

Datasheet

LED drivers – spot- and downlight Casambi

Xitanium 36W/m 0.3-1.05A 54V CD 230V
9290 021 07006



Enabling future-proof LED technology

Xitanium LED drivers are designed to operate LED solutions for general lighting applications.

Benefits

- High reliability underpinned by 5 year warranty
- Application oriented specifications make it suitable for general lighting in retail/office applications
- Mini form factor enabling built in or independent use in spots, downlights or panels
- Enables wireless light control in existing lighting installation

Application

- Retail
- Hospitality
- Office

Features

- Large operating window suitable for mainstream CoBs or customized PCB designs
- Easy configuration with SimpleSet
- Compatible with Casambi ecosystem
- Standalone use with add on strain relief caps

Logistical data

Specification item	Value
Product name	Xitanium 36W/m 0.3-1.05A 54V CD 230V
EOC	871869973406000
Logistic code 12NC	9290 021 07006
EAN1 (GTIN)	8718699734060
EAN3 (box)	8718699734077
Pieces per box	20
Strain Relief 12NC	929001430906
Weight	115 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	0.2	A	@ full output power @ rated input voltage
Max. input current	0.22	A	@ rated output power @ minimum performance input voltage
Rated input power	41.0	W	@ full output power @ rated input voltage
Power factor performance range	≥ 0.90 C		@ rated output power @ rated input voltage@ rated output power @ rated input voltage
Total harmonic distortion	20	%	@ rated output power @ rated input voltage
Efficiency	88.0	%	@ full output power @ rated input voltage @ max. lout
Rated input voltage DC	186...250	V _{dc}	Performance range
Rated input current DC	≤ 0.23	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
Standby Power (no load)	0.47	W	
Isolation input to output	SELV		

Electrical output data

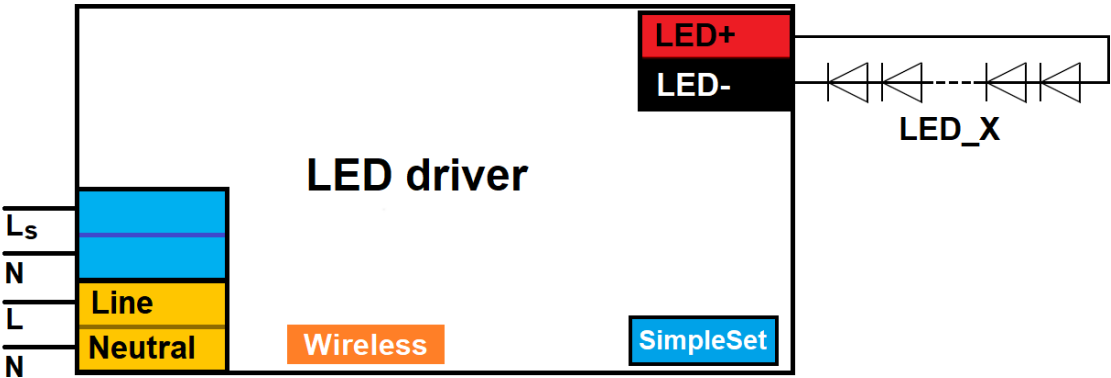
Specification item	Value	Unit	Condition
Regulation method	Constant Current		
Output voltage	24...54	V _{dc}	
Output voltage max.	60	V	Maximum output voltage (rms)
Output current	300...1050	mA	
Output current tolerance ±	5	%	@full load
Output current ripple LF	≤ 4	%	Ripple = peak / average, < 3kHz
Output P _{st} ^{LM}	≤ 0.3		
Output SVM	≤ 0.3		
Output power	11.0...36.0	W	

Control interfaces

Specification item	Value	Unit	Condition
Control method	Push Input, Wireless		Driver is Casambi ready, controlled by app. See design-in guide at www.philips.com/oem and casambi.com for more controllability details.
Dimming range	1...100	%	Wireless dimming via the Casambi app
Isolation controls input to output	Basic		acc. IEC61347-1

