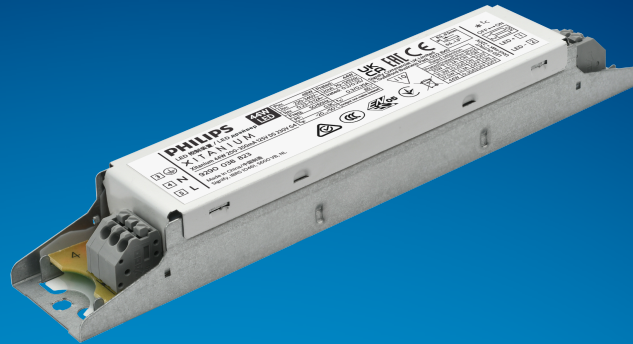


# PHILIPS

## Xitanium

### LED driver



## Datasheet

### Xitanium non-isolated Dip Switch driver

Xitanium 44W 200-350mA 125V DS 230V G4

9290 038 82380

Philips Xitanium non-isolated Dip Switch Linear LED drivers G4 have 4 output currents, offer industry leading performance and reliability at optimized cost. These drivers offer the same level of performance as Xitanium adjustable output current linear drivers to ensure high quality of light. Xitanium drivers have common features such as low ripple output current, adjustable output current by dip switch and 50,000 hours lifetime. They are specifically designed to ensure great EMI performance, high robustness and safe usage.

#### Features

- Class I application
- Low Ripple less than 4%
- 4 output currents by Dip switch
- High efficiency
- 50,000 hours lifetime @ Tc-max

#### Benefits

- Provides options for different luminaire designs
- Comfortable for the eyes
- Selectable output current enables flexibility and SKU reduction
- Energy saving
- Peace of mind with proven reliability

#### Application

- Waterproof lighting
- Recessed, surface and suspended linear lighting

## Logistical data

Specification item	Value
Product name	Xitanium 44W 200-350mA 125V DS 230V G4
Logistic code 12NC	9290 038 82380
Pieces per box	50

## 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	0.23	A	@ rated output power @ rated input voltage
Rated input power	48.0	W	@ rated output power @ rated input voltage
Power factor	0.95		@ rated output power @ rated input voltage
Total harmonic distortion	20	%	@ rated output power @ rated input voltage
Efficiency	92.0	%	@ rated output power @ rated input voltage @ max output voltage
Input voltage AC	198...264	V <sub>ac</sub>	Operational range
Input frequency AC	45...66	Hz	Operational range
Isolation input to output	No		

## Electrical output data

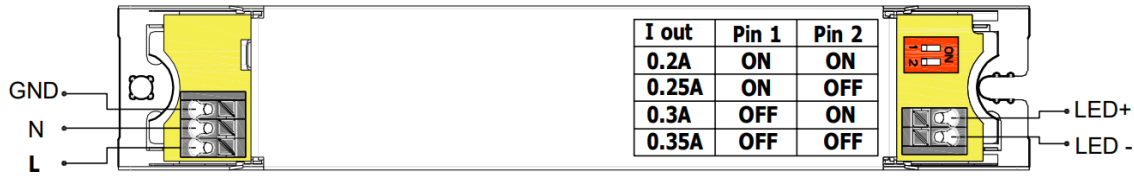
Specification item	Value	Unit	Condition
Regulation method	Constant Current		
Output voltage	70...125	V <sub>dc</sub>	
Output voltage max.	220	V	Maximum output voltage (rms)
Output current	200 / 250 / 300 / 350	mA	Select output current via the dipswitch
Output current tolerance ±	8	%	@full load
Output current ripple LF	≤ 4	%	Ripple = peak / average, < 3kHz. Rd≥0.48ohm/3V/0.2A
Output current ripple HF	≤ 15	%	
Output P <sub>st</sub> <sup>LM</sup>	≤ 0.1		cfr. IEC TR 61547-1: 2020
Output SVM	≤ 0.1		cfr. IEC TR 63158: 2018
Output power	14.0...43.7	W	
Rated output power	43.7	W	

