

Datasheet

LED drivers – track Casambi

Xitanium 20W/a 0.15-0.5A 54V CD 3CW 230V
9290 021 07306



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 applications
- Miniaturized design
- Enables wireless light control in existing track lighting installation

Application

- Retail
- Hospitality

Features

- Large operating window suitable for mainstream CoBs
- Easy configuration with SimpleSet
- Compatible with Casambi ecosystem
- 3 Circuit track compatible design
- Black and White housing options

Logistical data

Specification item	Value
Product name	Xitanium 20W/a 0.15-0.5A 54V CD 3CW 230V
EOC	871869973412100
Logistic code 12NC	9290 021 07306
EAN1 (GTIN)	8718699734121
EAN3 (box)	8718699734138
Pieces per box	40
Weight	155 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	0.1	A	@ rated output power @ rated input voltage
Max. input current	0.12	A	@ rated output power @ minimum performance input voltage
Rated input power	23.0	W	@ rated 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	%	@ rated output power @ rated input voltage @ max. I _{out}
Input voltage AC	198...264	V _{ac}	Operational range
Input frequency AC	45...66	Hz	Operational range
Standby Power (no load)	0.48	W	
Isolation input to output	SELV		

Electrical output data

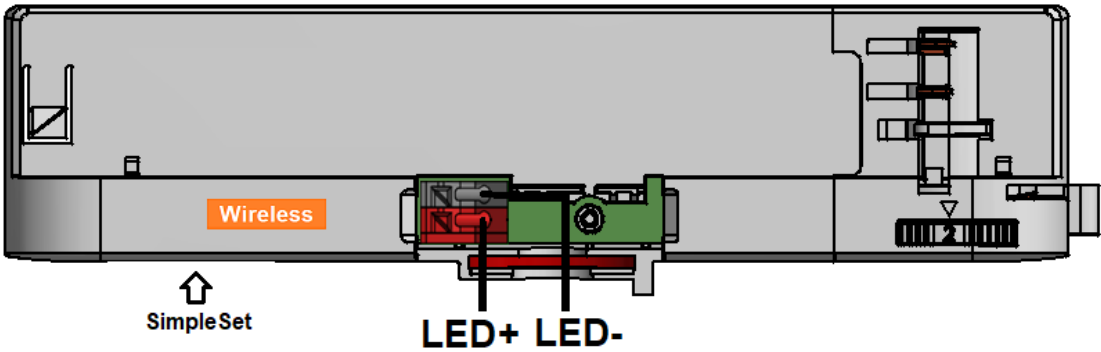
Specification item	Value	Unit	Condition
Regulation method	Constant Current		
Output voltage	24...54	V _{dc}	
Output voltage max.	60	V	Maximum output voltage (rms) (no load)
Output current	150...500	mA	AOC via SimpleSet
Output current tolerance ±	5	%	@full load
Output current ripple LF	≤ 4	%	Ripple = peak / average, < 3kHz
Output P _{st} ^{LM}	≤ 0.3		
Output SVM	≤ 0.3		
Output power	6.0...20.0	W	

Control interfaces

Specification item	Value	Unit	Condition
Control method	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

Wiring and Connections

Specification item	Value	Unit	Type
Output wire cross-section	0.2...0.5 / 24...20	mm² / AWG	solid wire
Output wire strip length	8.5...9.5	mm	
Maximum cable length	0.2	m	Total length of wiring including LED module, one way