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	0.6	m	Total length of wiring including LED module, one way

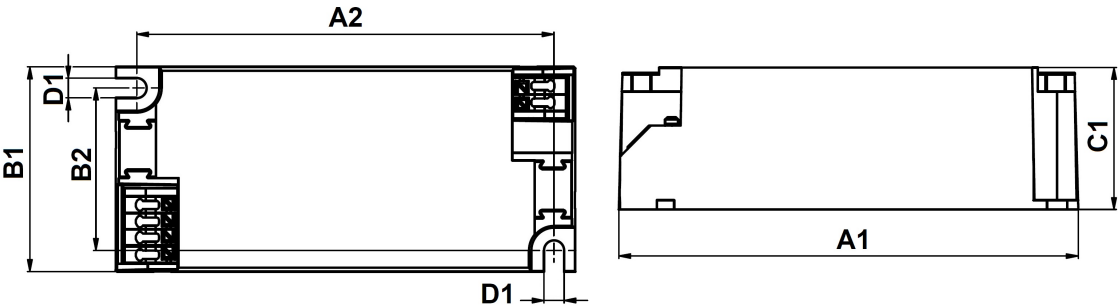


Isolation

Insulation per IEC61347-1	Input	Output	Ls (Push input)
Input	-	SELV	Basic
Output	SELV	-	SELV
Ls (Push input)	Basic	SELV	-

Dimensions and weight

Specification item	Value	Unit	Tolerance (mm)
Length (A1)	97.2	mm	
Mounting hole distance (A2)	88.5	mm	
Width (B1)	43	mm	
Width (B2)	34	mm	
Height (C1)	30	mm	
Mounting hole diameter (D1)	4.2	mm	
Weight	115	gram	

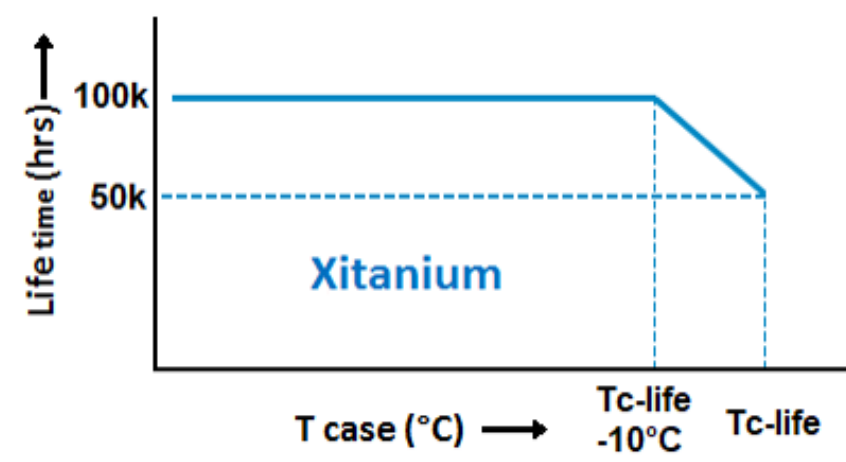


Operational temperatures and humidity

Specification item	Value	Unit	Condition
Ambient temperature	-20...+50	°C	Higher ambient temperature allowed as long as Tcase-max is not exceeded
Tcase-max	80	°C	Maximum temperature measured at Tcase-point
Tcase-life	80	°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	50,000	hours	Measured temperature at Tcase-point is Tcase-life. Maximum failures = 10%
Driver lifetime Tcmax	0	hours	Measured temperature at Tcase-point is Tcase-life. Maximum failures = 10%