## Control interfaces

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

## Wiring and Connections

Specification item	Value	Unit	Type
Input wire cross-section	0.5...1.5 / 20...16	mm <sup>2</sup> / AWG	solid / stranded wire
Input wire strip length	8.5...9.5	mm	
Output wire cross-section	0.5...1.5 / 20...16	mm <sup>2</sup> / AWG	solid / stranded wire
Output wire strip length	8.5...9.5	mm	
Maximum cable length	2	m	Total length of wiring including LED module, one way

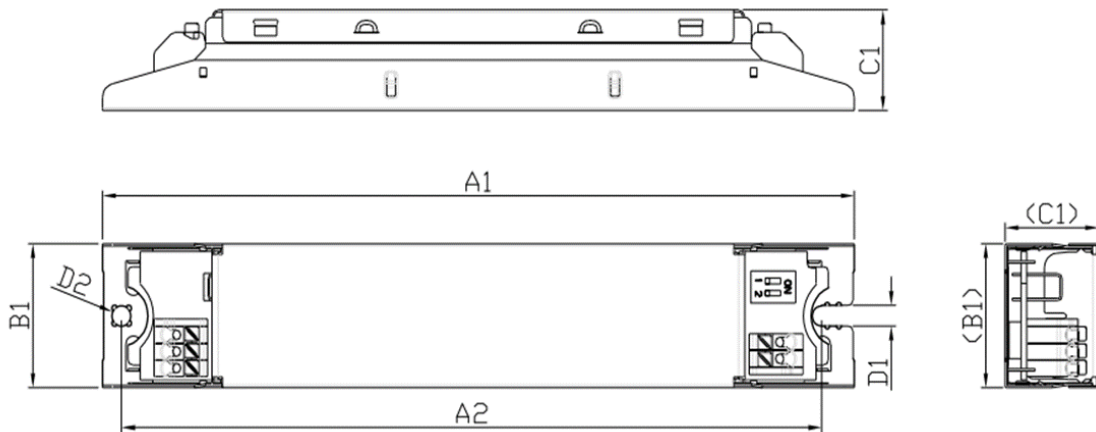


## Isolation

Insulation per IEC61347-1	Input	Output	Housing
Input	-	Non	Basic
Output	Non	-	Basic
Housing	Basic	Basic	-

## Dimensions and weight

Specification item	Value	Unit	Tolerance (mm)
Length (A1)	168	mm	
Mounting hole distance (A2)	156.4	mm	
Width (B1)	30	mm	
Height (C1)	21	mm	
Mounting hole diameter (D1)	4.3	mm	
Mounting hole diameter (D2)	4.3	mm	
Weight	110	gram	
Housing color	White		

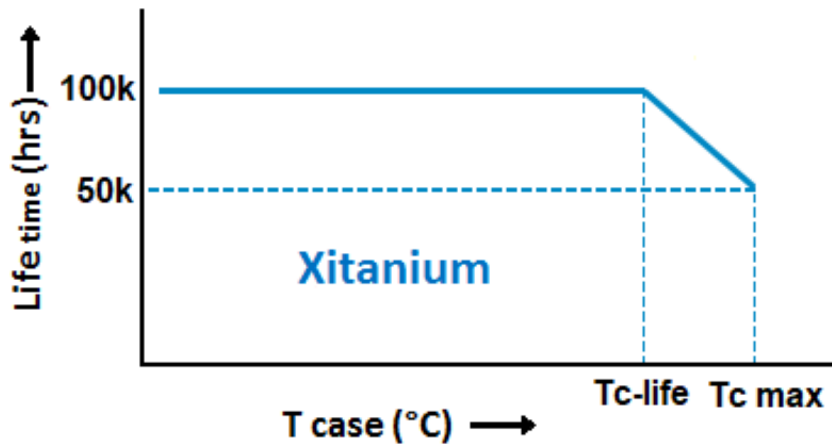


## Operational temperatures and humidity

Specification item	Value	Unit	Condition
Ambient temperature	-20...+50	°C	Higher ambient temperature allowed as long as Tcase-max is not exceeded
Tcase-max	85	°C	Maximum temperature measured at Tcase-point
Tcase-life	75	°C	Measured at Tcase-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%



