PHILIPS

Xitanium

LED driver

Datasheet

Xitanium non-isolated Dip Switch driver

Xi 65W 200-350mA 185V DS 230V EL G5

9290 048 31301

Philips Xitanium non-isolated Dip Switch Linear LED drivers G5 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 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%
- 4 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

August 2025

Logistical data

Specification item	Value
Product name	Xi 65W 200-350mA 185V DS 230V EL G5
Logistic code 12NC	9290 048 31301
Pieces per box	50
Weight	110 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	0.3	A	@ rated output power @ rated input voltage
Rated input power	69.0	W	@ rated output power @ rated input voltage
Power factor	0.95		@ max output power @ rated input voltage
Total harmonic distortion	15	%	@ max output power @ rated input voltage
Efficiency	92.0	%	@ rated output power @ rated input voltage @ max output voltage
Rated input voltage DC	186…250	V_{dc}	Performance range
Rated input current DC	0.11…0.39	A_{dc}	Performance range
Input voltage AC	198…264	V_{ac}	Operational range
Input frequency AC	45…66	Hz	Operational range
Input voltage DC	168…275	V_{dc}	Operational range
Isolation input to output	No		

Electrical output data

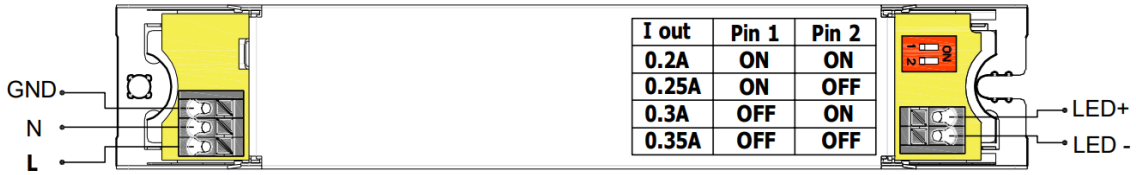
Specification item	Value	Unit	Condition
Regulation method	Constant Current		
Output voltage	120…185	V_{dc}	
Output voltage max.	250	V	Maximum output voltage (rms)
Output current	200 / 250 / 300 / 350	mA	Select output current via the dipswitch
Output current tolerance ±	8	%	@full load
Output current ripple LF	≤ 4	%	Ripple = peak / average < 3kHz
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	24.0…64.7	W	
Rated output power	64.7	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^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



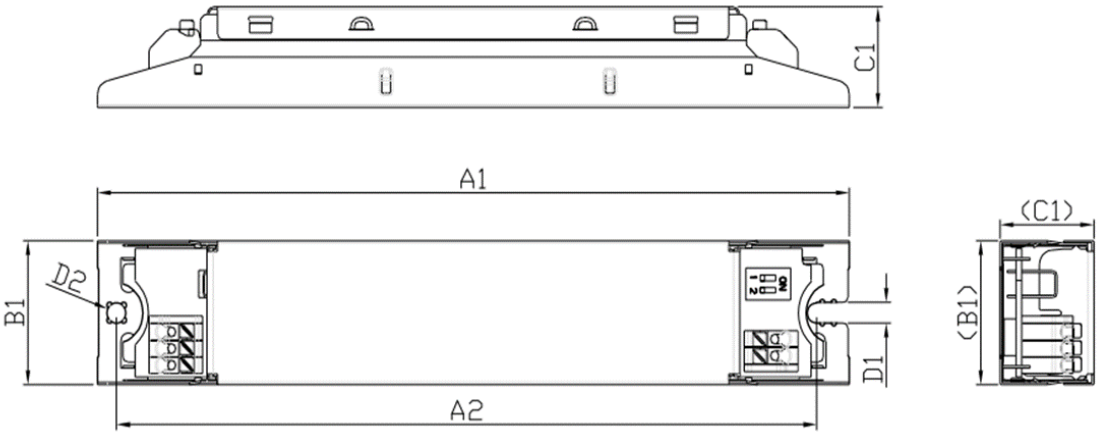
I out	Pin 1	Pin 2
0.2A	ON	ON
0.25A	ON	OFF
0.3A	OFF	ON
0.35A	OFF	OFF