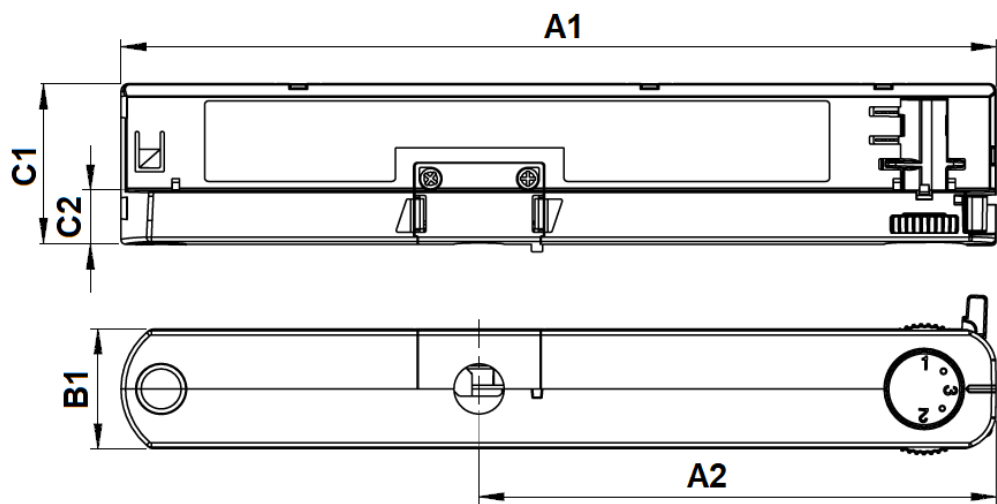


Isolation

Insulation per IEC61347-1	Input	Output
Input	-	SELV
Output	SELV	-

Dimensions and weight

Specification item	Value	Unit	Tolerance (mm)
Length (A1)	234	mm	
Mounting hole distance (A2)	138	mm	
Width (B1)	32	mm	
Height (C1)	43.8	mm	
Height (C2)	13.7	mm	
Mounting hole diameter (D1)	27.3	mm	
Mounting hole diameter (D2)	24.4	mm	
Weight	155	gram	
Housing color	White (RAL 9010)		

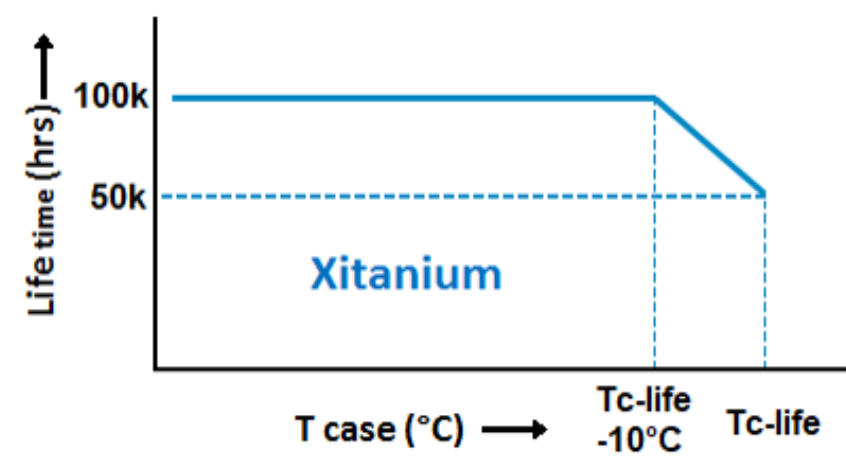


Operational temperatures and humidity

Specification item	Value	Unit	Condition
Ambient temperature	-20...+40	°C	Higher ambient temperature allowed as long as Tcase-max is not exceeded
Tcase-max	70	°C	Maximum temperature measured at Tcase-point
Tcase-life	70	°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
70	50000	hr	Temperature measured @Tc point
65	>50000	hr	
60	>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	150 mA	AOC via SimpleSet
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	II	per IEC60598

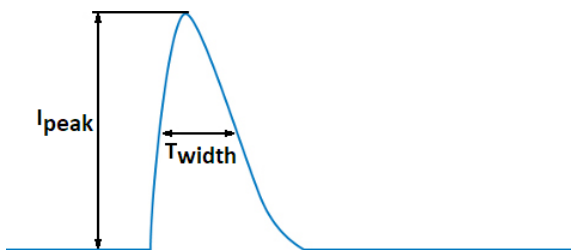
Inrush current

Specification item	Value	Unit	Condition
Inrush current	3.7	A	Input voltage 230V
Inrush peak width	27	µs	Input voltage 230V, measured at 50% height
Drivers / MCB 16A type B @230V AC	≤ 28	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

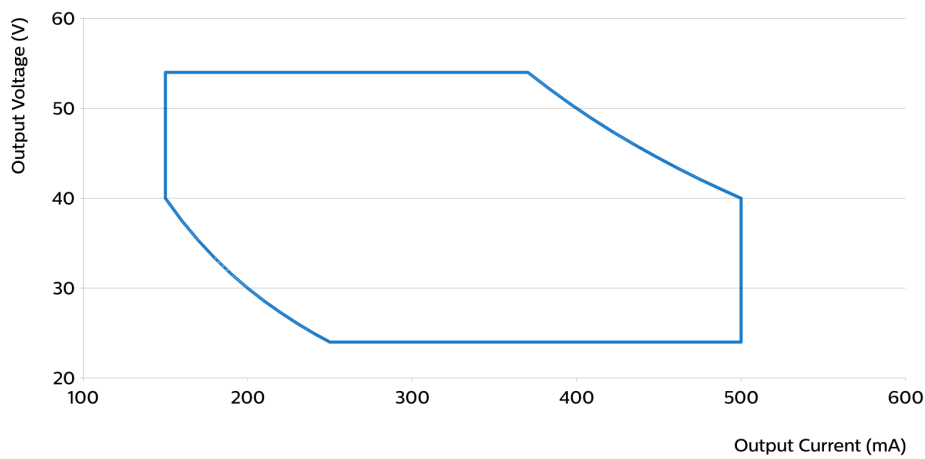
Specification item	Value	Unit	Condition
Mains surge immunity (diff. mode)	1	kV	Acc. IEC61000-4-5. 2 Ohm, 1.2/50us, 8/20us
Mains surge immunity (comm. mode)	2	kV	Acc. IEC61000-4-5. 12 Ohm, 1.2/50us, 8/20us

