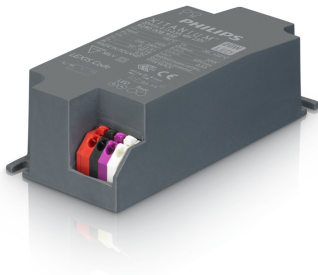


# LED drivers – mini

Xitanium 20W/m 0.15-0.5A 48V 230V

March 11, 2014



## Enabling future-proof LED technology

Xitanium LED drivers are designed to operate LED solutions for general lighting applications. Reliability is enhanced by features that protect the connected LED module, e.g. hot wiring, reduced ripple current and thermal derating. Most drivers feature central DC operation. In the coming years LEDs will continue to increase in efficiency, creating challenges for OEMs. With Xitanium LED drivers, flexibility in luminaire design is assured thanks to an adjustable output current. Application-oriented operating windows offer stable lumen output and light quality levels that specifiers and architects demand. The adjustable output current also enables operation of various LED PCB solutions from different manufacturers.

## Benefits

- High reliability underpinned by 5 year warranty
- Future-proof flexibility - application-oriented operating windows enable LED generation and complexity management
- Compatibility - can also be used for other manufacturers' modules or OEMs' own PCB designs

## Product features

- Operating windows - output current can be adjusted via the Philips MultiOne configurator ('TD' drivers) or with a resistor outside the driver
- Multiple versions - DALI dimmable & programmable, trailing-edge dimmable, fixed-current/fixed-output trailing-edge dimmable, fixed-output, and fixed-current/fixed-output
- Power ratings: 10-110 W
- Choice of housing designs - linear housing for tracks in '3 in 1' in design, conventional HID housings for down- and spotlighting, and SH housing for independent use with strain relief and loop through

## Applications

- Retail



# PHILIPS

## Electrical input data

Specification item	Value	Unit	Condition
Nominal input voltage	220...240	V <sub>ac</sub>	
Nominal input frequency	50...60	Hz	
Nominal input current	0.12	A	Input voltage 230 V <sub>ac</sub> , full load
Nominal input power	24	W	Input voltage 230 V <sub>ac</sub> , full load
Power factor	≥ 0.9		Input voltage 230 V <sub>ac</sub> , full load
Total harmonic distortion	≤ 20	%	Input voltage 230 V <sub>ac</sub> , full load
Efficiency	86	%	Input voltage 230 V <sub>ac</sub> , full load, maximum output power
Input voltage AC	202...254	V <sub>ac</sub>	Performance range
Input frequency AC	47.5...63	Hz	Maximum permissible range

## Electrical output data

Specification item	Value	Unit	Condition
Regulation method	Constant Current		
Output voltage	24...48	V <sub>dc</sub>	
Output voltage max.	60	V	Peak voltage (RMS) at open load
Output current	0.15...0.5	A	Full output current setting
Output current tolerance	± 8	%	
Output current ripple	≤ 30	%	Ripple (100Hz) = peak / average
Output power	6...20	W	Full output
Galvanic isolation	SELV		Lamp to mains

