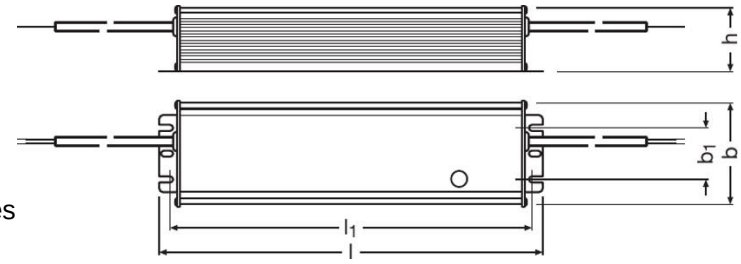
Light is OSRAM

Product data sheet: OT 200/220-240/5A6 P5

Constant current LED driver

OPTOTRONIC® LED Power Supply is the reliable choice for outdoor lighting applications. This driver offers adjustable current (2.0A – 5.6A) for outdoor application with constant power at input voltage range 220V – 240V.



Benefits
High surge protection up to 6 kV;
High efficiency and reliability;
Adjustable and wide output current range;
Constant power;
Over temperature protection;
Double isolation between primary/secondary sides (SELV)
IP65 (Independent installation)
Long life time

Approvals: in preparation if not already printed on product label

IP65

Applications
Street and Urban lighting
Industrial lighting
Suitable for luminaires of protection class I

L	252.5 mm
L1	241.5 mm
B	70 mm
B1	34.2 mm
H	43.5 mm

Housing material: Aluminum, Silver.

Product Features

- Adjustable output current 2.0A – 5.6A
- Output power up to 200 W
- Uout: 35 – 70 V_{DC}
- High surge protection up to 6 kV
- Mains voltage 220-240 V
- Over temperature protection
- IP65 (Independent installation)
- 100`000 h lifetime at t_c = 75°C
- Wide t_a range -40…+50°C
- 5 years guarantee

