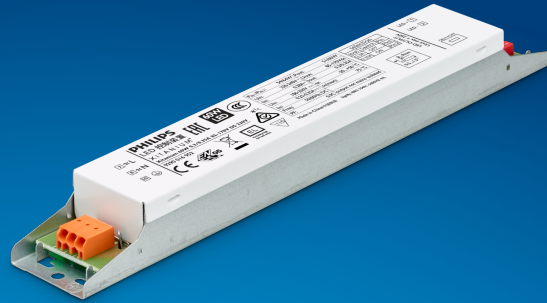


# PHILIPS

## Xitanium

### LED driver



## Datasheet

### Xitanium non-isolated Single Current (Dipswitch)

Xitanium 60W 0.3/0.35A 85-170V DS 230V

9290 016 95206

**Xitanium LED drivers with single current output offer industry leading performance and reliability at optimized cost.**

They are ideal for high volume applications while delivering to specific requirements. These drivers offer the same level of performance as Xitanium adjustable current linear drivers to ensure high quality of light, but with a specific current setting for optimized performance. Due to the low output current ripple, you can be sure to offer your customers high quality of light without visual flicker and stroboscopic effects.

#### Benefits

- High quality of light -assurance of camera and scanner-friendly performance
- High reliability
- Optimized performance at specific output current settings

#### Features

- Low output current tolerance
- Low output ripple current
- Long lifetime at high operating temperature
- Easy current selection via dipswitch
- Suitable for Class I luminaires

#### Application

- Offices
- Retail: supermarkets, shopping malls

## Electrical input data

Specification item	Value	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 range	50...60		Hz	Performance range
Rated input current	0.28		A	@ rated output power @ rated input voltage
Rated input power	54	64	W	@ maximum rated output power @ rated input voltage
Power factor	0.97			@ maximum output power @ rated input voltage
Total harmonic distortion	7		%	@ maximum output power @ rated input voltage
Efficiency	93		%	@ 230V input, full load @ max. U <sub>out</sub>
Rated input voltage DC range	186...250		V <sub>dc</sub>	Performance range
Input voltage AC range	198...264		V <sub>ac</sub>	Safety operational range
Input frequency AC range	45...66		Hz	Safety operational range
Input voltage DC range	168...275		V <sub>dc</sub>	Operational range
Isolation input to output	No			

## Electrical output data

Specification item	Value	Unit	Condition
Regulation method	Constant Current		
Output voltage	85...170	V <sub>dc</sub>	
Output voltage max.	250	V	Maximum output voltage (rms)
Output current	0.3 / 0.35	A	Select current 300mA (OFF) or 350mA (ON) via dipswitch
Output current tolerance ±	7	%	
Output current ripple LF	≤ 4	%	Ripple = peak / average, < 3kHz
Output P <sub>st</sub> <sup>LM</sup>	≤ 0.01		
Output SVM	≤ 0.07		
Output power	25.5...60	W	

## Electrical data controls input

Specification item	Value	Unit	Condition
Control method	Fixed		Select output current via the dipswitch

## Wiring and Connections

Specification item	Value	Unit	Type
Input wire cross-section	0.5...1.5 / 20...16	mm <sup>2</sup> / AWG	WAGO744, solid wire
Input wire strip length	8...9	mm	
Output wire cross-section	0.5...1.5 / 20...16	mm <sup>2</sup> / AWG	WAGO744, solid wire
Output wire strip length	8...9	mm	
Maximum cable length	2	m	Total length of wiring including LED module, one way

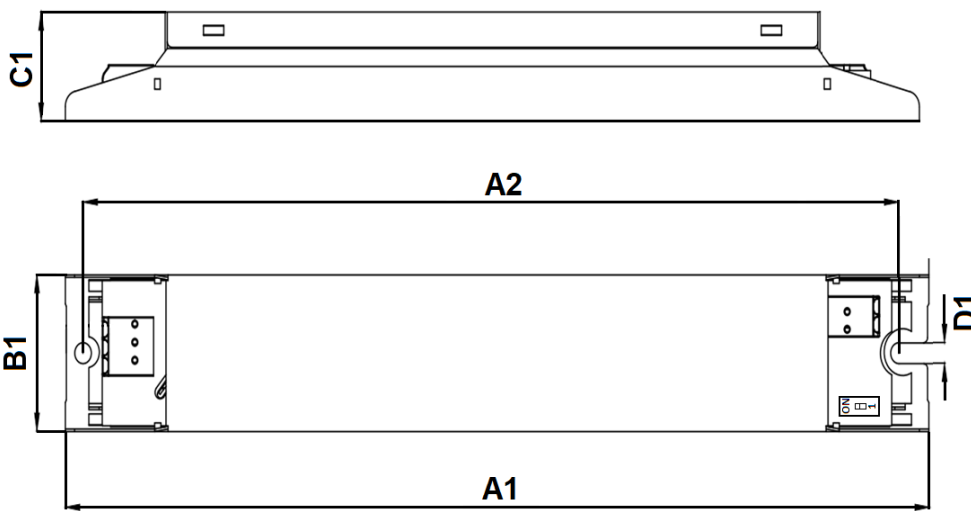


## Insulation

Insulation per IEC61347-1	Input	Output	Housing
Input		No	Basic
Output	No		Basic
Housing	Basic	Basic	

