

**PHILIPS**

**Xitanium**

**LED driver**



## Xitanium FULL Prog LED Xtreme drivers

Xi FP 150W 0.3-1.05A SDAE 230V F sXt

### Xitanium FULL Prog LED Xtreme drivers

Philips Xitanium Full Programmable LED drivers are specifically designed to deliver the highest performance, protection and configurability. The portfolio offers both central and standalone dimming protocols further increasing the energy savings and CO<sub>2</sub> reductions achieved with LED lighting. The Xtreme technology ensures maximum robustness and protection combined with a very long lifetime.

In this product family Philips introduces new drivers in a compact form factor with state-of-the-art features, which offer high value for end-users. The products can replace the existing programmable outdoor LED drivers and will bring significant improvement in programming, assembly into a luminaire and electrical performance.

#### Benefits

- Ultimate robustness, offering peace of mind and lower maintenance costs
- Fully programmable LED-drivers designed for the new digital and connected lighting world
- Extended diagnostics via MultiOne
- Easy to design-in, configure and install for insulation Class I applications
- Energy savings through high efficiency and via multiple dimming options

#### Features

- Long lifetime and robust protection against moisture, vibration and temperature
- Configurable operating windows (AOC)
- Multiple control interfaces: DALI, AmpDim
- Autonomous dimming via integrated DynaDimmer
- Constant Light Output (CLO)
- Adjustable Start-up Time (AST)
- Adjustable Light Output (ALO)
- End-Of-Life indicator (EOL)

#### Application

- Road and street lighting
- Area lighting
- Tunnel lighting
- Industrial lighting

## Electrical input data

Specification item	Value	Unit	Condition
Rated input voltage range	202...254	V <sub>ac</sub>	Performance range
Rated input voltage	230	V <sub>ac</sub>	
Rated input frequency range	47...63	Hz	Performance range
Rated input current	0.7	A	@ rated output power @ rated input voltage
Max. input current	0.8	A	@ rated output power @ minimum performance input voltage
Rated input power	162	W	@ rated output power @ rated input voltage
Power factor	0.99		@ rated output power @ rated input voltage
Total harmonic distortion	7	%	@ rated output power @ rated input voltage
Efficiency	92.5	%	@ rated output power @ rated input voltage
Rated input voltage DC range	186...250	V <sub>dc</sub>	Performance range
Rated input current DC range	≤ 0.6	A <sub>dc</sub>	Performance range
Input voltage AC range	80...264	V <sub>ac</sub>	Safety operational range, see MainsGuard graph
Input frequency AC range	45...66	Hz	Safety operational range
Input voltage DC range	168...275	V <sub>dc</sub>	Safety operational range
Standby Power	0.5	W	
Isolation input to output	Basic		

## Electrical output data

Specification item	Value	Unit	Condition
Regulation method	Constant Current		
Output voltage	70...214	V <sub>dc</sub>	
Output voltage max.	260	V	Maximum voltage at open load
Output current	0.07...1.05	A	
Output current min programmable	300	mA	
Output current min dimming	70	mA	
Output current tolerance	± 5	%	
Output current ripple LF	≤ 4	%	Ripple = peak / average @ < 1kHz
Output current ripple HF	≤ 4	%	
Output power	4.5...150	W	

## Electrical data controls input

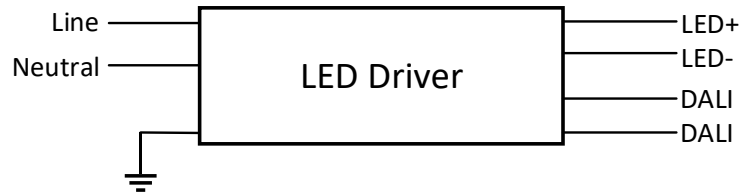
Specification item	Value	Unit	Condition
Control method	AmpDim, DALI, Dynadimmer		Output current amplitude dimming
Dimming range	10...100	%	DALI acc. IEC62386-101, -102 Ed. 2.0
Galvanic Isolation	Basic		