Electrical Specifications

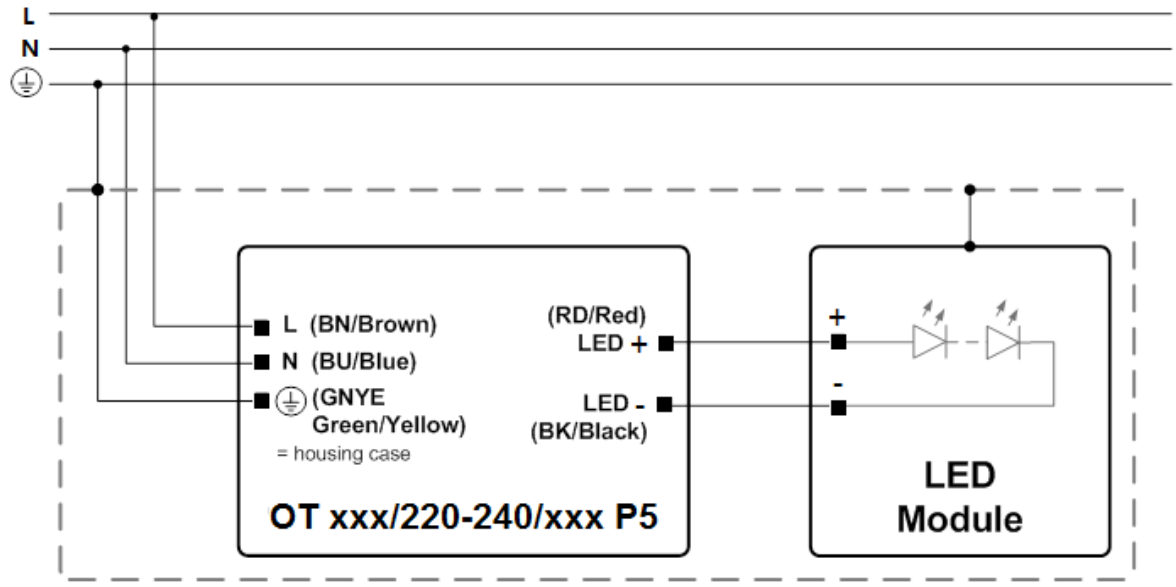
	Item	Value	Unit	Remarks
INPUT	Nominal Voltage	220 - 240	V	
	Nominal frequency	50 / 60	Hz	
	AC voltage range	198 – 264	V	
	DC voltage range	n/a	V	
	Maximum voltage	350	V_{AC}	2 h maximum, see remarks
	Nominal power	214 225	W	Vin 220 V 50 Hz, Io 2.8 A Vin 220 V 50 Hz, Io 5.6 A
	Nominal current	1.0	A	Vin 220 V 50 Hz
	Total Harmonic Distortion (THD)	< 10	%	Full load
	Power factor	> 0.98		Full load
	Efficiency	91.0 88.0	%	Vin 220 V 50 Hz, Io 2.8A Vin 220 V 50 Hz, Io 5.6 A
	Power losses	20 26	W	Vin 220 V 50 Hz, Io 2.8 A Vin 220 V 50 Hz, Io 5.6 A
	No-load power	n/a	W	Load switching on output side is safe but not permitted
	Stand-by power	n/a	mW	
	Protection class	I		Housing must be connected to PE
	Touch current	< 0.35	mA pk	According to EN 60598-1 Annex G and EN 61347-1 Annex A
	Inrush current	105	A pk	Max, th = 300 µs
	Max. units per circuit breaker	B25: 6 B16: 4 B10: 2		
OUTPUT	Nominal output voltage range	35 - 70	V	Refer to operation window
	Maximum output voltage	85	V	Abnormal load protection, constant output voltage
	Nominal current range	2.8 – 5.6	A	2.0 A – 5.6 A Adjustable, by potentiometer
	Current accurancy	+/- 5	%	
	Current ripple	< +/- 25	%	Low frequency < 1kHz
	Nominal power range	70 - 200	W	
	Maximum power	200	W	
	Galvanic isolation	Double		
DIM	Dimming control	n/a		
	0-10V	n/a		
	AstroDIM	n/a		
	Dimming range	n/a		
	Dimming technique	n/a		
	Galvanic isolation interface	n/a		
	LEDset2	n/a		
	NTC input	n/a		
	Constant Lumen Function	n/a		
ENVIRONMENT	Ambient temperature range t_a	-40…+50	°C	Nominal Input Voltage: 220-240 Vac
	Maximum case temperature t_c point	85	°C	
	Max. case temp. in fault condition	110	°C	
	Storage temperature range	-25…+85	°C	
	Relative humidity	5…95	%	Not condensing, Absolute humidity: 36g/m^3
	Surge transient protection	6 / 6	kV	L/N / L/PE acc to EN 61547-5.7
	Environmental rating	Outdoor		
	IP rating	IP 65		Potted
	Mains switching cycles	> 100'000		
	Expected lifetime	50`000	hrs	t_c = 85°C, 0.2% / 1`000 h failure rate
		100`000		t_c = 75°C, 0.1% / 1`000 h failure rate
	Dimensions	252.5 x 70 x 43.5	mm	
	Weight	1200	g	