## Electrical data controls input

Specification item	Value	Unit	Condition
Control method	Fixed		

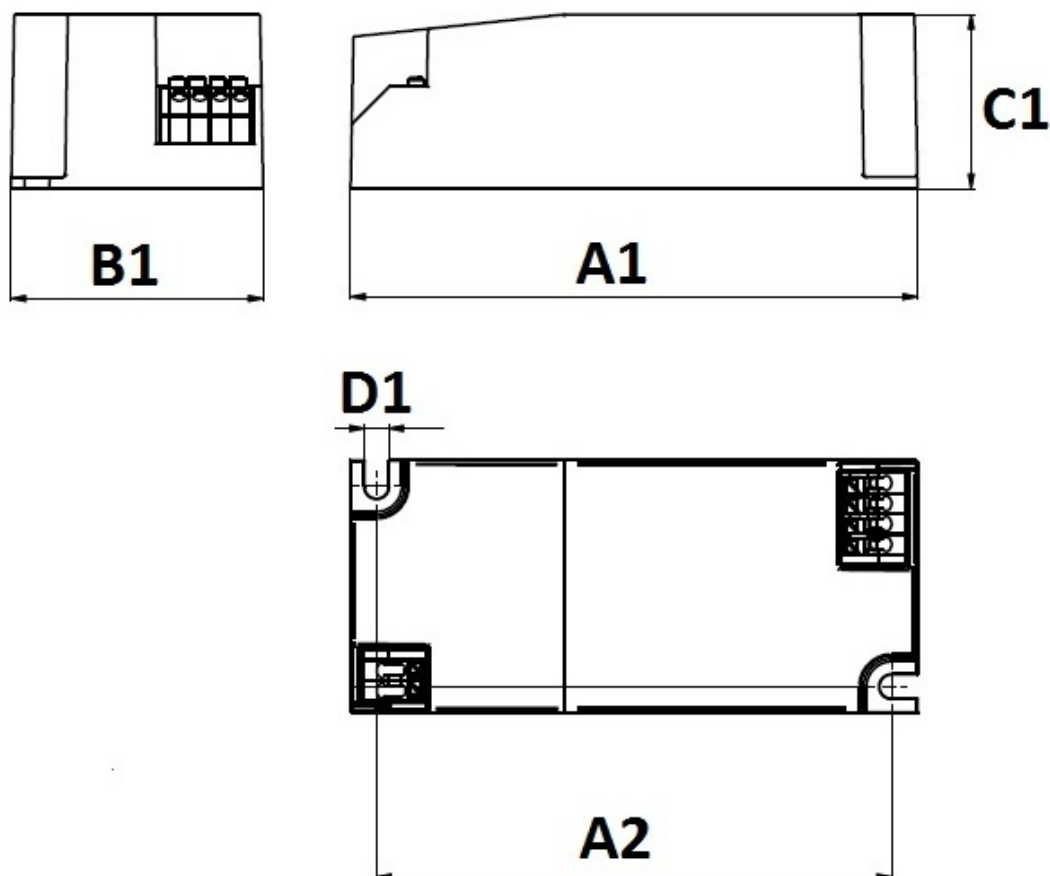
## Wiring

Specification item	Value	Unit	Condition
Maximum cable length	600	mm	Total length of wiring including LED module, one way



## Dimensions and weight

Specification item	Value	Unit	Condition
Length (A1)	97.2	mm	
Width (B1)	43.2	mm	
Height (C1)	30	mm	
Fixing hole diameter (D1)	4.2	mm	
Fixing hole distance (A2)	89	mm	
Weight	95	gram	



## Operational temperatures and humidity

Specification item	Value	Unit	Condition
Ambient temperature	-20...+50	°C	
T <sub>case-max</sub>	80	°C	Maximum temperature measured at T <sub>c</sub> -point
T <sub>case-life</sub>	70	°C	Measured at T <sub>c</sub> -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 $T_c$ -point is $T_{case-life}$ . Maximum failures = 10%

## Programmable features

Specification item	Value	Remark	Condition
Set output current (AOC)	Rset2	See Design-in guide. Default output current: 0.5 A	
LED module temperature derating (MTP)	No		
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		Automatic recovering
Short circuit protection	Yes		Automatic recovering
Over power protection	Yes		Automatic recovering
Hot wiring	No		
Suitable for fixtures with protection class	I and II		

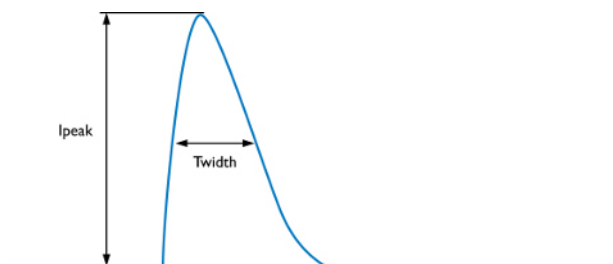
## Certificates and standards

Specification item	Value	Unit	Condition
Approval marks	ENEC / CE		
Ingress Protection classification	20		

