.5...9.5mm

LED Driver

EUCI MINI Series

Model Number	EUCI-020070GLA
--------------	----------------

Environment

Ambient Temperature	Operating	-25°C to +50°C
	Storage	-40°C to +85°C
Maximum Case Temperature		85°C
Lifetime Case Temperature		85°C
Relative Humidity	Operating	10 to 60% RH (Non-Condensing)
	Storage	10 to 95% RH (Non-Condensing)

Protections

Over Voltage	Max. 60V, Auto-Recovery when the fault is removed
Open Load	Auto-Recovery when the fault is removed
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. at lifetime case temperature
MTTF	500,000 hrs.@ta: +50°C (as per Telcordia SR-332 , total failure rate less than 10%)

Safety Standards / Directives

Electrical Safety	Built-in type, without kits -Class II -SELV -EL -CB scheme to IEC 61347-1, IEC 61347-2-13 -ENEC to EN 61347-1, EN 61347-2-13 SMPS incorporating a short-circuit-proof safety isolating transformer,			
	Independent type, with kits -Class II, Independent lamp control gear, -SELV -EL -CB scheme to IEC 61347-1, IEC 61347-2-13 -ENEC to EN 61347-1, EN 61347-2-13 SMPS incorporating a short-circuit-proof safety isolating transformer, Temperature declared thermally protected lamp control gear, MM mark			
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	3750V	1875V
	Output	3750V	N/A	1875V
	DALI	1875V	1875V	N/A

LED Driver

EUCI MINI Series

Model Number	EUCI-020070GLA
--------------	----------------

EMC

Emissions (CE & RE)	Compliance to EN 55015 Class B	
Immunity	Compliance to EN 61547	
Electrostatic Discharge	IEC 61000-4-2	ESD, Criteria A ¹⁾ or B ²⁾ Air Discharge: 8kV; Contact Discharge: 4kV
Radiated Field	IEC 61000-4-3	RS, Criteria A1 80MHz-1GHz, 3V/m with 1kHz Sine Wave / 80% AM Modulation
Electrical Fast Transient / Burst	IEC 61000-4-4	EFT, Criteria A ¹⁾ or B ²⁾ 1kV
Surge	IEC 61000-4-5	Criteria A ¹⁾ or B ²⁾ Common Mode ³⁾ : 2kV; Differential Mode ⁴⁾ : 1kV 1.2/50 μ s, 8/20 μ s Combination Wave with 2ohms (L-N), 12ohms (L-PE & N-PE) source impedance
Conducted Disturbance	IEC 61000-4-6	CS, Criteria A ¹⁾ 150kHz-80MHz, 3Vrms
Power Frequency Magnetic Fields	IEC 61000-4-8	PFMF, Criteria A ¹⁾ 3A/Meter
Voltage Dips	IEC 61000-4-11	Criteria A ¹⁾ or B ²⁾ ; 100% dip; 0.5 cycle; Self Recoverable 30% dip; 10 cycle; Self Recoverable
Harmonic Current Emission	IEC 61000-3-2	Class C (230Vac @ 100% load)
Voltage Fluctuation and Flicker	IEC 61000-3-3	$P_{st} \leq 1.0$; $d_{max} \leq 4\%$; $P_{It} \leq 0.65$; $d_c \leq 3.3\%$; $T_{max} \leq 500ms$

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)

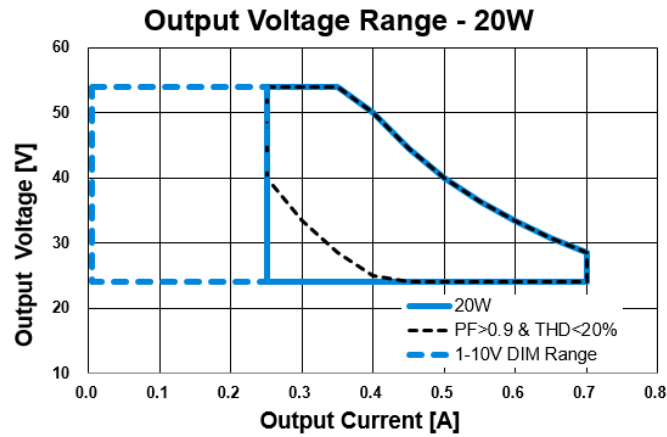
4) Symmetrical: Differential mode (Line to line)

