

## Datasheet

### Xitanium LED drivers - WiZ Pro

Xitanium 20W 0.35/0.5A 40V WiZ TW 230V

9290 034 84106

#### Enabling easy, scalable connected lighting system for creating welcoming space

Xitanium wireless LED drivers are designed to operate LED solutions for general lighting applications. They enable simple, cost effective wireless lighting system for energy saving and comfort. Advanced design of the wireless drivers helps to build a simple, scalable and standardized connected lighting with different functionalities from simple wireless dimming to cloud based operations and integration with gateways. WiZ Wireless drivers can be configured via smart devices with WiZ app as standalone or in a mesh network. With Xitanium LED drivers, flexibility in luminaire design is assured thanks to the Adjustable Output Current (AOC). The adjustable output current also enables operation of various LED PCB solutions from different manufacturers.

#### Benefits

- Easy wireless dimming and scheduling for energy saving and convenience
- Instant setup, wireless commissioning in bulk via Bluetooth. No Wi-Fi connection required
- Simple wireless control and automation with control accessories (remote, sensor, switch..)
- Connecting to Wi-Fi for cloud-based control and remote access. No gateway needed
- Future-proof flexibility, support OTA (Over-The-Air) firmware update
- Large array of integrations to work with major home assistant systems
- High reliability underpinned by 5-year warranty

#### Features

- Wi-Fi + Bluetooth dual protocols, enabling both wireless and cloud-based control
- Include WiZ Pro software suite:
  - Setup app for installers to conduct effortless commissioning
  - WiZ app for end users to control and automate with ease
  - WiZ Dashboard for building managers to perform advanced setting, get actionable usage insights for preventive maintenance and energy optimization
- Wide range of power ratings
- WiZ Pro software:  
<https://www.wizconnected.com/en/pro/get-started/>

#### Application

- Residential
- Hospitality
- Retail
- School
- Leisure places

## Logistical data

Specification item	Value
Product name	Xitanium 20W 0.35/0.5A 40V WiZ TW 230V
Logistic code 12NC	9290 034 84106
Pieces per box	40

## Electrical input data

Specification item	Value	Unit	Condition
Rated input voltage range	220...240	V <sub>ac</sub>	Performance range
Rated input voltage	230	V <sub>ac</sub>	
Rated input frequency	50...60	Hz	Performance range
Rated input current	0.11	A	@ full output power @ rated input voltage
Max. input current	0.12	A	@ rated output power @ minimum performance input voltage
Rated input power	23.5	W	@ full output power @ rated input voltage
Power factor	0.9 C		@ rated output power @ rated input voltage
Total harmonic distortion	20	%	@ rated output power @ rated input voltage
Efficiency	84.0...88.0	%	@ full output power @ rated input voltage
Input voltage AC	198...264	V <sub>ac</sub>	Operational range
Input frequency AC	47.5...63	Hz	Performance range
Standby Power (no load)	0.5	W	
Isolation input to output	SELV		

## Electrical output data

Specification item	Value	Unit	Condition
Regulation method	Constant Current		
Output voltage	30...40	V <sub>dc</sub>	
Output voltage max.	60	V	Maximum output voltage (rms)
Output current	350 / 500	mA	
Min output current	35	mA	
Output current tolerance ±	7.5	%	@full load
Output current ripple LF	≤ 4	%	Ripple = peak / average, < 3kHz
Output current ripple HF	≤ 15	%	
Output power	10.5...20.0	W	
Rated output power	20.0	W	

## RF data

Specification item	Value	Unit	Condition
Communication Method	Wi-Fi+ BLE		
Work frequency	BLE: 2400-2483.5	MHz	
	Wi-Fi: 2400-2483.5	MHz	IEEE Std 802.11 b/g/n
RF output power	BLE: 3	dBm	Maximum
	Wi-Fi: 20	dBm	Maximum
Wi-Fi channel	1...13	dBm	

