

# PHILIPS

## Xitanium

### LED driver



## Datasheet

### Xitanium track adaptor drivers (3C)

Xitanium 20W/a 0.35/0.5A 40V 3CG 230V

9290 014 76506

#### Affordable and reliable LED Drivers

Affordable LED driver range offering Philips reliability. The Xitanium track driver range is compatible with COB and mid-power LEDs from any LED manufacturer.

#### Benefits

- Driver design based on Philips experience and knowledge of conventional fluorescent and HID technologies
- Various power ratings matching common lumen packages/applications
- Track adaptor housing design for compact track luminaire designs

#### Features

- Compact size
- Specific, optimized dual-output current choice
- Long lifetime
- Low output current ripple, low input current THD
- Suitable for 3-phase track systems
- Available in white, black and grey housing color

#### Application

- Public buildings (airports, cinemas, theaters, exhibition halls)
- Retail (supermarkets, shops)
- Offices

## Electrical input data

Specification item	Value	Value	Unit	Condition
Rated input voltage range	220...240	220...240	V <sub>ac</sub>	Performance range
Rated input voltage	230	230	V <sub>ac</sub>	
Rated input frequency range	50...60	50...60	Hz	Performance range
Rated input current	0.11	0.08	A	@ full output power @ rated input voltage
Rated input power	25	18	W	@ rated output power @ rated input voltage
Power factor	0.9	0.9		@ full output power @ rated input voltage
Total harmonic distortion	20	20	%	@ rated output power @ rated input voltage
Efficiency	83.5	83	%	@ rated input voltage @ rated output power
Input voltage AC range	198...264	198...264	V <sub>ac</sub>	Safety operational range
Input frequency AC range	45...66	45...66	Hz	Safety operational range
Isolation input to output	SELV	SELV		

## Electrical output data

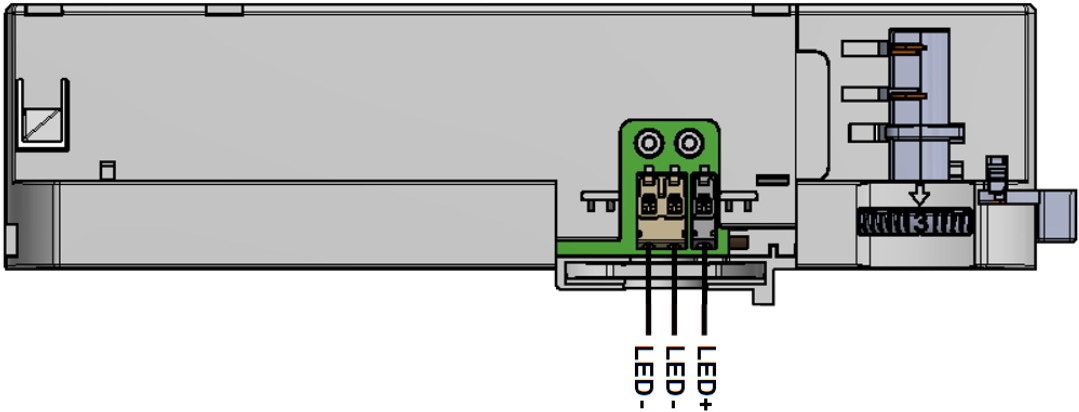
Specification item	Value	Unit	Condition
Regulation method	Constant Current		
Output voltage	30...40	V <sub>dc</sub>	
Output voltage max.	60	V	Maximum output voltage (rms)
Output current	0.35 / 0.5	A	Manually selectable between 350 and 500mA
Output current tolerance ±	8	%	At Vin =230VAC, Vout=36V
Output current ripple LF	≤ 3	%	Ripple = peak / average, < 3kHz
Output current ripple HF	≤ 15	%	
Output P <sub>st</sub> <sup>LM</sup>	≤ 0.06		
Output SVM	≤ 0.07		
Output power	10.5...20	W	350mA: 10.5...14W; 500mA: 15...20W