LED Driver

EUCI MINI Series

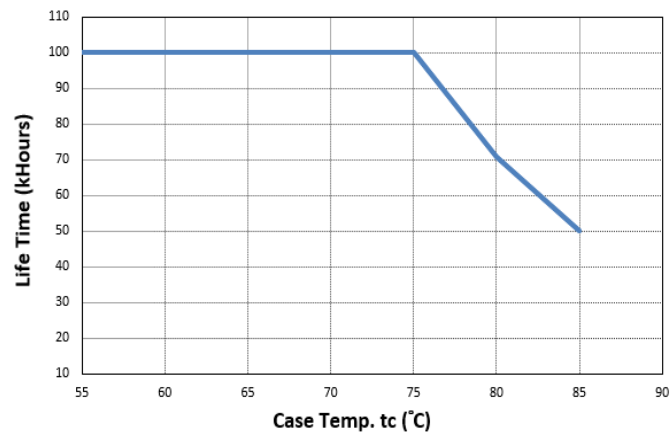
Output and Dimming Characteristic Curve

EUCI-020070GLA



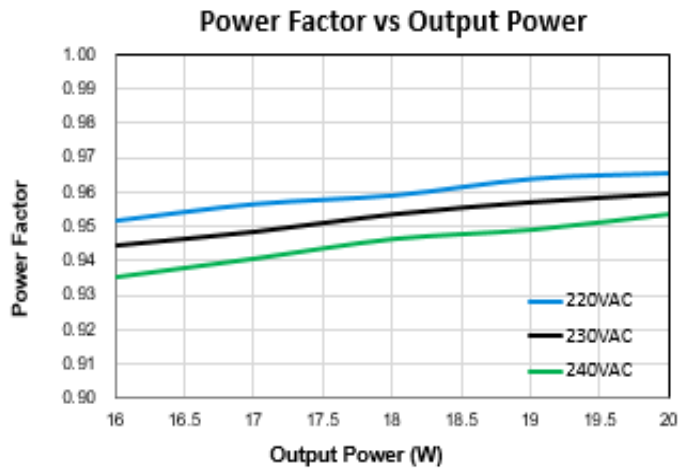
Lifetime VS Case Temperature

EUCI-020070GLA

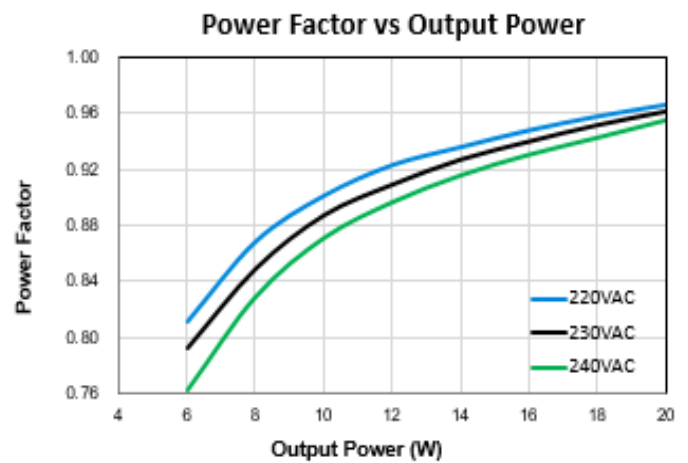


Power Factor VS Output Power

EUCI-020070GLA-700mA



