

**OTe 13/220-240/350 PC**

Constant Current LED Power Supply

350mA – Phase Cut functionality

OPTOTRONIC® LED Power Supply with high efficiency and reliability in compact housing. Equipped with Phase Cut functionality fits in light fixtures for office and shop lighting.

**Benefits**

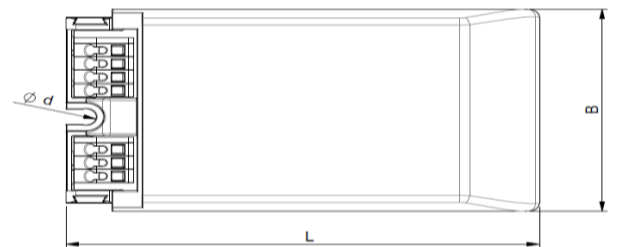
Suitable for use with electronic Leading and Trailing Edge dimmer  
Long lasting and high reliability  
Extra small compact housing

**Applications**

Downlights, Spotlights and other Indoor LED applications

**Approval marks**

In preparation, if not printed on product labels



L	95mm
B	53mm
H	25 mm
d	Φ 4,2

**Product Features**

- Output currents : 350mA
- Output voltage : 18V<sub>DC</sub> – 38V<sub>DC</sub>
- Output power : 6.5W – 13.5W
- Input voltage : 220 – 240 V<sub>AC</sub>
- Typ. Efficiency : 84%
- Phase Cut dimmable
- Ambient temp range  $t_a$ : -20°C to +55°C
- Max. case temperature at  $t_c$  point : 85°C
- Galvanic isolation : 3.75kVrms
- Optional cable clamp is available
- Suitable for class I and II luminaires
- 50'000 h lifetime at  $t_c = 75°C$

## Electrical Specifications

	Item	Value	Unit	Remarks
INPUT	Nominal voltage	220 – 240	V <sub>AC</sub>	
	Nominal frequency	50 - 60	Hz	
	AC voltage range	198 – 264	V <sub>AC</sub>	Permitted voltage range
	DC voltage range	NA	V	
	Maximum voltage	275	V	2hrs
	Nominal current	80	mA	230V @ 13.5W load
	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	84	%	Full load, 230 V, 50 Hz, typical / see graphs
	No-load power	< 1	W	230V, typical
	Stand-by power	NA	W	
	Power loss	2.7	W	at 230V input @ 13.5 W load max.
	Input power	16.2	W	at 230V input @ 13.5 W load max.
	Protection class	II		Suitable for class I and class II luminaires
	Inrush current	< 5	A	t <sub>width</sub> = 100 µs typical (measured at 50% I <sub>peak</sub> )
	Max. units per circuit breaker	B16:130; B10:80		I max = 0.08 A Th = 230 µs
Touch current	< 0.7	mA	Output floating	
OUTPUT	Nominal voltage range	18 – 38	V <sub>DC</sub>	
	Maximum voltage	45	V <sub>DC</sub>	Open circuit
	Nominal current range	350	mA	
	Current accuracy	+/- 10	%	
	Current ripple	25	%	typical
	Nominal power range	6.5 – 13.5	W	Partial Load.
	Maximum power	13.5	W	Ta ≤ 55°C,
	Galvanic isolation	SELV-equivalent		3,75 kVrms . Output to earth - Touch current < 0.7 mA
DIMMING	Dimming control	Yes		Suitable for use with electronic leading- and trailing edge dimmer (Phase Cut)
	Dimming range	10 - 100	%	
	Dimming technique	Amplitude dimming		
ENVIRONMENT	Ambient temperature range t <sub>a</sub>	-20 ...+55	°C	Refer to Table 1 for details
	Maximum case temperature t <sub>c</sub>	85	°C	Measured on t <sub>c</sub> point indicated of the product label.
	Max. Case temp. in fault condition	110	°C	
	Storage temperature range	-25 ...+75	°C	Cool down before operating
	Relative humidity	5 ... 85	%	Not condensing
	Surge transient protection	1   1	kV	L/N   LN/PE acc. IEC 61000-3-2 (ANSI C62.41 Cat.A ...)
	Environmental rating	Indoor		
	IP rating	IP 20		
	Mains switching cycles	> 100'000		
Expected lifetime	35'000 50'000	hrs	t <sub>a</sub> = 55°C , t <sub>c</sub> = 85°C, 10% failure rate t <sub>a</sub> = 45°C , t <sub>c</sub> = 75°C, 10% failure rate	