## Dimensions and weight

Specification item	Value	Unit	Tolerance (mm)
Length (A1)	210	mm	
Mounting hole distance (A2)	198.4	mm	
Width (B1)	30.2	mm	
Height (C1)	21	mm	
Mounting hole diameter (D1)	4	mm	
Weight	134	gram	



## Logistical data

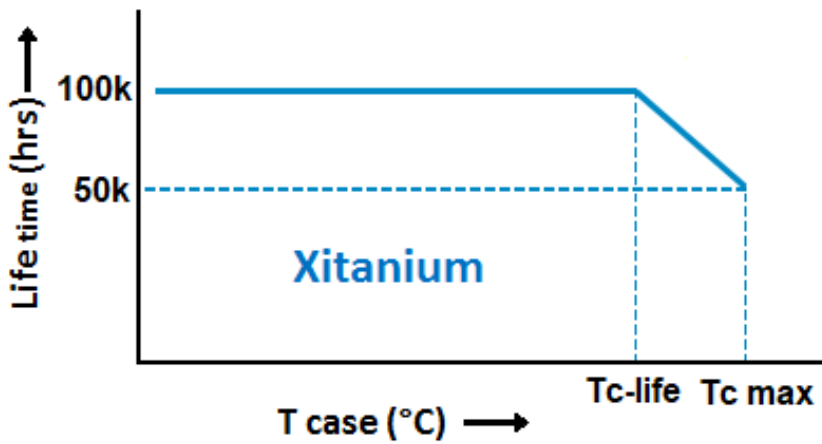
Specification item	Value
Product name	Xitanium 60W 0.3/0.35A 85-170V DS 230V
EOC	871951426390100
Logistic code 12NC	9290 016 95206
EAN1 (GTIN)	8719514263901
EAN3 (box)	8719514263918
Pieces per box	50

## Operational temperatures and humidity

Specification item	Value	Unit	Condition
Ambient temperature	-25...+50	°C	Higher ambient temperature allowed as long as T <sub>case-max</sub> is not exceeded
T <sub>case-max</sub>	75	°C	Lifetime 50khrs;
T <sub>case-life</sub>	65	°C	Lifetime 100khrs; measured at T <sub>c</sub> -point
Maximum housing temperature	110	°C	In case of a failure, inherent by design
Relative humidity	10...90	%	Non-condensing

## Lifetime

Specification item	Value	Unit	Condition
Driver lifetime	100,000	hours	Measured temperature at Tcase-point is Tcase-life. Maximum failures = 10%



## Storage temperature and humidity

Specification item	Value	Unit	Condition
Ambient temperature	-25...+85	°C	
Relative humidity	5...95	%	Non-condensing

## Programmable features

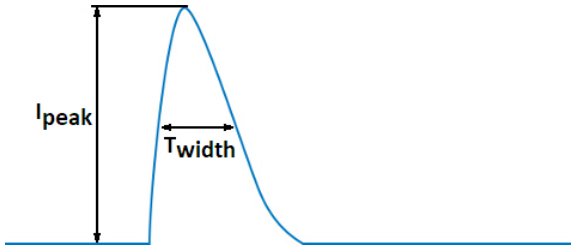
Specification item	Available	Default setting	Condition
Set Adjustable Output Current (AOC)	DipSwitch	300 mA	Manual set the output current via the dipswitch
DC emergency (DCemDim)	No		With a DC mains the output current is 100%. (EOF1)

## Features

Specification item	Value	Condition
Open load protection	Yes	Mains reset needed
Short circuit protection	Yes	Automatic recovering
Over power protection	Yes	Automatic recovering
Hot wiring	No	
Suitable for fixtures with protection class	I	per IEC60598

## Inrush current

Specification item	Value	Unit	Condition
Inrush current	22.4	A	Input voltage 230V
Inrush peak width	326	μs	Input voltage 230 V, measured at 50% height
Drivers / MCB 16A type B	≤ 34	pcs	Indicative value



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

## Driver touch current / protective conductor current

Specification item	Value	Unit	Condition
Typical Protective Conductor Current (ins. Class I)	0.7	mA rms	Acc. IEC60598-1. 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