EUCI-020070GLA-370mA

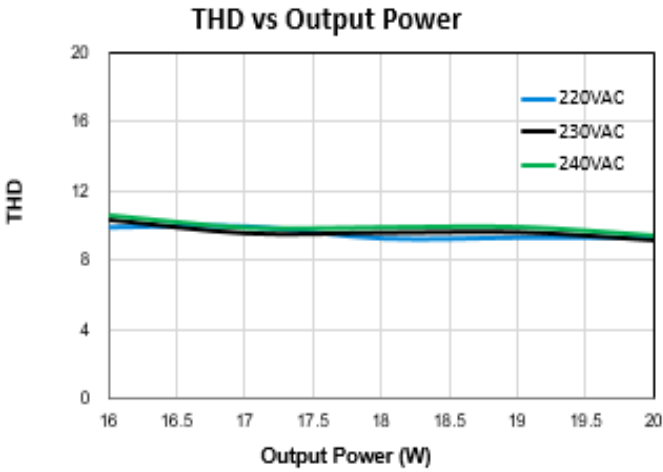


LED Driver

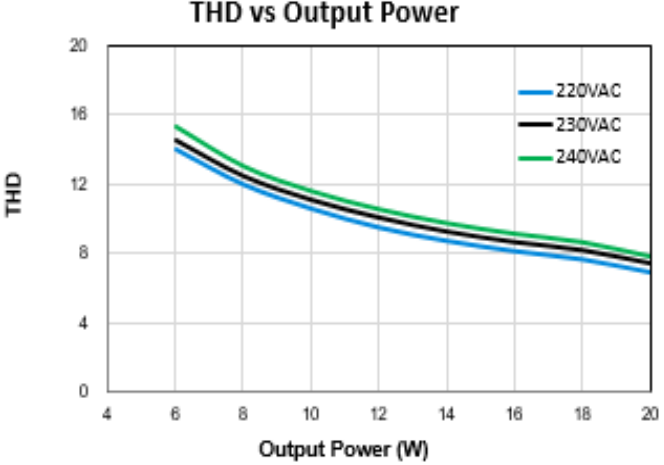
EUCI MINI Series

Total Harmonic Distortion VS Output Power

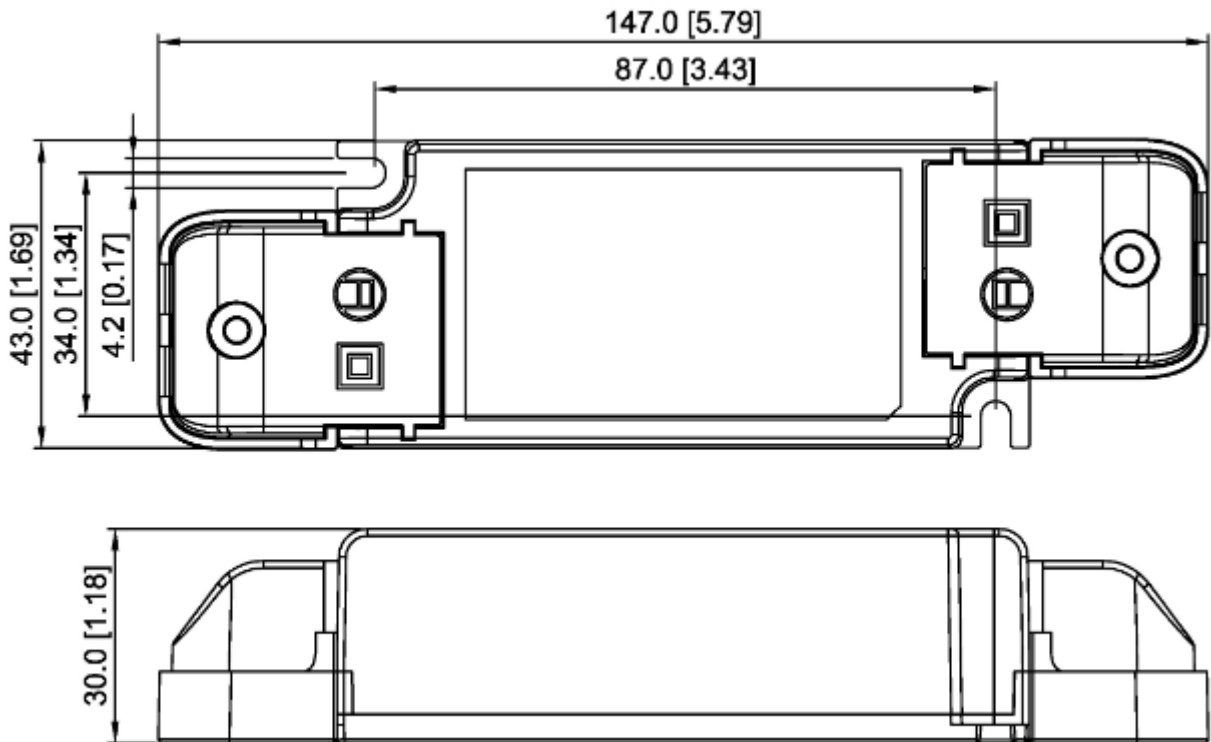
EUCI-020070GLA-700mA



EUCI-020070GLA-370mA



Dimensions



Unit: mm [inch]