

PHILIPS

Xitanium

LED driver



Datasheet

Xitanium track adaptor drivers (3C)

Xitanium 42W/a 0.15-1.05A 42V MC 3CW
9290 028 47406

Xitanium 42W/a 0.15-1.05A 42V MC 3CB
9290 028 51206

Xitanium 42W/a 0.15-1.05A 42V MC 3CG
9290 028 51306

Enabling simple, cost effective wireless lighting system

Xitanium track wireless LED drivers are designed to operate LED solutions for general lighting applications. They enable simple, cost effective wireless lighting system for energy saving and comfort. Advanced design of the track wireless drivers helps to build a simple, scalable and standardized connected lighting with different functionalities from simple wireless dimming to cloud based operations and integration with gateways.

Wireless track drivers can be configured via smart devices with MasterConnect app as standalone or in a mesh network. With Xitanium LED drivers, flexibility in luminaire design is assured thanks to the Adjustable Output Current (AOC). Application-oriented operating windows offer stable lumen output and light quality levels that specifiers and architects demand. The adjustable output current also enables operation of various LED PCB solutions from different manufacturers.

Benefits

- Enabling simple, scalable and standardized connected lighting system
- High reliability underpinned by 5-year warranty
- Lower installation cost for lighting control
- Future-proof flexibility -application-oriented operating windows enable LED generation and complexity management
- Wide range of use cases: From standalone to cloud based / gateway operations

Features

- Compatible with Zigbee wireless protocols
- Operating windows - With SimpleSet feature, output current can be adjusted via the Philips MultiOne configurator
- Wide operating window: With extended operating window, availability of a wide output current from 0.15A to 1.05A that also helps complexity management
- Wide range of power ratings
- Traditional Mini design which can be used both as a built-in driver and an independent driver with add on caps

Application

- Retail
- Hospitality
- Office

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 range	50...60	Hz	Performance range
Rated input current	0.22	A	@ full output power @ rated input voltage
Max. input current	0.25	A	@ rated output power @ minimum performance input voltage
Rated input power	50	W	@ rated output power @ rated input voltage
Power factor	0.9		@ full output power @ rated input voltage
Total harmonic distortion	20	%	@ rated output power @ rated input voltage
Efficiency	87	%	@ rated output power @ rated input voltage @ max. U _{out}
Input voltage AC range	198...264	V _{ac}	Safety operational range
Input frequency AC range	47.5...63	Hz	Safety operational range
Standby Power	0.42	W	
Isolation input to output	SELV		

Electrical output data

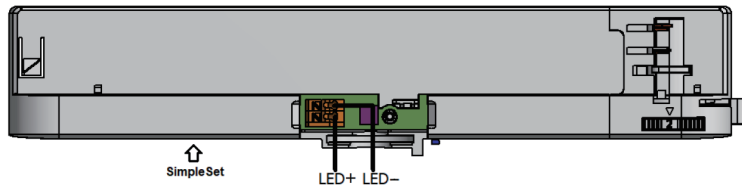
Specification item	Value	Unit	Condition
Regulation method	Constant Current		
Output voltage	10...48	V _{dc}	
Output voltage max.	60	V	Maximum output voltage (rms)
Output current	0.15...1.05	A	
Output current tolerance ±	5	%	
Output current ripple LF	≤ 4	%	Ripple = peak / average, < 3kHz
Minimum output current	7	mA	
Output P _{st} ^{LM}	≤ 1	%	Within entire operating window
Output SVM	≤ 0.4		Within entire operating window
Output power	10...42	W	

Electrical data controls input

Specification item	Value	Unit	Condition
Control method	Wireless BLE, Wireless Zigbee		Set output current via SimpleSet (AOC)

Wiring and Connections

Specification item	Value	Unit	Type
Output wire cross-section	0.5...1.5 / 20...16	mm ² / AWG	Changhong250, solid / stranded wire
Output wire strip length	7.5...8.5	mm	
Maximum cable length	0.3	m	Total length of wiring including LED module, one way

