PHILIPS

Xitanium

LED driver

Datasheet

Xitanium Spot / Downlight LED Drivers Single Current

Xitanium 8W 0.2A 40V TE SC 230V

9290 014 21006

Single current LED drivers for enhanced lighting performance
Reliable and cost effective Xitanium single current drivers enable luminaires to deliver high quality light over an industry standard lifetime of 50,000 hours. Specifically designed with low ripple current to address luminaire flickering issues - making this optimal for camera, scanner, and barcode operation. These drivers provide assured reliability, safety, and long-term energy savings.

Benefits

- Designed to operate solutions based on Chip On Board (COB) or mid-power LEDs
- Various power wattage Drivers that are related to the lumen packages/applications
- Independent-version housing design for stand-alone installations

Features

- Small,compact dimensions
- Fixed, SELV output
- Low ripple, low THD
- Specific current and voltage
- Fast Time to Market
- 50,000 hours lifetime

Application

- Public buildings (airports, cinemas,theaters, exhibition halls)
- Retail (supermarkets, shops)
- Office

August 2021

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	0.044	A	@ rated output power @ rated input voltage
Rated input power	9.8	W	@ rated output power @ rated input voltage
Power factor	0.9		@ rated output power @ rated input voltage
Total harmonic distortion	20	%	@ rated output power @ rated input voltage
Efficiency	81	%	@ rated output power @ rated input voltage
Input voltage AC range	198…264	V_{ac}	Operational range
Input frequency AC range	45…66	Hz	Operational range
Isolation input to output	SELV		

Electrical output data

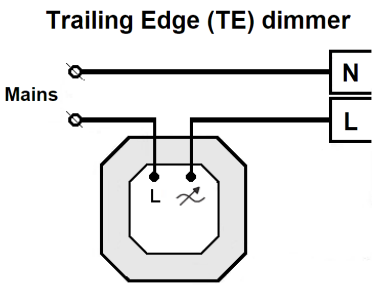
Specification item	Value	Unit	Condition
Regulation method	Constant Current		
Output voltage	29…40	V_{dc}	
Output voltage max.	60	V	Maximum output voltage (rms)
Output current	0.2	A	
Output current min dimming	10	mA	
Output current tolerance ±	5	%	
Output current ripple LF	≤ 20	%	Ripple = peak / average, < 3kHz
Output P_{st}^{LM}	≤ 0.29		
Output SVM	≤ 0.61		
Output power	5.8…8	W	

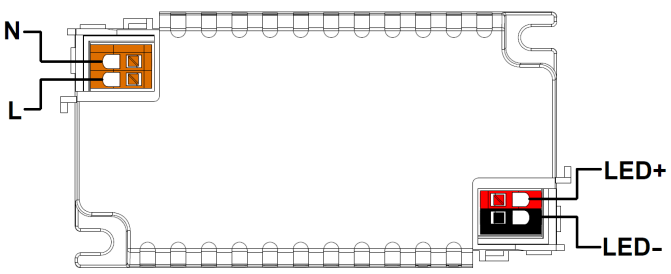
Electrical data controls input

Specification item	Value	Unit	Condition
Control method	TE		See design-in guide at www.philips.com/oem for more controllability details.
Dimming range	5…100	%	Default range

Wiring and Connections

Specification item	Value	Unit	Type
Input wire cross-section	0.5…1.5	mm^2 / AWG	solid / stranded wire
Input wire strip length	8.5…9.5	mm	
Output wire cross-section	0.5…1.5	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