Maximum failures = 10%

Temperature [°C]	Lifetime	Unit	Condition
85	50000	hr	
80	71000	hr	
75	100000	hr	Temperature measured @Tc point
70	>100000	hr	
65	>100000	hr	

#### 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	350 mA	Manual set the output current via the dipswitches, see wiring diagram for an overview
LED Module Temperature Protection (MTP)	No		
Constant Light Output (CLO)	No		
Corridor Mode	No		
DC emergency (DCemDim)	No		

#### Non-programmable features

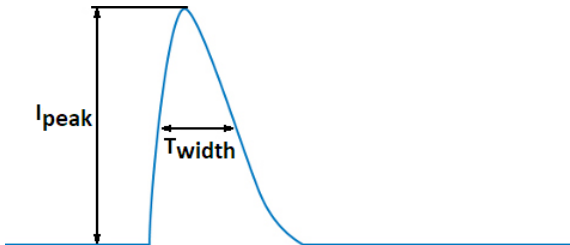
Specification item	Value	Condition
Open load protection	Yes	Automatic recovering
Short circuit protection	Yes	Automatic recovering
Over power protection	Yes	Automatic recovering
Hot wiring	No	
Suitable for fixtures with protection class	I	per IEC60598

## Inrush current

Specification item	Value	Unit	Condition
Inrush current	24.5	A	Input voltage 230V
Inrush peak width	136	μs	Input voltage 230 V, measured at 50% height
Drivers / MCB 16A type B @230V AC	≤ 35	pcs	Input voltage 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 Protective Conductor Current (ins. Class I)	0.5	mA rms	Acc. IEC60598-1. LED module contribution not included

## Surge immunity

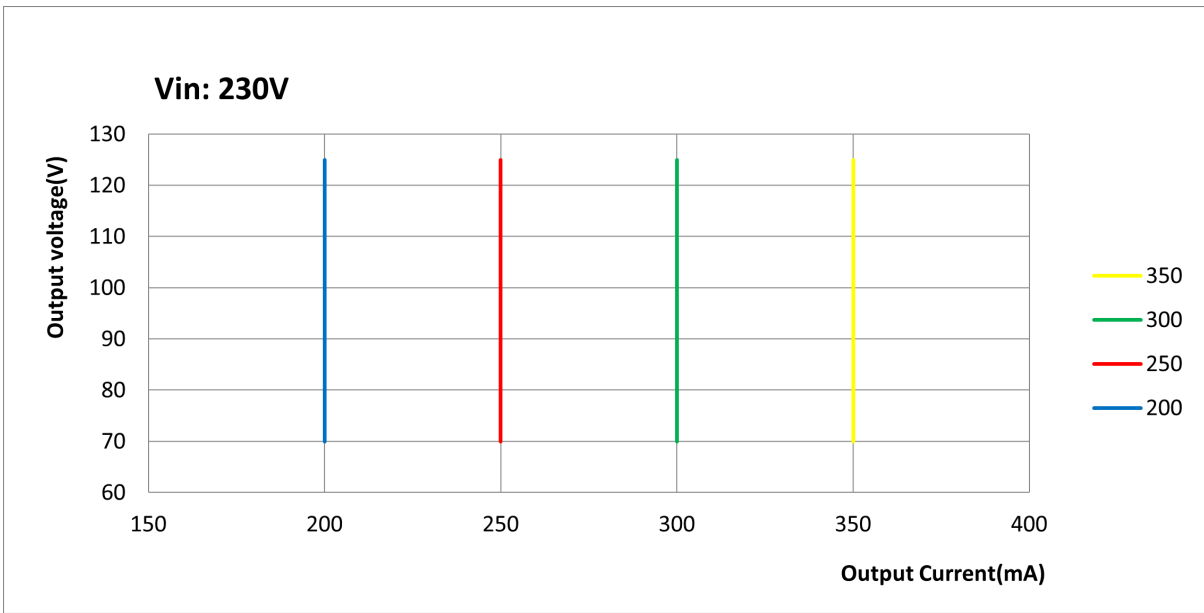
Specification item	Value	Unit	Condition
Mains surge immunity (diff. mode)	1	kV	Acc. IEC61000-4-5. 2 Ohm, 1.2/50us, 8/20us
Mains surge immunity (comm. mode)	2	kV	Acc. IEC61000-4-5. 12 Ohm, 1.2/50us, 8/20us

