Light is OSRAM

ELEMENT 20/220-240/500

Constant Current LED Power Supply

500mA

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

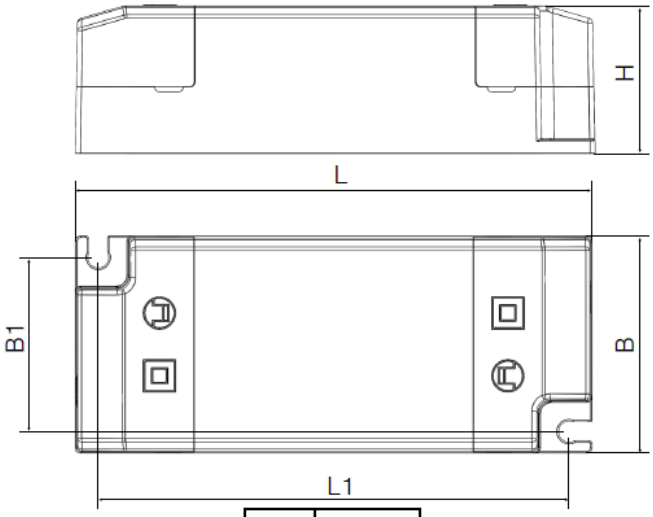
Benefits:

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	103mm
L1	94mm
B	43mm
B1	34.7mm
H	29mm

Product Features

- Output currents: 500mA
- Output voltage: $21V_{DC}$ – $40V_{DC}$
- Output power: 10.5W – 20W
- 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: 87%
- 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	101	mA	at 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	87	%	Full load, 230 V, 50 Hz, typical / see graphs
	No-load power	n/a		Load switching on output side is not permitted
	Stand-by power	NA	W	
	Power loss	2.99	W	at 230V, Input power 22.99 W max.
	Protection class	II		Suitable for class I and class II luminaires
	Inrush current	18	A	t_{width} = 112 µs typical (measured at 50% Ipeak)
	Max. units per circuit breaker	B10: 42; B16: 68; C10: 70; C16: 113		
	Leakage current	0.7	mA	Output floating
OUTPUT	Nominal voltage range	21 – 40	VDC	Refer to Table 1 for details
	Maximum voltage	60	VDC	Open circuit
	Nominal current range	500	mA	
	Current accuracy	± 7.5 %		
	Current ripple (typical)	< 5%		Ripple / average @ 100 Hz
	Pst LM	≤ 1		
	SVM	≤ 0.4		
	Nominal power range	10.5 – 20	W	Partial Load.
	Maximum power	20	W	Ta ≤ 50°C
	Galvanic isolation	SELV		3,75 kVrms. Output to mains - Touch current < 0.7 mA
DIMMING	Dimming control	No		Non dimmable
	Dimming range	NA	%	
	Dimming technique	NA		
	Frequency	NA	Hz	
	Galvanic isolation	NA		
ENVIRONMENT	Ambient temperature range ta	-20 …+50	°C	
	Maximum case temperature tc	75	°C	Measured on tc 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	@tc = tc-max 75°C, max. 10% failure rate @tc = 65°C, max. 10% failure rate

Protection

Overload
Automatic, reversible

No load
Automatic, reversible

Short-circuit
Automatic, reversible

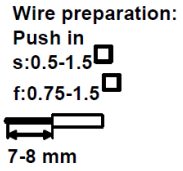
Input overvoltage
Maximum allowed input voltage 300V AC/ 2hr

Output overvoltage
Yes, limitation of Output voltage <= 60V

Output under voltage
NA

Wiring Diagram

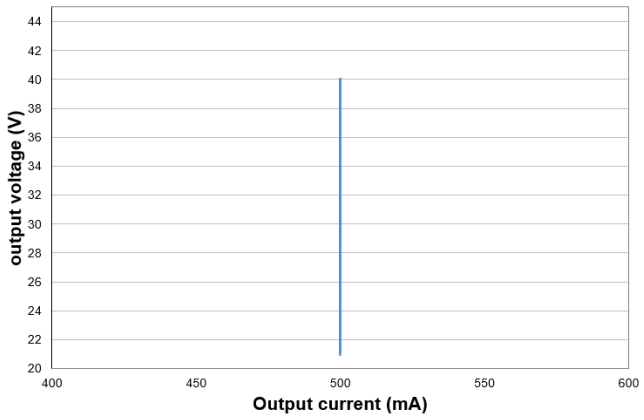
Terminal:	Push in terminals
Max. cable length	2 m
Weight:	74g



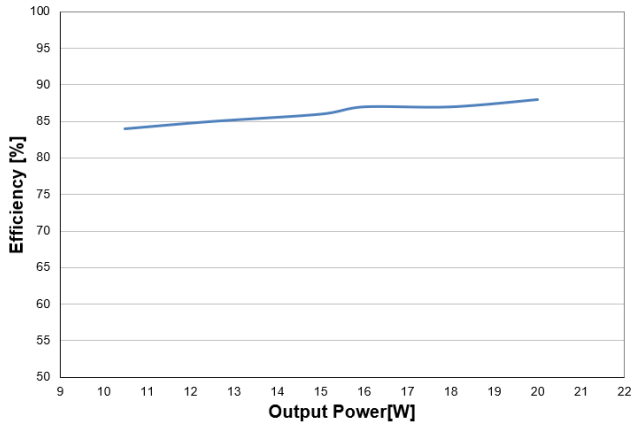
For build-in: 0.5-1.5 mm^2, for independent: 0.75-1.5 mm^2

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

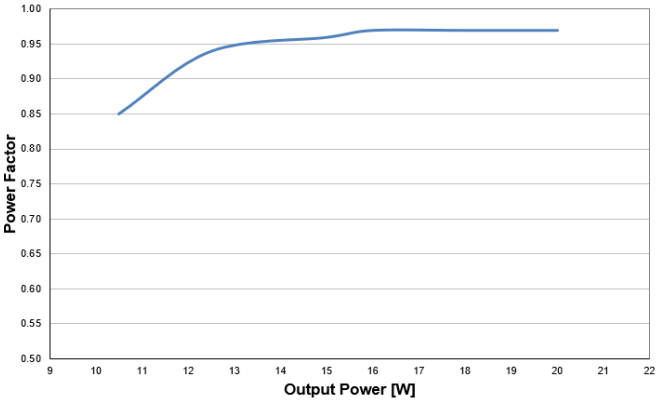
Typical Operating window



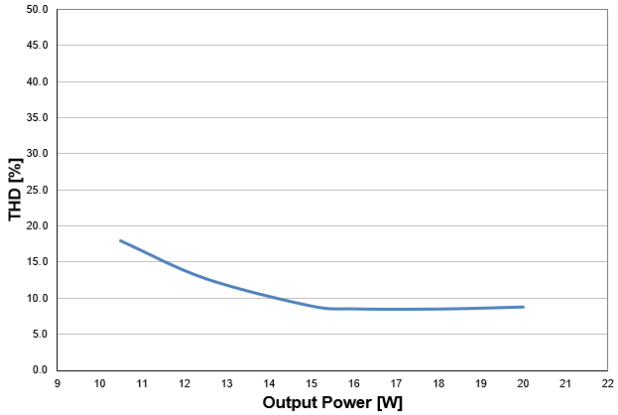
Typical Efficiency Vs load



Typical Power factor Vs load



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
4062172355537	ELEMENT 20/220-240/500	50

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