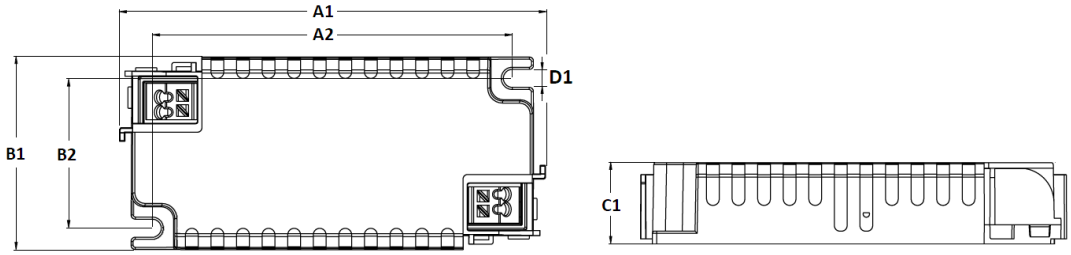


Insulation

Insulation per IEC61347-1	Input	Output
Input		SELV
Output	SELV	

Dimensions and weight

Specification item	Value	Unit	Tolerance (mm)
Length (A1)	85	mm	
Mounting hole distance (A2)	69.4	mm	
Width (B1)	50	mm	
Width (B2)	40	mm	
Height (C1)	19	mm	
Weight	105	gram	



Logistical data

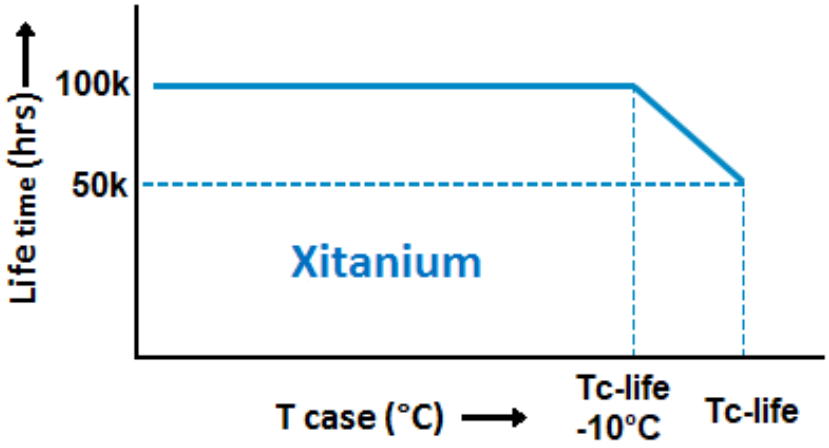
Specification item	Value
Product name	Xitanium 8W 0.2A 40V TE SC 230V
EOC	871869676566100
Logistic code 12NC	9290 014 21006
EAN1 (GTIN)	8718696765661
EAN3 (box)	8718696765678
Pieces per box	50

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 T_{case}-point
Tcase-life	70	°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	50,000	hours	Measured temperature at Tcase-point is Tcase-life. Maximum failures = 10%



Storage temperature and humidity

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

Programmable features

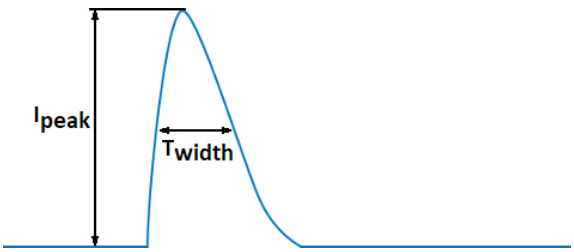
Specification item	Available	Default setting	Condition
Set Adjustable Output Current (AOC)	No	200 mA	Fixed output, dimming possible via Trailing Edge phase-cut (TE)

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	1.65	A	Input voltage 230V
Inrush peak width	16.5	µs	Input voltage 230 V, measured at 50% height
Drivers / MCB 16A type B	≤ 254	pcs	Indicative value



Please refer to the driver design in guide if you use other MCB-types.

Driver touch current / protective conductor current

Specification item	Value	Unit	Condition
Typical Touch Current (ins. Class II)	0.36	mA peak	Acc. IEC61347-1. LED module contribution not included