Protections

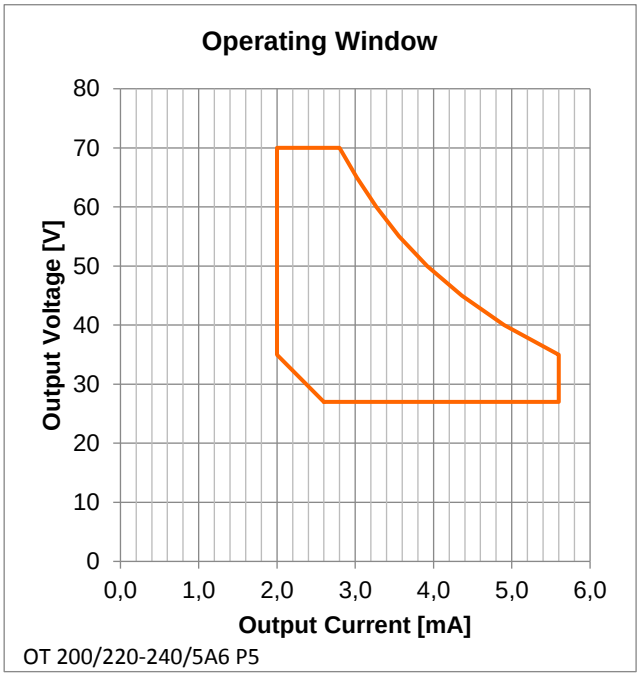
Overtemperature, Overload, No load, Short-circuit, Input overvoltage, Output overvoltage, Output undervoltage

See remarks on page 5.

Wiring Diagram



	Item	Value	Unit	Remarks
Input	Cable cross section	1.0	Mm^2	L (Brown/BN), N (Blue/BU), PE (Green/Yellow, GNYE)
	Wire preparation length	10	mm	
	Type of wire	Flexible three core cable		
	Lead length	300 +/- 20	mm	
Output	Cable cross section	1.0	Mm^2	LED+ (Red/RD), LED- (Black/BK)
	Wire preparation length	10	mm	
	Type of wire	Flexible two Core cable		
	Lead length	300 +/- 20	mm	
Cable/ LENGTH	LED+/LED-	< 2	m	



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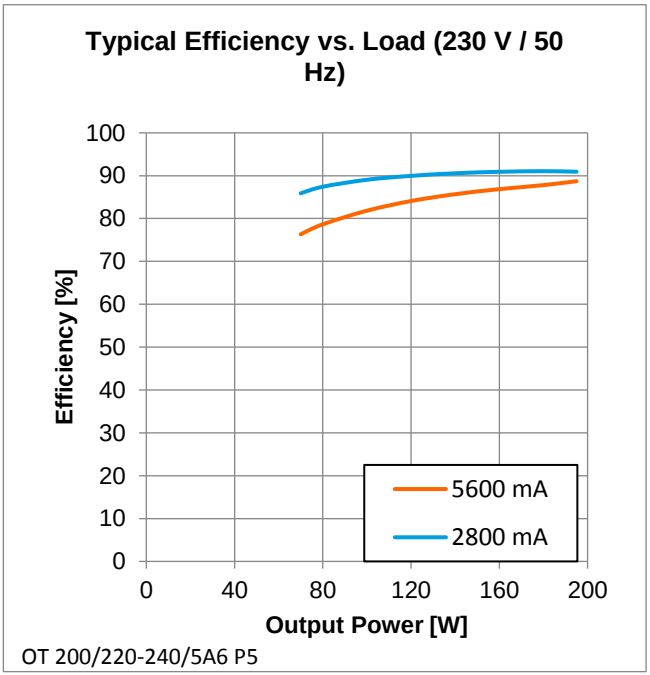