Maximum failures = 10%

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

Storage temperature and humidity

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

Programmable features

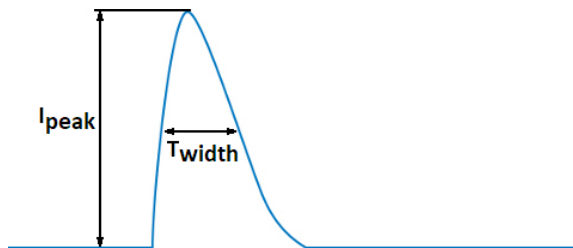
Specification item	Available	Default setting	Condition
Set Adjustable Output Current (AOC)	SimpleSet	700 mA	
DC emergency (DCemDim)	No		Light output is 100%
OEM Write Protection (OWP)	Yes	OFF	
Luminaire Info (DALI part 251)	Yes		

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 and II	per IEC60598

Inrush current

Specification item	Value	Unit	Condition
Inrush current	9	A	Input voltage 230V
Inrush peak width	22	µs	Input voltage 230V, measured at 50% height
Drivers / MCB 16A type B @230V AC	≤ 34	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 piece) 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 Touch Current (ins. Class II)	0.7	mA peak	Acc. IEC61347-1. LED module contribution not included

Surge immunity

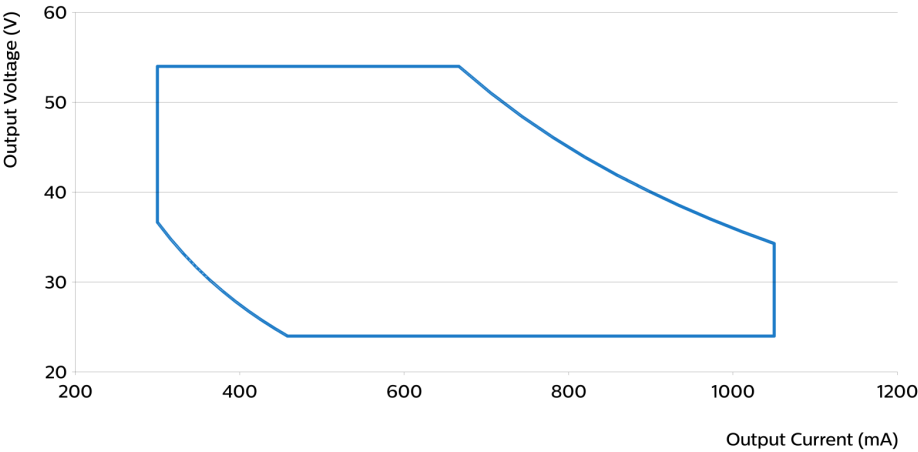
Specification item	Value	Unit	Condition
Mains surge immunity (diff. mode)	1	kV	Acc. IEC61000-4-5. 2 Ohm, 1.2/50us, 8/20us
Mains surge immunity (comm. mode)	2	kV	Acc. IEC61000-4-5. 12 Ohm, 1.2/50us, 8/20us
Control surge immunity (diff. mode)	1	kV	Acc. IEC61000-4-5. 2 Ohm, 1.2/50us, 8/20us
Control surge 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 / EL / ENEC / RCM / SELV / WEEE
Ingress Protection classification (IP)	20
Application	Indoor Point
Mounting Type	Built-in / Independent