## Electrical data controls input

Specification item	Value	Unit	Condition
Control method	Fixed		

Wiring and Connections

Specification item	Value	Unit	Type
Output wire cross-section	0.2...0.75 / 24...18	mm <sup>2</sup> / AWG	Molex 104188, solid wire. Stranded wire supported from 0.45mm2 and up
Output wire strip length	7.5...8.5	mm	
Maximum cable length	0.3	m	Total length of wiring including LED module, one way

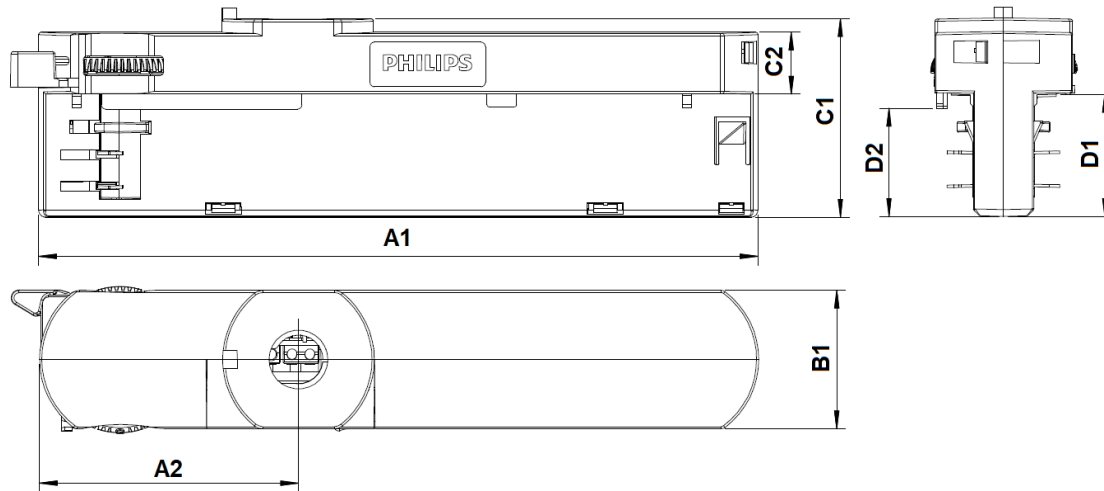


Insulation

Insulation per IEC61347-1	Mains	LED
Mains		SELV
LED	SELV	

## Dimensions and weight

Specification item	Value	Unit	Tolerance (mm)
Length (A1)	161.5	mm	± 1.5
Mounting hole distance (A2)	58.1	mm	± 1.5
Width (B1)	31	mm	± 1
Width (B2)	33.8	mm	± 1
Height (C1)	44.4	mm	± 1
Height (C2)	13.9	mm	± 0.5
Mounting hole diameter (D1)	27.3	mm	± 0.5
Mounting hole diameter (D2)	24.4	mm	± 0.5
Weight	120	gram	
Housing color	Grey (RAL 7035)		



## Logistical data

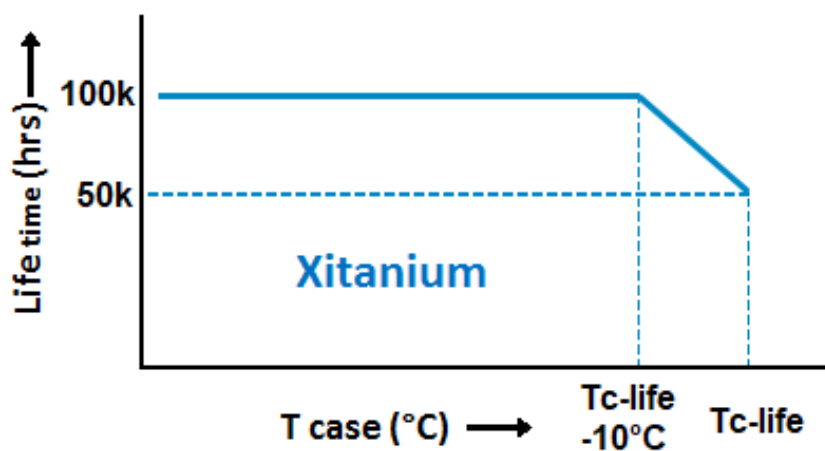
Specification item	Value
Product name	Xitanium 20W/a 0.35/0.5A 40V 3CG 230V
EOC	694793916549000
Logistic code 12NC	9290 014 76506
EAN1 (GTIN)	6947939165490
EAN3 (box)	6947939165506
Pieces per box	20

