XLD200

UL/cUL Listed LED Drivers

Model Selection Key

XLD200-ABBV-FC

- With Trim Pots
- Nominal Output Voltage
- Number of Output Channel(s)
- Series Name

GREAlpha
The LED Driver Expert

Plug-and-Play
Multi Channel 200 Watt LED Driver

The GRE Alpha XLD series is the industry's only UL Listed LED driver. As a standalone unit, this unique patented, conduit-ready, LED power supply will enable complete installation of your system without having to install external junction boxes saving you invaluable time and money in installation and approvals. It's as simple as plug-and play!

Efficient, Reliable and easy to install, the XLD 200 (200 Watt power rating) offers up to 4 channels output and is fully potted and can work in extremely low temperature environments (-40°C-60°C). With User adjustable output voltage and current pots, this universal input 90-305 VAC this versatile model is suitable for a wide range of high powered LED lighting applications.

Features

- The only UL Listed LED Driver on the market, enabling drastically reduced approval times and agency approval costs
- Plug-and-Play Conduit Entry and Wiring Compartments. Eliminates need for external Junction boxes.
- Wide Input Voltage: 90-305 VAC
- User Adjustable Output Voltage/Current High Efficiency: Active PFC
- Extremely Low operating temperature - 40°C -60°C
- SCP, OCP, OTP, OVP
- Remote Dimming Options
- 3 Years Warranty

Applications

- Architectural Lighting
- Effect & Contour Lighting
- Office General Illumination
- Warehouses
- Street Lighting
- Signage
- Strip Lighting
- Swimming Pools/Fountain lighting

GREAlpha
The LED Driver Expert

Model Selection Guide

Single Channel Models	Nominal Vout (V) per Channel	CV mode Voltage POT Adjust Range (V)	CC mode LED Voltage Range(V)	Current POT* Adjust Range (A)	Total Output Current (A)	Over Current Protection Rating (A)	Max Ripple/ Noise (mV pp)	Efficiency	Max Output Power (W)
XLD200-112V-FC	12	8.4 - 12.6	6 - 12	1.67 - 17.5	16.67	19.5	120	88.5%	200
XLD200-124V-FC	24	16.8 - 25.2	12 - 24	0.83 - 8.75	8.33	9.7	240	91%	200
XLD200-148V-FC	48	33.6 - 50.4	24 - 48	0.42 - 4.38	4.17	4.7	480	91%	200
XLD200-170V-FC	70	49 - 73.5	35 - 70	0.29 - 3	2.86	3.1	700	92%	200
XLD200-1105V-FC	105	73.5 - 110.25	52.5 - 105	0.19 - 2	1.9	2.2	1050	92%	200
Dual Channel Models	**Nominal Vout (V) per Channel**	**CV mode Voltage POT Adjust Range (V)**	**CC mode LED Voltage Range(V)**	**Current POT* Adjust Range (A)**	**Total Output Current (A)**	**Class 2 Over Current Protection Rating (A)**	**Max Ripple/ Noise (mV pp)**	**Efficiency**	**Max Output Power (W)**
XLD200-224V-FC	24	16.8 - 25.2	12 - 24	0.83 - 8.75	8.33	5	240	91%	200
XLD200-236V-FC	36	25.2 - 37.8	18 - 36	0.56 - 5.84	5.55	3.4	360	90.5%	200
XLD200-248V-FC	48	33.6 - 50.4	24 - 48	0.42 - 4.38	4.16	2.8	480	91%	200
3 Channel Models	**Nominal Vout (V) per Channel**	**CV mode Voltage POT Adjust Range (V)**	**CC mode LED Voltage Range(V)**	**Current POT* Adjust Range (A)**	**Total Output Current (A)**	**Class 2 Over Current Protection Rating (A)**	**Max Ripple/ Noise (mV pp)**	**Efficiency**	**Max Output Power (W)**
XLD200-315V-FC	15	10.5 - 15.75	7.5 - 15	1.33 - 14	13.33	5	150	90.5%	200
XLD200-324V-FC	24	16.8 - 25.2	12 - 24	0.83 - 8.75	8.33	3.45	240	91%	200
XLD200-330V-FC	30	21 - 31.5	15 - 30	0.67 - 7	6.67	2.75	300	91%	200
XLD200-336V-FC	36	25.2 - 37.8	18 - 36	0.56 - 5.84	5.55	2.45	360	91%	200
XLD200-348V-FC	48	33.6 - 50.4	24 - 48	0.42 - 4.38	4.17	1.85	480	91%	200
4 Channel Models	**Nominal Vout (V) per Channel**	**CV mode Voltage POT Adjust Range (V)**	**CC mode LED Voltage Range(V)**	**Current POT* Adjust Range (A)**	**Total Output Current (A)**	**Class 2 Over Current Protection Rating (A)**	**Max Ripple/ Noise (mV pp)**	**Efficiency**	**Max Output Power (W)**
XLD200-408V-FC	8	5.6 - 8.4	4 - 8	2 - 21	20	5	80	83.5%	160
XLD200-412V-FC	12	8.4 - 12.6	6 - 12	1.67 - 17.5	16.67	4.75	120	88.5%	200