Surge immunity

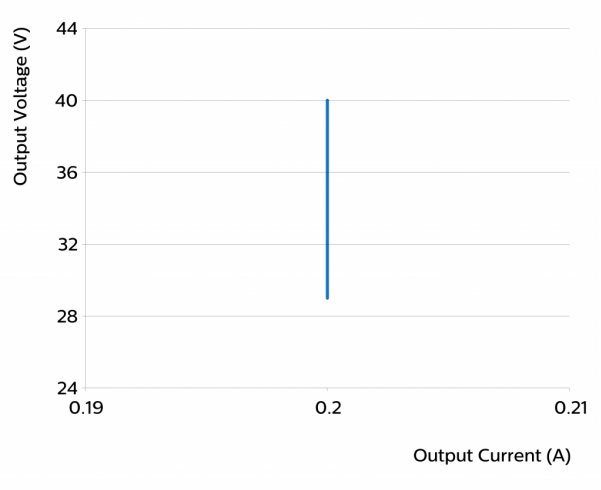
Specification item	Value	Unit	Condition
Mains surge immunity (diff. mode)	1	kV	Acc. IEC61000-4-5. 2 Ohm, 1.2/50us, 8/20us
Mains surge immunity (comm. mode)	2	kV	Acc. IEC61000-4-5. 12 Ohm, 1.2/50us, 8/20us

Application Info

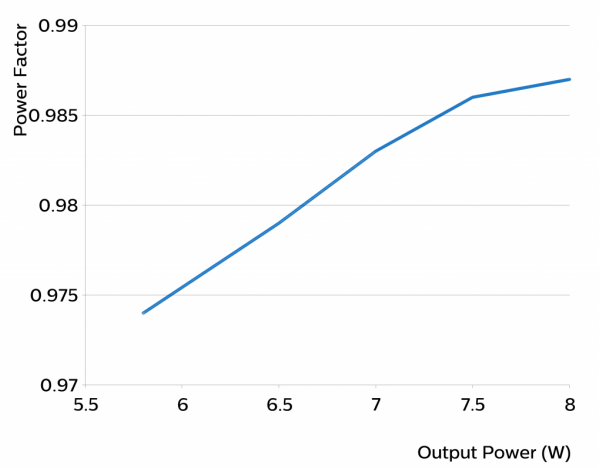
Specification item	Value
Approval marks	CCC / CE / EAC / ENEC / SELV / UA
Ingress Protection classification (IP)	20
Application	Indoor Point
Mounting Type	Built-in / Independent

Graphs

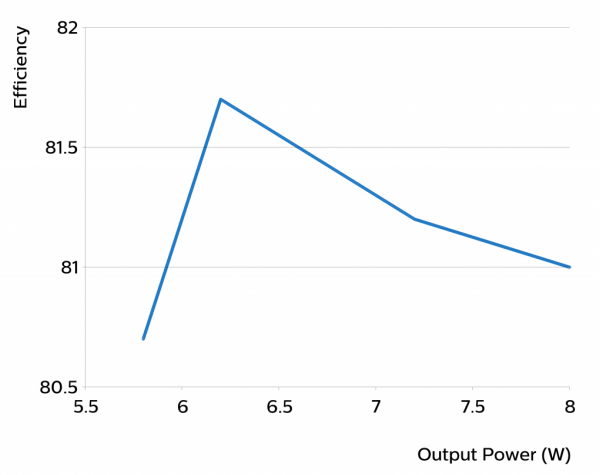
Operating window



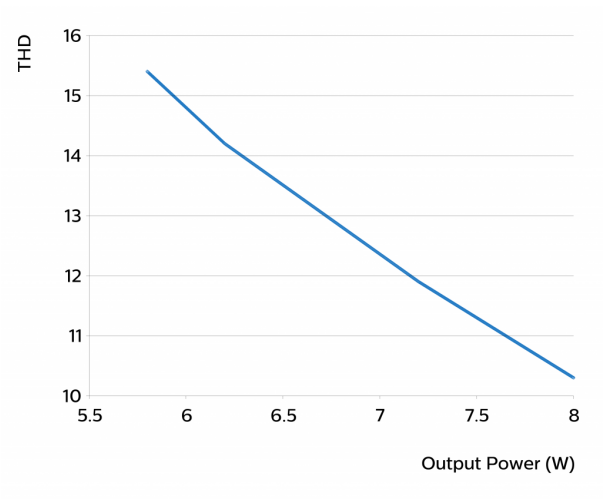
Power factor versus output power



Efficiency versus output power



THD versus output power



UK importer address: Signify Commercial UK Limited, 3, Guildford Business Park, GU2 8XG.

Date of release: August 25, 2021 v4

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