## Application Info (Approbation)

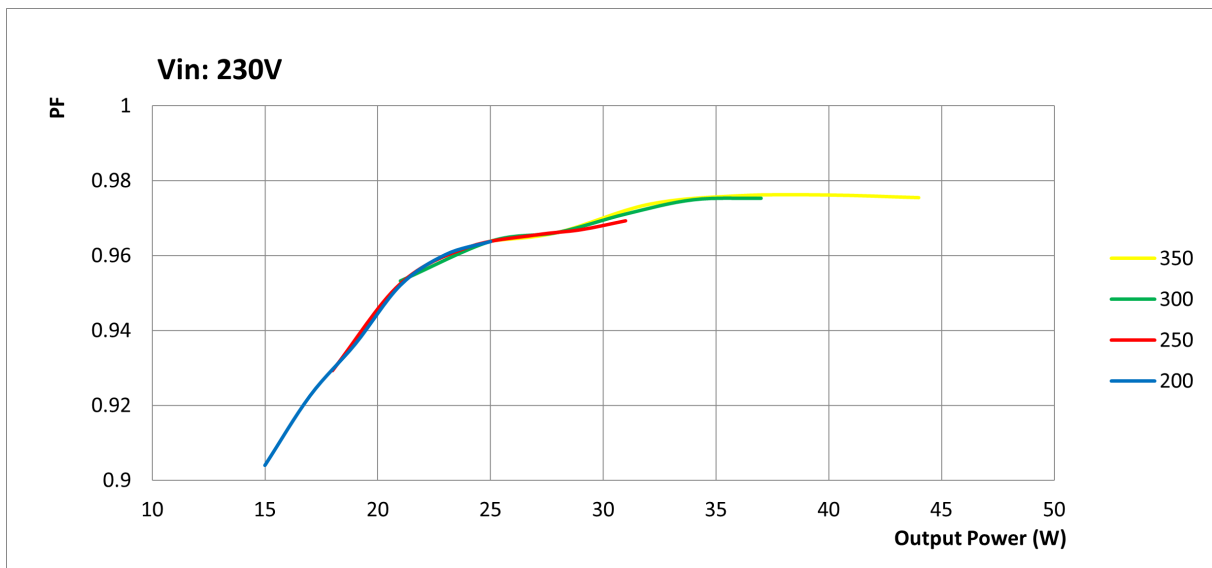
Specification item	Value
Approval marks and Certifications	CCC / CE / EAC / ENEC / RCM / UA / UKCA
Ingress Protection classification (IP)	20
Application	Indoor Linear
Mounting Type	Built-in