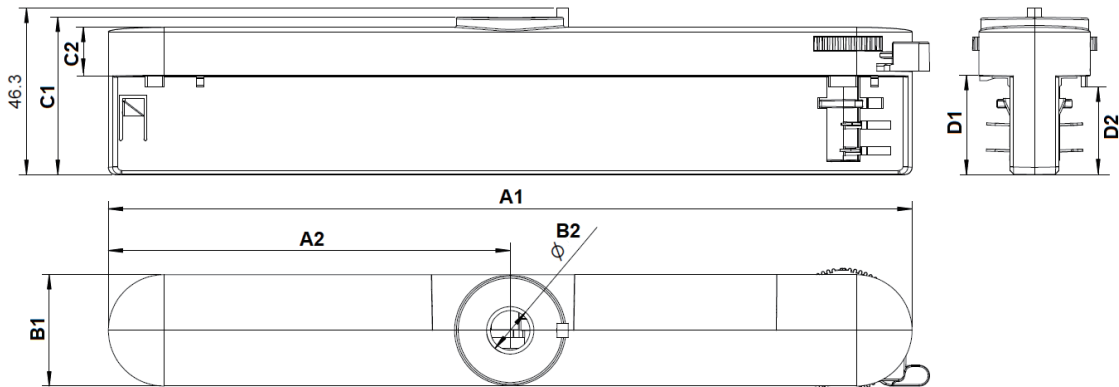


Insulation

Insulation per IEC61347-1	Input	Output
Input		SELV
Output	SELV	

Dimensions and weight

Specification item	Value	Unit	Tolerance (mm)
Length (A1)	224	mm	
Mounting hole distance (A2)	112	mm	
Width (B1)	31	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	160	gram	
Housing color	White/ Black/ Grey		



Logistical data

Specification item	Value
Product name	Xitanium 42W/a 0.15-1.05A 42V MC 3CW
Logistic code 12NC	9290 028 47406
Pieces per box	40

Specification item	Value
Product name	Xitanium 42W/a 0.15-1.05A 42V MC 3CB
Logistic code 12NC	9290 028 51206
Pieces per box	40

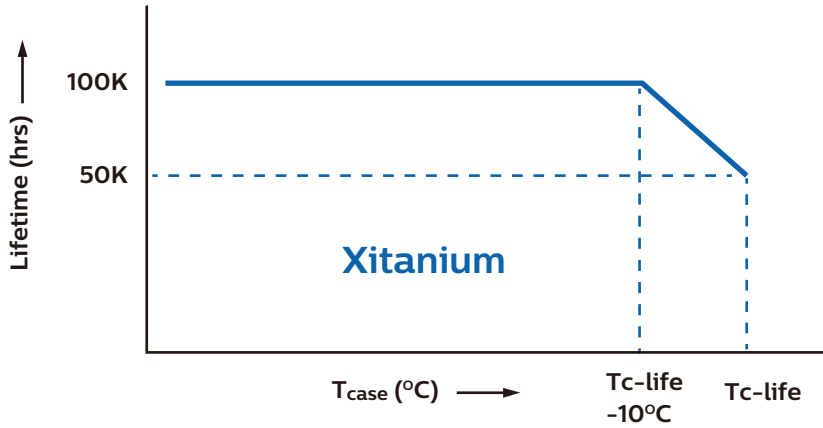
Specification item	Value
Product name	Xitanium 42W/a 0.15-1.05A 42V MC 3CG
Logistic code 12NC	9290 028 51306
Pieces per box	40

Operational temperatures and humidity

Specification item	Value	Unit	Condition
Ambient temperature	-20...+35		Higher ambient temperature allowed as long as $T_{case-max}$ is not exceeded
$T_{case-max}$	80		Maximum temperature measured at $T_{case-point}$
$T_{case-life}$	80		Measured at $T_{case-point}$
Maximum housing temperature	130		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% Guaranteed within performance window



Storage temperature and humidity

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

Programmable features

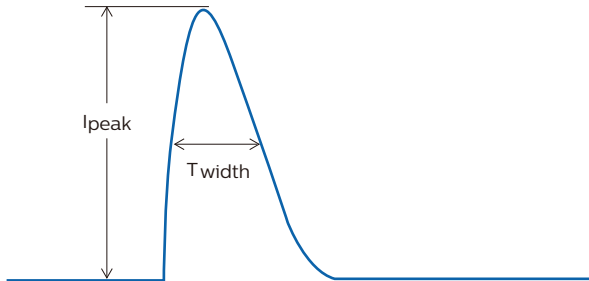
Specification item	Available	Default setting	Condition
Set output current (AOC)		1050 mA	
Adjustable Light Output (ALO)	Yes	OFF	
Adjustable Light Output (ALO) min level	Yes		
Constant Light Output (CLO)	Yes	OFF	
Touch & Dim (TD)	No		
Corridor mode	No		
OEM Write Protection (OWP)	Yes	OFF	
Luminaire Info (DALI part 251)	Yes	-	
Tx Power	Yes	8 dBm	

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 I_{peak}	8.07	A	Input voltage 230V
Inrush current T_{width}	31	μ s	Input voltage 230V, measured at 50% I_{peak}
Drivers / MCB 16A type B	≤ 24	pcs	Indicative value



MCB	Rating	Relative number of LED drivers
B	4A	25%
B	6A	40%
B	10A	63%
B	13A	81%
B	16A	100% (stated in datasheet)
B	20A	125%
B	25A	156%
B	32A	200%
B	40A	250%
C	4A	42%
C	6A	63%
C	10A	104%
C	13A	135%
C	16A	170%
C	20A	208%
C	25A	260%
C	32A	340%
C	40A	415%

