

## EM 50/220-240/1A2 II

### Constant Current LED Power Supply 1200mA

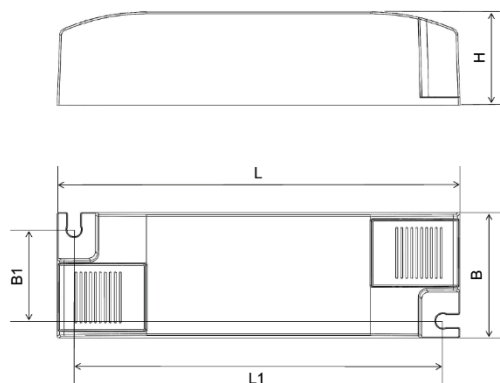
Element LED Power Supply fits in light fixtures for office, shop lighting or other indoor applications that require high quality of light

#### 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

Panel lights, Downlights and other indoor luminaires  
For class II luminaires, independent installations



L	119mm
L1	109mm
B	37mm
B1	27mm
H	27.5mm

#### Approval marks and Symbol



#### Product Features

- Output currents: 1200mA
- Output voltage: 30VDC – 40VDC
- Output power: 36W – 48W
- Input voltage : 220 – 240 VAC
- Suitable for class II luminaires
- 35'000 h lifetime at  $t_c = 75\text{ }^\circ\text{C}$
- Fixed Output (i.e. no dimming)
- Typ. Efficiency: 90%
- SELV
- Ambient temp range,  $t_a$ :  $-20\text{ }^\circ\text{C}$  to  $+40\text{ }^\circ\text{C}$

## 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	176 – 280	Vdc	Operational for safety
	Maximum voltage	300	V	2hrs
	Nominal current	240	mA	220V
	Total Harmonic Distortion (THD)	< 15	%	Full load, 230 V, 50 Hz / see graphs
	Power factor	0.95		Full load, 230 V, 50 Hz / see graphs
	Efficiency	90	%	Full load, 230 V, 50 Hz, typical / see graphs
	No-load power	NA	W	230V, typical
	Power loss	5.5	W	@230V, Input power 49.6 W max.
	Protection class	II		Suitable for class II luminaires
	Inrush current	30	A	twidth = 75 $\mu$ s typical (measured at 50% Ipeak)
	Max. units per circuit breaker	B10: 31; B16: 50; C10: 31; C16: 50		
	Leakage current	< 0.7	mA	Output floating
Output	Nominal voltage range	30 – 40	V <sub>DC</sub>	
	Maximum voltage	60	V <sub>DC</sub>	Open circuit
	Nominal current range	1200	mA	
	Current accuracy	$\pm$ 7.5 %		
	Current ripple	< 5%		Ripple / average @ 100 Hz
	Nominal power range	36 – 48	W	Partial Load.
	Maximum power	48	W	Ta $\leq$ 40°C
	Galvanic isolation	SELV		3, 75 kVrms. Output to mains - Touch current < 0.7 mA
Dim	Dimming control	No		Not dimmable
	Dimming range	NA	%	
	Dimming technique	NA		
	Frequency	NA	Hz	
	Galvanic isolation	NA		
Environment	Ambient temperature range t <sub>a</sub>	-20 ...+40	°C	
	Max. case temperature t <sub>c</sub> max	75	°C	Measured on t <sub>c</sub> point indicated of 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	35'000	hrs	@tc = 75°C, max. 10% failure rate
	Expected lifetime	50'000	hrs	@tc = 65°C, max. 10% failure rate

**Protection**

**Overload**

Automatic, reversible

**No load**

Automatic, reversible

**Short-circuit**

Automatic, reversible

**Wiring Diagram**

Terminal:

Max. cable length:

Geometry (l x b x h):

Weight:

