



# High power LED outdoor applications

**Philips Xitanium LED driver 150W range**  
designed for consistent performance and high reliability

## Connect a large number of LEDs

With the Xitanium LED driver 150W range, you can connect a large number of LEDs without Vf binning problems. The drivers are available in DC current of 350mA and 700mA. Connect up to 97 LEDs with 350mA or 45 LEDs with 700mA.

## Uniformly lit luminaires

With Xitanium LED drivers high output, you can connect all LEDs in series, thus avoid issues in parallel connection caused by LED forward voltage variations. The high output voltage provides 94% efficiency, which compares favorably to the industry average of 85%. This feature enables a reduction of energy consumption by 10%.

## Highly reliable

The universal mains voltage input (120-277V) makes the drivers suitable for worldwide use (excluding Japan). The line regulation +/- 1% over the input voltage prevents mains fluctuations from affecting light output. The load regulation of +/- 1% from load to full load, allows you to guarantee the full lifetime of your LEDs.

You can expect a lifetime of 50,000 hours at Tcase 70 degrees C and Tambient 40 degrees C. There is an extremely low failure rate, 0.5% at 50,000 hours.

## Safety

- Automatic overheating protection if the current output Tcase > 85 degrees C.
- Overload and no-load protection
- Isolated output and short circuit protection
- Surge protection 2KV

## Applications

- Architectural indoor and outdoor
- Urban areas
- Parking facilities
- Parks
- Tunnels
- Floodlighting