* US Patent: US7154755 B2, China Patent No: 201020223052.2

Packing Infomation

Model	Weight/pc (Kg)	Pcs Per Carton	Kgs Per Carton	Carton Dimensions (LxWxH)
Single Channel	2.5	6	16.8	440x395x240
Dual Channel	2.55	6	16.8	440x395x240
3-Channel	2.6	6	17	440x395x240
4-Channel	2.65	6	17	440x395x240

GREAlpha
The LED Driver Expert

Input Specification

Voltage Range	Frequency Range	Max Inrush Current	Power Factor
90-305 VAC (NOM: 120/240/277 VAC)	47-63 Hz	50A@230 VAC input, 25°C, cold start-up	0.9 min

Output Specification

Max Power	200 W	Transient Response	8 mS, full load to Half load, 100 VAC Input
Load Regulation	+/- 1% Max	Short Circuit Protection	Auto-Shutdown at 105°C
Efficiency	230 VAC input, full load , See Model Table Page	Constant Voltage (CV) Mode Load Regulation	+/- 5% Max (Voltage Setting Adjustable via on-board pot: +5%/-30%)
Noise/Ripple	1.5% of Rated Output Voltage*	Constant-Current (CC) Mode Regulation	+/- 2% Max (Current Setting Adjustable via on-board pot: +5%/-90%)
Start-up Time	2.5 sec. Typical	Over Voltage Protection	132% Max
Hold-up Time	2 mS @ full load, 100VAC input	Over Current Protection	Constant-current limiting, Auto-Recovery upon removal of short circuit condition

* All noise measurements made at the output terminals, connected to a 20MHz low pass filter.

Environmental Specifications

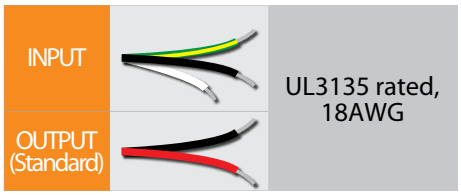
MTBF	Cooling	Operating Temp	Storage Temp	Relative Humidity
55,000 hours (Full load @ 25°C Ambient, Based on MIL-217F)	Convection	-40°C- 60°C (Full load)	-40°C- 85°C	5% - 95 %

Compliance / Safety

EMI/RFI:	CISPR-22 Class B FCC part 15 Class B EN 55015
Safety Standards:	UL 1012/1585, UL8750, UL Class 2 Wet locations , UL 48,cUL, CE, UL #: E342485
Weatherability:	EN60529 IP 65

Remote Dimming Options

Dimming Types	Dimming Control
1. PWM-1kHz, 1-100% 2. Constant Current, 10-100% 3. Output Voltage, 75-100% 4. Compatible with SLD/XLD DIM	• 1-10V DC • Potentiometer • Serial Comm. (2-wire) • Wireless Remote

