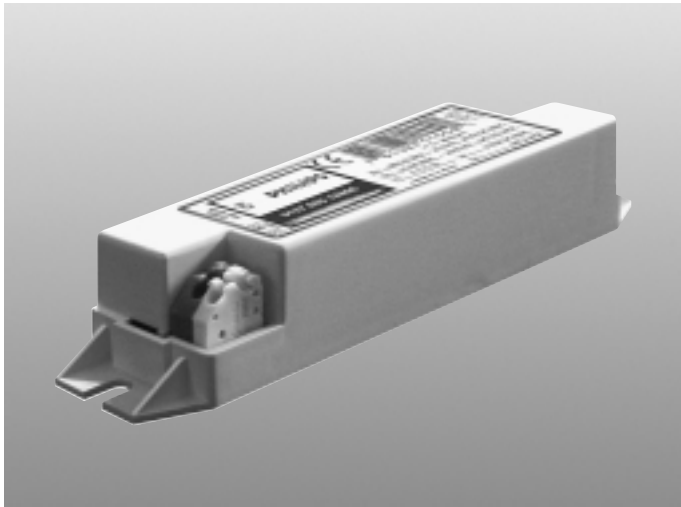


# Xitanium™ LED Power Drivers

## 12W and 17W LED Power Drivers



### Selection Guide

Part Number	Description	12 NC
LED Driver 12W	LED Driver 12W/0.35A - 24V 230V 50Hz	9137 001 81300
LED Driver 17W	LED Driver 17W/0.70A - 24V 230V 50Hz	9137 001 81400

### Electrical Characteristics

#### Input

Parameter	Symbol	17W Driver	12W Driver	Units
Input Voltage Range	$V_{in}$	207 – 253	207 – 253	V
Frequency	f	50	50	Hz
Power Consumption Range	$P_{in}$	6.8 – 21.5	1.1 – 15.0	W
Efficiency	–	80% typical	80% typical	%

#### Output

Parameter	Symbol	17W Driver	12W Driver	Units
Power Output Range	$P_o$	5.5 – 17.2	0.9 – 12.0	W
Output Current	$I_o$	700 ( $\pm 35$ )	350 ( $\pm 17$ )	mA
Total Harmonic Distortion	THD	20 Maximum	20 Maximum	%
Power Factor	$P_f$	0.9 Minimum	0.9 Minimum	–
Crest Factor LED Current	$I_{pk/avg}$	1.5 Maximum	1.5 Maximum	–
Output Voltage Range	$V_o$	7.8 – 24.6	2.6 – 32.8	V

#### Notes:

1. Electrical characteristics at 25°C ambient temperature.
2. Output insulation 3.25KV 60 Hz.
- EN 55015, CISPR15 EMI.

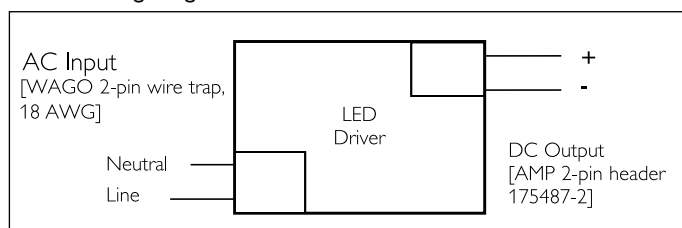
### Environmental Ratings

Parameter	Symbol	Minimum	Maximum	Units
Operating Ambient Temperature	$T_{op}$	-40/-40	+60/+140	°C/°F
Storage Ambient Temperature	$T_{st}$	-40/-40	+80/+176	°C/°F
Case Temperature	$T_c$	–	+90/+194	°C/°F
Relative Humidity	RH	–	80	%
Lifetime (failures after 50,000 hrs)	$L_{50k}$	–	5	%

#### Notes:

1. Case temperature should be measured at test point  $T_c$ , as marked on driver label.

### Driver Wiring Diagram



### Description

These drivers are included in the Xitanium (illumination) segment of the Xitanium family of products. The 350mA and 700mA Xitanium constant current output Drivers provide the constant DC current output required to enhance the long life and optimum operation of high brightness LEDs. Xitanium Drivers have an operating life matching that of the LEDs.

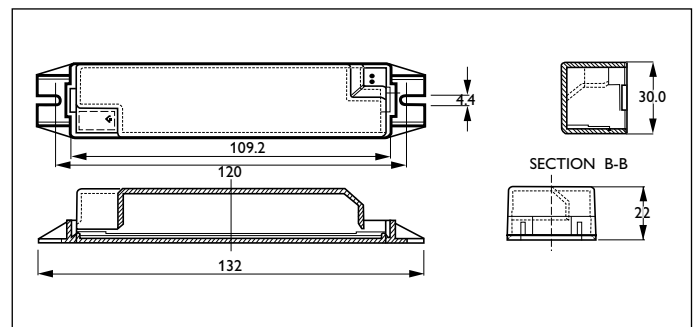
### Features

- Slim housing, small size (132x30x22 mm)
- Meet approbation requirements (CE, ENEC)
- DC constant current output
- Long life (50,000 hrs)
- Power Efficiency
- Compliant with all colours of standard and custom Luxeon™ Power Light Sources

### Benefits

- Light weight.
- Provides freedom (flexibility) to designers.
- Support spatial unobtrusiveness of LEDs.
- Customer pays for the power required and no more (optimised cost of ownership –COO).
- It is a hazard free product; It can be installed in practically any location.
- It can operate any LED lamp design the customer is developing or already marketing.
- No binning of LEDs results in cost savings.
- Drivers last as long as LEDs
- Optimisation of the usage of the total system power; Power losses (up to 40% of total power) saved by this operation mode.