## Logistical data

Specification item	Value
Product name	Xi FP 150W 0.3-1.05A SDAE 230V F sXt
Logistic code 12NC	9290 021 64606
Pieces per box	10

## Wiring & Connections

	Wire Length (mm)
Black (Line)	270 (± 30)
White (Neutral)	270 (± 30)
Red (Positive, LED+ output)	270 (± 30)
Blue (Negative, LED- output)	270 (± 30)
Violet (DALI)	270 (± 30)
Violet/White (DALI)	270 (± 30)

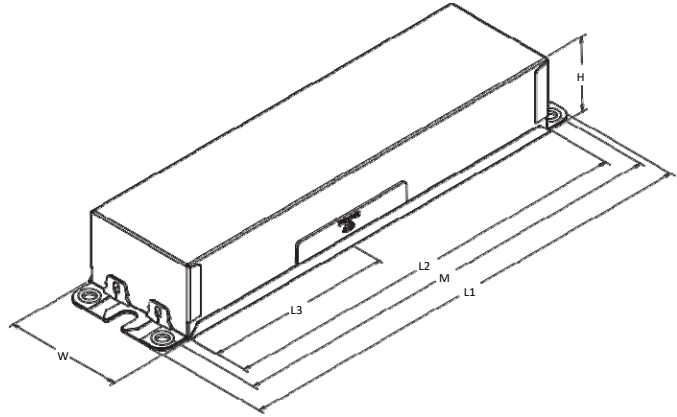


## Insulation

Insulation	Mains	Earth	LED	DALI
<b>Mains</b>		Basic	Basic	Basic
<b>Earth</b>	Basic		Basic	Basic
<b>LED</b>	Basic	Basic		Basic
<b>DALI</b>	Basic	Basic	Basic	

## Dimensions and weight

	mm	Tolerance
Case Length (L2)	211.0	± 0.5mm
Case Width (W)	58.0	± 0.5mm
Case Height (H)	37.6	± 1.0mm
Mounting Length (M)	226.2	± 0.5mm
Overall Length (L1)	240.0	± 1.0mm
Center of SimpleSet Antenna (L3)	95.3	± 1.0mm



## Operational temperatures and humidity

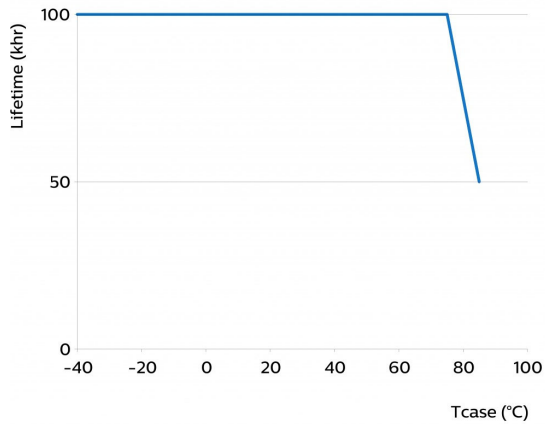
Specification item	Value	Unit	Condition
Ambient temperature	-40...+55	°C	Higher ambient temperature allowed as long as T <sub>case-max</sub> is not exceeded.
T <sub>case-max</sub>	85	°C	Maximum temperature measured at T <sub>case-point</sub>
T <sub>case-life</sub>	75	°C	Measured at T <sub>case-point</sub>
Maximum housing temperature	130	°C	In case of a failure
Relative humidity	10...95	%	Non-condensing

## Storage temperature and humidity

Specification item	Value	Unit	Condition
Ambient temperature	-40...+85	°C	
Relative humidity	5...95	%	Non-condensing

## Lifetime

Specification item	Value	Unit	Condition
Driver lifetime	100,000	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)	Programmable, SimpleSet	See Design-in guide.	Default output current: = 700 mA
Constant Lumen Over Lifetime (CLO)	Yes		
DC emergency dimming (DCemDIM)	Yes		Default AOC: 15%. EOF(x) range: 10 ... 60%. No external DC rated fuse required
Diagnostics	Yes		
Adjustable Light Output (ALO)	Yes		
Ampdim	Yes		
Adjustable Start-up Time (AST)	Yes		
Integrated Dynadimmer	Yes		5-step, light turn-off possible
End Of Life indicator	Yes		