## Graphs

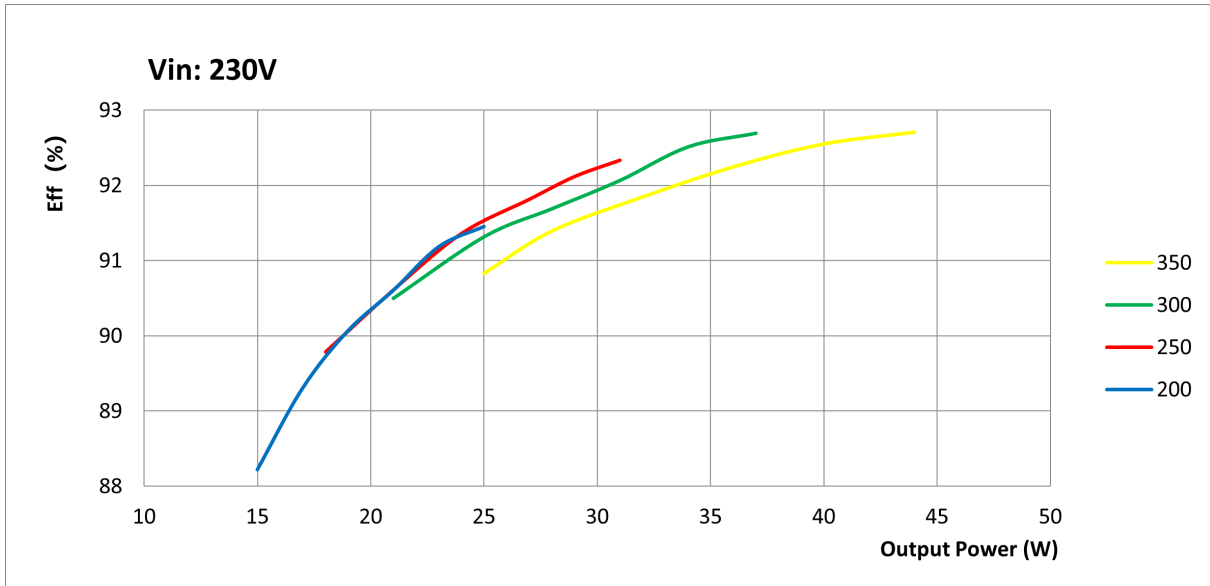
### Operating window



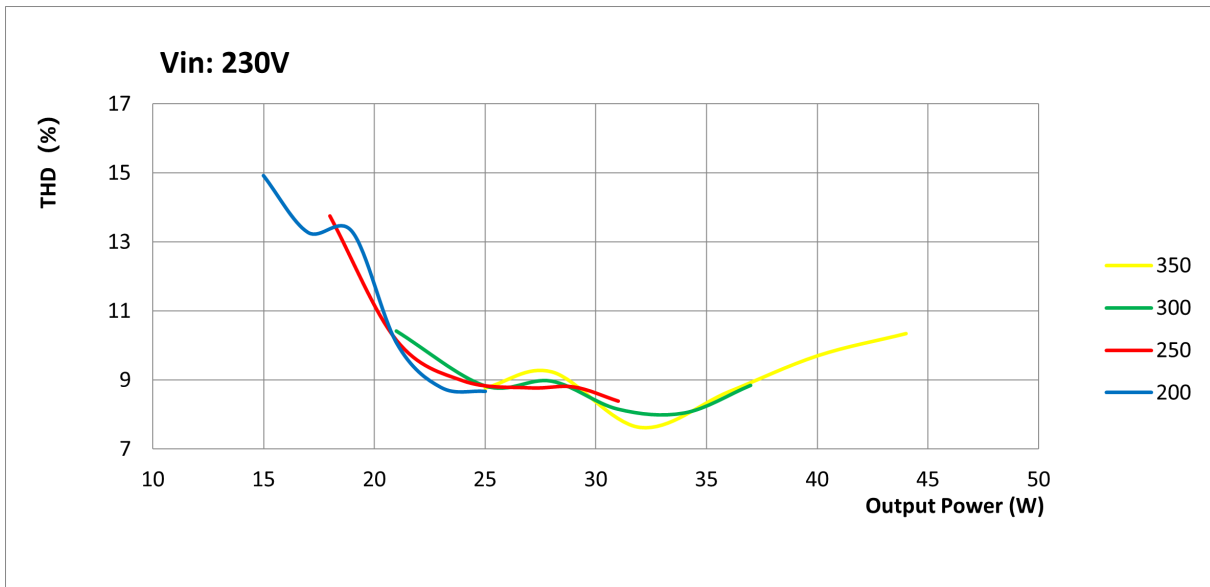
### Power factor versus output power



## Efficiency versus output power



## THD versus output power



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