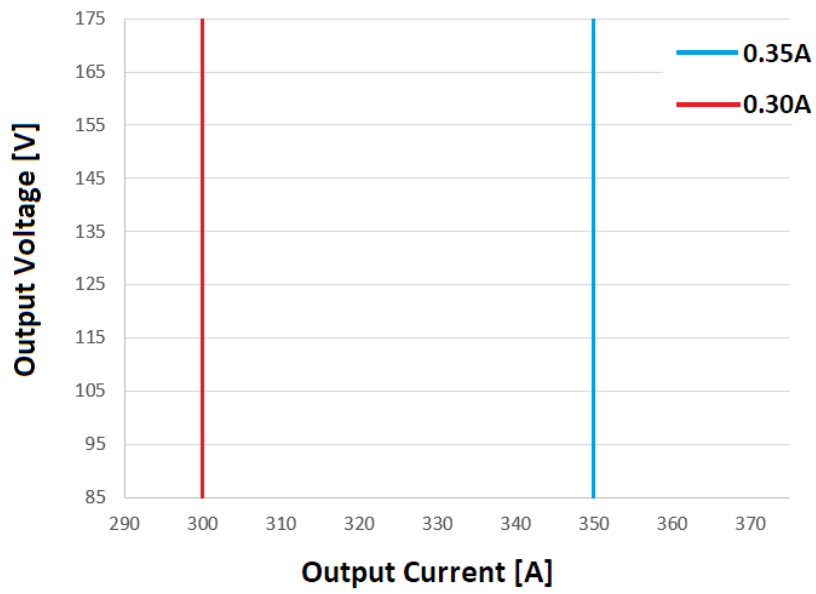
## Application Info

Specification item	Value
Approval marks	CCC / CE / EAC / EL / ENEC / RCM
Ingress Protection classification (IP)	20
Application	Indoor Linear
Mounting Type	Built-in

## Graphs

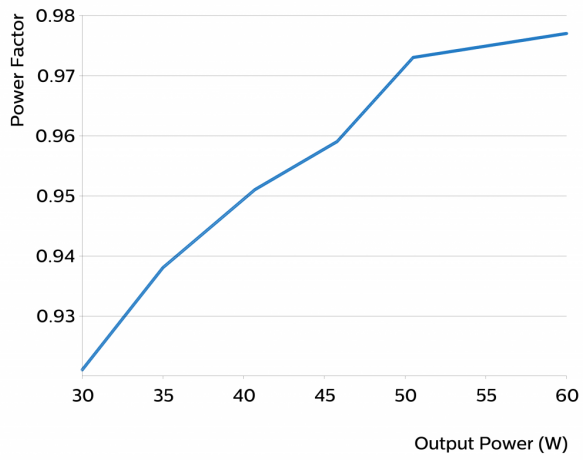
### Operating window

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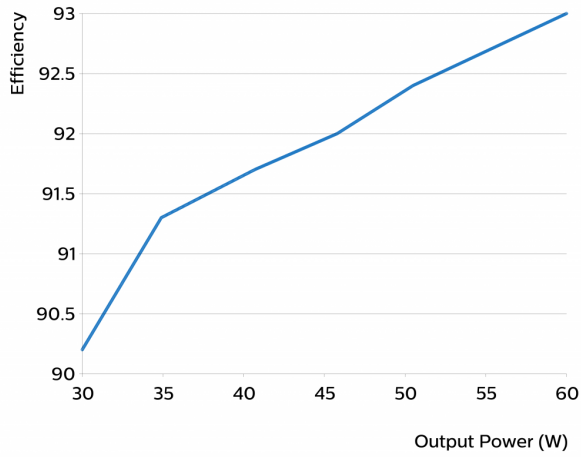
### Power factor versus output power

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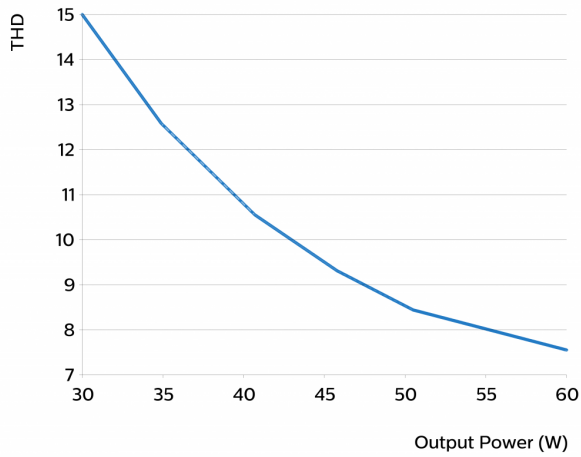
## Efficiency versus output power

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## THD versus output power

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