

PHILIPS

Xitanium

LED driver



Datasheet

Xitanium track adaptor drivers (3C)

Xi 14W/a 0.2-0.35A 40V DS 3CW 230V

Xi 14W/a 0.2-0.35A 40V DS 3CB 230V

Xi 14W/a 0.2-0.35A 40V DS 3CG 230V

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 four-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	0.09	A	@ rated output power @ rated input voltage
Rated input power	16.9	W	@ rated output power @ rated input voltage
Power factor	0.9		See graph "Power factor versus. Output power"
Total harmonic distortion	20	%	See graph "THD vs. output power"
Efficiency	85	%	@ rated output power @ rated input voltage @max. U _{out}
Input voltage AC range	202...254	V _{ac}	Safety operational range
Input frequency AC range	47.5...63	Hz	Safety operational range
Isolation input to output	SELV		

Electrical output data

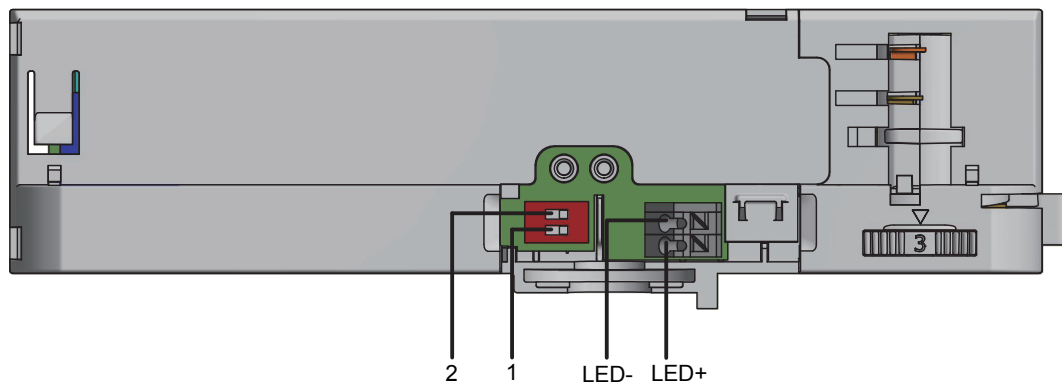
Specification item	Value	Unit	Condition
Regulation method	Constant Current		
Output voltage	30...40	V _{dc}	
Output voltage max.	60	V	Maximum output voltage (rms)
Output current	0.2/0.25/0.3/0.35	A	
Output current tolerance ±	8	%	
Output current ripple LF	≤ 3	%	Ripple = peak / average, < 3kHz
Output current ripple HF	≤ 15	%	
Output P _{st} ^{LM}	≤ 0.07		In entire operating window
Output SVM	≤ 0.07		In entire operating window
Output power	6...14	W	

Electrical data controls input

Specification item	Value	Unit	Condition
Control method			Set output current via DipSwitch

Wiring and Connections

Specification item	Value	Unit	Type
Output wire cross-section	0.5...1.5 / 20...16	mm ² / AWG	Type 250, solid / stranded wire
Output wire strip length	7.5...8.5	mm	
Maximum cable length	0.3	m	Total length of wiring including LED module, one way



Output selection

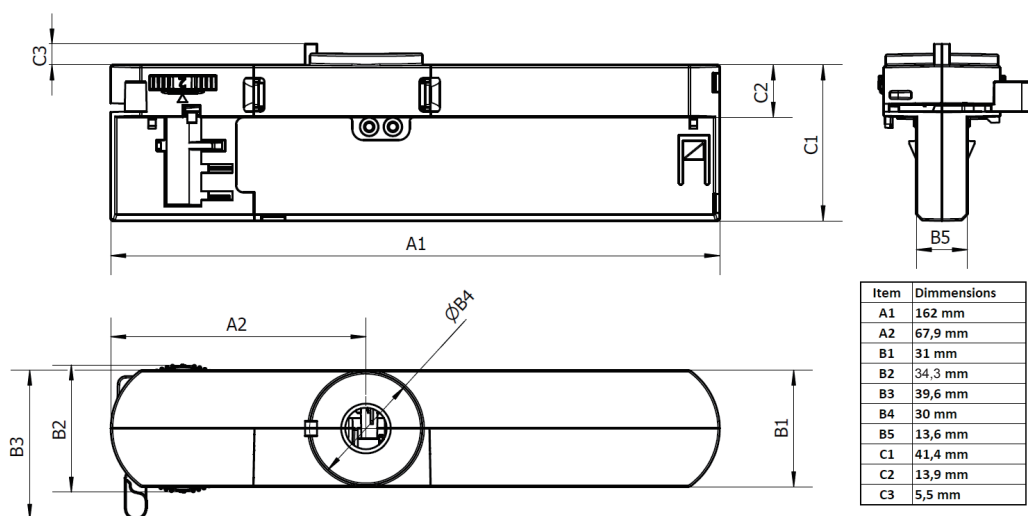
Output	Pin1	Pin2
0.20A	ON	ON
0.25A	ON	OFF
0.30A	OFF	ON
0.35A	OFF	OFF

