

## ELEMENT 4/220-240/100 LPF

### Constant Current LED Power Supply 100mA

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

#### Benefits:

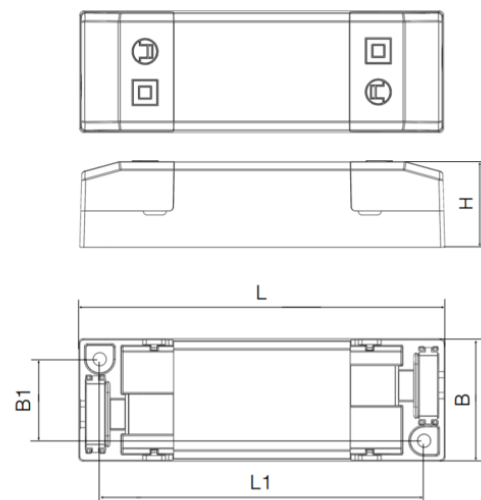
High compatibility with COBs and discrete LEDs;  
High quality of light with ripple current < 5%  
Safe and reliable  
Safety ensured by OSRAM (SELV)

#### Applications

Downlights, Spotlights  
Other Indoor LED luminaires  
Suitable for class II application

#### Approval marks

(Under preparation if not on the labels)



L	90mm
L1	79.7mm
B	30mm
B1	20mm
H	21mm

### Product Features

- Output currents: 100mA
- Output voltage: 30V<sub>DC</sub> – 42V<sub>DC</sub>
- Output power: 3W – 4.2W
- Input voltage : 220 – 240 V<sub>AC</sub>
- Suitable for class II luminaires
- 30'000 h lifetime
- Fixed Output (i.e. no dimming)
- Typ. Efficiency: 81%
- SELV
- Ambient temp range, ta: -20°C to +45°

## 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	NA	V	
	Maximum voltage	300	V	2hrs
	Nominal current	38	mA	230V
	Total Harmonic Distortion (THD)	NA	%	
	Power factor	0.55		Full load, 230 V, 50 Hz / see graphs
	Efficiency	81	%	Full load, 230 V, 50 Hz, typical / see graphs
	No-load power	n/a	W	Load switching on output side is not permitted
	Power loss	1.25	W	@230V, Input power 5.45W max.
	Protection class	II		Suitable for class II luminaires
	Inrush current	3.1	A	$t_{width} = 220 \mu s$ typical (measured at 50% I <sub>peak</sub> )
	Max. units per circuit breaker	B10: 118 B16: 189 C10: 184 C16: 295		
Leakage current	< 0.7	mA	Output floating	
Output	Nominal voltage range	30 – 42	V <sub>DC</sub>	
	Maximum voltage	60	V <sub>DC</sub>	Open circuit
	Nominal current range	100	mA	
	Current accuracy	± 10 %		
	Current ripple	< 5%		Ripple / average @ 100 Hz
	Pst LM	≤ 1		
	SVM	≤ 0.4		
	Nominal power range	3 – 4.2	W	Partial Load.
	Maximum power	4.2	W	T <sub>a</sub> ≤ 45°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 <sub>a</sub>	-20 ...+45	°C	
	Max. case temperature t <sub>c</sub> max	70	°C	Measured on t <sub>c</sub> 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 ... 95	%	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 <sub>c</sub> max = 70°C, max. 10% failure rate @t <sub>c</sub> max = 60°C, max. 10% failure rate