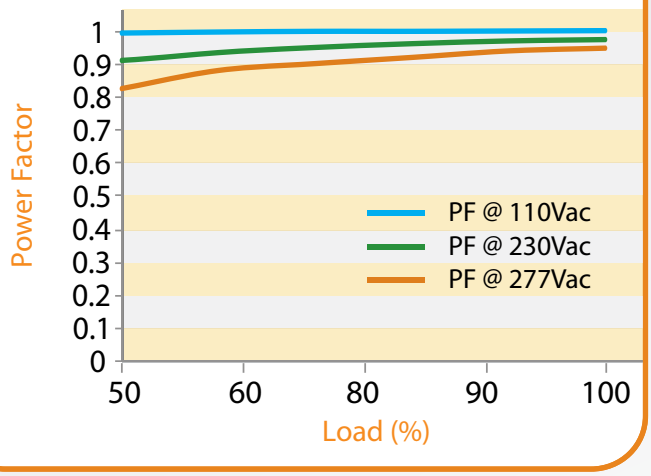


Mechanical

Material:
NEMA 3 Design with patented AC and DC Wiring compartments, fully potted PCB.

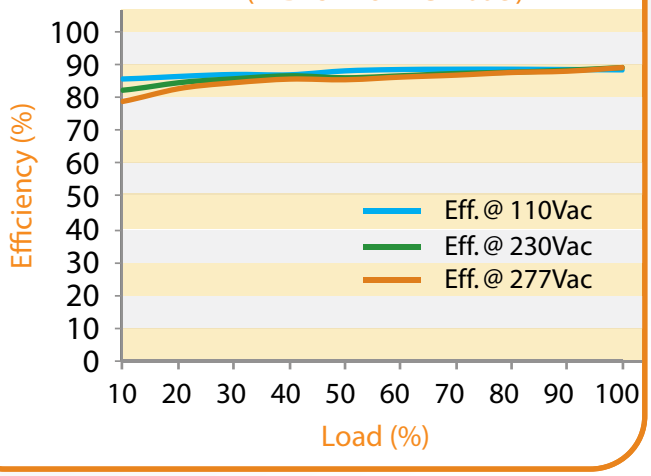
Reliabilities Curves

Power Factor Characteristic

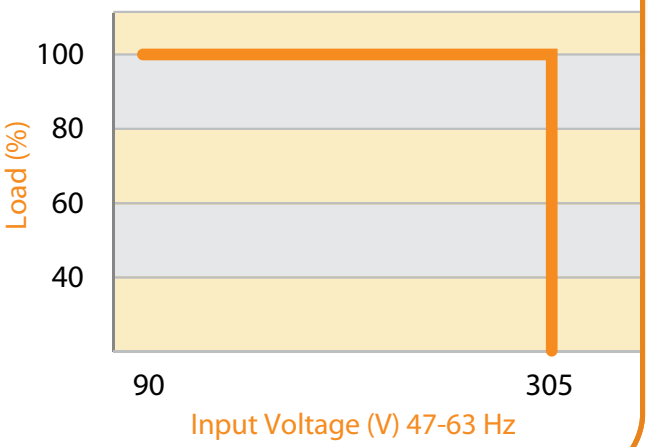


Efficiency Vs Load

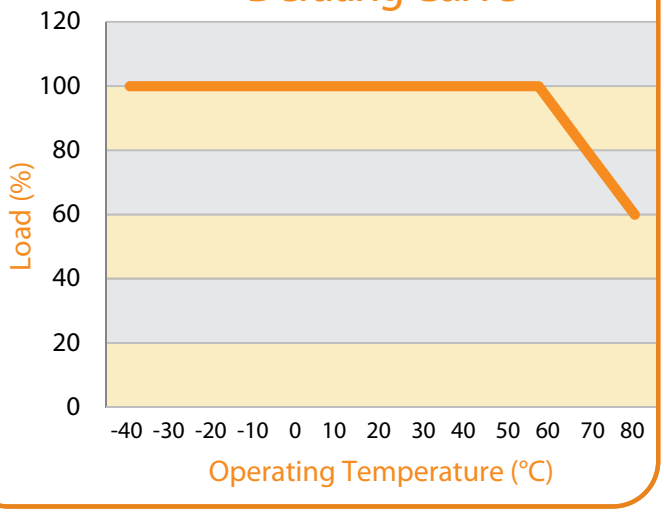
(XLD75-148V-FC Model)



