PHILIPS

Xitanium

LED driver

Datasheet

Xitanium Outdoor Essential Programmable Low Voltage LED Drivers

Xi EP LV 65W 1.0-2.2A WL I120

9290 048 28701

Xitanium Essential Programmable (EP) LED Drivers are specifically designed to deliver reliability and flexibility, making them an ideal choice for a variety of outdoor applications. One of their standout features is AOC (Adjustable Output Current), which can be conveniently programmed using e-set tool or mobile app. This innovative approach allows users to configure the driver quickly and effortlessly—without the need to power on the driver or use any additional software.

The WideLine family of these drivers supports an input voltage range of 100-277Vac, ensuring performance within the 202-254Vac range.

Features

- 100-277Vac input voltage
- Low voltage output, SELV certified
- Compact housing dimension
- Digital way to adjust output current by Mobile APP
- Adjustable Output Current (AOC)
- IP67 waterproof
- Suitable surge protection: 6/6 kV (DM/CM)
- 50,000 hours lifetime
- High efficiency: 90%

Benefits

- Easy to design in
- Save to use
- Enable smaller luminaire design to reduce cost
- SKU reduction to reduce stock pressure
- Reliable to provide peace of mind
- Energy saving

Application

- Road and street lighting
- Area and flood lighting
- Tunnel lighting

Logistical data

Specification item	Value
Product name	Xi EP LV 65W 1.0-2.2A WL I120
Logistic code 12NC	9290 048 28701
Pieces per box	16
Weight	454 gram

Electrical input data

Specification item	Value	Unit	Condition
Rated input voltage range	202...254	V_{ac}	Performance range
Rated input voltage	230	V_{ac}	
Rated input frequency	47...63	Hz	Performance range
Rated input current	0.32	A	@ rated output power @ rated input voltage
Max. input current	0.41	A	@ rated output power @ minimum performance input voltage
Rated input power	73.0	W	@ rated output power @ rated input voltage
Power factor performance range	≥ 0.95		@ rated output power @ rated input voltage
Total harmonic distortion	15	%	@ rated output power @ rated input voltage
Efficiency	90.0	%	@ rated output power @ rated input voltage @max. Uout
Input voltage AC	95...305	V_{ac}	Operational range
Input frequency AC	45...66	Hz	Operational range
Isolation input to output	Double		

Electrical output data

Specification item	Value	Unit	Condition
Regulation method	Constant Current		
Output voltage	27...50	V_{dc}	
Output voltage max.	60	V	Maximum output voltage (rms)
Output current	1000...2200	mA	
Output current min programmable	1000	mA	
Output current tolerance ±	5	%	At max. output currentt, Ta=25°C
Output current ripple LF	≤ 5	%	Ripple = peak / average, < 1kHz
Output current ripple HF	≤ 5	%	
Output P_{st}^{LM}	≤ 0.1		In entire operating window
Output SVM	≤ 0.1		In entire operating window
Output power	27.0...65.0	W	Rated output power is 65W

Control interfaces

Specification item	Value	Unit	Condition
Control method	Fixed		

Wiring and Connections

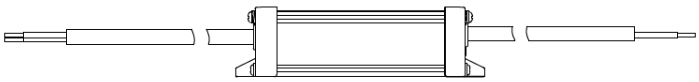
Specification item	Value	Unit	Type
Input wire cross-section	1	mm^2	3x 1.0mm^2 stranded wires, waterproof cable
Output wire cross-section	1	mm^2	2x 1.0mm^2 stranded wires, waterproof cable
Maximum cable length	2	m	Total length of wiring including LED module, one way

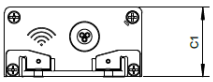
Isolation

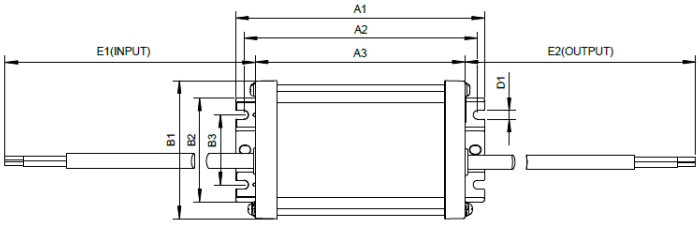
Insulation per IEC61347-1	Input	Output	Ground
Input	-	Double	Basic
Output	Double	-	Basic
Ground	Basic	Basic	-

Dimensions and weight

Specification item	Value	Unit	Tolerance (mm)
Length (A1)	120	mm	± 2
Mounting hole distance (A2)	114	mm	± 2
Length (A3)	102.5	mm	± 2
Width (B1)	67	mm	± 1.5
Width (B2)	50.5	mm	± 0.3
Width (B3)	34	mm	± 0.3
Height (C1)	34	mm	± 1.5
Mounting hole diameter (D1)	4.2	mm	± 0.3
Input cable length (E1)	450	mm	± 30
Output cable length (E2)	350	mm	± 30
Weight	454	gram	