Electrical data controls input

Specification item	Value	Unit	Condition
Control method	Wireless		Wireless protocol = WiFi
Dimming range	10...100	%	Dimming via Wiz app
Isolation controls input to output	SELV		acc. IEC61347-1

Wiring and Connections

Specification item	Value	Unit	Type
Input wire cross-section	0.75...1.5 / 18...16	mm² / AWG	solid / stranded wire
Input wire strip length	8.5...9.5	mm	
Output wire cross-section	0.5...1.5 / 20...16	mm² / AWG	solid / stranded wire
Output wire strip length	8.5...9.5	mm	
Maximum cable length	0.3	m	Total length of wiring including LED module, one way

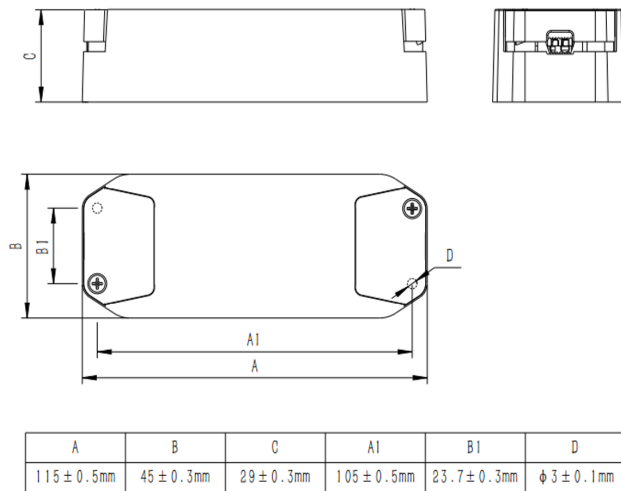


Isolation

Insulation per IEC61347-1	Input	Output
Input	-	SELV
Output	SELV	-

## Dimensions and weight

Specification item	Value	Unit	Tolerance (mm)
Length (A1)	115	mm	
Mounting hole distance (A2)	105	mm	
Width (B1)	45	mm	
Width (B2)	23.7	mm	
Height (C1)	29	mm	
Mounting hole diameter (D1)	3	mm	
Weight	95	gram	
Housing color	White		

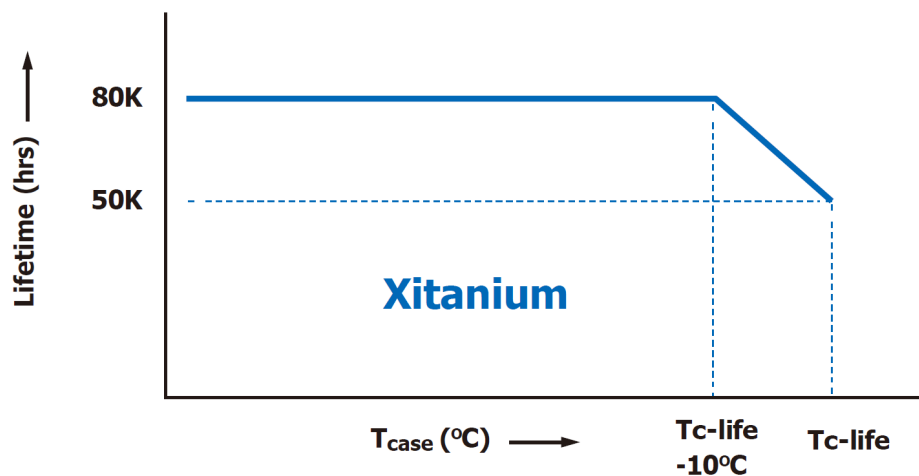


## Operational temperatures and humidity

Specification item	Value	Unit	Condition
Ambient temperature	-20...+45	°C	Higher ambient temperature allowed as long as Tcase-max is not exceeded
Tcase-max	70	°C	Maximum temperature measured at Tcase-point
Tcase-life	65	°C	Measured at Tcase-point
Maximum housing temperature	130	°C	In case of a failure, inherent by design
Relative humidity	10...90	%	Non-condensing

