xitanium

Datasheet

Xitanium non-iso Fixed Output with SimpleSet

Xitanium 90W 0.25-0.7A 220V S21 230V
9290 029 34606

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
- Easy design-in due to standard housing dimensions and excellent thermal performance

Features

- High efficiency
- SimpleSet configuration interface (NFC)
- Low output ripple current

Application

- Offices
- Industry
- Retail: supermarkets, shopping malls

Logistical data

Specification item	Value
Product name	Xitanium 90W 0.25-0.7A 220V S21 230V
EOC	871951447414700
Logistic code 12NC	9290 029 34606
EAN1 (GTIN)	8719514474147
EAN3 (box)	8719514474154
Pieces per box	24
Weight	205 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	0.45	A	@ full output power @ rated input voltage
Rated input power	97.0	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	93.0	%	@ full output power @ rated input voltage @ Max. Uout
Rated input voltage DC	186...250	V_{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
Isolation input to output	No		

Electrical output data

Specification item	Value	Unit	Condition
Regulation method	Constant Current		
Output voltage	50...220	V_{dc}	
Output voltage max.	250	V	Maximum output voltage (rms)
Output current	250...700	mA	
Output current tolerance ±	5	%	@full load
Output current ripple LF	≤ 4	%	Ripple = peak / average, < 3kHz
Output current ripple HF	≤ 4	%	
Output P_{st}^{LM}	≤ 1.0		cfr. IEC TR 61547-1:2017
Output SVM	≤ 0.6		cfr. IEC TR 63518:2018
Output power	25.0...90.0	W	

Control interfaces

Specification item	Value	Unit	Condition
Control method	Fixed		

Wiring and Connections

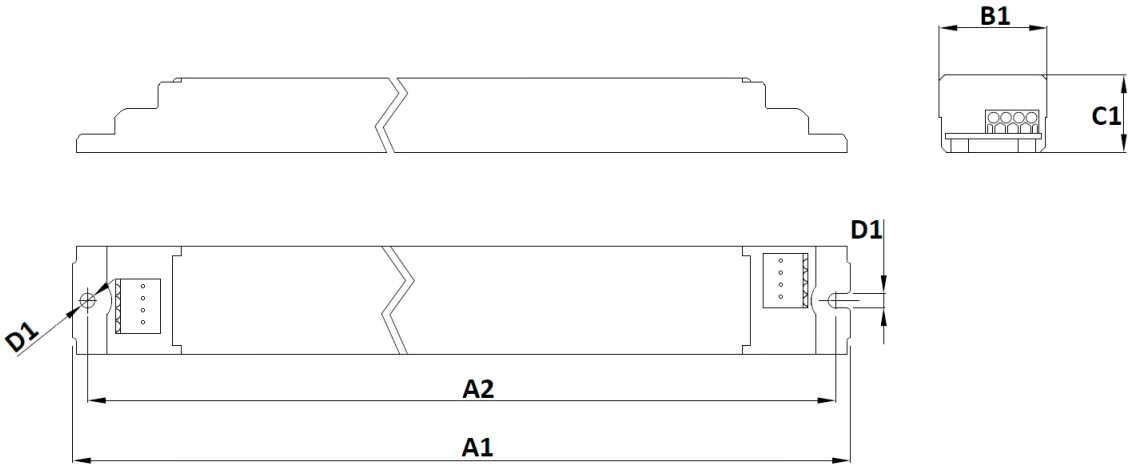
Specification item	Value	Unit	Type
Input wire cross-section	0.5...1.5 / 20...16	mm² / AWG	WAGO744, solid wire
Input wire strip length	8...9	mm	
Output wire cross-section	0.5...1.5 / 20...16	mm² / AWG	WAGO744, solid wire
Output wire strip length	8...9	mm	
Maximum cable length	2	m	Total length of wiring including LED module, one way

Isolation

Insulation per IEC61347-1	Input	Output	Housing
Input	-	No	Basic
Output	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)	21	mm	
Mounting hole diameter (D1)	4.1	mm	
Weight	205	gram	

