PHILIPS

Xitanium

LED driver

Datasheet

Xitanium non-isolated Fixed Output

Xitanium 35W 0.08-0.35A 150V 16 230V

9290 015 57606

Xitanium non-isolated Fixed Output drivers stand on three pillars: quality of light, reliability and flexibility

By using Xitanium LED drivers in your luminaires, you can be sure to offer your customers high quality of light without visual flicker and stroboscopic effects.

The reliability of your complete lighting system is enhanced as our drivers offer specific features that protect the connected LED module, including reduced ripple current.

Finally, application-oriented operating windows offer the flexibility required to provide the stable lumen output and light quality levels that lighting specifiers and architects demand.

Benefits

- High quality of light
- High reliability
- Future-proof flexibility
- Fast and easy wireless programming with SimpleSet (if applicable)

Features

- High efficiency
- Wide operating windows - output current can be adjusted via SimpleSet (NFC) or LEDset (resistor)
- Low output ripple current

Application

- Offices
- Industry
- Retail: supermarkets, shopping malls

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	0.17	A	@ max output power @ rated input voltage
Rated input power	39	W	@ max 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	90	%	@ max. output power @ rated input voltage @ max. Uout
Rated input voltage DC range	186...250	V_{dc}	Performance range
Input voltage AC range	202...254	V_{ac}	Operational range
Input frequency AC range	47.5...63	Hz	Operational range
Input voltage DC range	168...275	V_{dc}	Operational range
Standby Power	0.3	W	
Isolation input to output	No		

Electrical output data

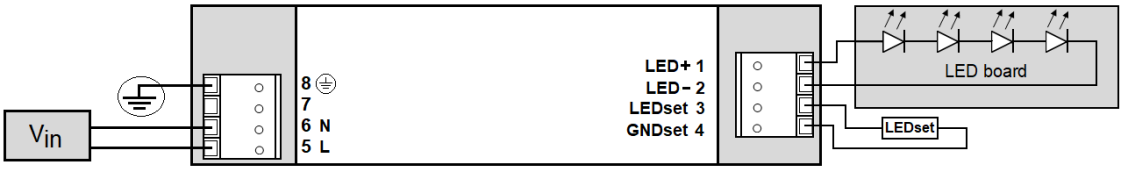
Specification item	Value	Unit	Condition
Regulation method	Constant Current		
Output voltage	50...150	V_{dc}	
Output voltage max.	250	V	Maximum output voltage (rms)
Output current	0.08...0.35	A	
Output current tolerance ±	5	%	
Output current ripple LF	≤ 4	%	Ripple = peak / average, < 3kHz
Output current ripple HF	≤ 4	%	
Output P_{st}^{LM}	≤ 0.03		
Output SVM	≤ 0.13		
Output power	10...35	W	

Electrical data controls input

Specification item	Value	Unit	Condition
Control method	Fixed		

Wiring and Connections

Specification item	Value	Unit	Type
Input wire cross-section	0.5...1.5 / 20...16	mm^2 / AWG	WAGO744, solid wire
Input wire strip length	8...9	mm	
Output wire cross-section	0.5...1.5 / 20...16	mm^2 / AWG	WAGO744, solid wire
Output wire strip length	8...9	mm	
Maximum cable length	2	m	Total length of wiring including LED module, one way. For longer wiring please double check EMI behavior of luminaire.

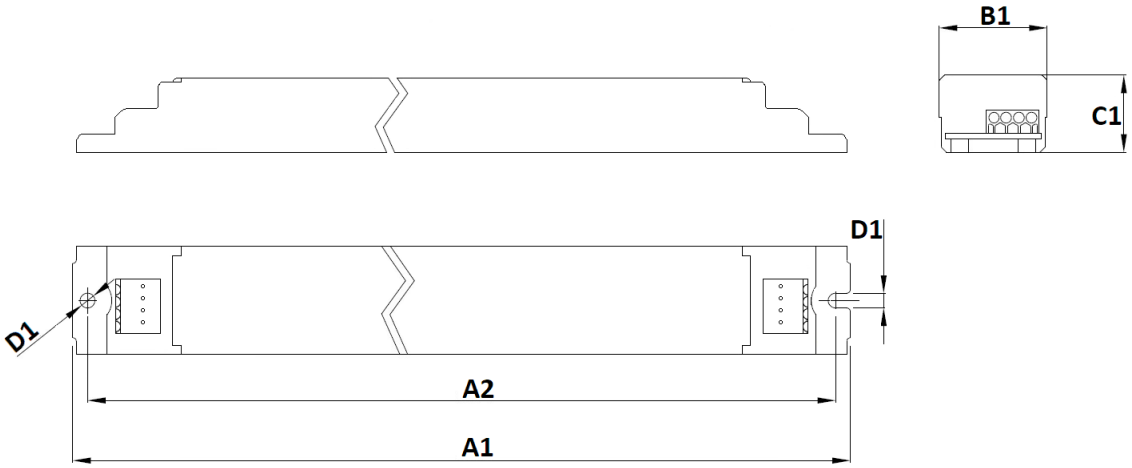


Insulation

Insulation per IEC61347-1	Input	Output+LEDset	Housing
Input		No	Basic
Output+LEDset	No		Basic
Housing	Basic	Basic	