Loading Curve

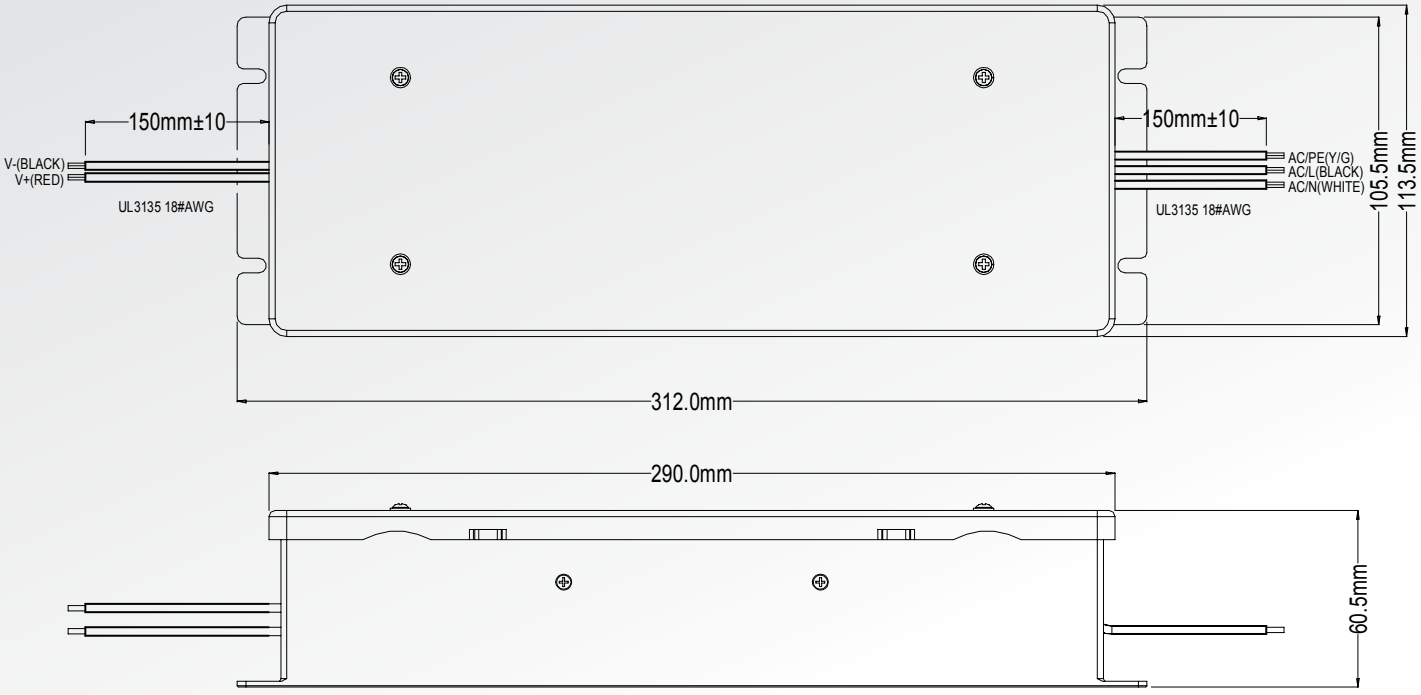


Derating Curve



Mechanical Diagrams

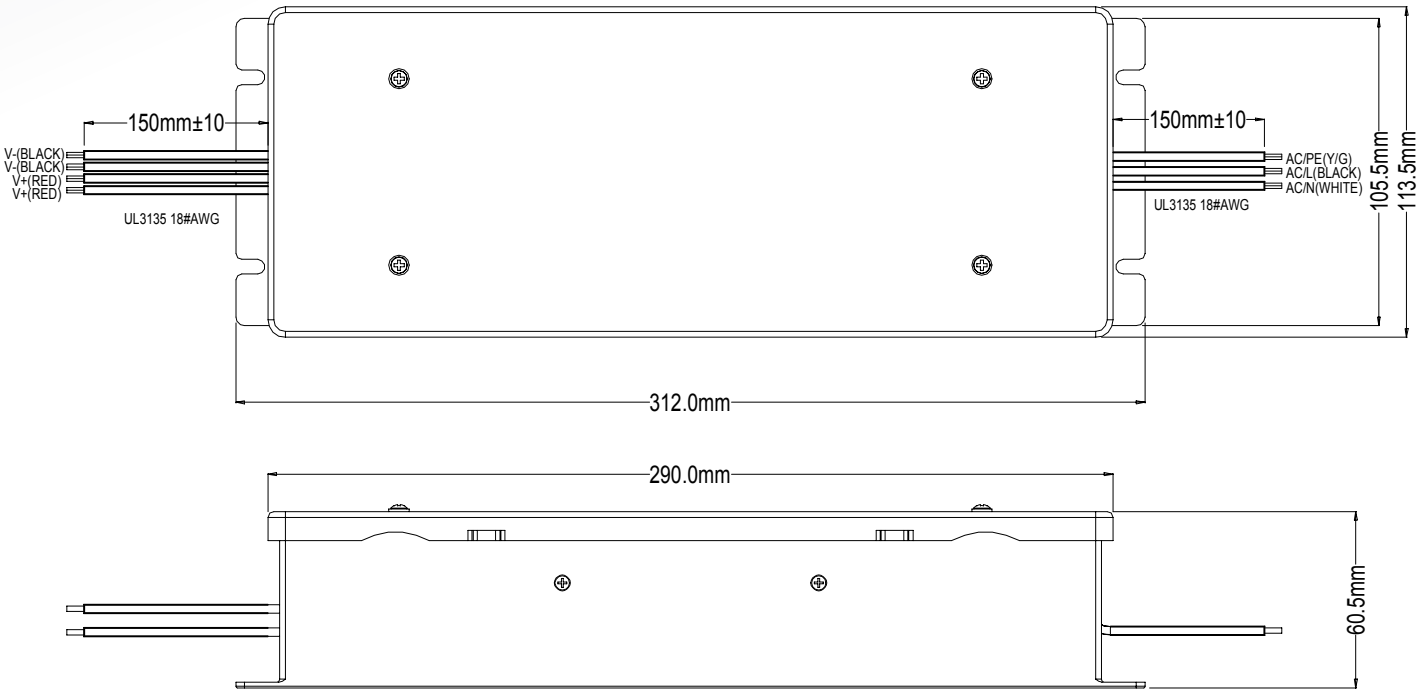
Single Channel Models *



(* - Number of wires vary for different models . Pls. refer to Configuration Arrays in details.)

Packing Information
Weight: 2.50 kgs/pcs, 16.8 kgs/carton
6 pcs/carton, L370xW344WxH156 (mm)

