

Xitanium non-isolated Fixed Output SimpleSet with CLO

Xitanium 60W 0.15-0.5A 220V S16 230V
9290 021 16006



Xitanium non-isolated Fixed Output SimpleSet drivers with CLO programming offer quality of light, reliability and low energy consumption.

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.

With the Constant Lumen Output (CLO) feature you can ensure that the light output of your luminaire remains stable over time.

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, the Constant Lumen Output feature enables lower energy consumption as power is optimized over the lifecycle of the luminaire.

Benefits

- High quality of light
- Constant light output over time
- High reliability
- Lower energy consumption
- Fast and easy wireless programming with SimpleSet

Application

- Offices
- Industry
- Retail: supermarkets, shopping malls

Features

- CLO programming
- Wide operating windows - output current can be adjusted via SimpleSet (NFC)
- High efficiency
- Low output ripple current

Logistical data

Specification item	Value
Product name	Xitanium 60W 0.15-0.5A 220V S16 230V
EOC	871869971785800
Logistic code 12NC	9290 021 16006
EAN1 (GTIN)	8718699717858
EAN3 (box)	8718699717865
Pieces per box	24
Weight	175 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	0.3	A	@ max output power @ rated input voltage
Rated input power	66.0	W	@ max output power @ rated input voltage
Power factor performance range	≥ 0.98		@ performance range @ full output power@ rated output power @ rated input voltage
Total harmonic distortion	9	%	@ performance range @ full output power
Efficiency	91.1	%	@ rated output power @ rated input voltage @ max. U _{out}
Rated input voltage DC	186...250	V _{dc}	Performance range
Rated input current DC	≤ 0.3	A _{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	150...500	mA	
Output current tolerance ±	5	%	@full load
Output current ripple LF	≤ 4	%	Ripple = peak / average, < 3kHz
Output P _{st} ^{LM}	≤ 0.1		
Output SVM	≤ 0.3		
Output power	17.0...60.0	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	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.

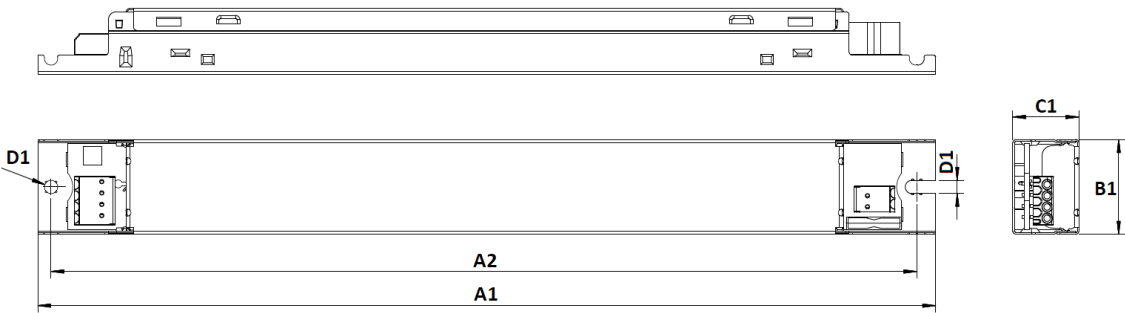


Isolation

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)	16	mm	
Mounting hole diameter (D1)	4.1	mm	
Weight	175	gram	

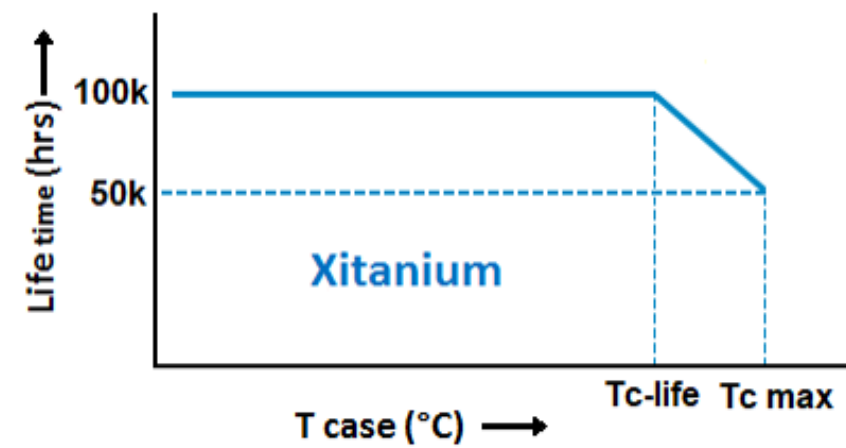


Operational temperatures and humidity

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	lifetime 100khrs; measured at T _c -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%
Driver lifetime Tcmax	0	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	Temperature measured @Tc point
70	71000	hr	
65	100000	hr	
60	>100000	hr	
55	>100000	hr	

Storage temperature and humidity

Specification item	Value	Unit	Condition
Ambient temperature	-40...+85	°C	Non-condensing
Relative humidity	5...95	%	

Programmable features

Specification item	Available	Default setting	Condition
Set Adjustable Output Current (AOC)	SimpleSet	150 mA	
Constant Light Output (CLO)	Yes	OFF	