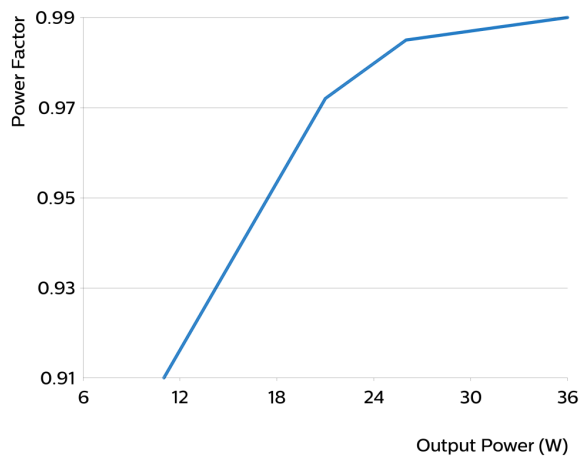
Graphs

Operating window

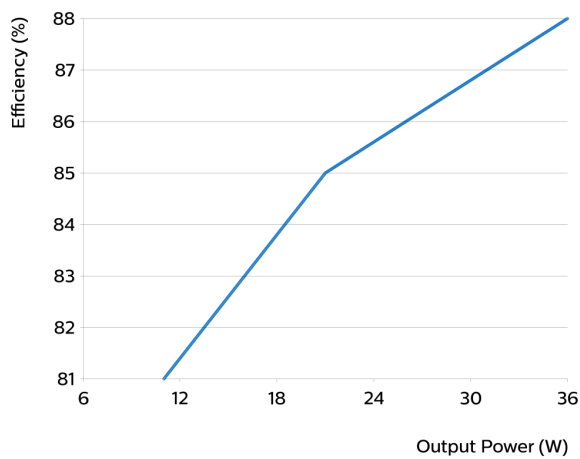


Type	Output current (mA)	Min. output voltage (V)	Max. output voltage (V)	Max. output power (W)
Xitanium 36W/m 0.3-1.05A 54V CD 230V	300	36	54	16.2
Xitanium 36W/m 0.3-1.05A 54V CD 230V	350	31	54	18.9
Xitanium 36W/m 0.3-1.05A 54V CD 230V	400	27	54	21.6
Xitanium 36W/m 0.3-1.05A 54V CD 230V	450	24	54	24.3
Xitanium 36W/m 0.3-1.05A 54V CD 230V	500	24	54	27
Xitanium 36W/m 0.3-1.05A 54V CD 230V	550	24	54	29.7
Xitanium 36W/m 0.3-1.05A 54V CD 230V	600	24	54	32.4
Xitanium 36W/m 0.3-1.05A 54V CD 230V	650	24	54	35.1
Xitanium 36W/m 0.3-1.05A 54V CD 230V	700	24	51	36
Xitanium 36W/m 0.3-1.05A 54V CD 230V	750	24	48	36
Xitanium 36W/m 0.3-1.05A 54V CD 230V	800	24	45	36
Xitanium 36W/m 0.3-1.05A 54V CD 230V	850	24	42	36
Xitanium 36W/m 0.3-1.05A 54V CD 230V	900	24	40	36
Xitanium 36W/m 0.3-1.05A 54V CD 230V	950	24	37	36
Xitanium 36W/m 0.3-1.05A 54V CD 230V	1000	24	36	36
Xitanium 36W/m 0.3-1.05A 54V CD 230V	1050	24	34	36

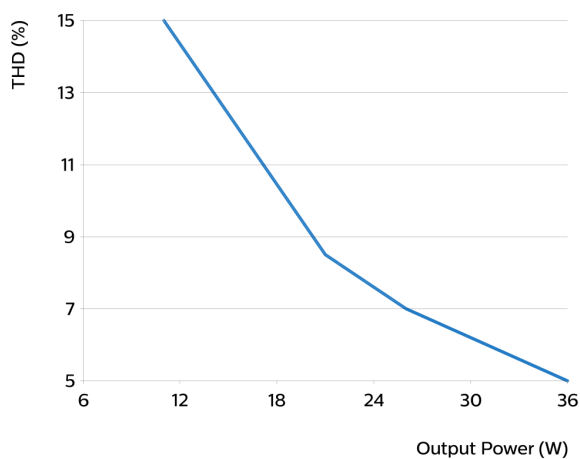
Power factor versus output power



Efficiency versus output power



THD versus output power



Notes

To configure and control this driver download the Casambi app.

The products sold by Signify may rely on the availability and correct functioning of products, components and/or services from third-party product suppliers and service providers, including cloud hosting services and the connectivity and communication services from mobile operators. Signify has no responsibility or any liability whatsoever with respect thereto, including but not limited to (i) downtime, (ii) unavailability, (iii) degradation of the functionality of the products due to any failure, update of or modification by any third-party service providers, e.g., mobile operator's sunset/shutdown of a connectivity or communication technology/network, or (iv) the transfer of data over networks or communication facilities operated by third parties.