

Element LD 45/220...240/1A0

ELEMENT LD | Compact constant current LED driver – Non dimmable



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

Product family benefits

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

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

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	< 20 %
Power factor λ	0.98 ²⁾
ECG efficiency	>90 % ³⁾
Device power loss	6.7 W ⁴⁾
Inrush current	< 16 A ⁵⁾
Max. ECG no. on circuit breaker 10 A (B)	16
Max. ECG no. on circuit breaker 16 A (B)	25
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	1050 mA
Output current tolerance	±10 %
Output ripple current (100 Hz)	40 % ⁷⁾
Output PSTLM	≤1
Output SVM	≤0.8
Nominal output power	45 W
Galvanic isolation	SELV

¹⁾ V_{AC}

²⁾ Full load at 230 V/50 Hz

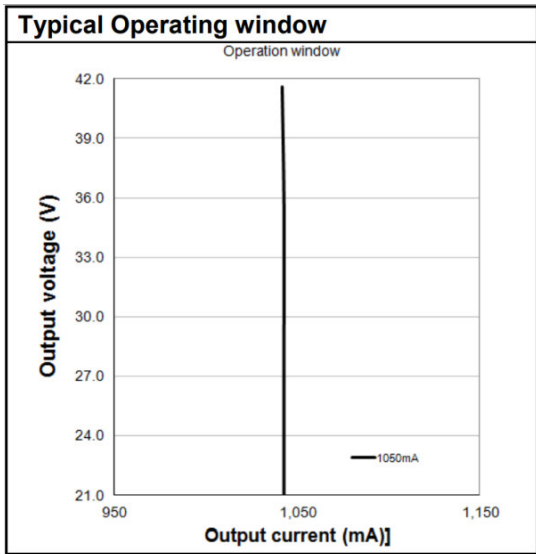
³⁾ At full load and 230 V / Typical / At 50 Hz

⁴⁾ At 230 V / Input power 51.7 W max.

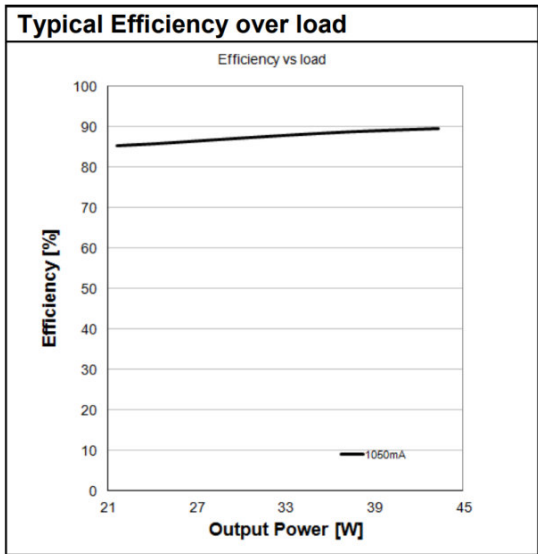
⁵⁾ $t_{\text{width}} = 50 \mu\text{s}$ (measured at 50 % I_{peak})

