

PHILIPS

Xitanium

LED driver



Datasheet

Xitanium isolated Single Current

Xitanium 40W 0.3/0.35A 115V 230V

Xitanium LED drivers with single current output offer industry leading performance and reliability at optimized cost. They are ideal for high volume applications while delivering to specific requirements. These drivers offer the same level of performance as Xitanium adjustable current linear drivers to ensure high quality of light, but with a specific current setting for optimized performance. Due to the low output current ripple, you can be sure to offer your customers high quality of light without visual flicker and stroboscopic effects.

Xitanium isolated Single Current drivers are ideal for Low Voltage (LV) linear systems. They offer ease of design-in and make the approbation process easier.

Benefits

- High quality of light – assurance of camera and scanner-friendly performance
- High reliability
- Optimized performance at specific output current settings

Features

- Low output current tolerance
- Low output ripple current
- Long lifetime at high operating temperature
- Easy current selection via dipswitch
- SELV
- Suitable for Class I luminaires

Application

- Offices
- 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	0.22	A	@ rated output power @ rated input voltage
Rated input power	45	W	@ 230V @ Full load
Power factor	0.9		@ 230V @ Full load
Total harmonic distortion	15	%	@ 230V @ Full load
Efficiency	89	%	@ 230V @ Full load
Input voltage AC range	198...264	V _{ac}	Operational range
Input frequency AC range	47.5...63	Hz	Operational range
Isolation input to output	SELV		

Electrical output data

Specification item	Value	Unit	Condition
Regulation method	Constant Current		
Output voltage	70...115	V _{dc}	
Output voltage max.	120	V	Peak voltage at open load
Output current	0.3 / 0.35	A	Selected by dip-switch
Output current tolerance	± 5	%	
Output current ripple LF	≤ 4	%	Ripple = peak / average
Output current ripple HF	≤ 4	%	
Output power	21...40	W	

Electrical data controls input

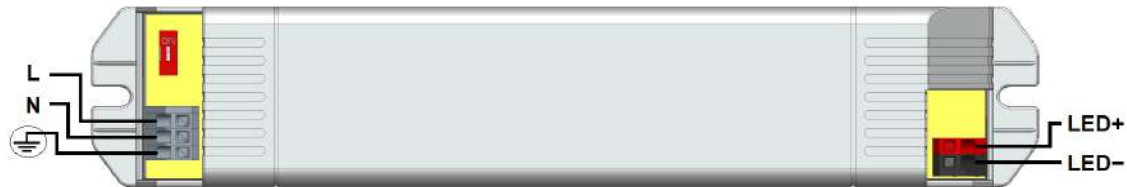
Specification item	Value	Unit	Condition
Control method	Fixed		

Logistical data

Specification item	Value
Product name	Xitanium 40W 0.3/0.35A 115V 230V
Order code	8718699657864
Logistic code 12NC	9290 014 87706
EAN3	8718699657871
Pieces per box	20

Wiring & Connections

Specification item	Value	Unit	Condition
Input wire cross-section	0.5...1.5	mm ²	Type250, solid / stranded wire
	16...20	AWG	Type250, solid / stranded wire
Input wire strip length	8...9	mm	
Output wire cross-section	0.5...1.5	mm ²	Type250, solid / stranded wire
	16...20	AWG	Type250, solid / stranded wire
Output wire strip length	8...9	mm	
Maximum cable length	600	mm	Total length of wiring including LED module, one way

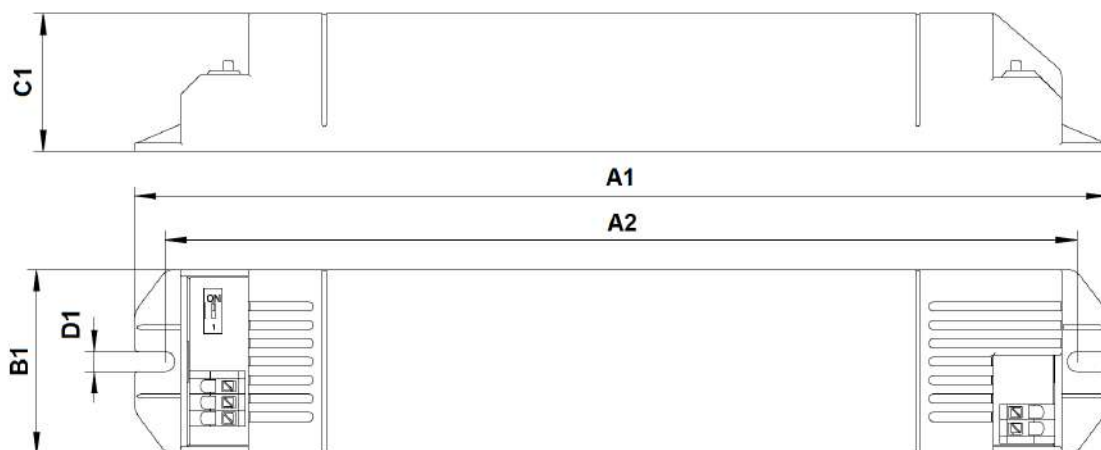


Insulation

Insulation	Input	Output
Input		SELV
Output	SELV	

Dimensions and weight

Specification item	Value	Unit	Condition
Length (A1)	211.5	mm	
Width (B1)	40	mm	
Height (C1)	30	mm	
Fixing hole diameter (D1)	4.2	mm	
Fixing hole distance (A2)	198	mm	
Weight	120	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	Maximum temperature measured at T _{case} -point
Tcase-life	75	°C	Measured at T _{case} -point
Maximum housing temperature	110	°C	In case of a failure
Relative humidity	10...90	%	Non-condensing