### Mechanical Dimensions



#### Notes:

1. All dimensions are in millimeters.
2. Drawing not to scale.
3. Feature two slots for mounting with M4 or #6 size screws.
4. AC input WAGO 2-pin wire trap, 18AWG. Leads must be solid core or tinned if multi-stranded wire is used.
5. DC output AMP 2-pin header type 175487-2. Use AMP DC/DC connection cable 1496-992-1.
6. Housing material Noryl HS2000, UL 94-V0 flame retardant, colour white.

**ROITHNER LASERTECHNIK**

A-1040 Vienna, Austria

Schönbrunner Straße 7

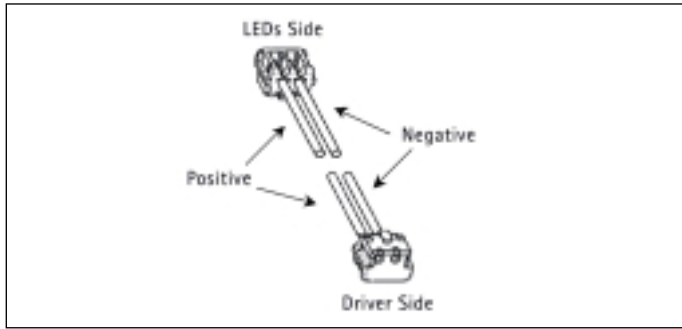
Tel.: +43-1-586 52 43 - 0

Fax.: +43-1-586 52 43 44

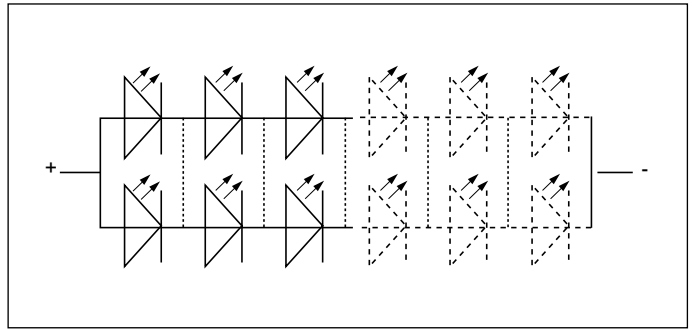
e-mail: [office@roithner-laser.com](mailto:office@roithner-laser.com)

<http://www.roithner-laser.com>

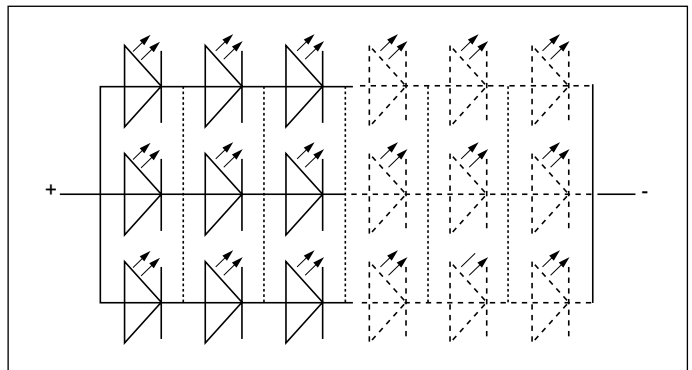
DC/DC Connection Cable



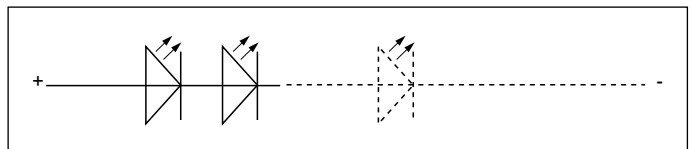
Configuration arrays when using Luxeon™ LEDs with Xitanium™ Drivers:  
With the 700mA Output Current Xitanium™ (17W Driver):



To drive at 350mA/LED: from 3 to 6 LEDs in series; 2 LEDs in parallel. With or without crossovers.

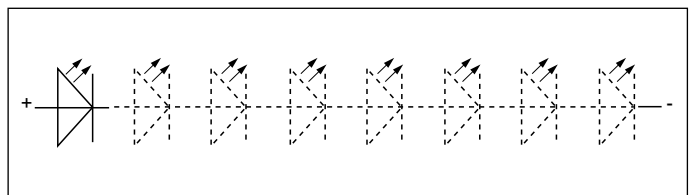


To drive at 233mA/LED: from 3 to 6 LEDs in series; 3 LEDs in parallel. With or without crossovers.



To drive at 700mA/LED: from 2 to 3 LEDs in series.

With the 350mA Output Current Xitanium™ (12W Driver):



To drive at 350mA/LED: from 1 to 8 LEDs in series.

Ordering and packing data

Part Number	1 Piece		Single packing unit							
	EAN-1	Weight	Qty.	Dimensions			Volume gross	Weight	EAN-3	EOC
		kg	pcs	l	w	h	m <sup>3</sup>	kg		
				mm						
LED Driver 12W	8711500 749963	0.06	10	180	140	50	0.01	0.8	8711500 749970	749963 30
LED Driver 17W	8711500 749987	0.06	10	180	140	50	0.01	0.8	8711500 749994	749987 30

10/2002

Data subject to change