⁶⁾ DC voltage

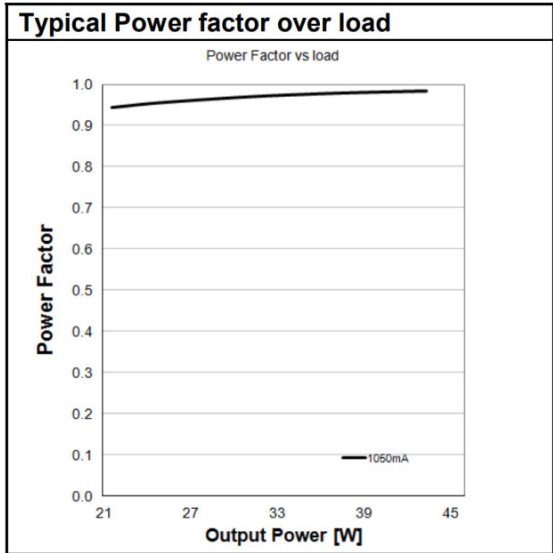
⁷⁾ Ripple average at 100 Hz



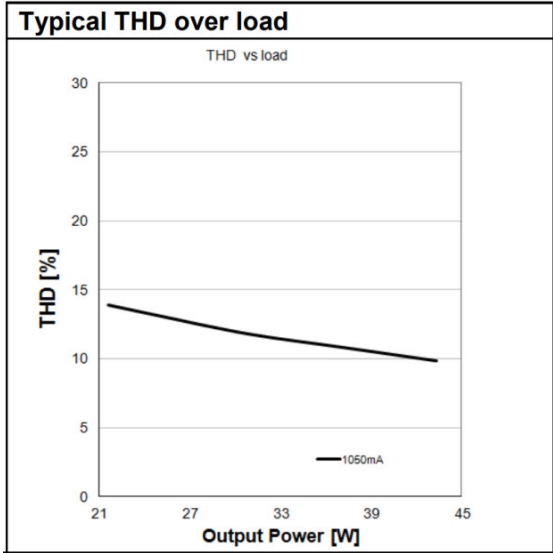
Operating Window



Typical Efficiency v Load 230 V 50 Hz

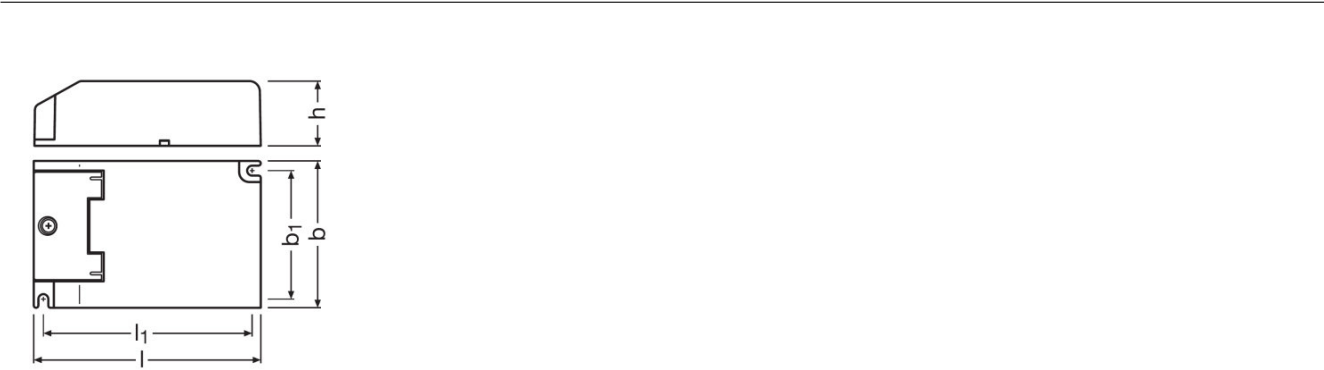


Typical Power Factor v Load



Typical THD v Load

Dimensions & weight



Mounting hole spacing, length	94.0 mm
Mounting hole spacing, width	58.0 mm
Product weight	170.00 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	103.0 mm
Width	67.0 mm
Height	29.5 mm

Colors & materials

Casing material	Plastic
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Temperatures & operating conditions

Ambient temperature range	-10...+50 °C
Maximum temperature at tc test point	80 °C
Max.housing temperature in case of fault	110 °C
Temperature range at storage	-10...80 °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} = 80°C at T_c point / 10% failure rate

Product datasheet

Expected Lifetime

Product name				
Element LD 45/220...240/1A0	ECG ambient temperature [ta]	50	-	-
	Temperature at tc-point [°C]	80	-	-
	Lifetime [h]	30000 ¹⁾	-	-

¹⁾ Max. 10% failure rate at tc max

Capabilities

Dimmable	No
Overheating protection	Automatic reversible
Overload protection	Automatic reversible
Short-circuit protection	Automatic reversible
No-load proof	Yes
Max. cable length to lamp/LED module	2.0 m
Suitable for fixtures with prot. class	I / II
Type of connection, output side	Push terminal




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	850440829000
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Download Data

File	
 Product Datasheet 608216_Element Technical datasheet 45W	
 Certificates OT ENEC 40038447 031120	
 Certificates 612430_ELEMENT CE declaration	

Product datasheet



Declarations of conformity
ELEMENT LD CE 3377285 121119



CAD data 3-dim
642298_Element LD 45 38 30 STEP

Logistical Data

Product code	Product description	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Volume	Gross weight
4052899947122	Element LD 45/220...240/1A0	Shipping carton box 20	346 mm x 216 mm x 80 mm	5.98 dm ³	3715.00 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.