## Protection

### 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 2m

Weight: 39g

For independent: 0.75-1.5 mm<sup>2</sup>

wire preparation:

push in

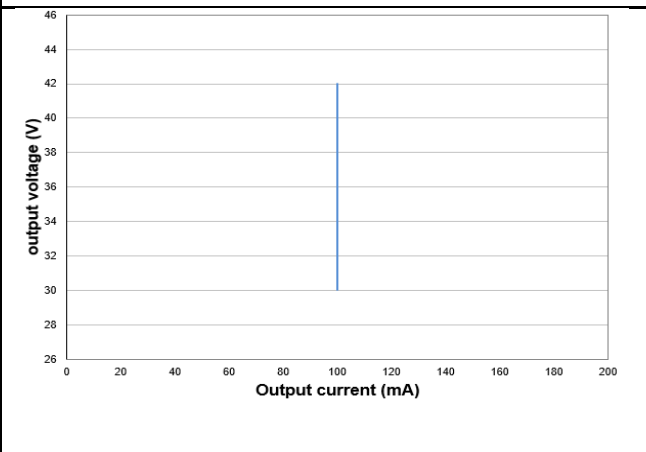
S: 0.75 - 1.5

f: 0.75 - 1.5

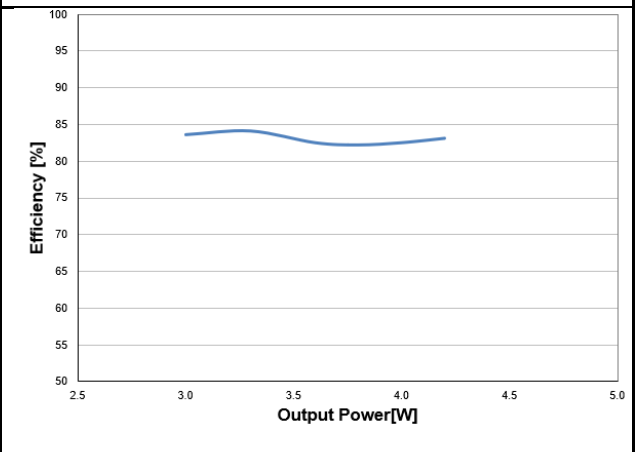


Hot plug-in or secondary switching of LEDs is not permitted and may cause a very high current to the LEDs

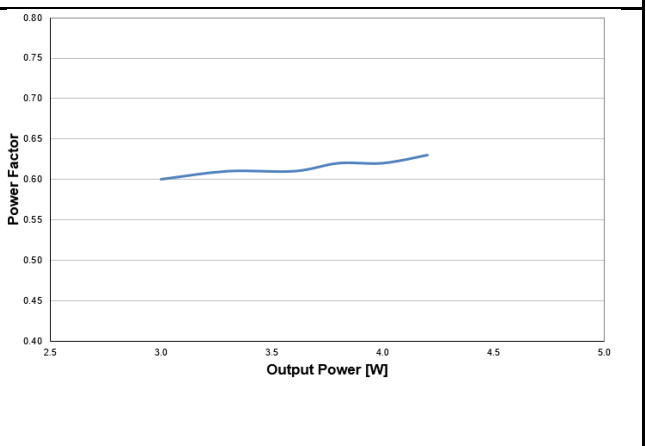
### Typical Operating window



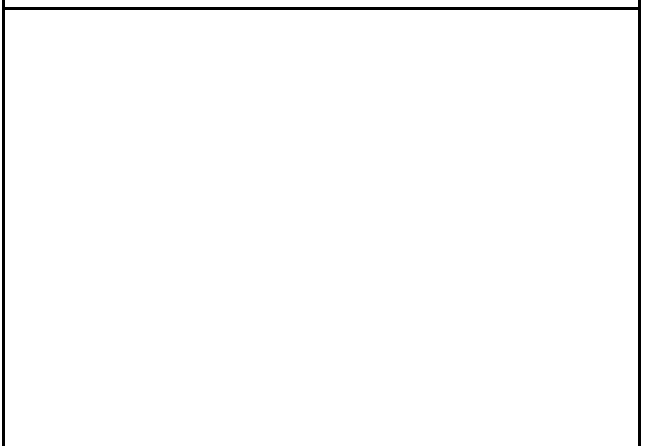
### Typical Efficiency Vs load



### Typical Power factor Vs load



### NA



## 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	Units/ box
4062172361286	ELEMENT 4/220-240/100 LPF	50