### Protections

#### Overtemperature

Automatic, reversible

#### Overload

Automatic, reversible

#### No load

Yes

#### Short-circuit

Automatic, reversible

#### Input overvoltage

Maximum allowed input voltage 275V AC

#### Output overvoltage

Yes , Limitation of Output voltage &lt; 60V

#### Output undervoltage

NA


#### LED load protection

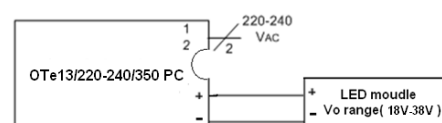
NA

### Wiring Diagram

Terminal: Push in terminals  
 Max. cable length - system: 2 m  
 Geometry (l x b x h): 95 x 53 x 25 mm  
 Weight(typical): 100 g

#### Wire preparation:

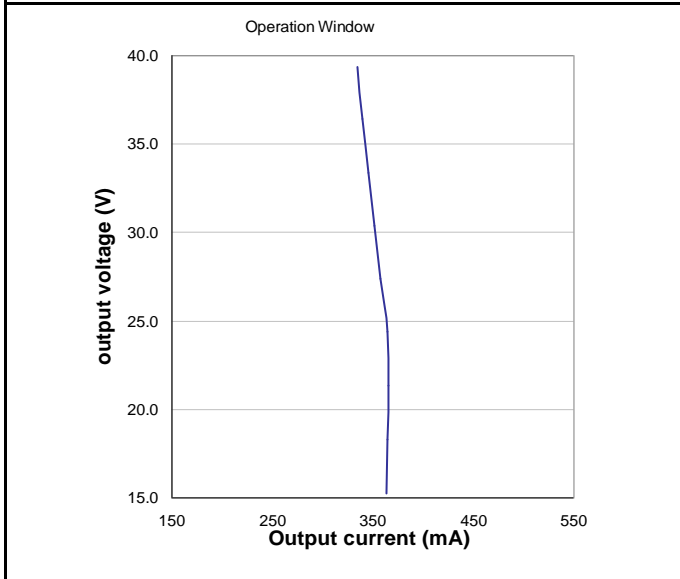
Push in  
 s:0.5-1.5 □  
 f:0.75-1.5 □  
  
 8-9mm



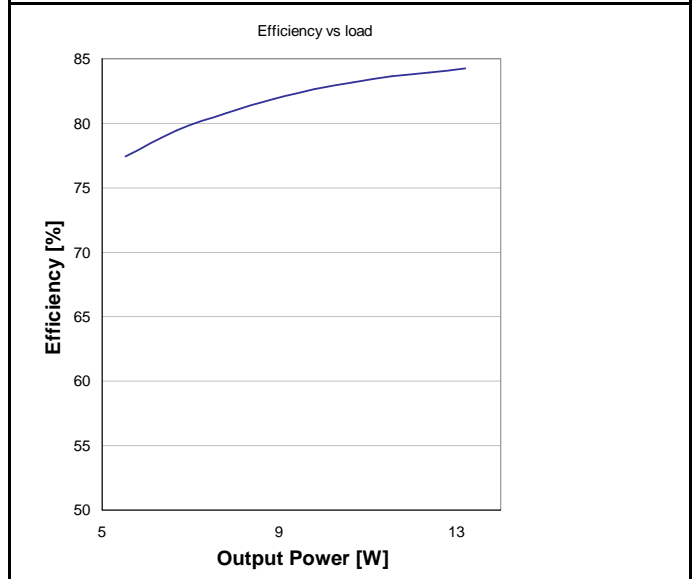
Example with 500mA LED module

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

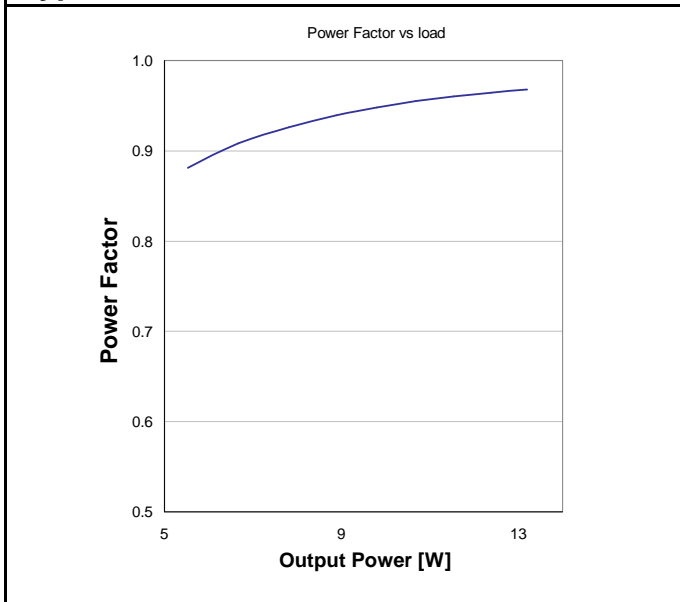
Typical Operating window



