

ELEMENT 12/220-240/300

Constant Current LED Power Supply
300mA

Element LED Power Supply fits in light fixtures
for office, shop lighting or other indoor
applications that require high quality of light

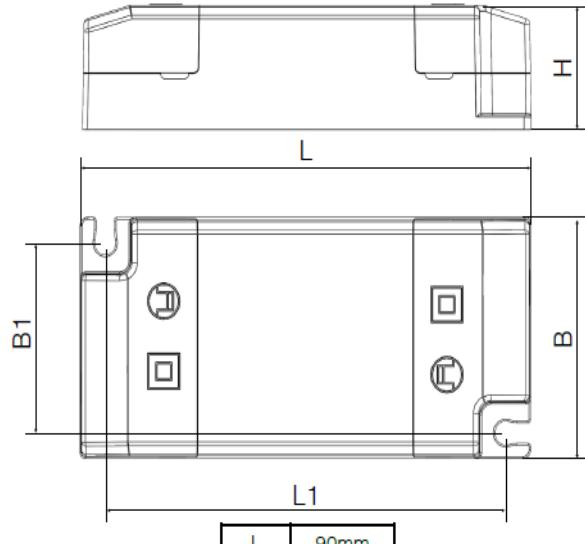
Benefits:

High compatibility with COBs and discrete LEDs;
High quality of light with ripple current < 5%
Safe and reliable
Safety ensured by OSRAM (SELV)

Applications

Downlights, Spotlights and Panels
Other Indoor LED luminaries

Approval marks



L	90mm
L1	80mm
B	43mm
B1	34mm
H	22mm

Product Features

- Output currents: 300mA
- Output voltage: 24V_{DC} – 42V_{DC}
- Output power: 7.2W – 12.6W
- Input voltage : 220 – 240 V_{AC}
- Suitable for class I and II luminaires
- Up to 30'000 h lifetime
- Fixed Output (i.e. no dimming)
- Typ. Efficiency: 85%
- SELV
- Ambient temp range, ta: -20°C to +50°

Electrical Specifications

Item	Value	Unit	Remarks	
Input	Nominal Voltage	220 – 240	Vac	
	Nominal frequency	50/60	Hz	
	AC voltage range	198 – 264	Vac	Permitted voltage range
	DC voltage range	n/a	Vdc	
	Maximum voltage	300	V	2hrs
	Nominal current	67	mA	230V
	Total Harmonic Distortion (THD)	< 20	%	Full load, 230 V, 50 Hz / see graphs
	Power factor	0.95		Full load, 230 V, 50 Hz / see graphs
	Efficiency	85	%	Full load, 230 V, 50 Hz, typical / see graphs
	No-load power	n/a		Load switching on output side is not permitted
	Power loss	2.22	W	@230V, Input power 14.82W max.
	Protection class	II		Suitable for class I and class II luminaires
	Inrush current	8.6	A	$t_{width} = 7.2\mu s$ typical (measured at 50% I_{peak})
Output	Max. units per circuit breaker	B10:59; B16:95; C10:89; C16:143;		
	Leakage current	< 0.7	mA	Output floating
	Nominal voltage range	24 – 42	V _{DC}	Refer to Table 1 for details
	Maximum voltage	60	V _{DC}	Open circuit
	Nominal current range	300	mA	
	Current accuracy	± 7.5 %		
	Current ripple	< 5%		Ripple / average @ 100 Hz
	Pst LM	≤ 1		
	SVM	≤ 0.4		
	Nominal power range	7.2-12.6	W	Partial Load.
	Maximum power	12.6	W	T _a ≤ 50°C
	Galvanic isolation	SELV		3, 75 kVRms. Output to mains - Touch current < 0.7 mA
Dim	Dimming control	No		Non dimmable
	Dimming range	NA	%	
	Dimming technique	NA		
	Frequency	NA	Hz	
	Galvanic isolation	NA		
Environment	Ambient temperature range t _a	-20 ...+50	°C	
	Max. case temperature t _c max	75	°C	Measured on t _c point indicated on the product label.
	Max. case temp. in fault condition	110	°C	
	Storage temperature range	-40 ...+85	°C	Cool down before operating
	Relative humidity	5 ... 85	%	Not condensing
	Surge transient protection	1 2	kV	L/N LN/PE acc. IEC 61547 Clause 5.7
	Environmental rating	Indoor		
	IP rating	IP 20		
	Mains switching cycles	> 100'000		
	Expected lifetime	30'000 50'000	hrs	@t _c = t _c -max 75°C, max. 10% failure rate @t _c = 60°C, max. 10% failure rate