## Features

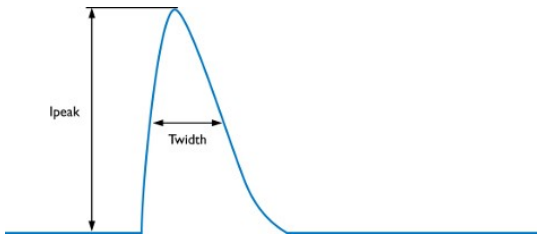
Specification item	Value	Remark	Condition
Open load protection	Yes		Automatic recovering
Short circuit protection	Yes		Automatic recovering
Over power protection	Yes		Automatic recovering
Hot wiring	No		
Suitable for fixtures with protection class	I		per IEC60598
Over temperature protection driver	Yes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

## Certificates and standards

Specification item	Value
Approval marks	CB / CCC / CE / EL / ENEC / RCM / TISI
Ingress Protection classification (IP)	20

## Inrush current

Specification item	Value	Unit	Condition
Inrush current $I_{peak}$	53	A	Input voltage 230V
Inrush current $T_{width}$	300	$\mu$ s	Input voltage 230V, measured at 50% $I_{peak}$
Drivers / MCB 16A type B	$\leq 8$	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)	0.21	mA rms	Acc. IEC61347-1. LED module contribution not included

## Surge immunity

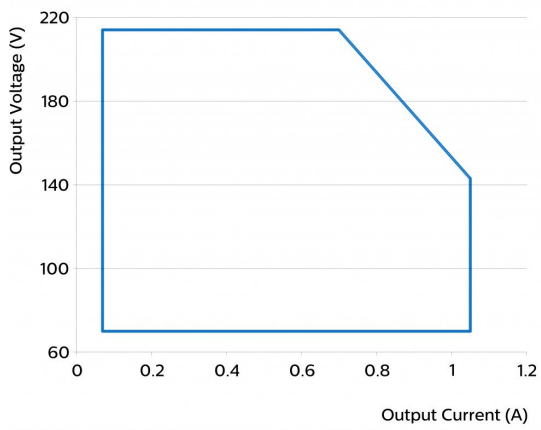
Specification item	Value	Unit	Condition
Mains surge immunity (diff. mode)	4	kV	L-N acc. IEC61000-4-5. 2 Ohm, 1.2/50us, 8/20us
Mains surge immunity (comm. mode)	4	kV	L/N - Earth acc. IEC61000-4-5. 12 Ohm, 1.2/50us, 8/20us
Control surge immunity (diff. mode)	0.9	kV	DALI - DALI acc. IEC61000-4-5. 2 Ohm, 1.2/50us, 8/20us
Control surge immunity (comm. mode)	4	kV	DALI - Earth acc. IEC61000-4-5. 12 Ohm, 1.2/50us, 8/20us
DALI surge immunity (comm. mode)	4	kV	DALI - L/N acc. IEC61000-4-5. 12 Ohm, 1.2/50us, 8/20us

## Additional information

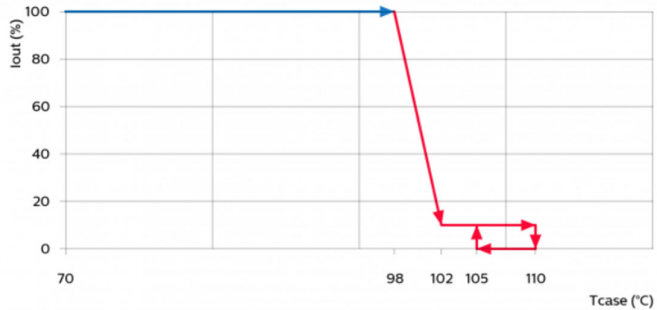
Specification item	Default setting	Remark	Condition
AOC	700	mA	
CLO	OFF		
Dynadimmer	OFF		
EOL	OFF		