Storage temperature and humidity

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

Lifetime

Specification item	Value	Unit	Condition
Driver lifetime	50,000	hours	Measured temperature at T _{case} -point is T _{case} -life. Maximum failures = 10%

Programmable features

Specification item	Value	Remark	Condition
Set output current (AOC)	Manual	See Design-in guide.	Default output current: = 350 mA
Constant Lumen Over Lifetime (CLO)	No		
DC emergency dimming (DCemDIM)	No		
Corridor mode	No		
Energy metering	No		
Diagnostics	No		

Features

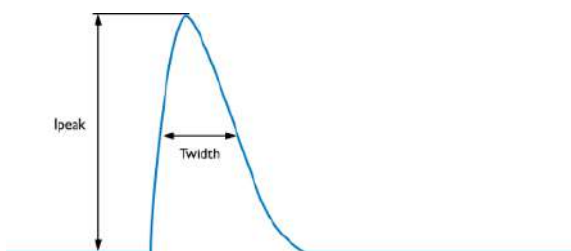
Specification item	Value	Remark	Condition
Open load protection	Yes		
Short circuit protection	Yes		Automatic recovering
Over power protection	No		
Hot wiring	No		
Suitable for fixtures with protection class	I		per IEC60598

Certificates and standards

Specification item	Value
Approval marks	CE / EAC / ENEC
Ingress Protection classification (IP)	20

Inrush current

Specification item	Value	Unit	Condition
Inrush current I_{peak}	17	A	Input voltage 230V
Inrush current T_{width}	270	μs	Input voltage 230V, measured at 50% I_{peak}
Drivers / MCB 16A type B	≤ 30	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%

Driver touch current / protective conductor current

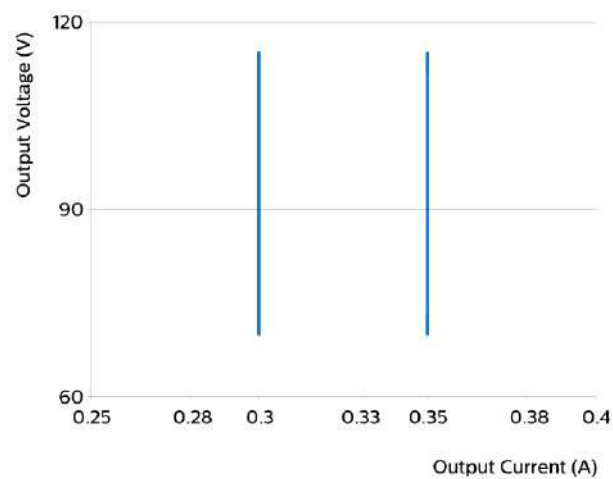
Specification item	Value	Unit	Condition
Typical protective conductor current (ins. Class I)	0.7	mA rms	Acc. IEC61347-1. LED module contribution not included

Surge immunity

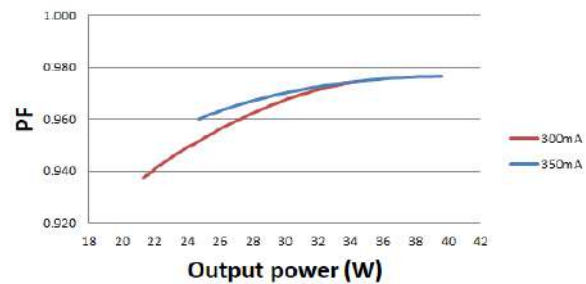
Specification item	Value	Unit	Condition
Mains surge immunity (diff. mode)	1	kV	L-N Acc. IEC61000-4-5. 2 Ohm, 1.2/50us, 8/20us
Mains surge immunity (comm. mode)	2	kV	L/N - PE Acc. IEC61000-4-5. 12 Ohm, 1.2/50us, 8/20us

Graphs

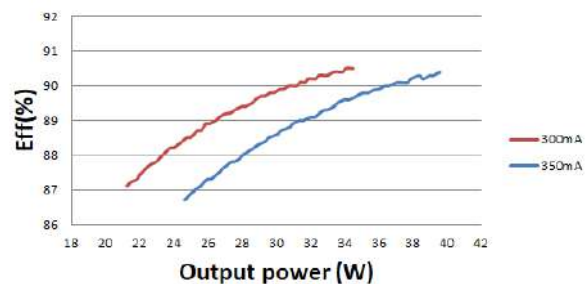
Operating window



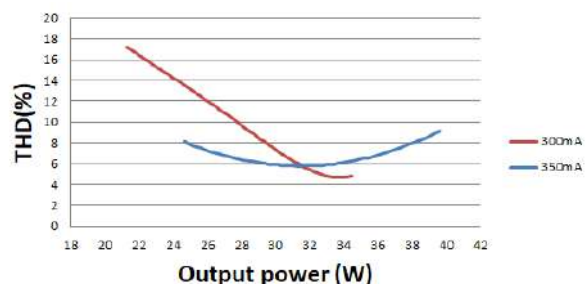
Power factor versus output power



Efficiency versus output power



THD versus output power





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