PHILIPS

Xitanium

LED driver

Datasheet

Xitanium track adaptor drivers

Xitanium 30W/a 0.6/0.75A 40V 3CB 230V

9290 021 03706

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	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	0.16	A	@ rated output power @ rated input voltage
Max. input current	0.19	A	@ rated output power @ minimum performance input voltage
Rated input power	37	W	@ rated output power @ rated input voltage
Power factor	0.97		@ rated output power @ rated input voltage
Total harmonic distortion	10	%	@ rated output power @ rated input voltage
Efficiency	85	%	@ rated output power @ rated input voltage
Input voltage AC range	198…264	V_{ac}	Operational range
Input frequency AC range	45…66	Hz	Operational range
Isolation input to output	SELV		

Electrical output data

Specification item	Value	Unit	Condition
Regulation method	Constant Current		
Output voltage	30…40	V_{dc}	
Output voltage max.	60	V	Peak voltage at open load
Output current	0.6 / 0.75	A	Manually selectable: 600 or 750mA
Output current tolerance	± 8	%	
Output current ripple LF	≤ 3	%	Ripple = peak / average
Output current ripple HF	≤ 15	%	
Output power	18…30	W	600mA: 18…24W; 750mA: 22.5…30W

Electrical data controls input

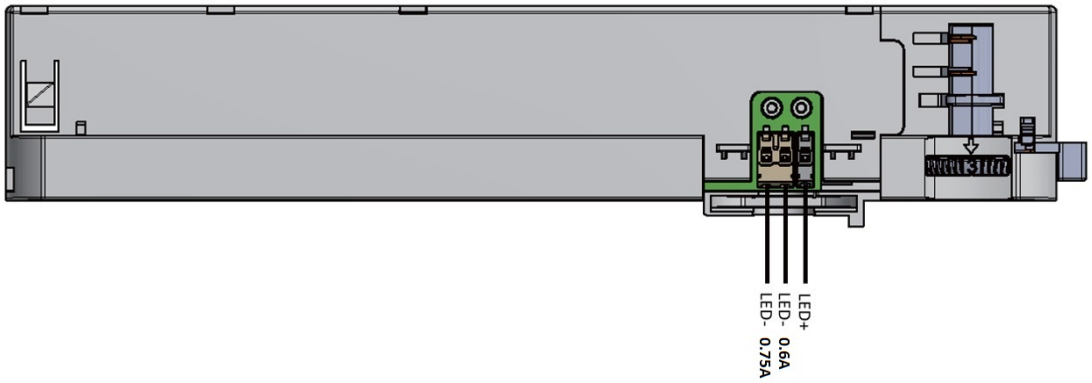
Specification item	Value	Unit	Condition
Control method	Fixed		

Logistical data

Specification item	Value
Product name	Xitanium 30W/a 0.6/0.75A 40V 3CB 230V
Logistic code 12NC	9290 021 03706
Pieces per box	40

Wiring & Connections

Specification item	Value	Unit	Condition
Output wire cross-section	0.2…0.75	mm^2	Molex 104188, solid wire
	18…24	AWG	Molex 104188, solid wire
	0.45…0.75	mm^2	Molex 104188, stranded wire
	20…22	AWG	Molex 104188, stranded wire
Output wire strip length	7.5…8.5	mm	
Maximum cable length	300	mm	Total length of wiring including LED module, one way

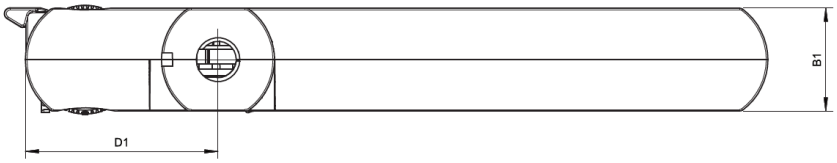


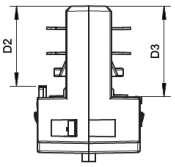
Insulation

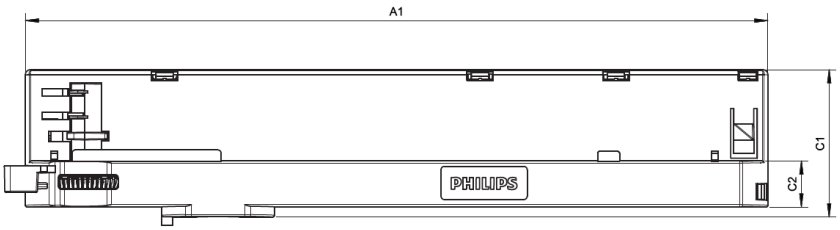
Insulation	Mains	LED
Mains		SELV
LED	SELV	