Insulation

Insulation per IEC61347-1	Input	Output
Input		SELV
Output	SELV	

Dimensions and weight

Specification item	Value	Unit	Tolerance (mm)
Length (A1)	162	mm	± 1.5
Mounting hole distance (A2)	67.9	mm	± 1.5
Width (B1)	31	mm	± 1.0
Width (B2)	34.3	mm	± 1.0
Height (C1)	41.4	mm	± 1.0
Height (C2)	13.9	mm	± 0.5
Weight	130	gram	



Logistical data

Specification item	Value
Product name	Xi 14W/a 0.2-0.35A 40V DS 3CW 230V
Logistic code 12NC	9290 028 49280
Pieces per box	40

Specification item	Value
Product name	Xi 14W/a 0.2-0.35A 40V DS 3CB 230V
Logistic code 12NC	9290 028 49380
Pieces per box	40

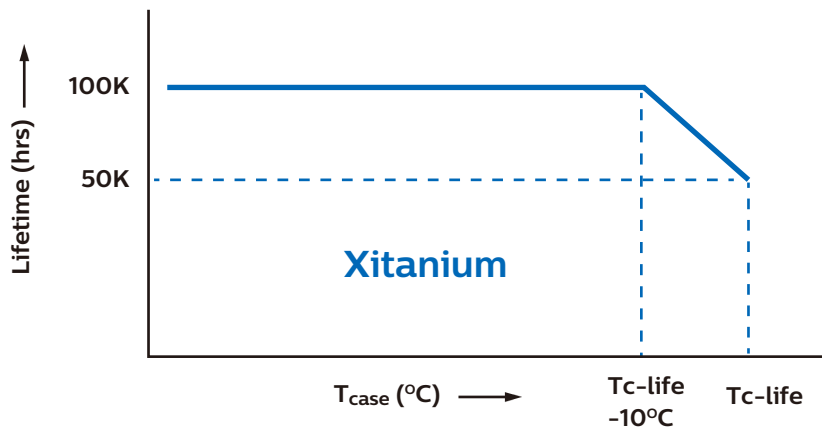
Specification item	Value
Product name	Xi 14W/a 0.2-0.35A 40V DS 3CG 230V
Logistic code 12NC	9290 028 49480
Pieces per box	40

Operational temperatures and humidity

Specification item	Value	Unit	Condition
Ambient temperature	-20...+35	°C	Higher ambient temperature allowed as long as T _{case} -max is not exceeded
T _{case} -max	85	°C	Maximum temperature measured at T _{case} -point
T _{case} -life	85	°C	Measured at T _{case} -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 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

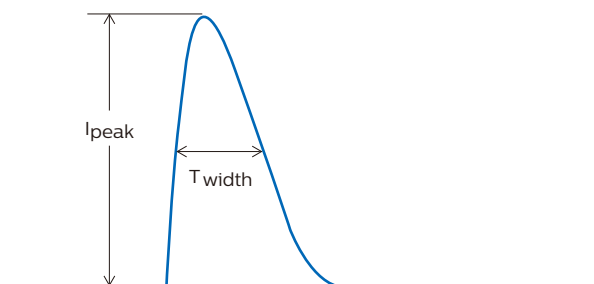
Specification item	Available	Default setting	Condition
Set Adjustable Output Current (AOC)	dipswitch	350 mA	

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	I		per IEC60598

Inrush current

Specification item	Value	Unit	Condition
Inrush current I_{peak}	8.75	A	Input voltage V
Inrush current T_{width}	190	μs	Input voltage V, measured at 50% I_{peak}
Drivers / MCB 16A type B	≤ 49	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 Touch Current (ins. Class II)	0.7	mA peak	Acc. IEC61347-1. LED module contribution not included