## Operational temperatures and humidity

Specification item	Value	Unit	Condition
Ambient temperature	-20...+35	°C	Higher ambient temperature allowed as long as T <sub>case</sub> -max is not exceeded
T <sub>case</sub> -max	85	°C	Maximum temperature measured at T <sub>case</sub> -point
T <sub>case</sub> -life	85	°C	Measured at T <sub>case</sub> -point
Maximum housing temperature	130	°C	In case of a failure, inherent by design
Relative humidity	10...90	%	Non-condensing

## Lifetime

Specification item	Value	Unit	Condition
Driver lifetime	50,000	hours	Measured temperature at Tcase-point is Tcase-life. Maximum failures = 10%
Mains switching cycles	> 3	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)	Manual	350 mA	Select the output current by wiring the right connector port (LED-)

## 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	II		per IEC60598

## Inrush current

Specification item	Value	Unit	Condition
Inrush current	12	A	Input voltage 230V
Inrush peak width	200	μs	Input voltage 230 V, measured at 50% height
Drivers / MCB 16A type B	≤ 40	pcs	Indicative value



Please refer to the driver design in guide if you use other MCB-types.

## Driver touch current / protective conductor current

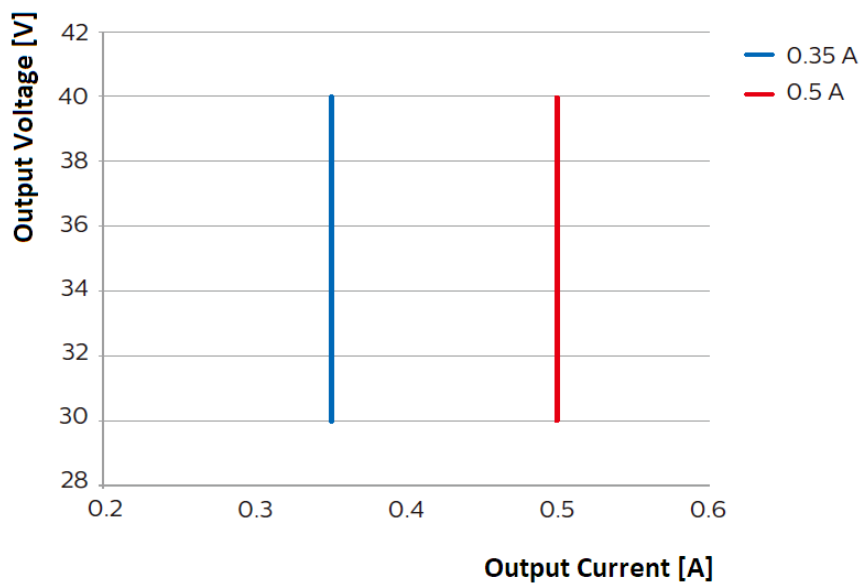
Specification item	Value	Unit	Condition
Typical Touch Current (ins. Class II)	0.7	mA peak	Acc. IEC61347-1. LED module contribution not included