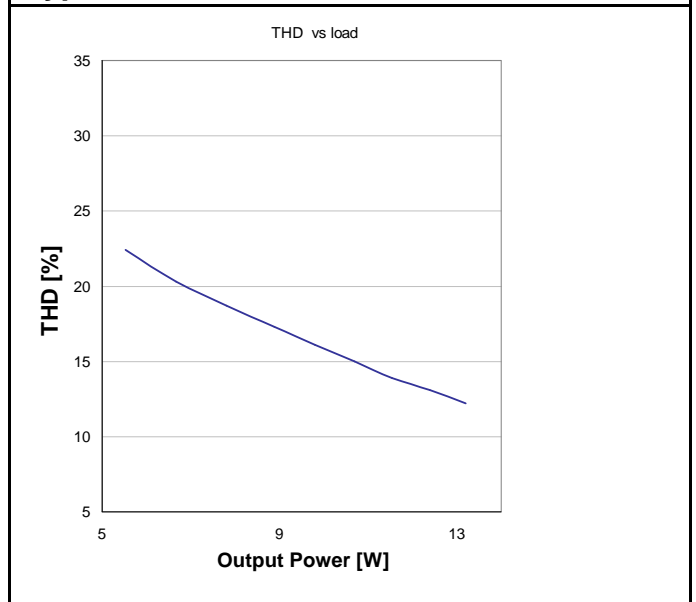
Typical Efficiency over load



Typical Power factor over load



Typical THD over load



An optional cable clamp is available. This cable clamp can be snapped onto the ECG and thus converts it into an ECG suitable for independent installation.

L	95mm
L2	119mm
B	53mm
H	25mm
d	Φ 4,2

**Standards**

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

Performance: IEC 62384

Radio interference: CISPR 15

Harmonic content: IEC 61000-3-2

Immunity: IEC 61000-3-3

IEC 61547

Product name	EAN10	EAN40	Pieces / box
OTe 13/220-240/350 PC	4052899105324	4052899105331	20
OT Cable Clamp E-style	4052899167896	4052899095861	20

**Manufacturer's address:****OSRAM GmbH**Steinerne Furt 62 D-86167 Augsburg  
Germany[www.osram.com](http://www.osram.com)**Technical support:**Kunden Service Center Germany  
+49 (0)89-6213-60 00