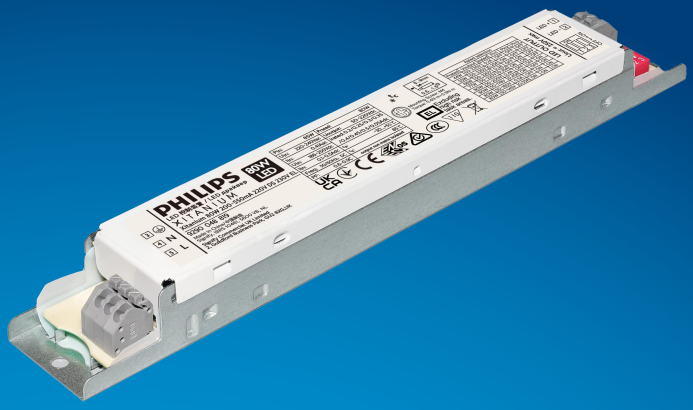
PHILIPS

Xitanium

LED driver



Datasheet

Xitanium non-isolated Dip Switch driver

Xitanium 80W 200-550mA 220V DS 230V EL

9290 048 81901

Philips Xitanium non-isolated Dip Switch Linear LED drivers 80W have 8 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 EL function. They are specifically designed to ensure great EMI performance, high robustness and safe usage.

Features

- Class I application
- Low Ripple less than 4%
- 8 output currents by Dip switch
- High efficiency, high Pf, low THD
- EL function
- 100,000 hours lifetime @ Tc-life

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 80W 200-550mA 220V DS 230V EL
Logistic code 12NC	9290 048 81901
Pieces per box	50
Weight	147 gram

Electrical input data

Specification item	Value	Unit	Condition
Rated input voltage range	220…240	V_{ac}	Performance range
Rated input voltage	230	V_{ac}	
Rated input frequency	50…60	Hz	Performance range
Rated input current	0.41	A	@ rated output power @ rated input voltage
Rated input power	85.0	W	@ rated output power @ rated input voltage
Power factor	0.98		@ max output power @ rated input voltage
Total harmonic distortion	15	%	@ max output power @ rated input voltage
Efficiency	94.0	%	@ rated output power @ rated input voltage @ max output voltage
Rated input voltage DC	186…250	V_{dc}	Performance range
Rated input current DC	0.1…0.5	A_{dc}	Performance range
Input voltage AC	198…264	V_{ac}	Operational range
Input frequency AC	47.5…63	Hz	Operational range
Input voltage DC	168…275	V_{dc}	Operational range
Isolation input to output	No		

Electrical output data

Specification item	Value	Unit	Condition
Regulation method	Constant Current		
Output voltage	50…220	V_{dc}	
Output voltage max.	250	V	Maximum output voltage (rms)
Output current	200 / 250 / 300 / 350 / 400 / 450 / 500 / 550	mA	Select output current via the dipswitch (EOFi=1) with steps of 50 mA
Output current tolerance ±	8	%	@full load
Output current ripple LF	≤ 4	%	Ripple = peak / average < 3kHz
Output current ripple HF	≤ 15	%	Ripple = peak / average total
Output P_{st}^{LM}	≤ 0.1		In entire operating window
Output SVM	≤ 0.1		In entire operating window
Output power	32.0…80.0	W	
Rated output power	80.0	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^2 / AWG	solid / stranded wire
Input wire strip length	8.5…9.5	mm	
Output wire cross-section	0.5…1.5 / 20…16	mm^2 / 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