**Input overvoltage**

Maximum allowed input voltage 300V AC/ 2hrs

**Output overvoltage**

Yes, limitation of Output voltage  $\leq 60V$

**Output under voltage**

NA

Push in terminals

2 m

119 x 37 x 27.5 mm

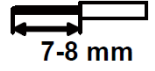
145 g

**wire preparation:**

push in

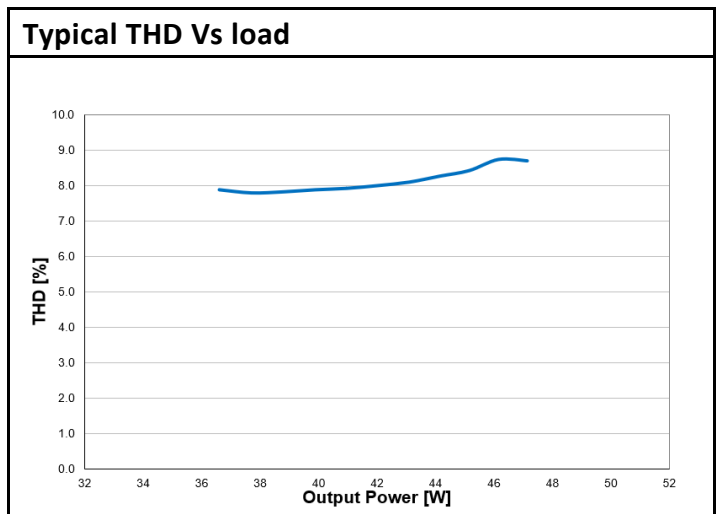
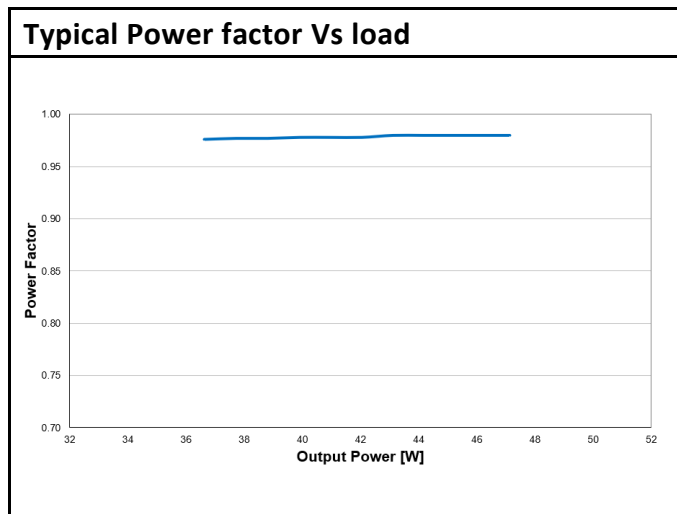
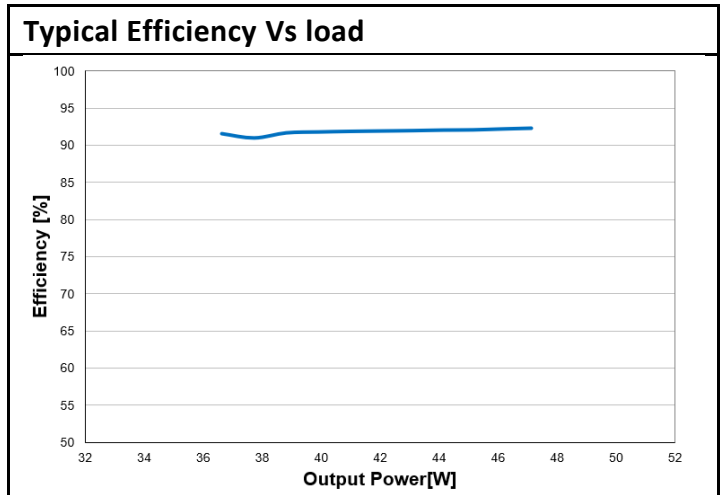
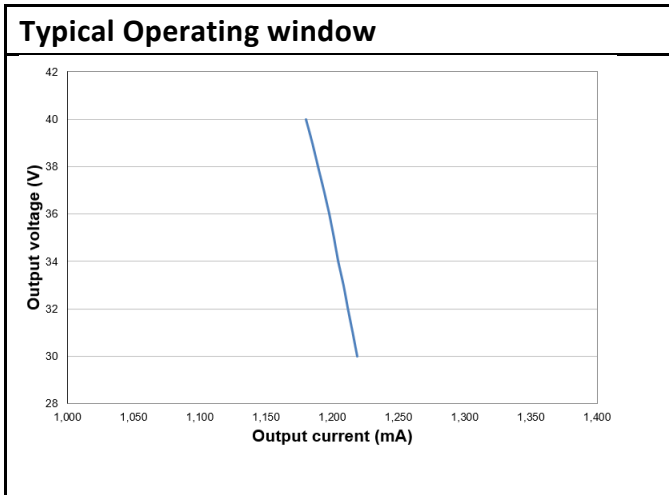
s:0.75--1.5

f:0.75--1.5



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

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



**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
4055462434388	EM 50/220-240/1A2 II	100

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.

ELEMENT EM II classified as “Non IC”: The independent LED driver cannot be abutted against or covered by normally flammable materials or used in installations where building insulation or debris is, or may be, present in normal use.

No use for residential installations.

The minimum clearance distance from the top and sides of the independent LED driver to normally flammable building elements is  $A=B=C=10\text{mm}$ .