Dimensions and weight

Specification item	Value	Unit	Condition
Length (A1)	224	mm	
Width (B1)	31	mm	
Height (C1)	44.4	mm	
Height (C2)	13.9	mm	
Weight	155	gram	







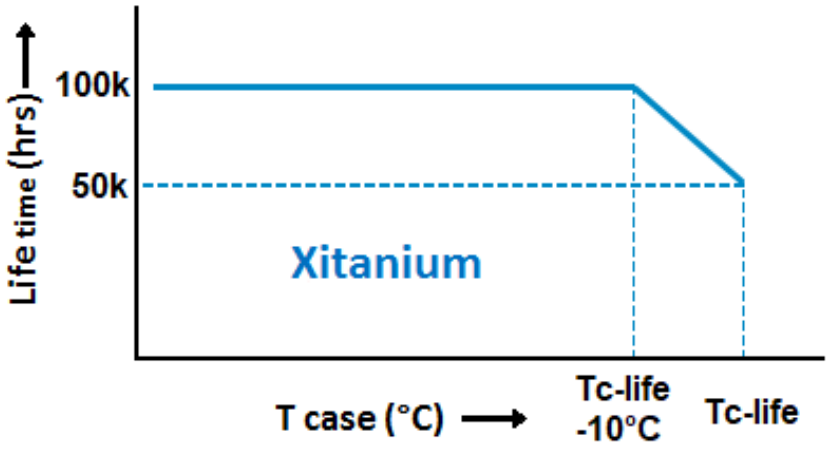
Data Sheet	
Item	Dimension
A1	224 -/+1.5 mm
B1	31 -/+1.0 mm
C1	44.4 -/+1.0 mm
C2	13.9 -/+0.5 mm
D1	58.1 -/+1.5 mm
D2	24.2 -/+0.5 mm
D3	27.3 -/+0.5 mm

Operational temperatures and humidity

Specification item	Value	Unit	Condition
Ambient temperature	-20…+35	°C	Higher ambient temperature allowed as long as Tcase-max is not exceeded.
Tcase-max	85	°C	Maximum temperature measured at T_{case}-point
Tcase-life	75	°C	Measured at T_{case}-point
Maximum housing temperature	130	°C	In case of a failure
Relative humidity	10…90	%	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%



Storage temperature and humidity

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

Programmable features

Specification item	Value	Remark	Condition
Set output current (AOC)	Manual		Manually selectable: 600 or 750mA

Features

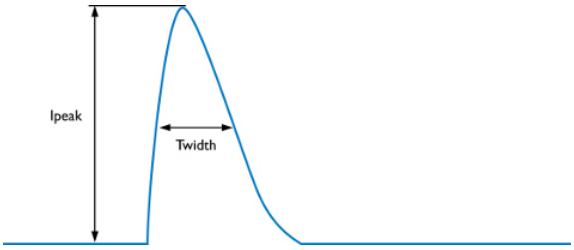
Specification item	Value	Remark	Condition
Open load protection	Yes		Automatic recovering
Short circuit protection	Yes		Automatic recovering
Over power protection	Yes		Automatic recovering
Hot wiring	No		
Suitable for fixtures with protection class	II		per IEC60598

Certificates and standards

Specification item	Value
Approval marks	CB / CE / CQC / ENEC / RCM / SELV
Ingress Protection classification (IP)	20

Inrush current

Specification item	Value	Unit	Condition
Inrush current I_{peak}	20	A	Input voltage 230V
Inrush current T_{width}	240	µs	Input voltage 230V, measured at 50% I_{peak}
Drivers / MCB 16A type B	≤ 28	pcs	Indicative value