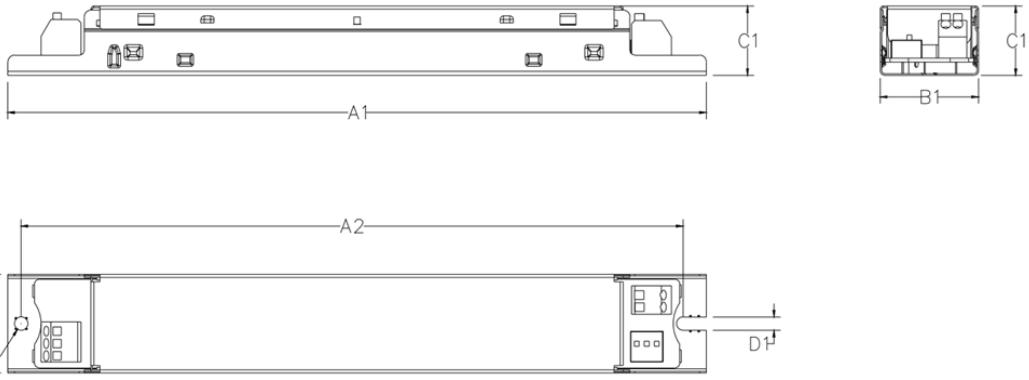


Isolation

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)	210	mm	
Mounting hole distance (A2)	198.5	mm	
Width (B1)	30	mm	
Height (C1)	21	mm	
Mounting hole diameter (D1)	4.1	mm	
Mounting hole diameter (D2)	4.1	mm	
Weight	147	gram	
Housing color	White		

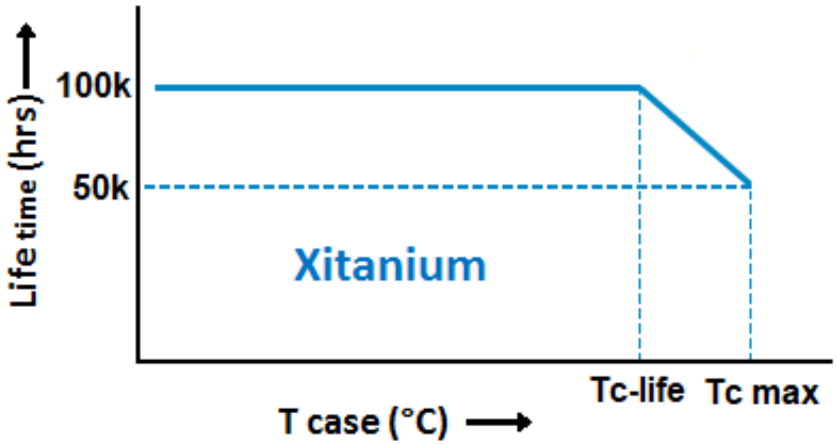


Operational temperatures and humidity

Specification item	Value	Unit	Condition
Ambient temperature	-30…+55	°C	
Tcase-max	85	°C	Maximum temperature measured at T_{case}-point
Tcase-life	75	°C	Measured at T_{case}-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%
Driver lifetime Tcmax	50,000	hours	Measured temperature at Tcase-point is Tcase-max. Maximum failures = 10%



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	550 mA	Manual set the output current via the dipswitches, see wiring diagram for an overview

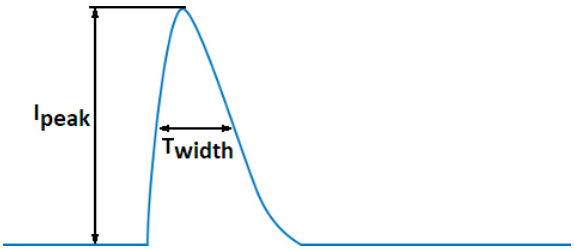
Non-programmable features

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	25.6	A	Input voltage 230V
Inrush peak width	170	µs	Input voltage 230V, measured at 50% height
Drivers / MCB 16A type B @230V AC	≤ 26	pcs	Input voltage 230V

