

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**

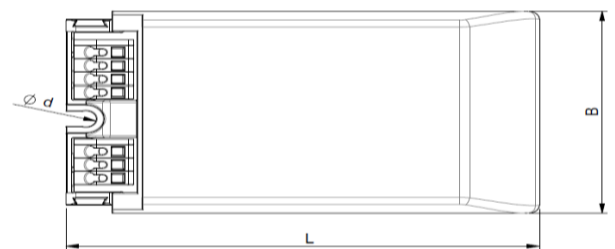
Suitable for use with electronic Leading and Trailing Edge dimmer
Long lasting and high reliability
Extra small compact housing

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_{DC} – 38V_{DC}
- Output power : 6.5W – 13.5W
- Input voltage : 220 – 240 V_{AC}
- 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 _{AC}		
	Nominal frequency	50 - 60	Hz		
	AC voltage range	198 – 264	V _{AC}	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	
	OUTPUT	Inrush current	< 5	A	t _{width} = 100 µs typical (measured at 50% I _{peak})
		Max. units per circuit breaker	B16:130; B10:80		I max = 0.08 A Th = 230 µs
Touch current		< 0.7	mA	Output floating	
Nominal voltage range		18 – 38	V _{DC}		
Maximum voltage		45	V _{DC}	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 _a	-20 ...+55	°C	Refer to Table 1 for details	
	Maximum case temperature t _c	85	°C	Measured on t _c 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 _a = 55°C , t _c = 85°C, 10% failure rate t _a = 45°C , t _c = 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 < 60V

Output undervoltage

NA

LED load protection

NA

Wiring Diagram

Terminal:

Max. cable length - system:

Geometry (l x b x h):

Weight(typical):

Push in terminals

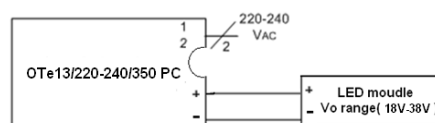
2 m

95 x 53 x 25 mm

100 g

Wire preparation:

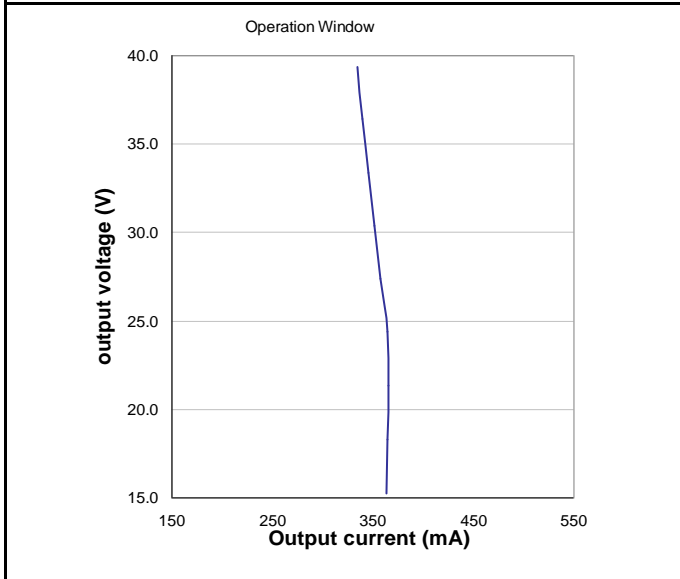
Push in
s:0.5-1.5 □
f:0.75-1.5 □
8-9mm



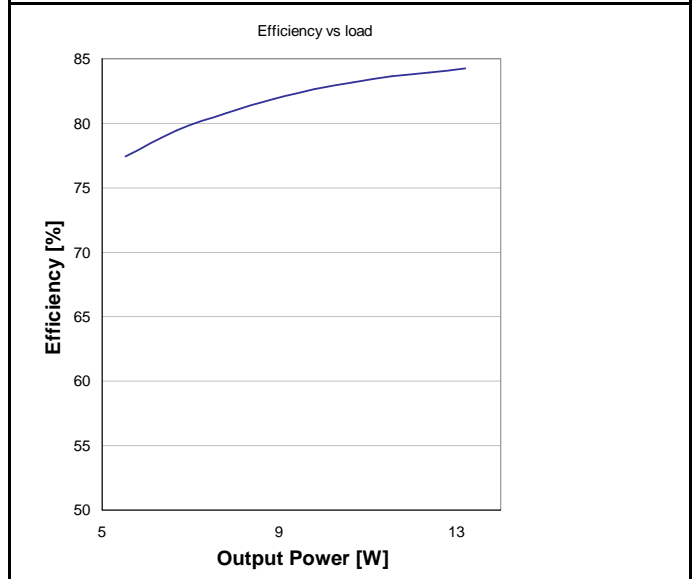
Example with 500mA LED module

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

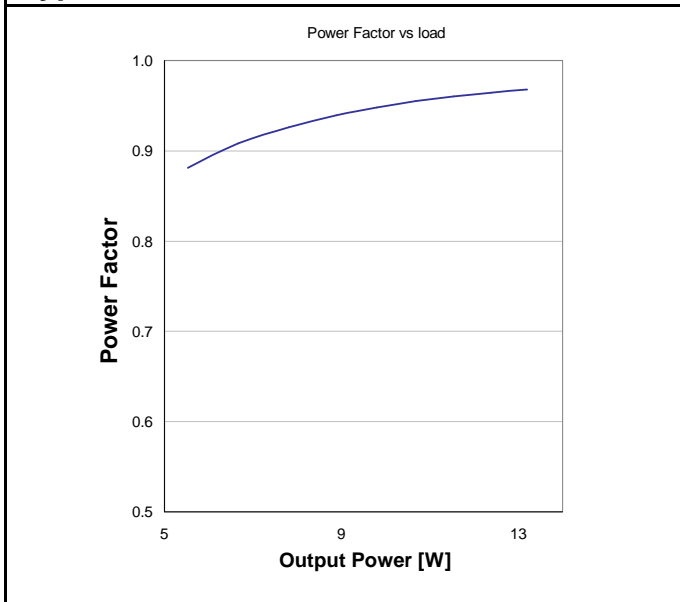
Typical Operating window



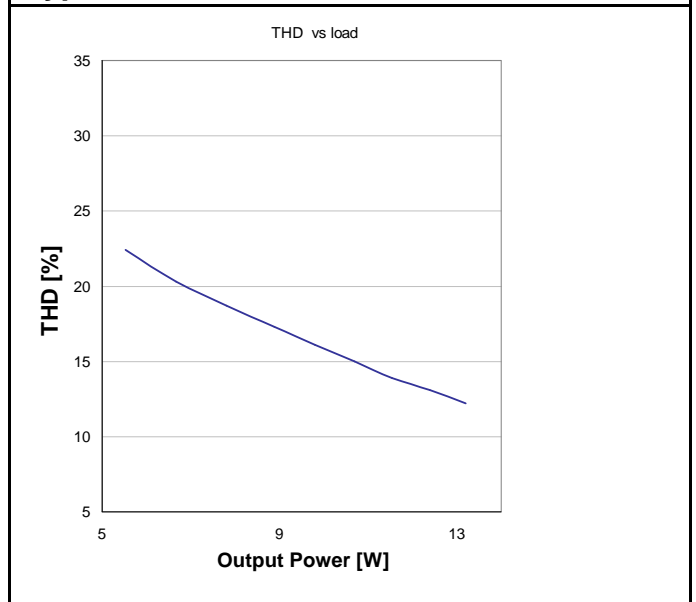
Typical Efficiency over load



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
Germanywww.osram.com**Technical support:**Kunden Service Center Germany
+49 (0)89-6213-60 00