Non-programmable features

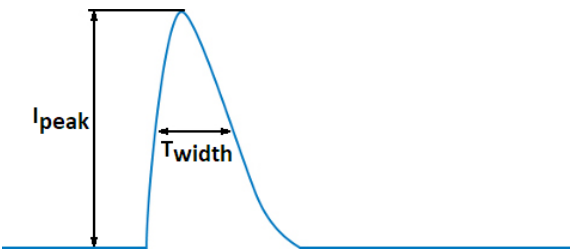
Specification item	Value	Condition
Open load protection	Yes	Mains reset needed
Short circuit protection	Yes	Automatic recovering
Over power protection	Yes	Automatic recovering
Hot wiring	No	
Suitable for fixtures with protection class	I	per IEC60598
Output Overvoltage Detection	Yes	

Inrush current

Specification item	Value	Unit	Condition
Inrush current	28.1	A	Input voltage 230V
Inrush peak width	141	µs	Input voltage 230V, measured at 50% height
Drivers / MCB 16A type B @230V AC	≤ 27	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)	0.5	mA rms	Acc. IEC60598-1. LED module contribution not included

Surge immunity

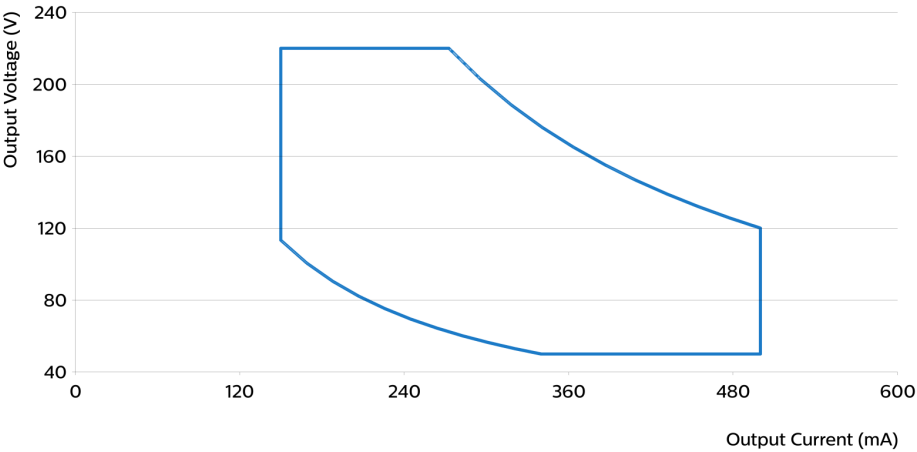
Specification item	Value	Unit	Condition
Mains surge immunity (diff. mode)	1	kV	Acc. IEC61000-4-5. 2 Ohm, 1.2/50µs, 8/20µs
Mains surge immunity (comm. mode)	2	kV	Acc. IEC61000-4-5. 12 Ohm, 1.2/50µs, 8/20µs

Application Info (Approbation)

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

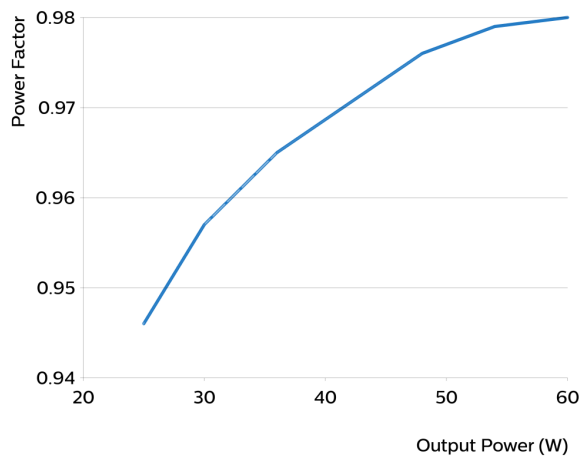
Graphs

Operating window

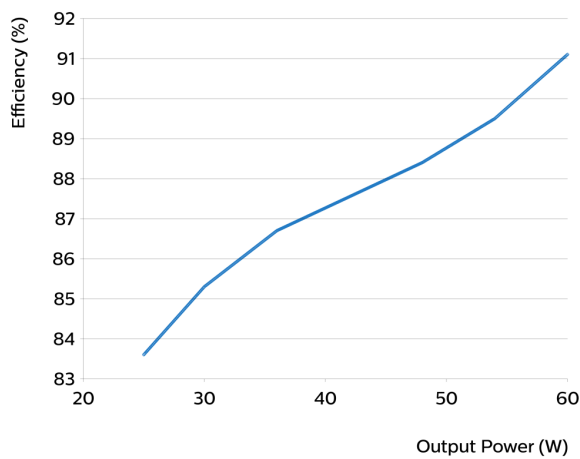


Type	Output current (mA)	Min. output voltage (V)	Max. output voltage (V)	Max. output power (W)
Xitanium 60W 0.15-0.5A 220V S16 230V	150	113	220	33
Xitanium 60W 0.15-0.5A 220V S16 230V	200	85	220	44
Xitanium 60W 0.15-0.5A 220V S16 230V	250	68	220	55
Xitanium 60W 0.15-0.5A 220V S16 230V	300	56	200	60
Xitanium 60W 0.15-0.5A 220V S16 230V	350	50	171	60
Xitanium 60W 0.15-0.5A 220V S16 230V	400	50	150	60
Xitanium 60W 0.15-0.5A 220V S16 230V	450	50	133	60
Xitanium 60W 0.15-0.5A 220V S16 230V	500	50	120	60

Power factor versus output power



Efficiency versus output power



THD versus output power