## Lifetime

Specification item	Value	Unit	Condition
Driver lifetime	50,000	hours	Measured temperature at Tcase-point is Tcase-life. Maximum failures = 10%



Maximum failures = 10%

## Storage temperature and humidity

Specification item	Value	Unit	Condition
Ambient temperature	-25...+85	$^{\circ}C$	
Relative humidity	5...95	%	Non-condensing

## Programmable features

Specification item	Available	Default setting	Condition
Set Adjustable Output Current (AOC)	DipSwitch	500 mA	
Min Dim Level	Yes	10 %	

## Features

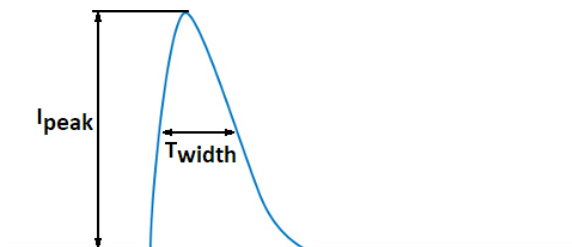
Specification item	Value		Condition
Open load protection	Yes		Automatic recovering
Short circuit protection	Yes		Automatic recovering
Over power protection	Yes		Automatic recovering
Suitable for fixtures with protection class	II		per IEC60598
Overtemperature protection	No		Automatic recovering

## Inrush current

Specification item	Value	Unit	Condition
Inrush current	4.3	A	Input voltage 230V
Inrush peak width	52	μs	Input voltage 230 V, measured at 50% height
Drivers / MCB 16A type B	≤ 90	pcs	Indicative value at 230V

Please refer to the driver design in guide if you use other MCB-types.

If several mini circuit breakers are used directly side-by-side (without distance pieces)  
a correction factor of 80% has to be applied to the rated current



## Driver touch current / protective conductor current / earth leakage current

Specification item	Value	Unit	Condition
Typical Touch Current (ins. Class II)	0.7	mA peak	Acc. IEC61347-1. LED module contribution not included

## Surge immunity

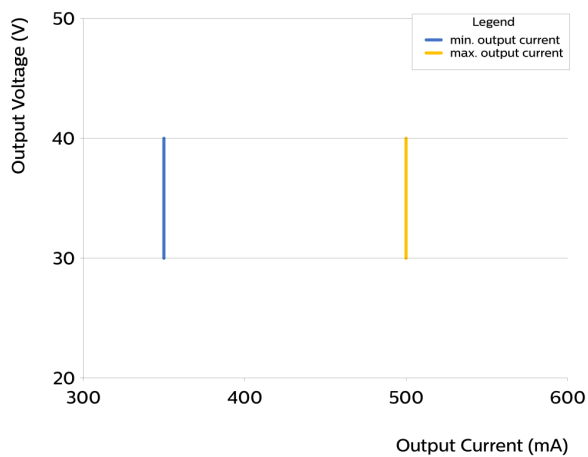
Specification item	Value	Unit	Condition
Mains surge immunity (diff. mode)	1	kV	Acc. IEC61000-4-5. 2 Ohm, 1.2/50us, 8/20us
Mains surge immunity (comm. mode)	2	kV	Acc. IEC61000-4-5. 12 Ohm, 1.2/50us, 8/20us