Dimensions and weight

Specification item	Value	Unit	Tolerance (mm)
Length (A1)	280	mm	
Mounting hole distance (A2)	270	mm	
Width (B1)	30	mm	
Height (C1)	16	mm	
Mounting hole diameter (D1)	4.1	mm	
Weight	164	gram	



Logistical data

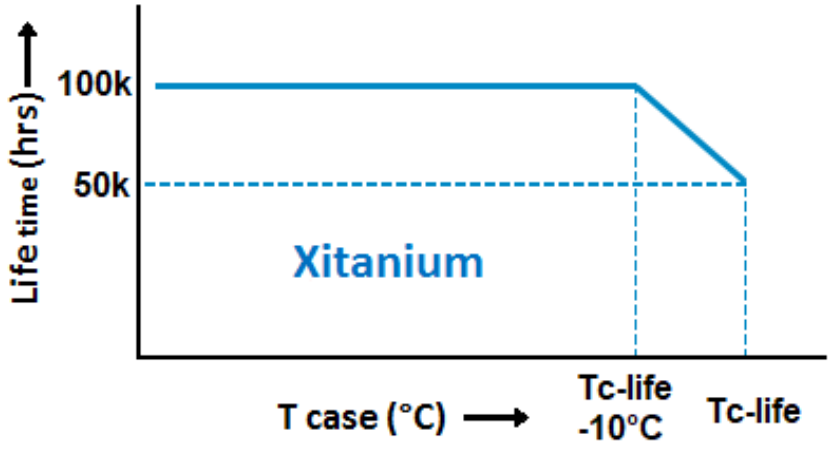
Specification item	Value
Product name	Xitanium 35W 0.08-0.35A 150V 16 230V
EOC	871869670593300
Logistic code 12NC	9290 015 57606
EAN1 (GTIN)	8718696705933
EAN3 (box)	8718696705940
Pieces per box	24

Operational temperatures and humidity

Specification item	Value	Unit	Condition
Ambient temperature	-25...+50	°C	Higher ambient temperature allowed as long as Tcase-max is not exceeded
Tcase-max	75	°C	lifetime 50khrs;
Tcase-life	65	°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	100,000	hours	Measured temperature at Tcase-point is Tcase-life. Maximum failures = 10%
Mains switching cycles	> 100,000	switches	See Design-in guide for detailed explanation



Storage temperature and humidity

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

Programmable features

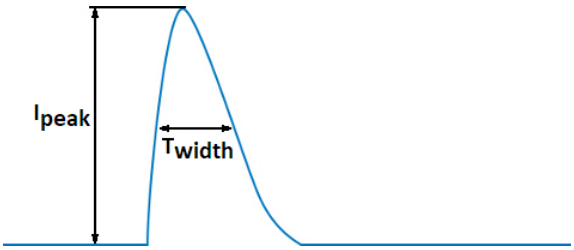
Specification item	Available	Default setting	Condition
Set Adjustable Output Current (AOC)	LEDset	80 mA	Set the output current via LEDset, do not leave open / short-circuit. See Design-In Guide for resistor value table.
Constant Light Output (CLO)	No		
Corridor Mode	No		
DC emergency (DCemDim)	No		

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
Energy metering (DALI part 252)	No		
Diagnostics	No		

Inrush current

Specification item	Value	Unit	Condition
Inrush current	15.3	A	Input voltage 230V
Inrush peak width	221	µs	Input voltage 230 V, measured at 50% height
Drivers / MCB 16A type B	≤ 37	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 Protective Conductor Current (ins. Class I)	0.5	mA rms	Acc. IEC60598-1. LED module contribution not included