## Graphs

### Operating window

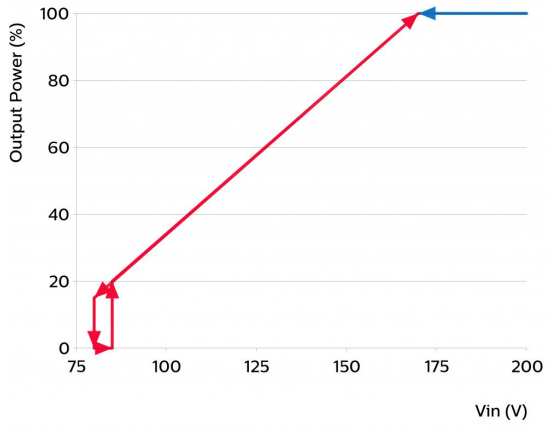


### Thermal Guard



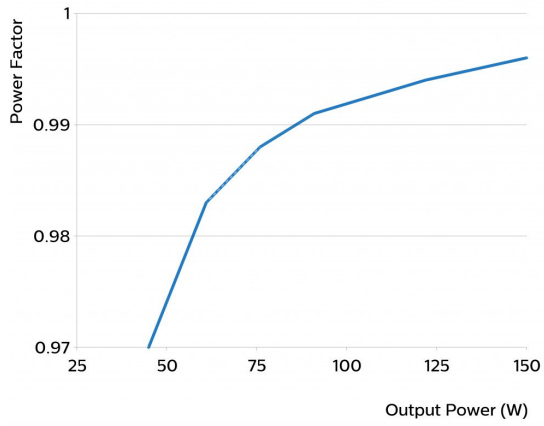
## Mains Guard

---



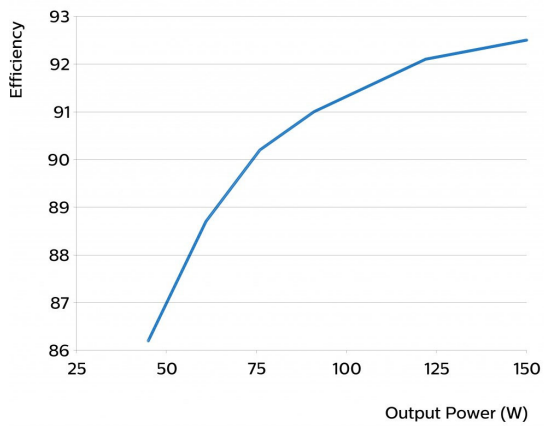
## Power factor versus output power

---



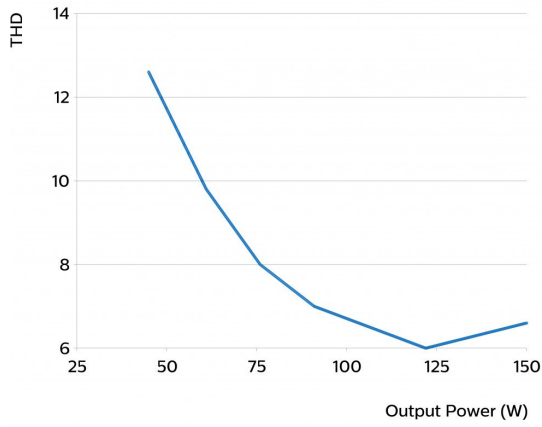
## Efficiency versus output power

---



## THD versus output power

---



©2026 Signify Holding, IBRS 10461, 5600 VB, NL. All rights reserved.

The information provided herein is subject to change without notice. Signify does not give any representation or warranty as to the accuracy or completeness of the information included herein and shall not be liable for any action in reliance thereon. The information presented in this document is not intended as any commercial offer and does not form part of any quotation or contract, unless otherwise agreed by Signify.

Philips and the Philips Shield Emblem are registered trademarks of Koninklijke Philips N.V. All other trademarks are owned by Signify Holding or their respective owners.

Date of release: March 19, 2026 v3\_dds