## Application Info

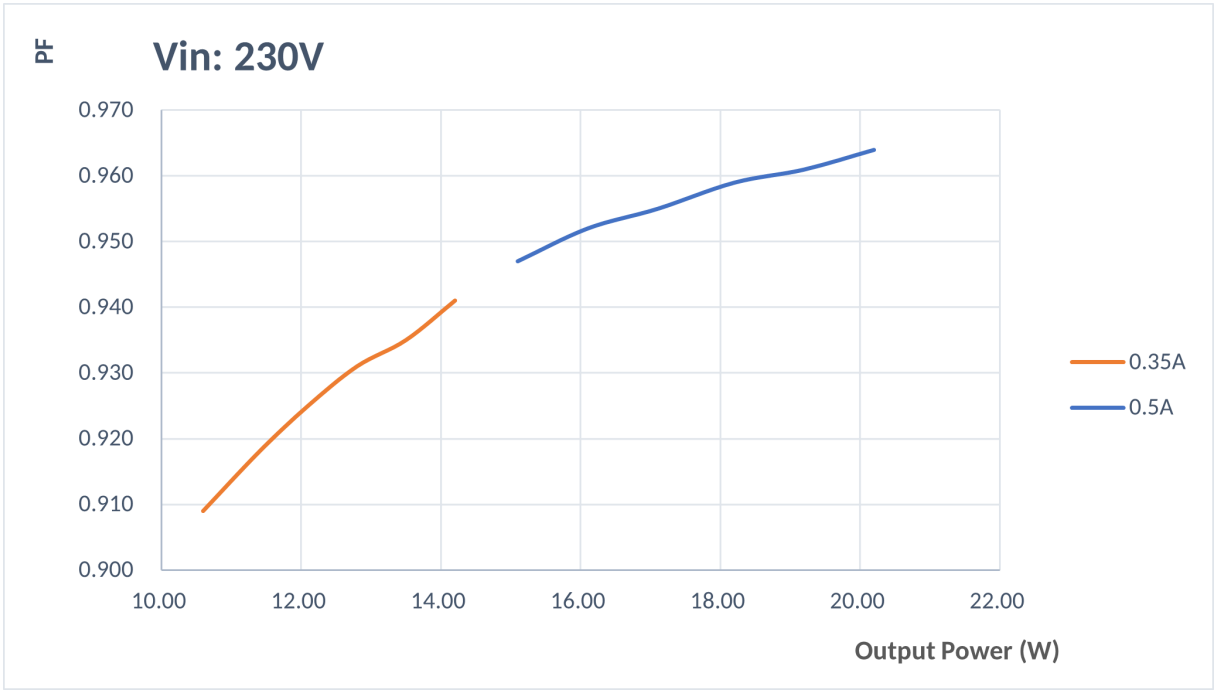
Specification item	Value
Approval marks and Certifications	CB / CE / ENEC / KC / RCM / SELV / SRRC / TISI / UKCA
Ingress Protection classification (IP)	20
Noise and hum dB(A)	21db@30cm