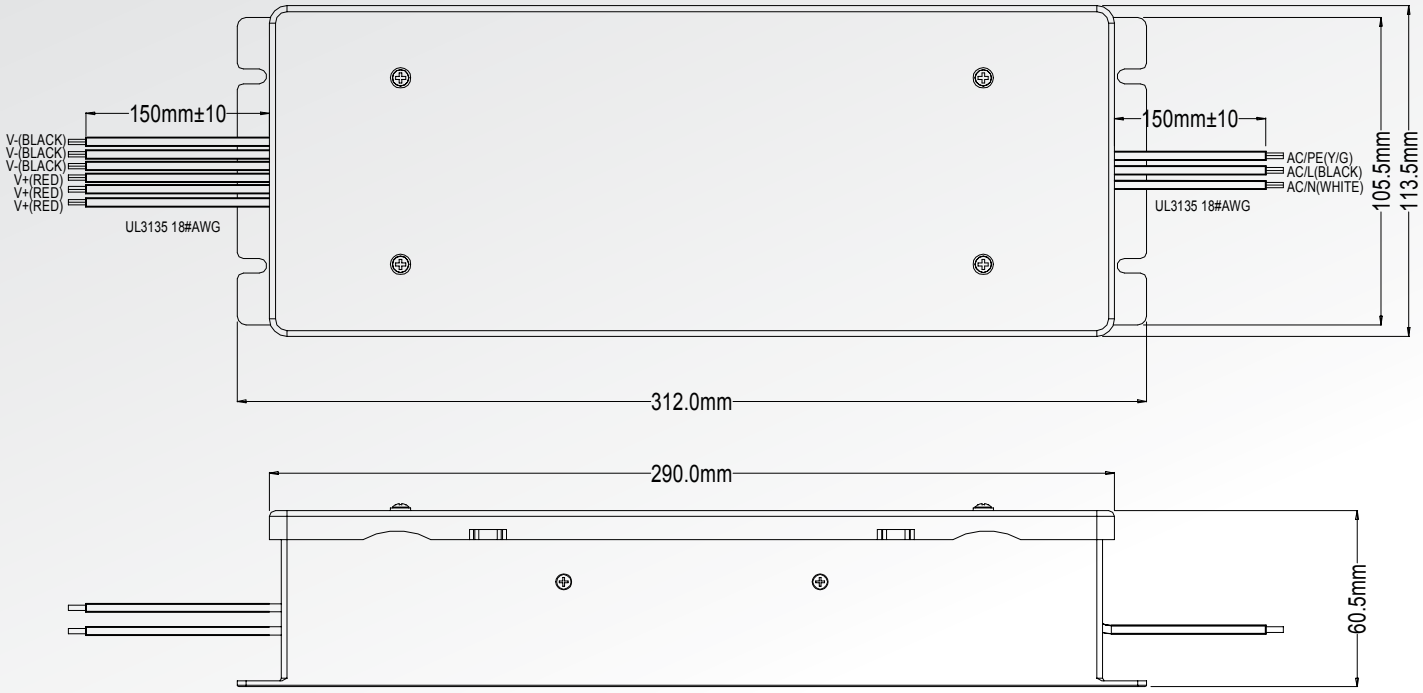
Dual Channel Model



Packing Information
Weight: 2.55 kgs/pcs, 16.8 kgs/carton
6 pcs/carton, L370xW344WxH156 (mm)

