

Element LD 60/220...240/1A4

ELEMENT LD | Compact constant current LED driver – Non dimmable



Product family features

- Available with wattages up to 60 W
- Constant output current
- Integrated cable clamp for luminaire and independent installation
- Operated with Safety extra-low voltage (SELV): < 60 V
- Reversible overtemperature, overload, short-circuit and open-circuit protection

Product family benefits

- Compatible with LEDs with Chip-On-Board technology and discrete LEDs
- High efficiency
- Simple installation and wiring

Areas of application

- Spotlight and downlight installations for shops
- Recessed luminaires
- Suitable for luminaires of protection classes I and II
- Suitable for indoor SELV installations

Technical data

Electrical data

Nominal input voltage	220...240 V
Mains frequency	50/60 Hz
Input voltage AC	220...240 V ¹⁾
Total harmonic distortion	< 10 %
Power factor λ	0.98 ²⁾
Efficiency in full-load	> 90 % ³⁾
Device power loss	8.8 W ⁴⁾
Inrush current	< 16 A ⁵⁾
Max. ECG no. on circuit breaker 10 A (B)	13
Max. ECG no. on circuit breaker 16 A (B)	20
Max. ECG no. on circuit breaker 25 A (B)	-
Surge capability (L/N-Ground)	1 kV
Surge capability (L-N)	1 kV
Nominal output voltage	21...42 V ⁶⁾
U-OUT (working voltage)	60 V
Nominal output current	1400 mA
Output current tolerance	±10 %
Output ripple current (100 Hz)	15 % ⁷⁾
Output PSTLM	≤1
Output SVM	≤0.4
Nominal output power	60 W
Maximum output power	60 W
Galvanic isolation	SELV
Galvanic isolation primary/secondary	SELV
Current set	Fixed current

¹⁾ V_{AC}

²⁾ Full load at 230 V/50 Hz

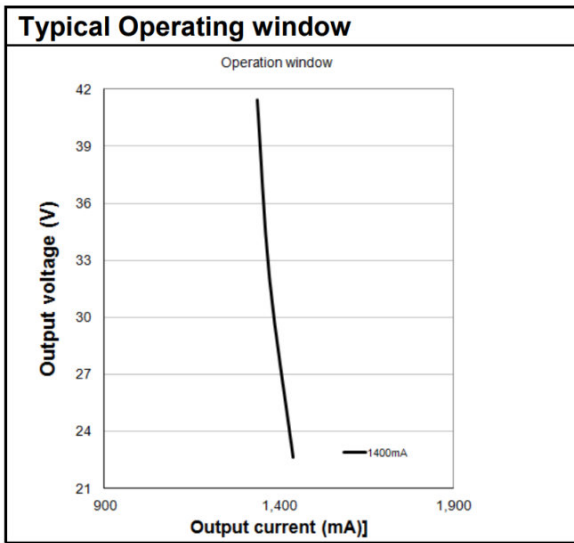
³⁾ at 230 V, 50 Hz

⁴⁾ At 230 V / Input power 67.8 W max.

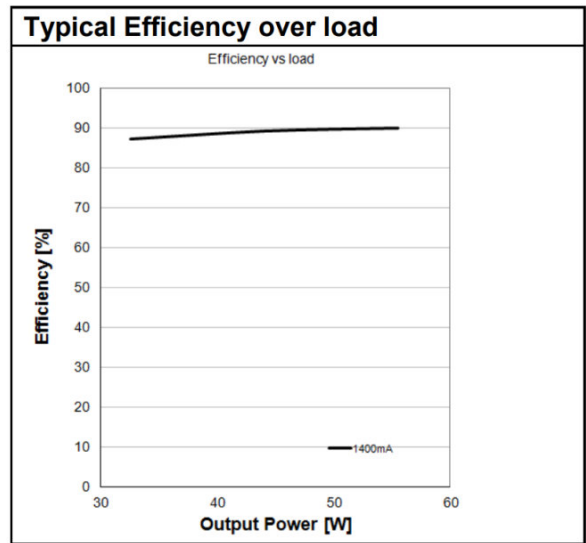
⁵⁾ $t_{width} = 50 \mu s$ (measured at 50 % I_{peak})