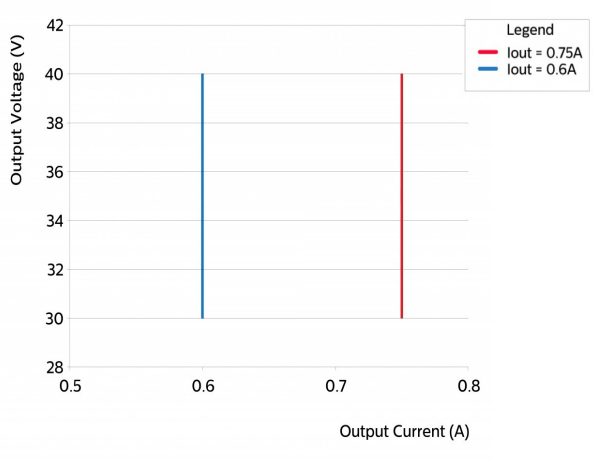
MCB	Rating	Relative number of LED drivers
B	4A	25%
B	6A	40%
B	10A	63%
B	13A	81%
B	16A	100% (stated in datasheet)
B	20A	125%
B	25A	156%
B	32A	200%
B	40A	250%
C	4A	42%
C	6A	63%
C	10A	104%
C	13A	135%
C	16A	170%
C	20A	208%
C	25A	260%
C	32A	340%
C	40A	415%

Surge immunity

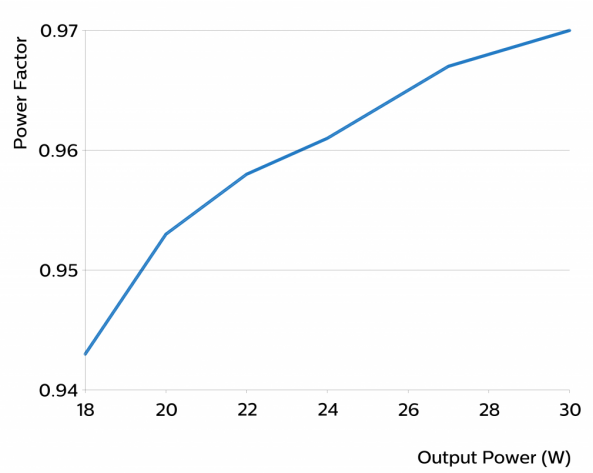
Specification item	Value	Unit	Condition
Mains surge immunity (diff. mode)	1	kV	Acc. IEC61000-4-5. 2 Ohm, 1.2/50us, 8/20us

Graphs

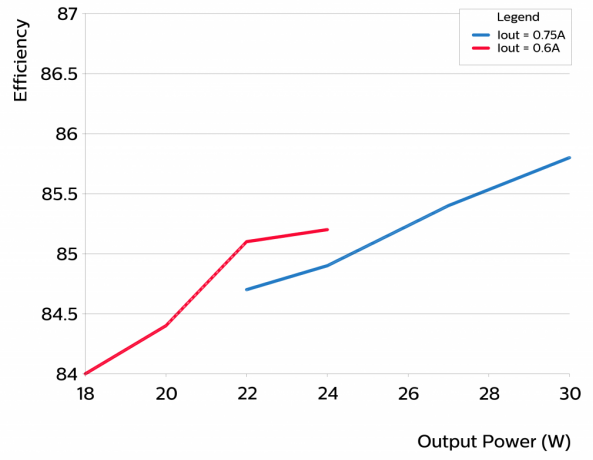
Operating window



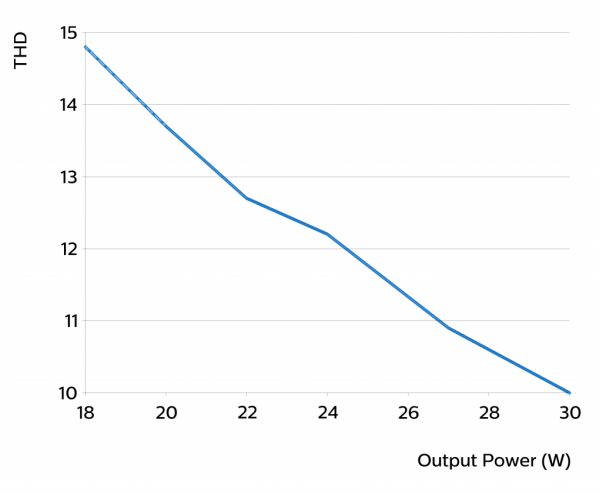
Power factor versus output power



Efficiency versus output power



THD versus output power



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