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



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

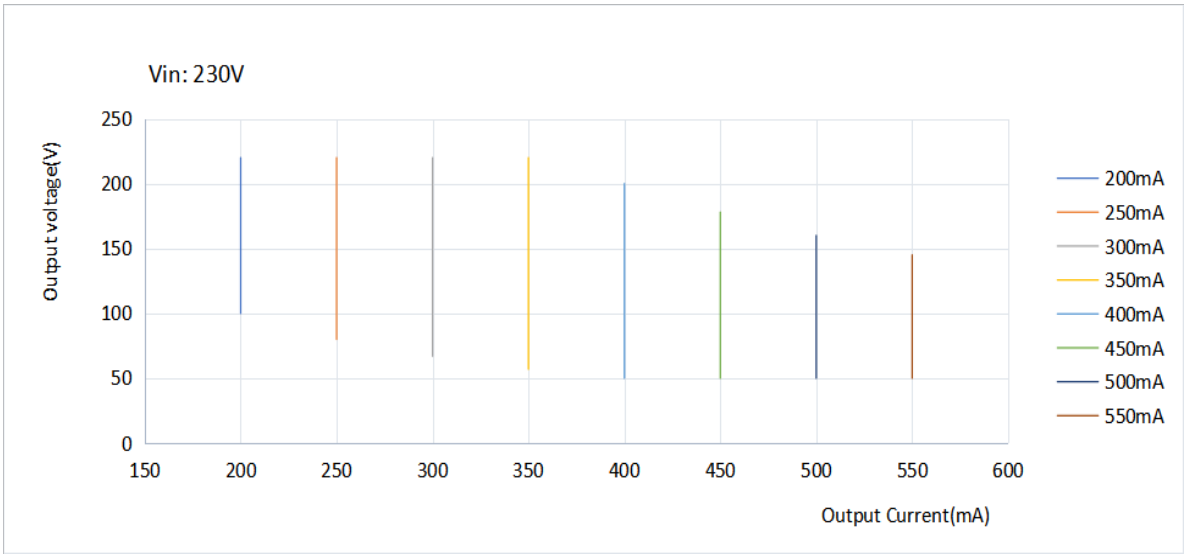
Specification item	Value	Unit	Condition
Mains surge immunity (diff. mode)	1	kV	Acc. IEC61000-4-5. 2 Ohm, 1.2/50us, 8/20us
Mains surge immunity (comm. mode)	2	kV	Acc. IEC61000-4-5. 12 Ohm, 1.2/50us, 8/20us

Application Info (Approbation)

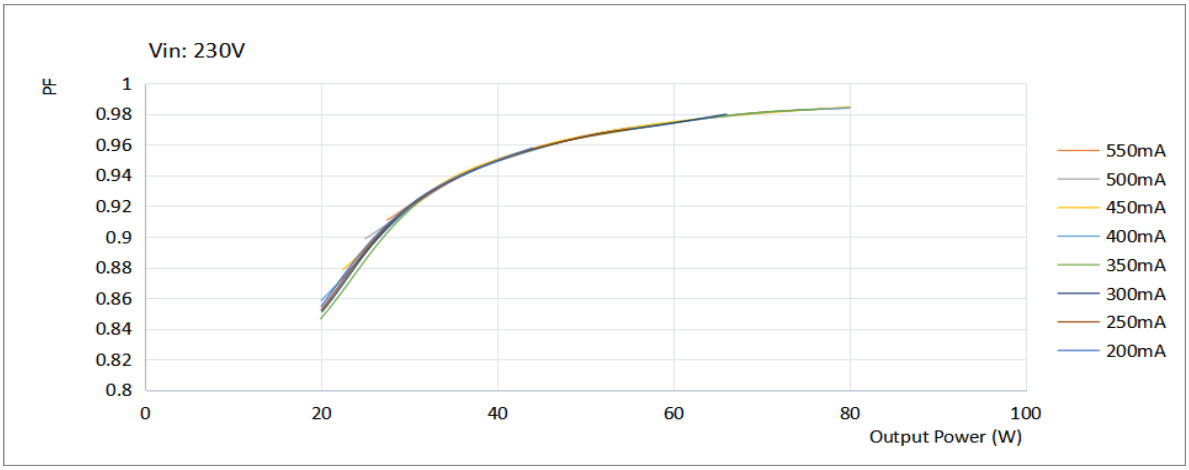
Specification item	Value
Approval marks and Certifications	CB / CCC / CE / EL / ENEC / RCM / UA / UKCA
Ingress Protection classification (IP)	20
Application	Indoor Linear
Mounting Type	Built-in