⁶⁾ DC voltage

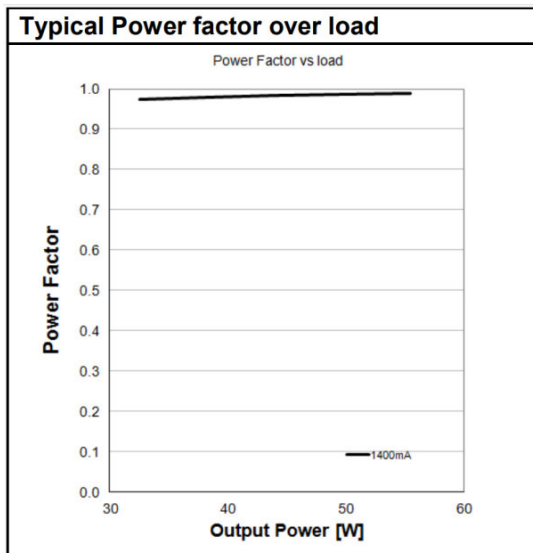
⁷⁾ Ripple average at 100 Hz



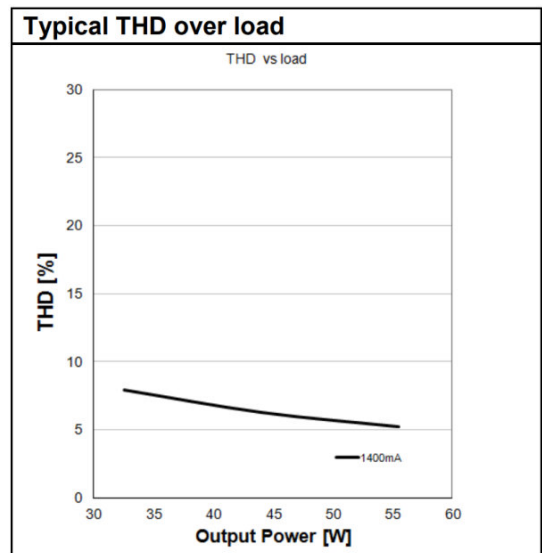
ELEMENT LD 60220-240 1A4 Operating Window



ELEMENT LD 60220-240 1A4 Typical Efficiency vs. Load (230 V 50 Hz)

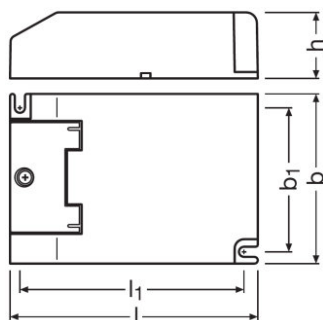


ELEMENT LD 60220-240 1A4 Typical Power Factor vs. Load



ELEMENT LD 60220-240 1A4 Typical THD Vs Load

Dimensions & weight



Mounting hole spacing, length	99.0 mm
Mounting hole spacing, width	64.0 mm
Product weight	185.00 g
Cable cross-section, input side	0.5...1.5 mm ²
Cable cross-section, output side	0.5...1.5 mm ²
Wire preparation length, input side	8.0...9.0 mm
Wire preparation length, output side	8.0...9.0 mm
Length	110.0 mm
Width	75.0 mm
Height	29.5 mm

Colors & materials

Casing material	Plastic
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Temperatures & operating conditions

Ambient temperature range	-10...+45 °C
Maximum temperature at tc test point	85 °C
Max.housing temperature in case of fault	110 °C
Temperature range at storage	-10...85 °C
Permitted rel. humidity during operation	5...85 % ¹⁾

¹⁾ Maximum 56 days/year at 85 %

Lifespan

ECG lifetime	30000 h ¹⁾
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¹⁾ At $T_{case} = 85^\circ\text{C}$ at T_c point / 10% failure rate

Product datasheet

Expected Lifetime

Product name				
Element LD 60/220...240/1A4	ECG ambient temperature [ta]	45	-	-
	Temperature at tc-point [°C]	85	-	-
	Lifetime [h]	30000 ¹⁾	-	-

¹⁾ Max. 10% failure rate at tc max

Capabilities

Dimmable	No
Overheating protection	Automatic switch off, reversible by manual mains reset
Overload protection	Automatic switch off, reversible by manual mains reset
Short-circuit protection	Automatic reversible
No-load proof	Yes
Intended for no-load operation	No
Max. cable length to lamp/LED module	2.0 m ¹⁾
Suitable for fixtures with prot. class	I / II
Type of connection, output side	Push terminal
Suitable for through-wiring	No

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

Certificates & standards

Approval marks – approval	CCC / CE / ENEC 10 / RCM
Standards	Acc. to IEC 61347-1/Acc. to IEC 61347-2-13/Acc. to IEC 62384/Acc. to IEC 61000-3-2/Acc. to CISPR 15/Acc. to IEC 61000-3-3/Acc. to IEC 61547
Protection class	II
Type of protection	IP20

Logistical data

Commodity code	850440839000
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Environmental information

Information according Art. 33 of EU Regulation (EC) 1907/2006 (REACH)	
Date of Declaration	30-09-2022

Product datasheet

Primary Article Identifier	4052899947139
Candidate List Substance 1	Lead
CAS No. of substance 1	7439-92-1
Safe Use Instruction	The identification of the Candidate List substance is sufficient to allow safe use of the article.
Declaration No. in SCIP database	8226c80a-0bcb-4fb6-b5a3-2110df357efd

Download Data

File	
	User instruction ELEMENT Constant Current LED Driver
	Certificates LED drivers EMC 40011668 300922
	Certificates OT ENEC 40038447 130722
	Certificates 612430_ELEMENT CE declaration
	Certificates CCC Certificate 2018171002002203
	Declarations of conformity ELEMENT LD CE 3377285 150222
	CAD data 3-dim 642299_Element LD 60 STEP

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.

Logistical Data

Product code	Product description	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Volume	Gross weight
4052899947139	Element LD 60/220...240/1A4	Shipping carton box 20	387 mm x 229 mm x 80 mm	7.09 dm ³	4071.00 g

Product datasheet

Logistical Data

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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.