Graphs

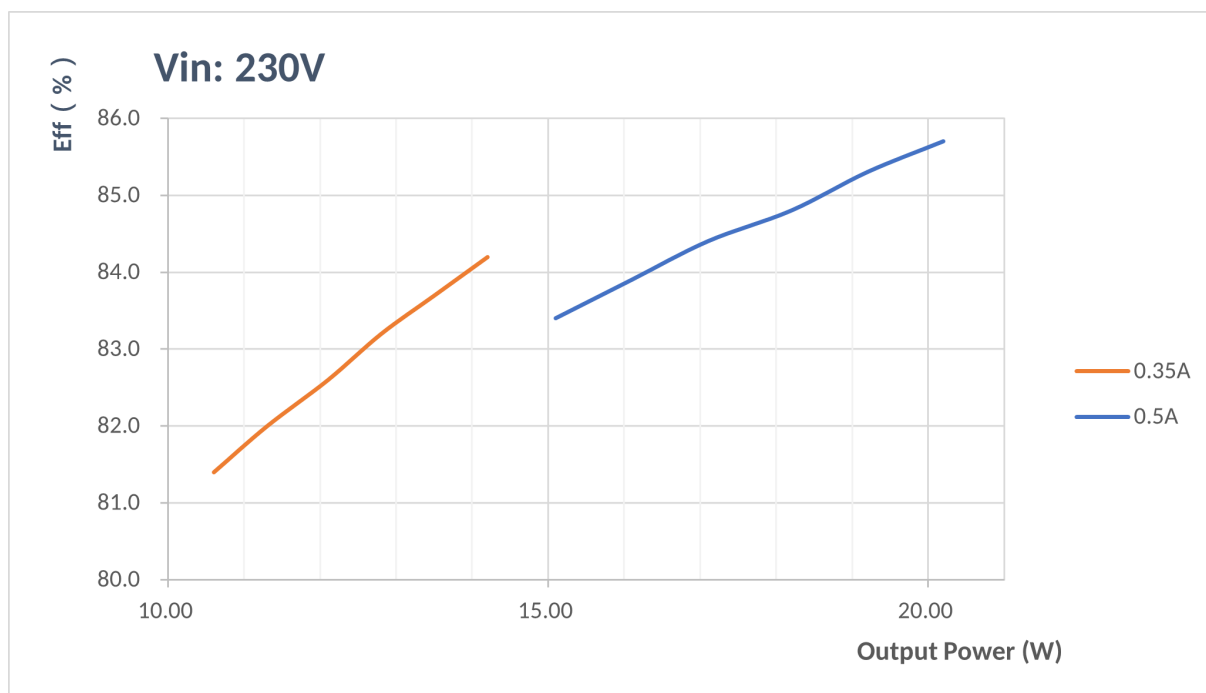
Operating window



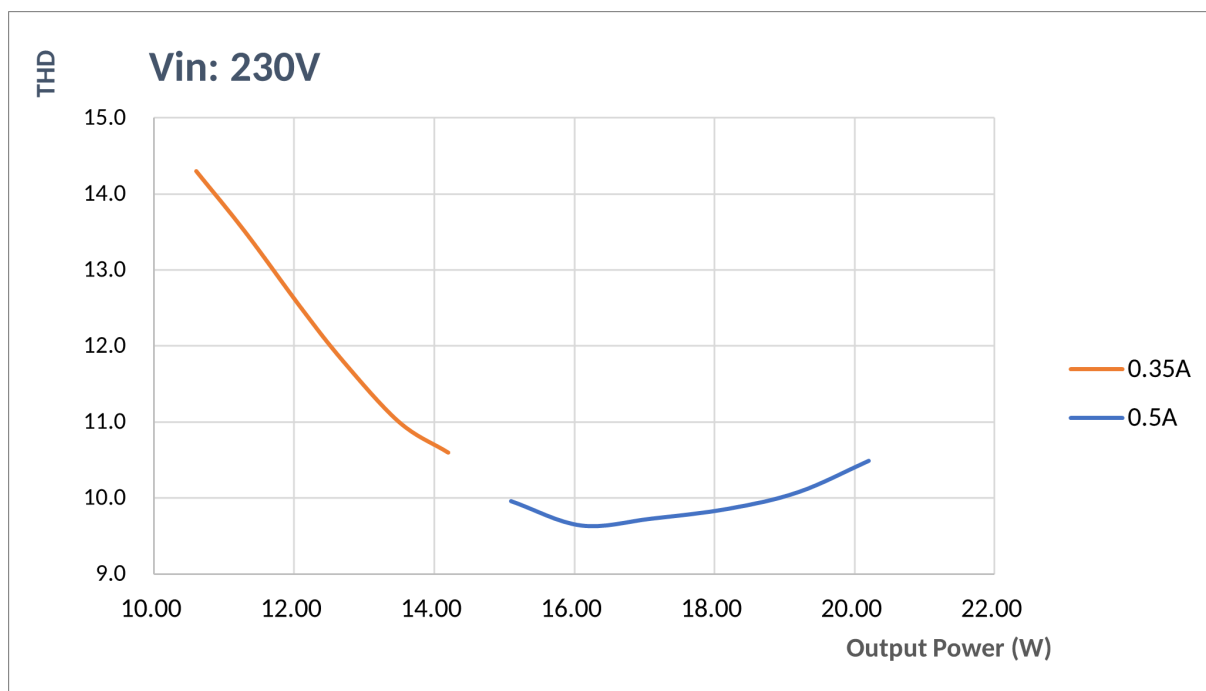
Power factor versus output power



## Efficiency versus output power



## THD versus output power



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