Surge immunity

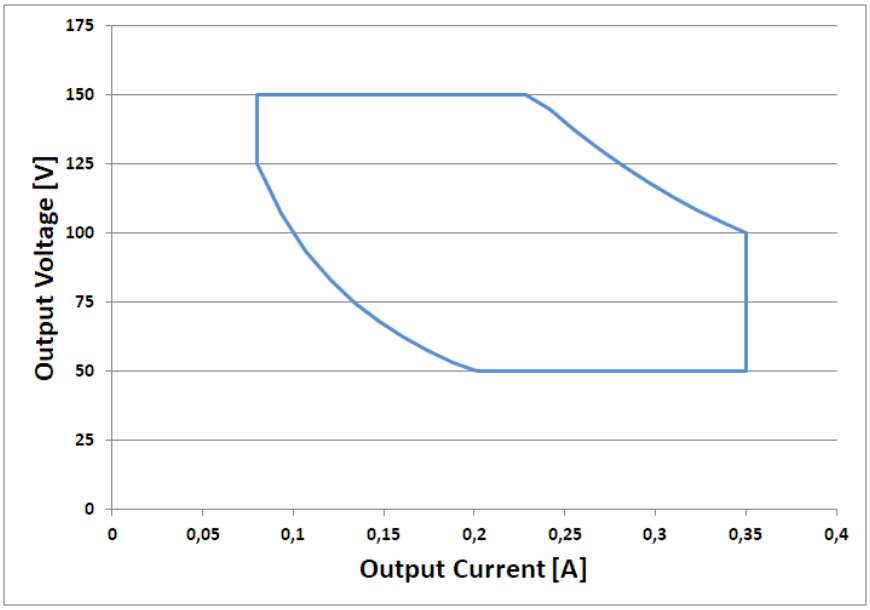
Specification item	Value	Unit	Condition
Mains surge immunity (diff. mode)	1	kV	Acc. IEC61000-4-5. 2 Ohm, 1.2/50us, 8/20us
Mains surge immunity (comm. mode)	2	kV	Acc. IEC61000-4-5. 12 Ohm, 1.2/50us, 8/20us

Application Info

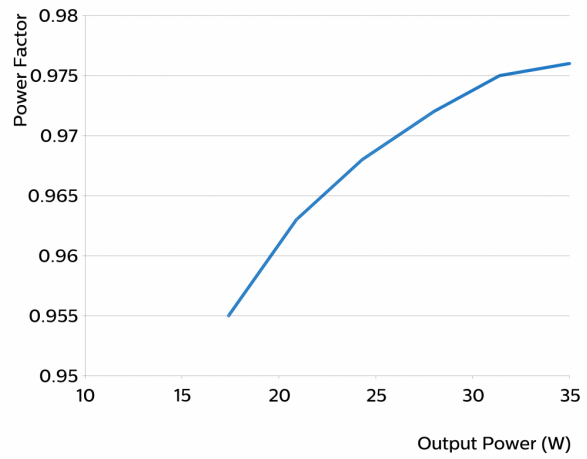
Specification item	Value
Approval marks	CCC / CE / EL / ENEC
Ingress Protection classification (IP)	20
Application	Indoor Linear
Mounting Type	Built-in

Graphs

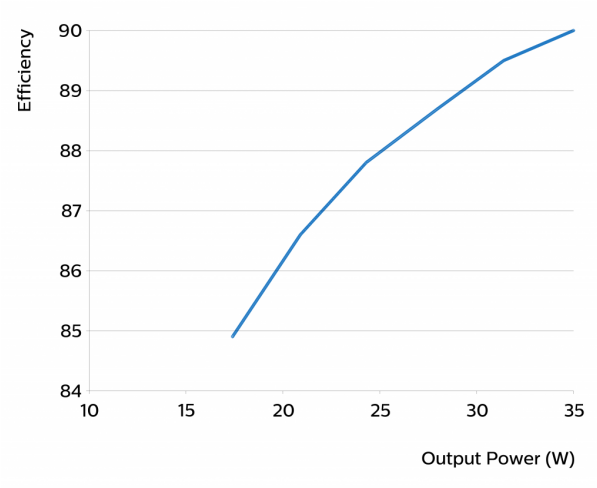
Operating window



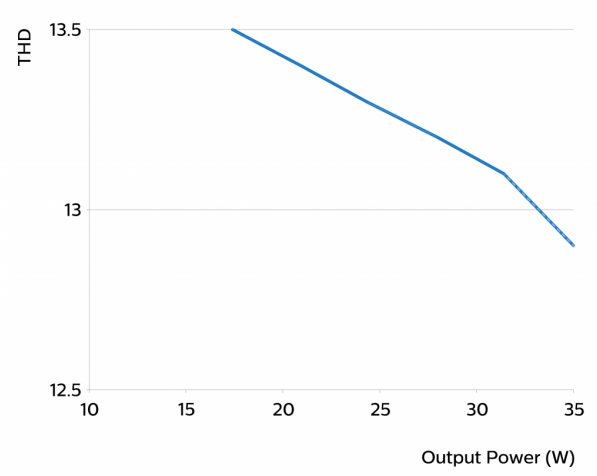
Power factor versus output power



Efficiency versus output power



THD versus output power



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