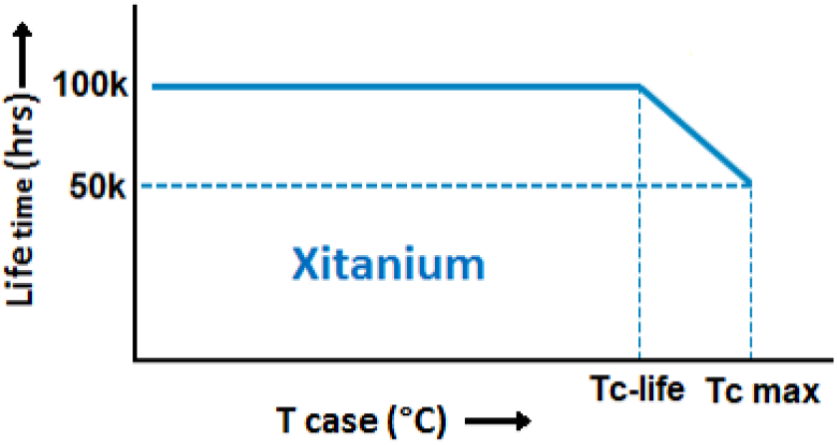


Operational temperatures and humidity

Specification item	Value	Unit	Condition
Ambient temperature	-40...+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
Relative humidity	10...90	%	Non-condensing

Lifetime

Specification item	Value	Unit	Condition
Driver lifetime	100,000	hours	Measured temperature at Tcase-point is Tcmax - 10 degrees. Maximum failures = 10%
Driver lifetime Tcmax	50,000	hours	Measured temperature at Tcase-point is Tc-max. Maximum failures = 10%



Maximum failures = 10%

Storage temperature and humidity

Specification item	Value	Unit	Condition
Ambient temperature	-40...+80	°C	
Relative humidity	5...95	%	Non-condensing

Programmable features

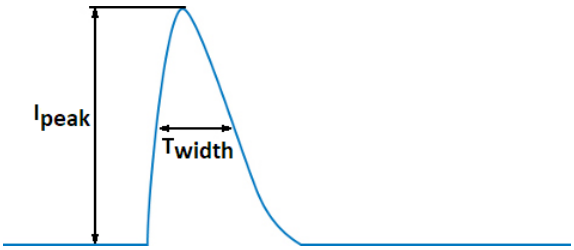
Specification item	Available	Default setting	Condition
Set Adjustable Output Current (AOC)	NFC	1300 mA	
Adjustable Light Output (ALO)	Yes		
Constant Light Output (CLO)	Yes		
Dynadimmer	Yes		

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
Overtemperature protection	Yes		Automatic recovering, refer to thermal guard curve

Inrush current

Specification item	Value	Unit	Condition
Inrush current	32	A	Input voltage 230V
Inrush peak width	181	µs	Input voltage 230V, measured at 50% height
Drivers / MCB 16A type B @230V AC	≤ 22	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)	0.7	mA rms	Acc. IEC60598-1. LED module contribution not included

Surge immunity

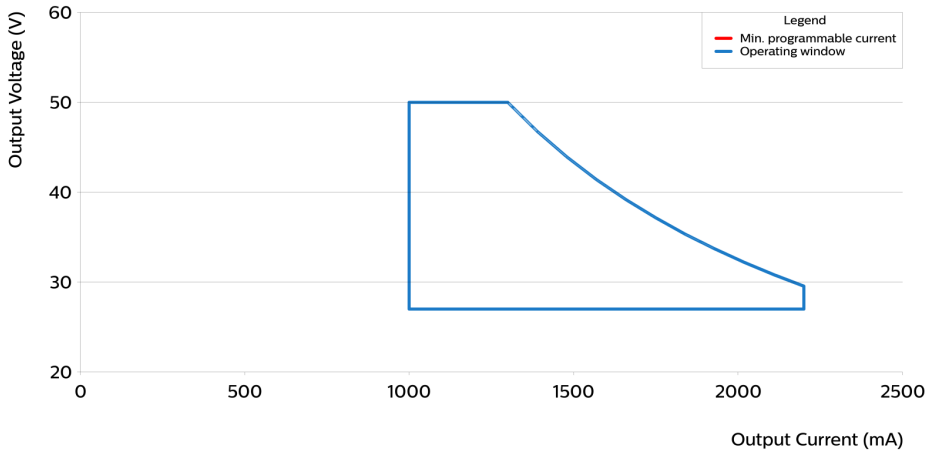
Specification item	Value	Unit	Condition
Mains surge immunity (diff. mode)	6	kV	Acc. IEC61000-4-5. 2 Ohm, 1.2/50us, 8/20us
Mains surge immunity (comm. mode)	6	kV	Acc.IEC61000-4-5. 12 Ohm 1.2/50us,8/20us

Application Info (Approbation)