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		

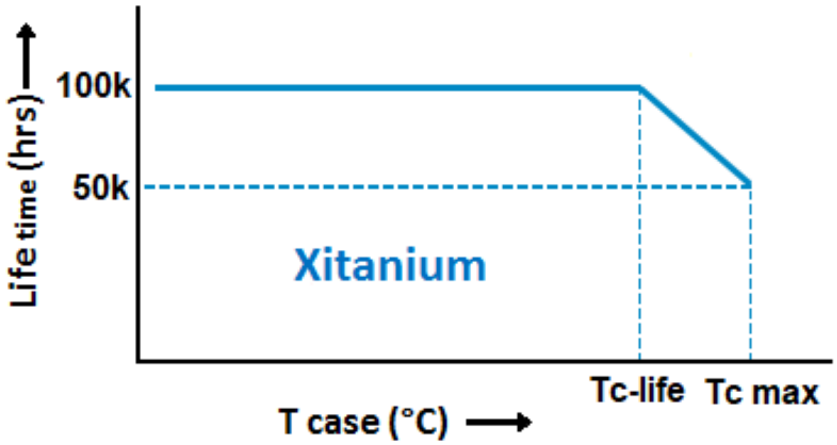


Operational temperatures and humidity

Specification item	Value	Unit	Condition
Ambient temperature	-30…+55	°C	Higher ambient temperature allowed as long as Tcase-max is not exceeded
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%



Maximum failures = 10%

Storage temperature and humidity

Specification item	Value	Unit	Condition
Ambient temperature	-30…+85	°C	
Relative humidity	5…95	%	Non-condensing

Programmable features

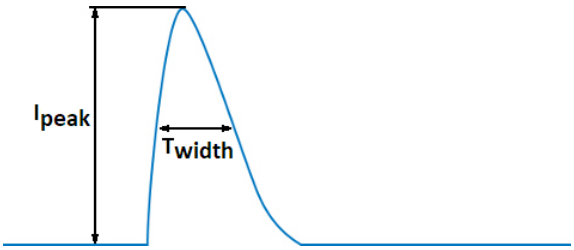
Specification item	Available	Default setting	Condition
Set Adjustable Output Current (AOC)	DipSwitch	350 mA	Manual set the output current via the dipswitches, see wiring diagram for an overview

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	38.4	A	Input voltage 230V
Inrush peak width	141	µs	Input voltage 230V, measured at 50% height
Drivers / MCB 16A type B @230V AC	≤ 21	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

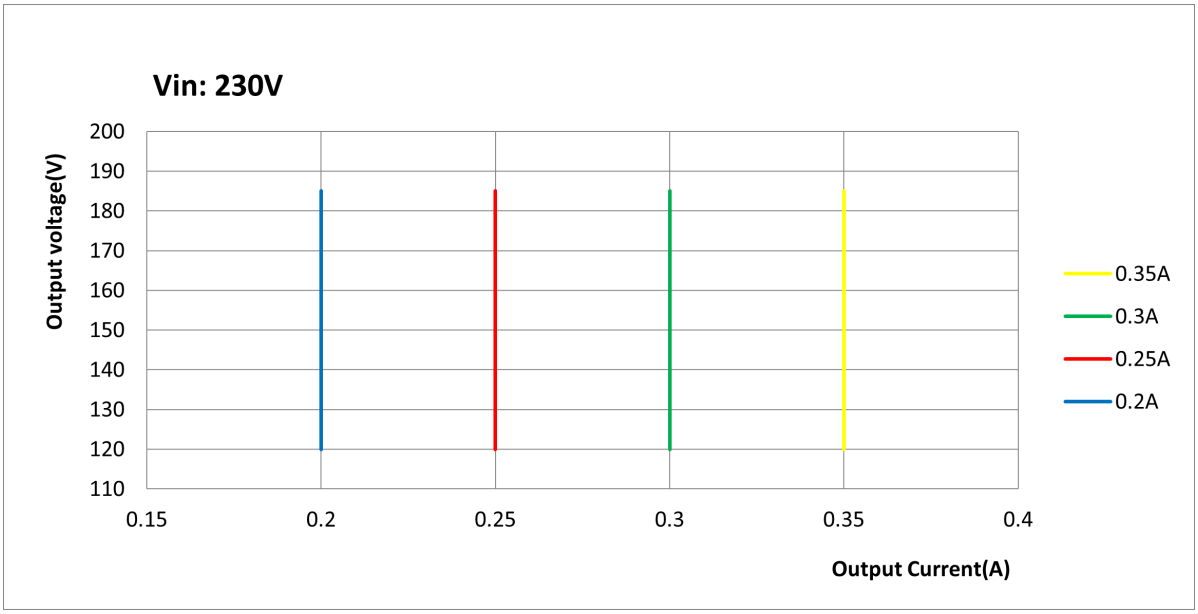
Specification item	Value	Unit	Condition
Mains surge immunity (diff. mode)	1	kV	Acc. IEC61000-4-5. 2 Ohm, 1.2/50us, 8/20us
Mains surge immunity (comm. mode)	2	kV	Acc. IEC61000-4-5. 12 Ohm, 1.2/50us, 8/20us