## Additional information

### Inrush current

Specification item	Value	Unit	Condition
Inrush current $I_{peak}$	18.6	A	Input voltage 230V
Inrush current $T_{width}$	240	$\mu s$	Input voltage 230V, measured at 50% $I_{peak}$
Drivers / MCB 16A type B	$\leq 34$	pcs	



### Earth leakage current

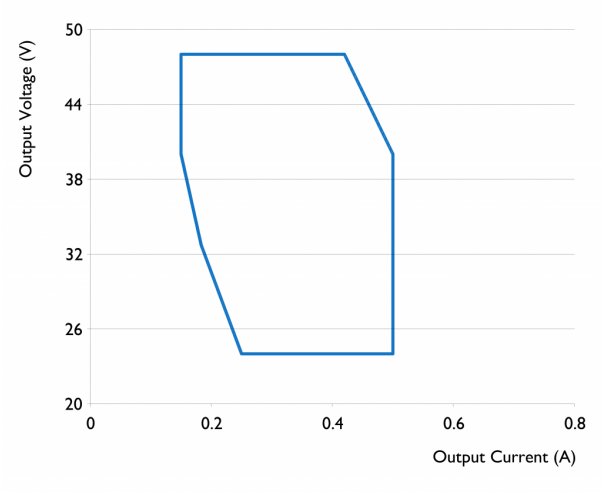
Specification item	Value	Unit	Condition
Earth leakage current	0.7	mApk	LED module contribution not included

Mains input surge capability

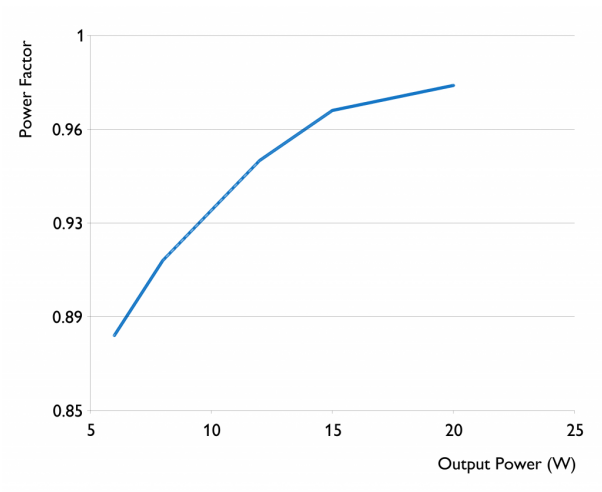
Specification item	Value	Unit	Condition
Surge capability (L-N)	1	kV	
Surge capability (L/N-Ground)	2	kV	

Graphs

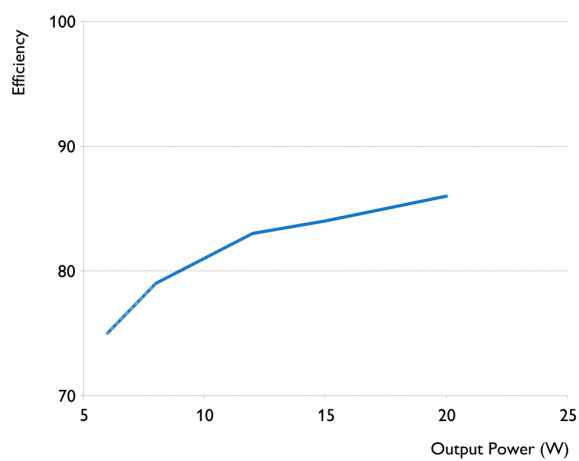
Operating window



Power factor versus output power



## Efficiency versus output power



## Logistical data

Specification item	Value
Product name	Xitanium 20W/m 0.15-0.5A 48V 230V
Order code	871829176663600
Logistic code 12NC	9290 008 93806
EAN3	8718291766643
Pieces per box	20



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[www.philips.com/xitanium](http://www.philips.com/xitanium)