Graphs

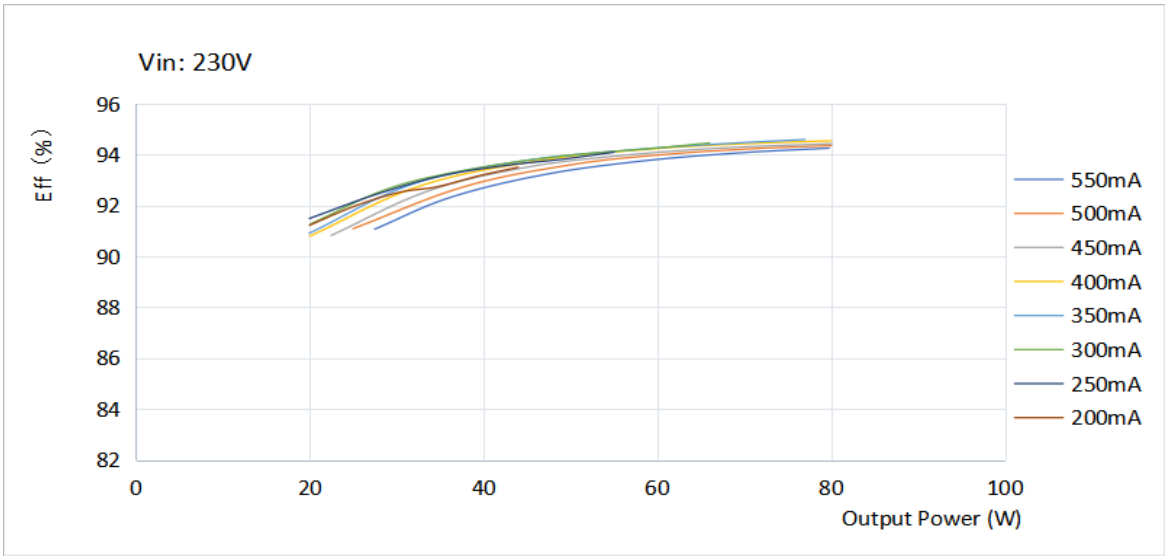
Operating window



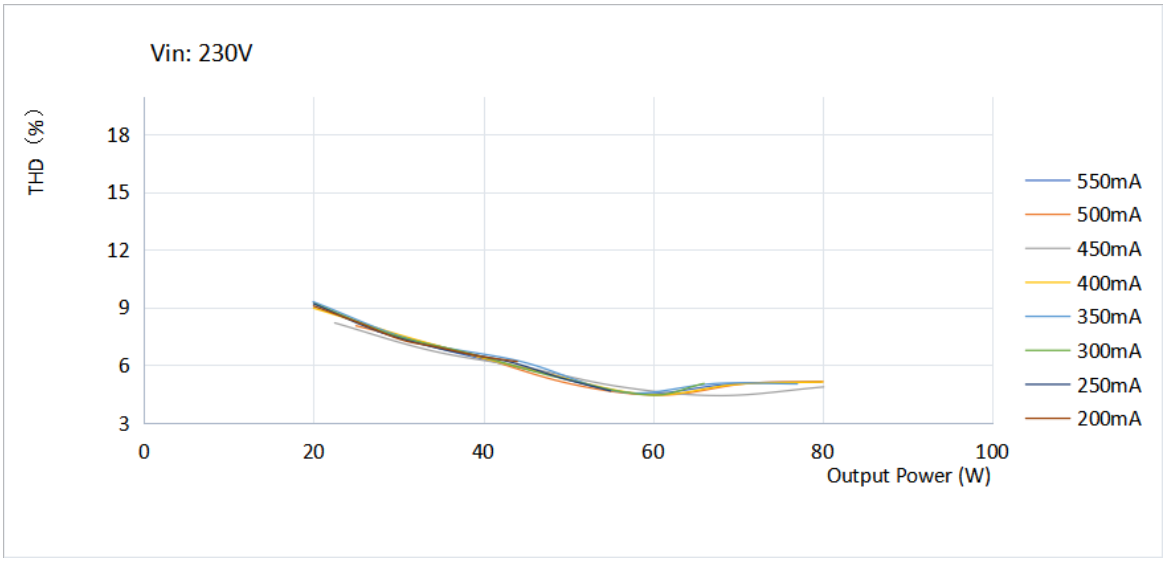
Power factor versus output power



Efficiency versus output power



THD versus output power



Notes

Electrical Specifications:All the specifications are typical and at 25°C Ta unless specified otherwise.

©2026 Signify Holding, IBRS 10461, 5600 VB, NL. All rights reserved.
UK importer address: Signify Commercial UK Limited, 2 Guildford Business Park GU2 8XG, UK

The information provided herein is subject to change without notice. Signify does not give any representation or warranty as to the accuracy or completeness of the information included herein and shall not be liable for any action in reliance thereon. The information presented in this document is not intended as any commercial offer and does not form part of any quotation or contract, unless otherwise agreed by Signify.

Philips and the Philips Shield Emblem are registered trademarks of Koninklijke Philips N.V. All other trademarks are owned by Signify Holding or their respective owners.
Date of release: May 20, 2026 v1

www.philips.com/oem