## Compliances and approvals

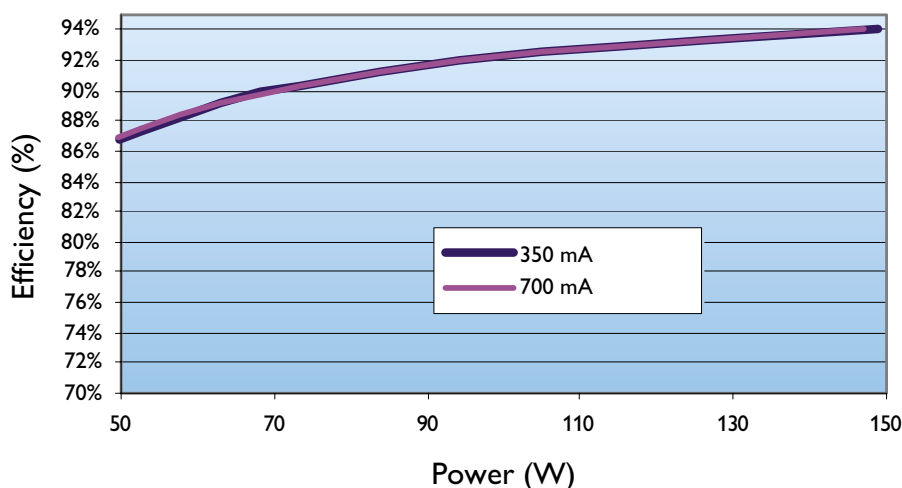
UL  
CE

**PHILIPS**  
sense and simplicity

## Technical specifications

Xitanium Outdoor driver 150W				
		350mA 425V	700mA 210V	
Nominal Input	Voltage	120 ~ 277 (±10%)	120 ~ 277 (±10%)	
	Current	1.4A max at 120V	1.4A max at 120V	
	Power	167W max (at full load)	167W max (at full load)	
	Power Factor	>0.9 (at full load)	>0.9 (at full load)	
	Frequency	50 / 60 Hz	50 / 60 Hz	
	THD	<20% (at full load)	At 120V and Vo>85V: <10%; at 230V: <15%; at 277V: <20%	
	Terminal	2x 8-inch (+2,-1) 18AWG Solid Wires (strip length: 12.7mm, ±1.5mm)	2x 8-inch (+2,-1) 18AWG Solid Wires (strip length:12.7mm, ±1.5mm)	
Nominal Output	Current	0.35 Amp. DC (±5%)	0.70 Amp. DC (±5%)	
	Voltage	120 ~425 V DC	60 ~210 V DC	
	Power	150W max	147W max	
	Terminal	2x 8-inch (+2,-1) 22AWG Solid with Molex #16020086	2x 8-inch (+2,-1) 22AWG Solid with Molex #16020086	
Efficiency		Typically 90%	Greater than 90% at full load	
Line Regulation		±1% over input Voltage	±1% over input Voltage	
Load Regulation		±1% from no load to full load	±1% from no load to full load	
Output Ripple		10% max	10% max	
Output Isolation		Yes	Yes	
Temperature:	Case	-40°C ~ +80°C	-40°C ~ +80°C	
Protection:	Short Circuit	self-limited	self-limited	
	Overload	Protected.	Protected.	
	No-Load	Protected.	Protected.	
	Overheat	Protected, Output current is reduced down-to 150mA as Tcase exceeds 85°C	Protected, Output current is reduced down-to 300mA as Tcase exceeds 85°C	
Fusing	Primary	Fused	Fused	
	Secondary	None required	None required	
Earth connection		Via metallic case	Via metallic case	
Safety		UL879, UL1012, UL935, IEC61347-2-2, EN61558-1, EN61558-2-17, EN60065 (cRUs, CE)	UL879, UL1012, UL935, IEC61347-2-2, IEC61347-2-13, EN61558-1, EN61558-2-17, EN60065 (cRUs/CE/ENEC), IEC6100-4-5	
Op. Environment		ROHS Compliant	ROHS Compliant	
EMC		FCC 47 Sub Part 15; CISPR15, CISPR22 Class A (120V min), EN61000-3-2, -3-3, -4-4, -4-5.	FCC 47 Sub Part 15; CISPR15, CISPR22 Class A (120Vmin), EN61000-3-2, -3-3, -4-4, -4-5.	
Case Material		Steel. Black color	Steel. Black color	
Packaging		Fully encapsulated potted unit	Fully encapsulated potted unit	
Mounting		2x 5mm holes at each 225mm centers	2x 5mm holes at each 225mm centers	
Weight		635 grams	635 grams	
Dimensions (l x h x w)		245mm x 60mm x 41mm	245mm x 60mm x 41mm	

## Efficiency vs Load



## Product Specifications

Description of LED driver	Input		Output			Case Temp Max
	Rated Voltage [V] ( $\pm 10\%$ )	Max Current [A]	Max Power [W]	Rated Current [mA]	Max Voltage [V]	
150W 350mA 425V	120-277	1.4A (120V)	150W	350	429	80°C
150W 700mA 210V	120-277	1.4A (120V)	150W	700	215	80°C

\* depending on Vf bin

## 150W 350mA 425V Compatibility with LEDs

Type	Vf_min	Vf_typ	Vf_max	Min # of LEDs	Max # of LEDs
Rebel	2.55	3.15	3.99	48	106
K2	2.79	3.42	4.23	44	100
K2_TFFC	2.68	3.30	4.36	45	97
Luxeon III	2.83	3.50	4.27	43	99
Luxeon I	2.79	3.42	3.99	44	106
Cree XR-C	NA	3.5	4	34	106
Cree XR-E	NA	3.3	3.9	36	108

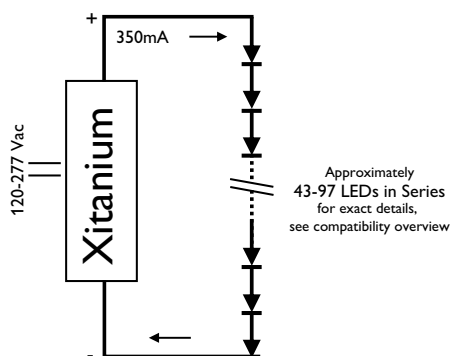
\* depending on Vf bin

## 150W 700mA 210V Compatibility with LEDs

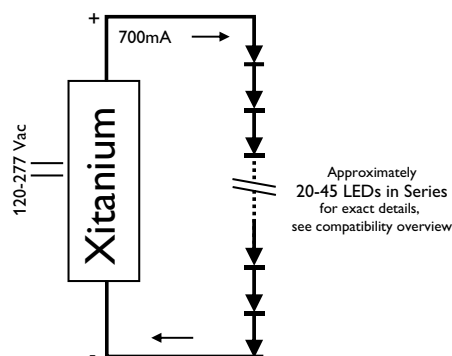
Type	Vf_min	Vf_typ	Vf_max	Min *# of LEDs	Max *# of LEDs
Rebel	2.80	3.40	4.25	22	49
K2	2.93	3.60	4.66	21	45
K2_TFFC	2.88	3.50	4.56	21	46
Luxeon III	3.03	3.70	4.47	20	46
Cree XR-E	NA	3.5	NA	17	60

\* depending on Vf bin

## Wiring Diagram for 150W 350mA 425V



## Wiring Diagram for 150W 700mA 210V



## Ordering info

Type	Carton packaging	12NC	European Order Code (EOC)
Xitanium 150W/350mA-425V	10	913710850002	801330 00
Xitanium 150W/700mA-210V	10	913710859002	809176 00



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