Application Info (Approbation)

Specification item	Value
Approval marks and Certifications	CE / EAC / ENEC / RCM / SELV
Ingress Protection classification (IP)	20
Application	Indoor Point
Mounting Type	Track mounting

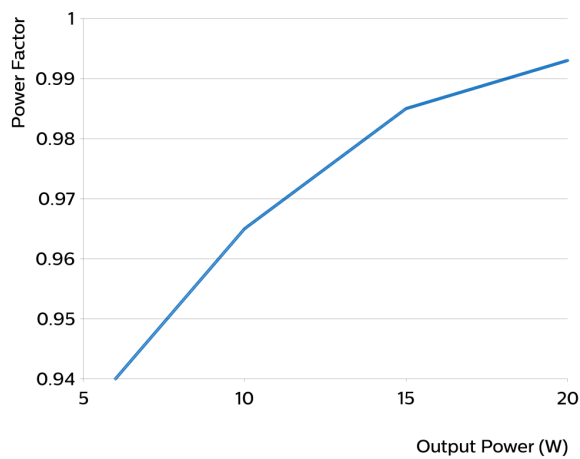
Graphs

Operating window

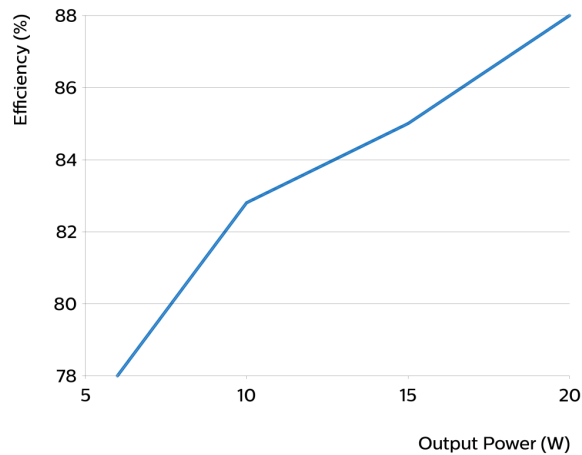


Type	Output current (mA)	Min. output voltage (V)	Max. output voltage (V)	Max. output power (W)
Xitanium 20W/a 0.15-0.5A 54V CD 3CW 230V	150	40	54	8.1
Xitanium 20W/a 0.15-0.5A 54V CD 3CW 230V	200	30	54	10.8
Xitanium 20W/a 0.15-0.5A 54V CD 3CW 230V	250	24	54	13.5
Xitanium 20W/a 0.15-0.5A 54V CD 3CW 230V	300	24	54	16.2
Xitanium 20W/a 0.15-0.5A 54V CD 3CW 230V	350	24	54	18.9
Xitanium 20W/a 0.15-0.5A 54V CD 3CW 230V	400	24	50	20
Xitanium 20W/a 0.15-0.5A 54V CD 3CW 230V	450	24	44	20
Xitanium 20W/a 0.15-0.5A 54V CD 3CW 230V	500	24	40	20

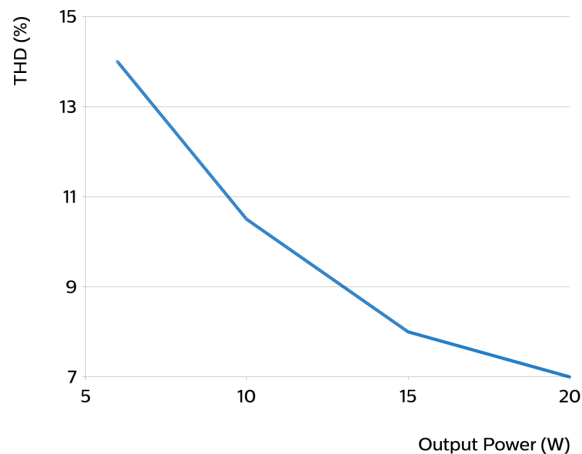
Power factor versus output power



Efficiency versus output power



THD versus output power



Notes

The adapter is compatible with Global Trac Pro, Stucchi OneTrack 3 Circuit tracks.

To configure and control this driver download the Casambi app.

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