Application Info (Approbation)

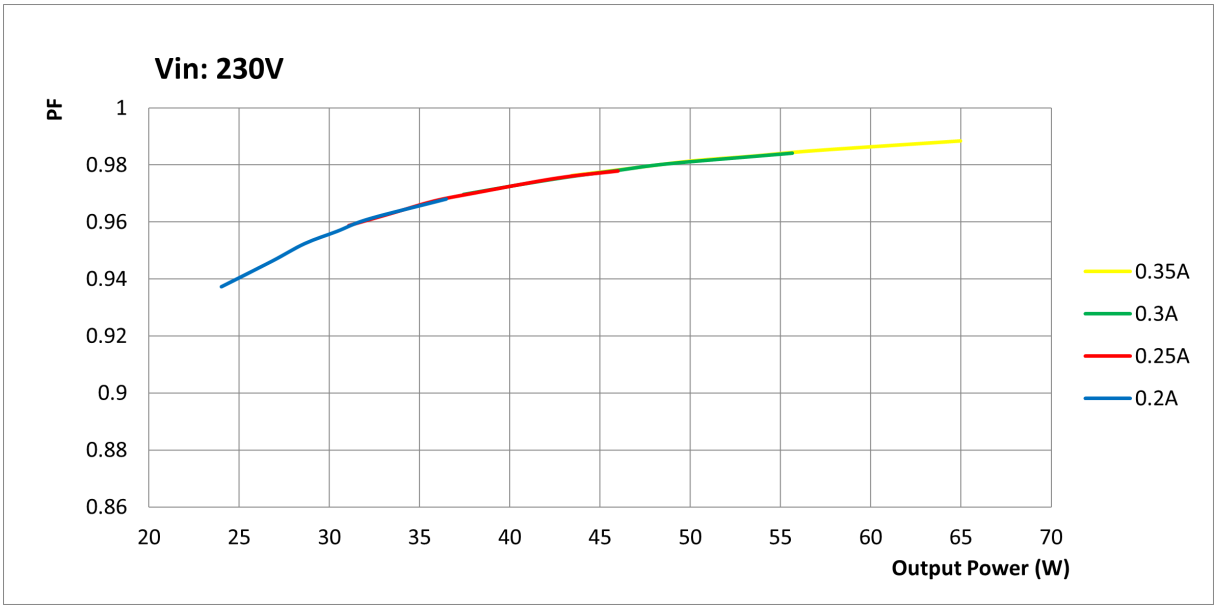
Specification item	Value
Approval marks and Certifications	CB / CCC / CE / EAC / EL / ENEC / RCM / UA / UKCA
Ingress Protection classification (IP)	20
Application	Indoor Linear
Mounting Type	Built-in