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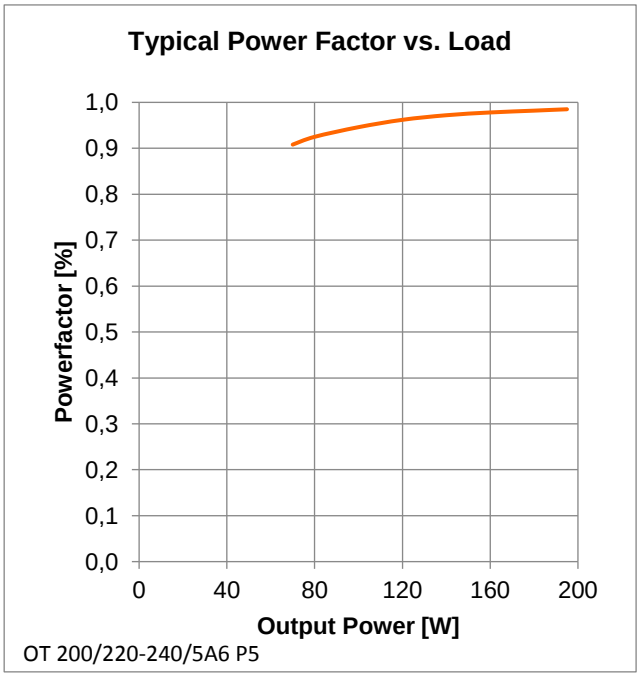

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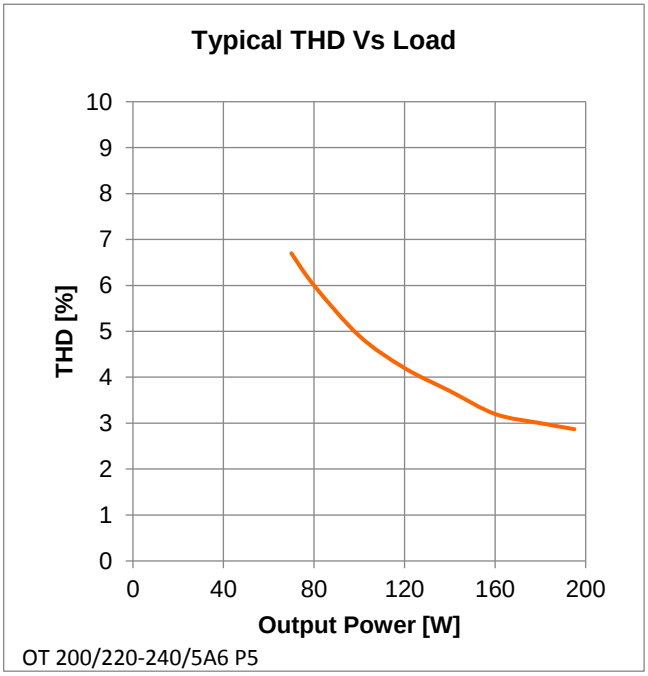

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- **Input overvoltage protection:** the driver withstands an input voltage up to 300 Vac for a maximum of two hours, shut down of the output load might occur in case the supply voltage exceeds the declared input voltage range.
- **Output short circuit protection:** short circuit current is limited to the actual output current setting without damage to the unit. See typical operating window graph for details.
- **Output under voltage operation:** The output current setting is still effective if the load voltage is below the minimum output voltage without any safety issue, but normal performance such as THD, EMI etc is not guaranteed. See typical operating window graph for details.
- **Output over load/voltage protection:** In case the input voltage of the load exceeds the output voltage range which is auto defined by output current setting of the driver (Vo=Po/Io), it automatically reduces the output current. Auto-reversible without mains power on/off.
- **No load protection:** the driver automatically adjusts the output voltage to the maximum output voltage which is auto defined by output current setting if no load is connected. Auto-reversible with the correct load connected;
- **Over temperature protection:** the driver is protected against temporary overheating by shutting down until the overheating eliminated; Auto-reversible when temperature back to normal
- The protective earth (GNYE/PE) wire should be connected to the heat sink of the LED module to improve the surge withstand capability of the system and EMI in critical luminaries.
- The startup time to reach the set output current is less than 2 s.
- For further details please consult the application note

Standards

EN 61347-1

EN 61347-2-13

EN 55015

EN 61547

EN 61000-3-2

EN 61000-3-3

EN 60598-1(ED.8)

EN 62384

Product name	EAN10	EAN40	Pieces / box
OT 200/ 220-240/5A6 P5	4052899410695	4052899410701	10

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