Protections

Overload

Automatic, reversible

No load

Automatic, reversible

Short-circuit

Automatic, reversible

Input overvoltage

Maximum allowed input voltage 300V AC/ 2hr

Output overvoltage

Yes, limitation of Output voltage <= 60V

Output under voltage

NA

Wiring Diagram

Terminal: Push in terminals

Max. cable length 2 m

Weight: 52g

For build-in: 0.5-1.5 mm², for independent: 0.75-1.5 mm²

Hot plug-in or secondary switching of LEDs is not permitted and may cause a very high current to the LEDs

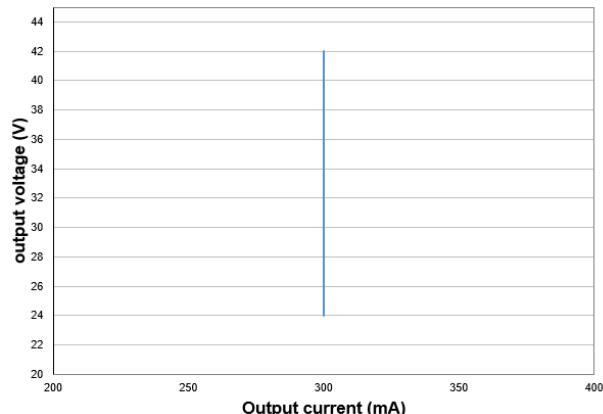
Wire preparation:

Push in
s:0.5-1.5

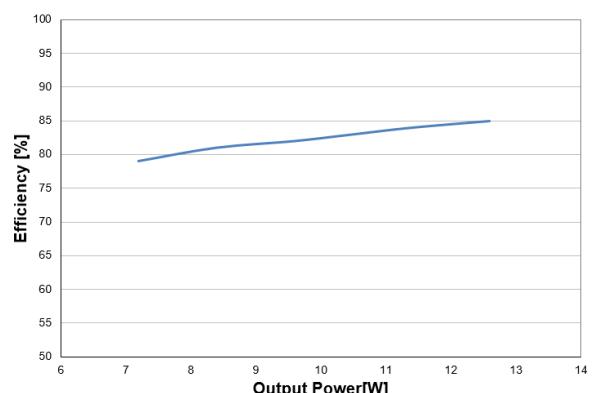
f:0.75-1.5

7-8 mm

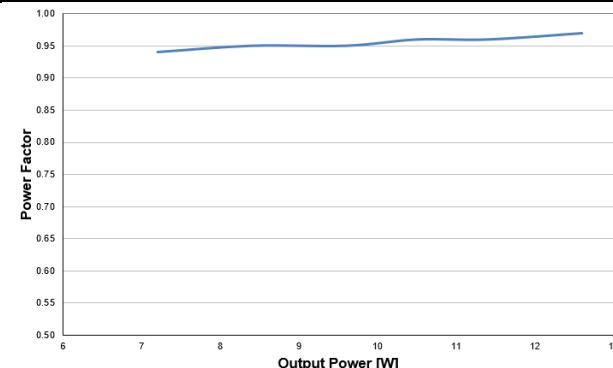
Typical Operating window



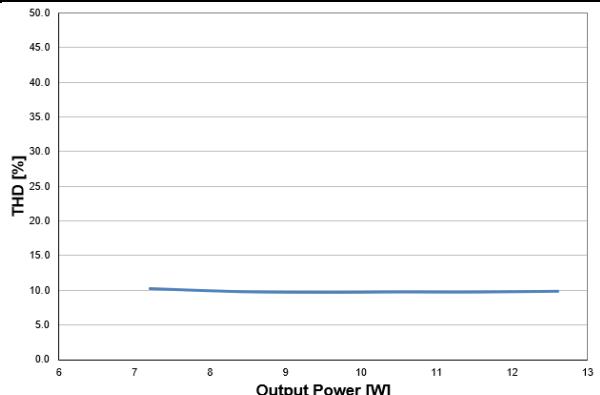
Typical Efficiency Vs load



Typical Power factor Vs load



Typical THD Vs load



Standards

Safety: IEC 61347-1, IEC 61347-2-13

Performance: IEC 62384

Harmonic content: IEC 61000-3-2

Immunity: IEC 61547

IEC 61000-3-3

EAN10	Product name	Pcs/ box
4062172355476	ELEMENT 12/220-240/300	50

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