Graphs

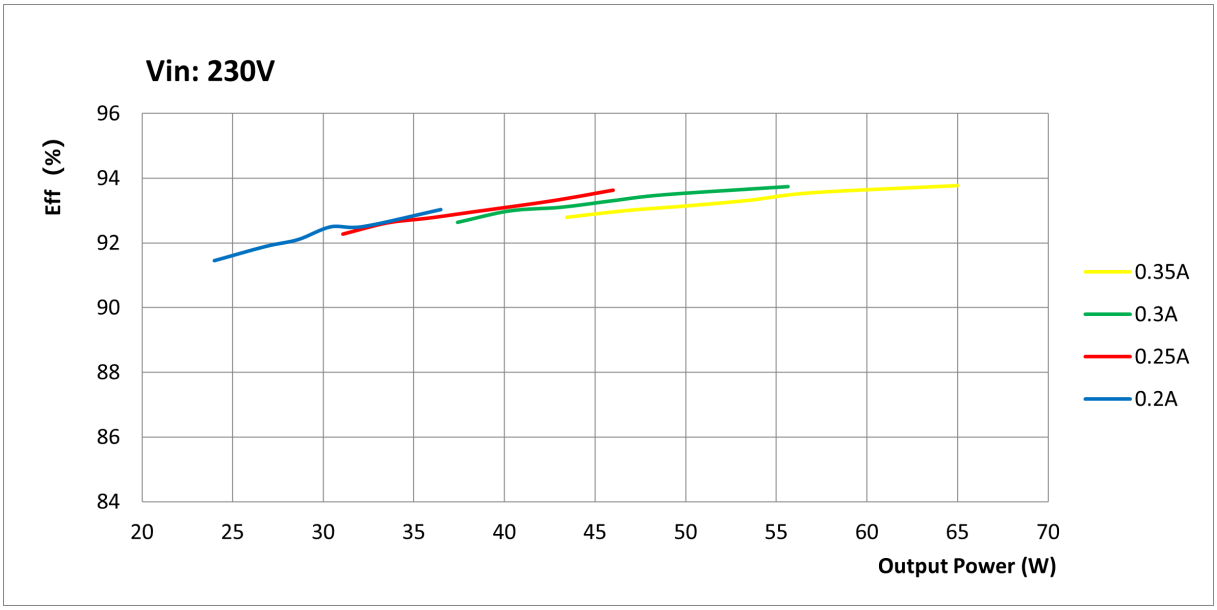
Operating window



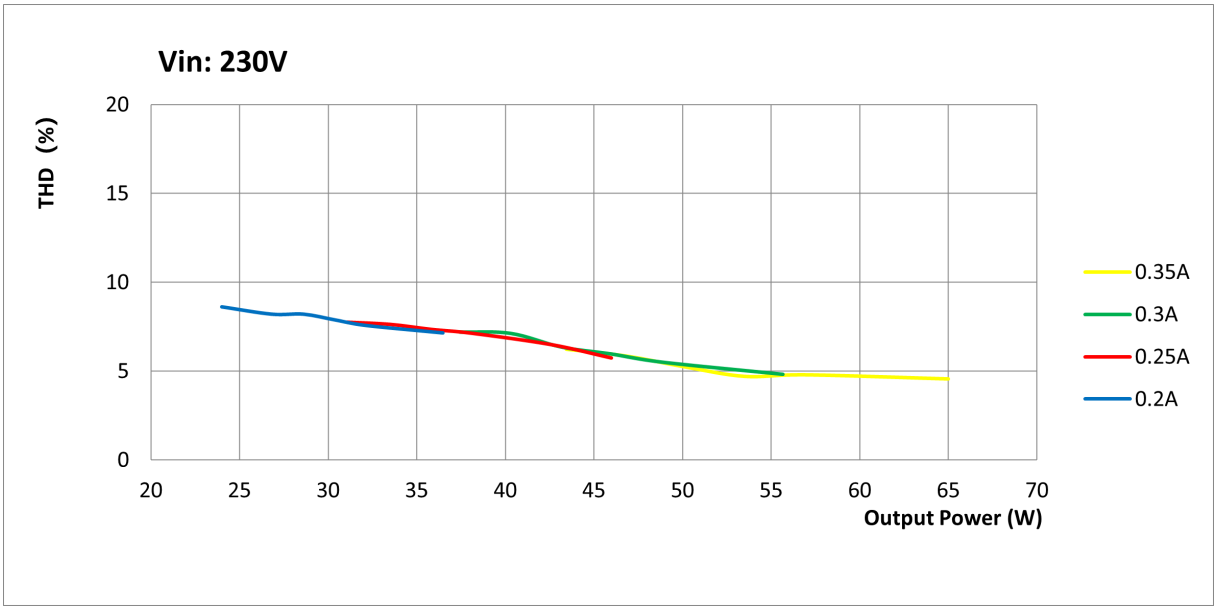
Power factor versus output power



Efficiency versus output power



THD versus output power



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Date of release: August 22, 2025 v1

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