## Surge immunity

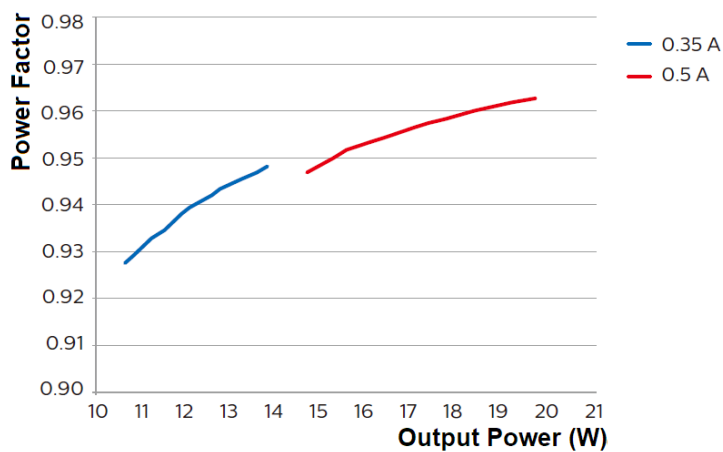
Specification item	Value	Unit	Condition
Mains surge immunity (diff. mode)	1	kV	Acc. IEC61000-4-5. 2 Ohm, 1.2/50us, 8/20us
Mains surge immunity (comm. mode)	2	kV	Acc. IEC61000-4-5. 12 Ohm, 1.2/50us, 8/20us

## Application Info

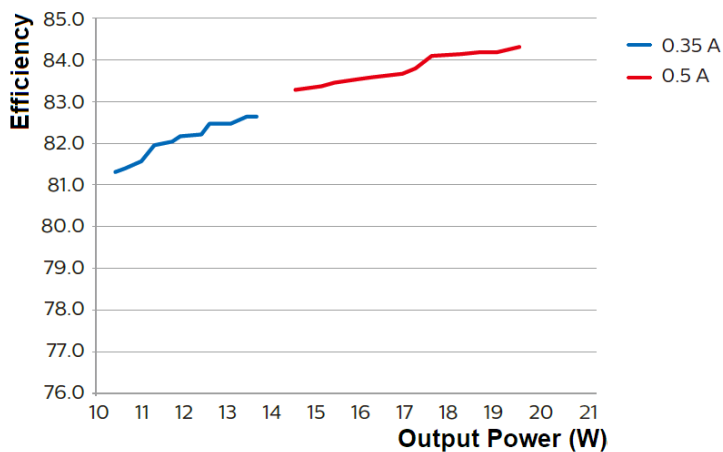
Specification item	Value
Approval marks	CE / CQC / ENEC / RCM / SELV
Ingress Protection classification (IP)	20
Application	Indoor Point
Mounting Type	Track mounting



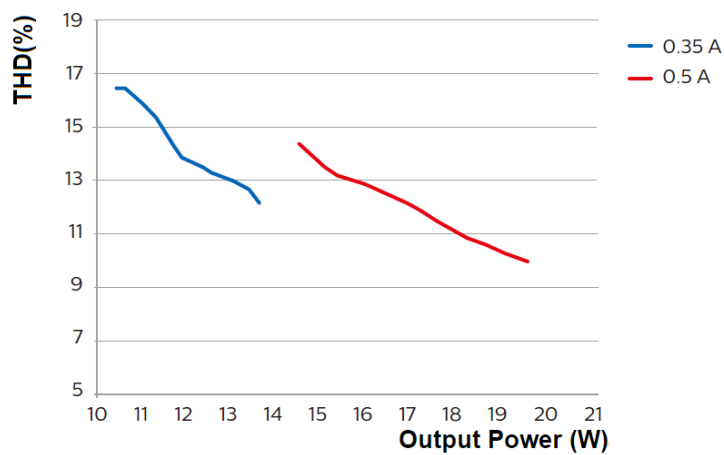
#### Power factor versus output power



#### Efficiency versus output power



## THD versus output power



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