Surge immunity

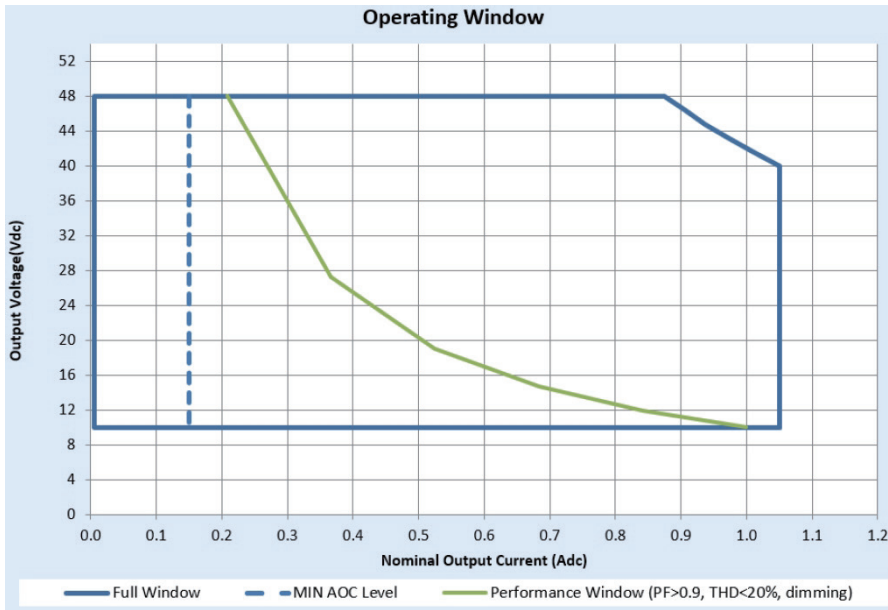
Specification item	Value	Unit	Condition
Mains surge immunity (diff. mode)	1	kV	Acc. IEC61000-4-5. 2 Ohm, 1.2/50us, 8/20us
Mains surge immunity (comm. mode)	2	kV	Acc. IEC61000-4-5. 12 Ohm, 1.2/50us, 8/20us

Application Info

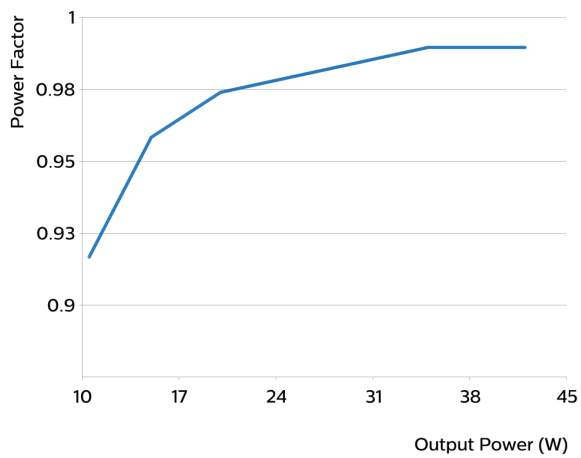
Specification item	Value
Approval marks	CE / CQC / ENEC / RCM / SELV / SRRC
Ingress Protection classification (IP)	20
Application	Indoor Point
Mounting Type	Track mounting

Graphs

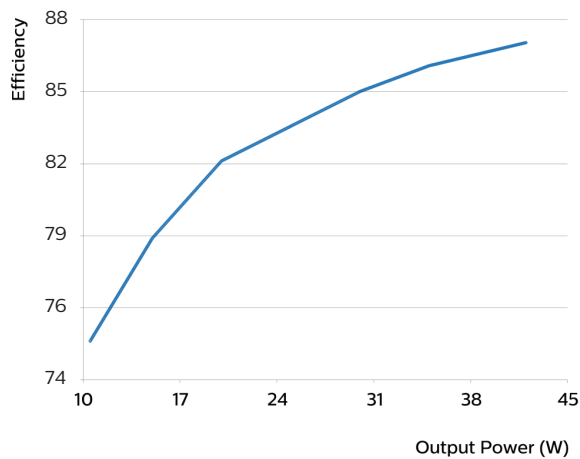
Operating window



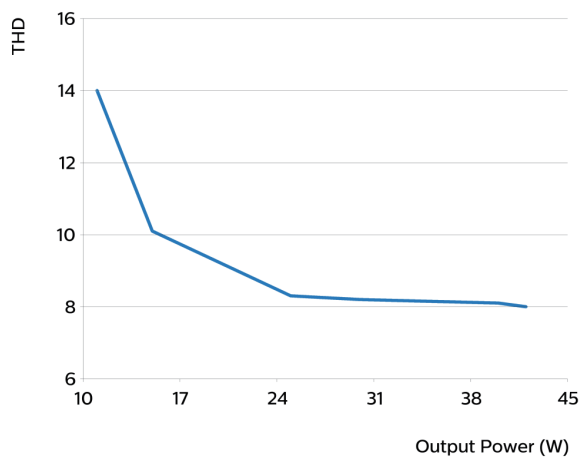
Power factor versus output power



Efficiency versus output power



THD versus output power



Notes

The adapter is compatible with Global Trac Pro, Stucchi OneTrack 3 Circuit tracks.
All specifications are guaranteed within the performance window.



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