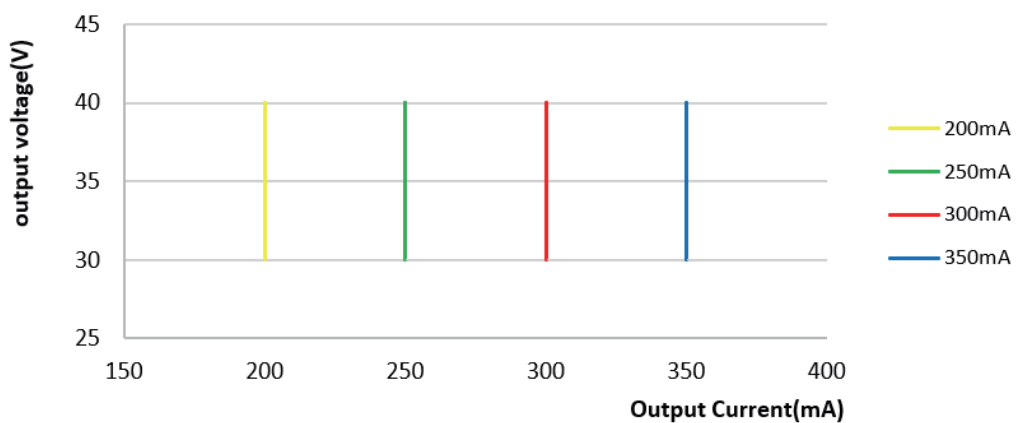
Surge immunity

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

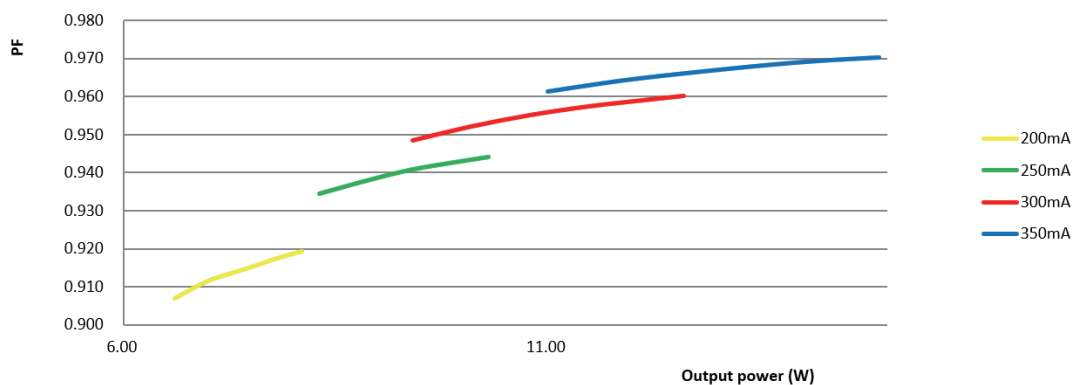
Application Info

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

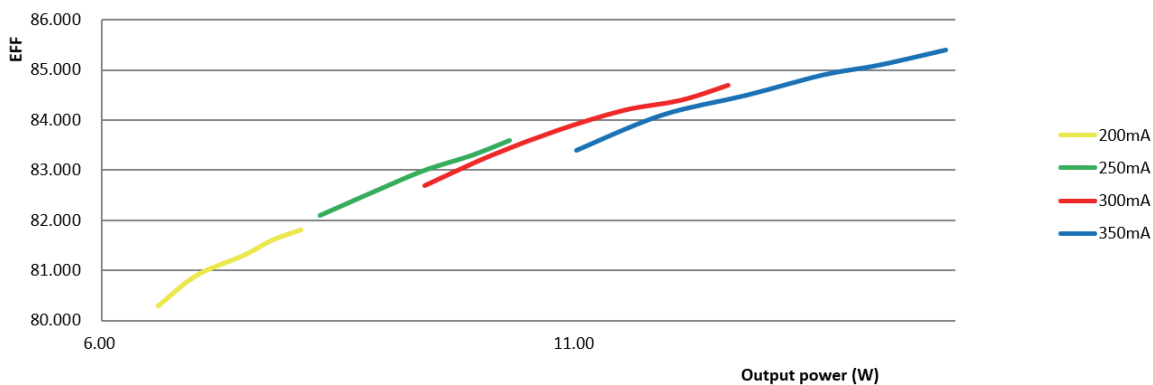
Operating window



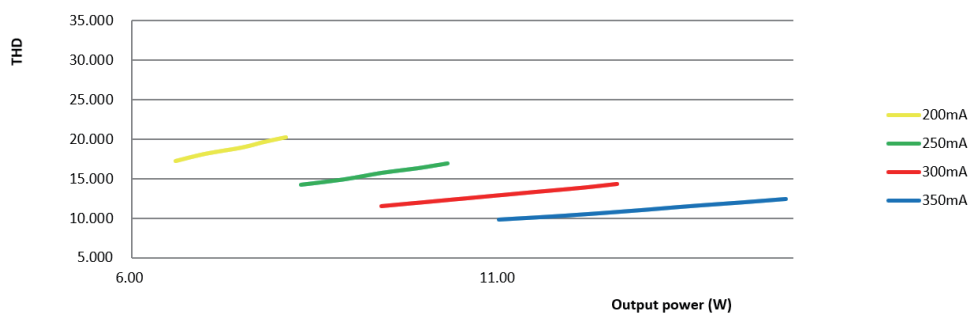
Power factor versus output power



Efficiency versus output power



THD versus output power



Notes

The adapter is compatible with Global Trac Pro, Stucchi OneTrack 3 Circuit tracks.



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