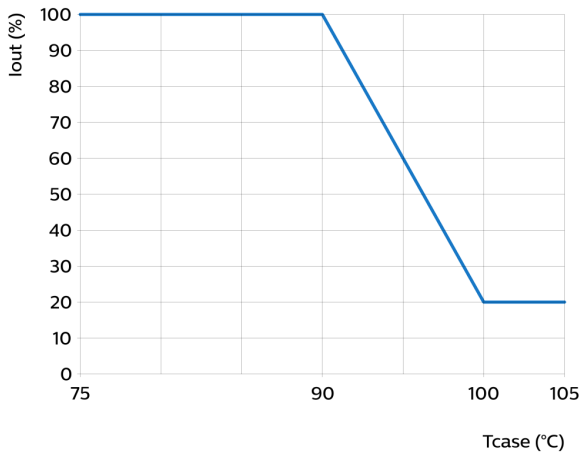
Specification item	Value
Approval marks and Certifications	CB / CCC / CE / ENEC / SELV / UKCA
Ingress Protection classification (IP)	67
Application	Outdoor
Mounting Type	Independent

Graphs

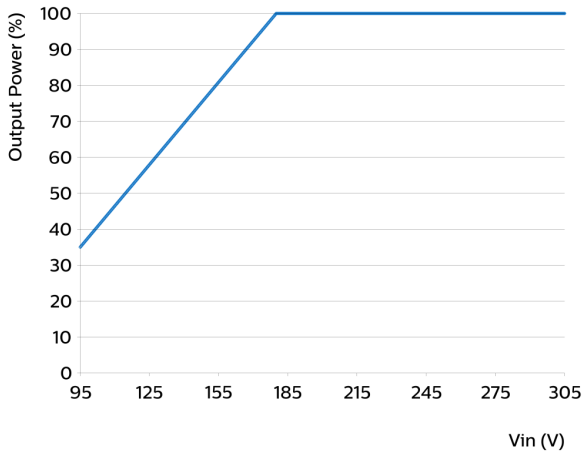
Operating window



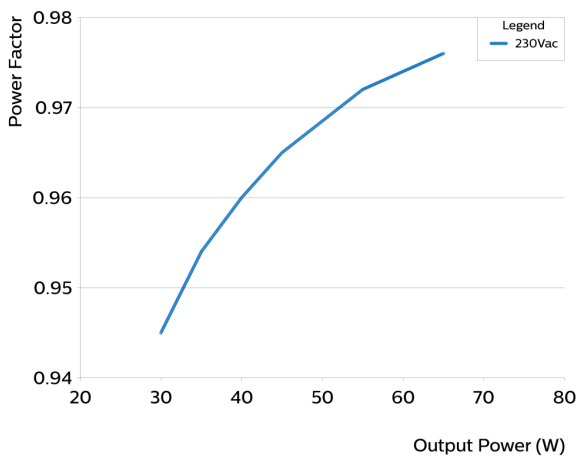
Thermal Guard



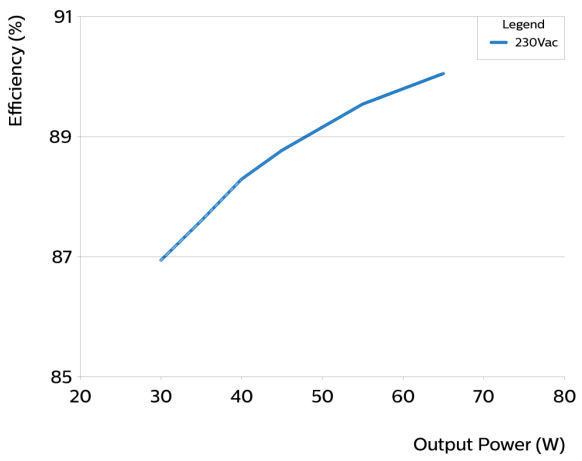
Mains Guard



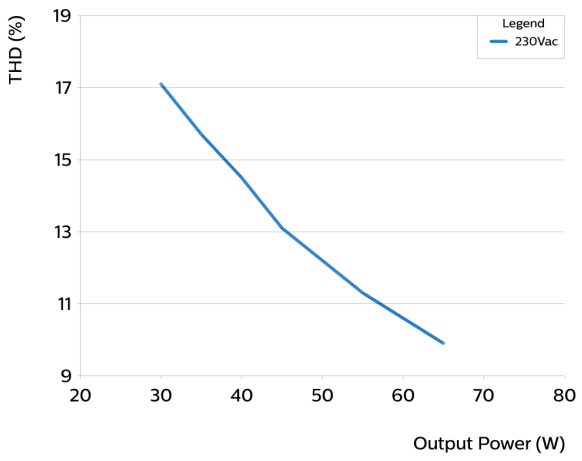
Power factor versus output power



Efficiency versus output power



THD versus output power



©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: September 24, 2026 v1

www.philips.com/oem