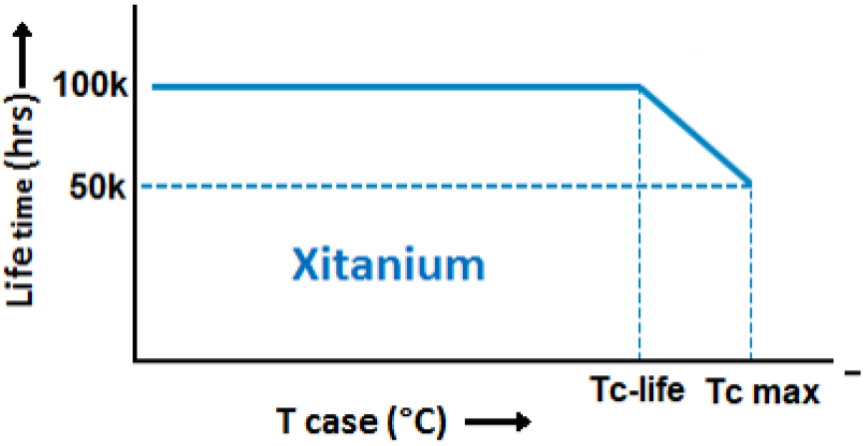


Operational temperatures and humidity

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



Maximum failures = 10%

Temperature [°C]	Lifetime	Unit	Condition
75	50000	hr	
70	71000	hr	
65	100000	hr	Temperature measured @Tc point
60	>100000	hr	
55	>100000	hr	

Storage temperature and humidity

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

Programmable features

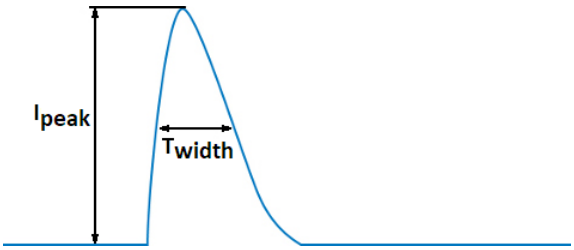
Specification item	Available	Default setting	Condition
Set Adjustable Output Current (AOC)	SimpleSet	250 mA	
Adjustable Light Output (ALO)	Yes	OFF	
DC emergency (DCemDim)	No		Light output is 100% when operated at DC mains
OEM Write Protection (OWP)	Yes	OFF	

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	per IEC60598

Inrush current

Specification item	Value	Unit	Condition
Inrush current	18.5	A	Input voltage 230V
Inrush peak width	223	µs	Input voltage 230V, measured at 50% height
Drivers / MCB 16A type B @230V AC	≤ 19	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 Protective Conductor Current (ins. Class I)	0.4	mA rms	Acc. IEC60598-1. LED module contribution not included

Surge immunity

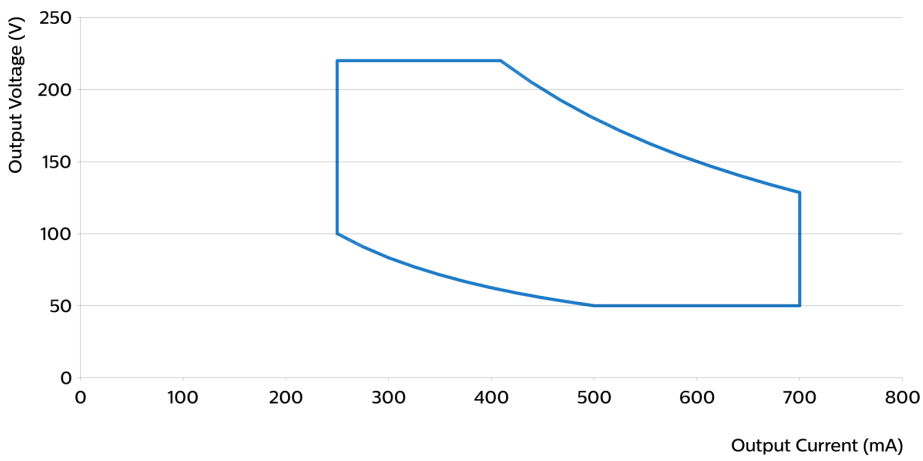
Specification item	Value	Unit	Condition
Mains surge immunity (diff. mode)	1	kV	Acc. IEC61000-4-5. 2 Ohm, 1.2/50us, 8/20us
Mains surge immunity (comm. mode)	2	kV	Acc. IEC61000-4-5. 12 Ohm, 1.2/50us, 8/20us

Application Info (Approbation)

Specification item	Value
Approval marks and Certifications	CCC / CE / EAC / EL / ENEC / RCM / UA / UKCA
Ingress Protection classification (IP)	20
Noise and hum dB(A)	20
Application	Indoor Linear
Mounting Type	Built-in

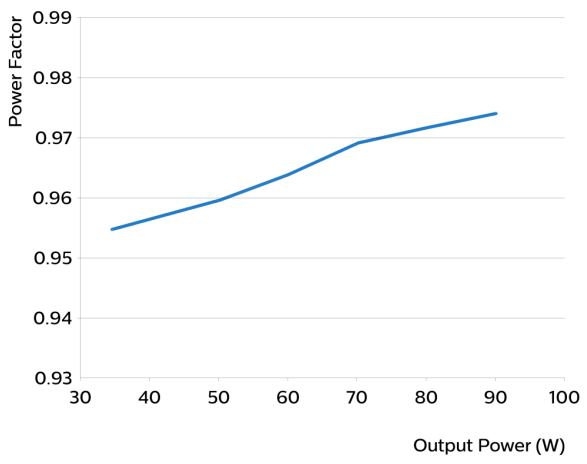
Graphs

Operating window

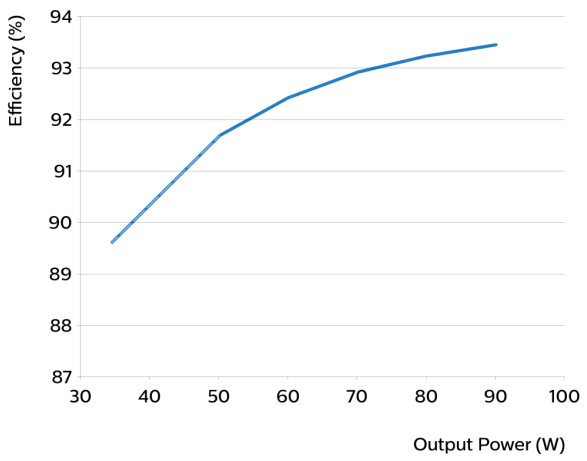


Type	Output current (mA)	Min. output voltage (V)	Max. output voltage (V)	Max. output power (W)
Xitanium 90W 0.25-0.7A 220V S21 230V	250	100	220	55
Xitanium 90W 0.25-0.7A 220V S21 230V	300	83	220	66
Xitanium 90W 0.25-0.7A 220V S21 230V	350	71	220	77
Xitanium 90W 0.25-0.7A 220V S21 230V	400	62	220	88
Xitanium 90W 0.25-0.7A 220V S21 230V	450	55	200	90
Xitanium 90W 0.25-0.7A 220V S21 230V	500	50	180	90
Xitanium 90W 0.25-0.7A 220V S21 230V	550	50	163	90
Xitanium 90W 0.25-0.7A 220V S21 230V	600	50	150	90
Xitanium 90W 0.25-0.7A 220V S21 230V	650	50	138	90
Xitanium 90W 0.25-0.7A 220V S21 230V	700	50	128	90

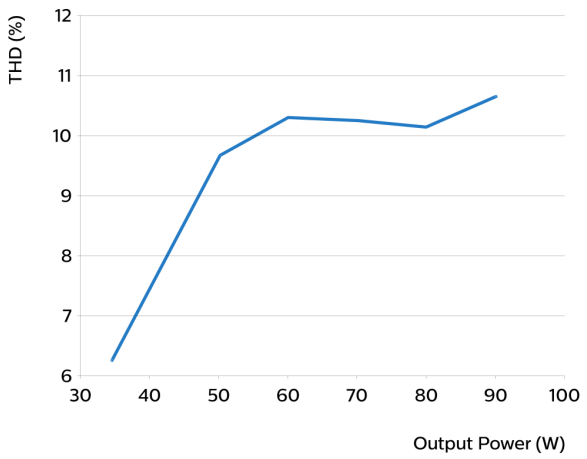
Power factor versus output power



Efficiency versus output power



THD versus output power



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