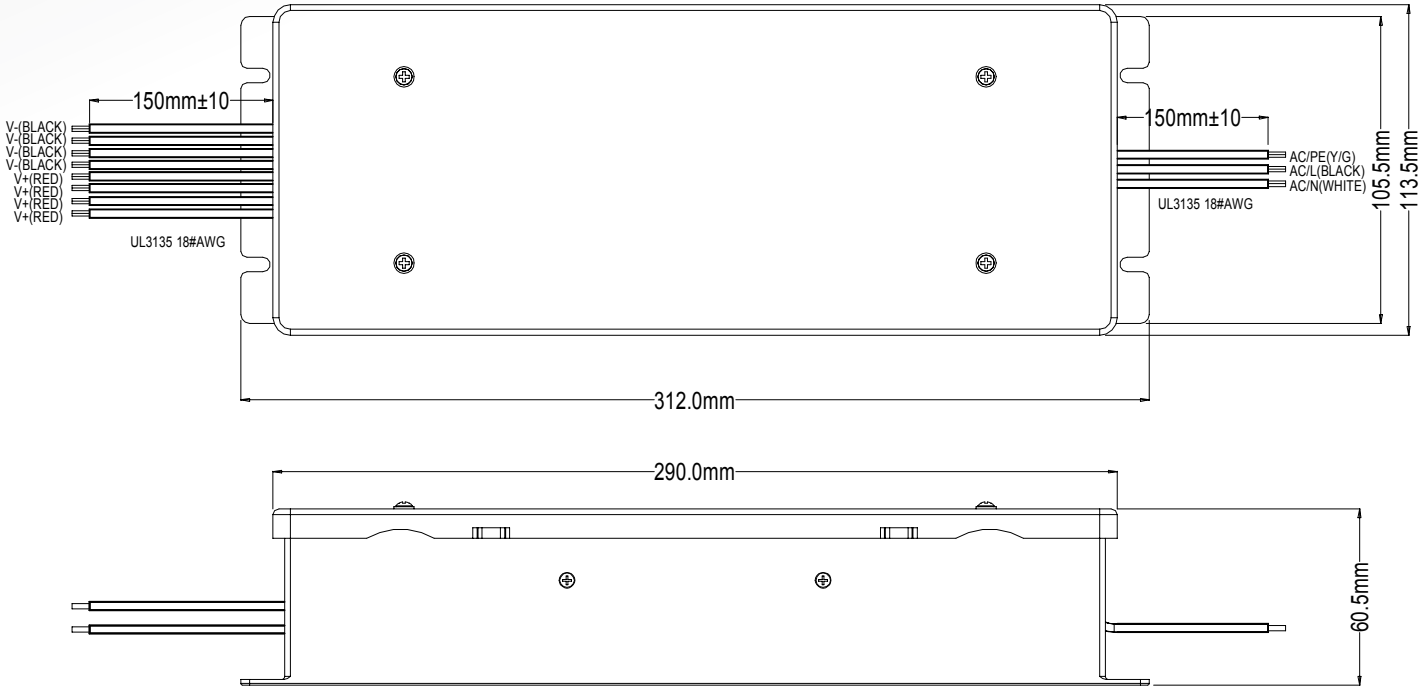
Mechanical Diagrams

3 Channel Model



Packing Information
Weight: 2.60 kgs/pcs, 17.0 kgs/carton
6 pcs/carton, L370xW344WxH156 (mm)

4 Channel Model



Packing Information
Weight: 2.65 kgs/pcs, 17.0 kgs/carton
6 pcs/carton, L370xW344WxH156 (mm)

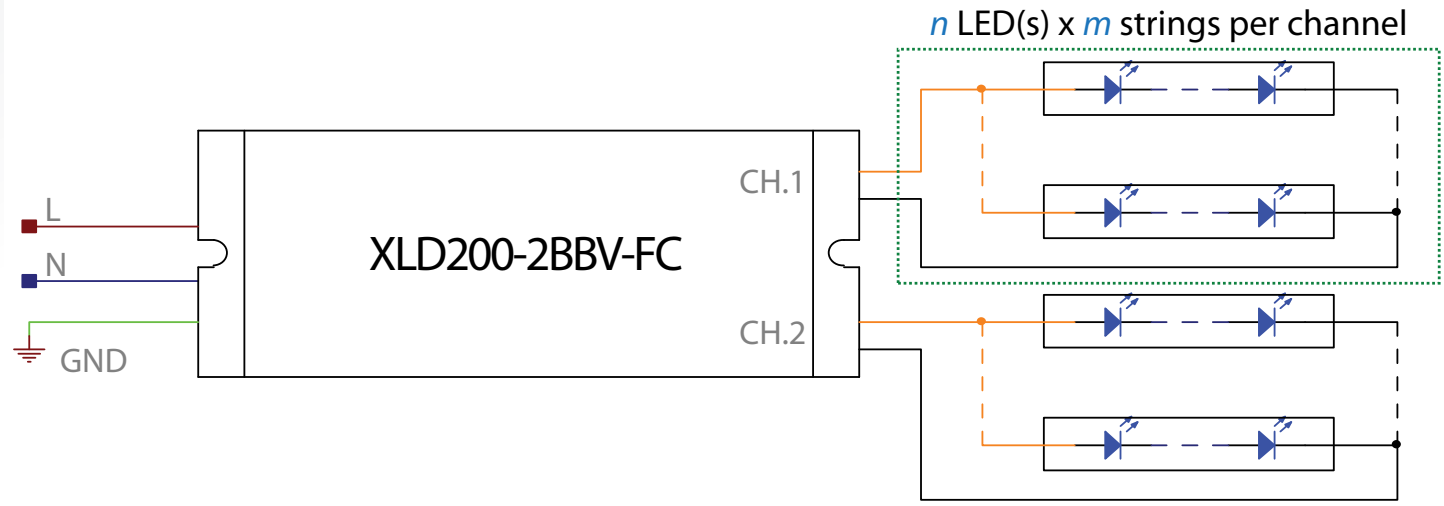
Configuration Arrays

Single Channel Output Models

Single Channel	CC mode LED Voltage Range (V)	Recommended n LED(s) per String *	Current POT Adjust Range (A)	LED Current per String
XLD200-112V-FC**	6 - 12	2 – 4	1.67 - 17.5	$= \frac{I_{out}}{m\ Strings}$
XLD200-124V-FC**	12 - 24	4 - 9	0.83 - 8.75	
XLD200-148V-FC	24 - 48	9 - 18	0.42 - 4.38	
XLD200-170V-FC	35 - 70	13 - 27	0.29 - 3	
XLD200-1105V-FC	52.5 - 105	20 - 40	0.19 - 2	

* LED Vf range: 2.7-3.6V
** XLD200-112V-FC models have 4 Red and 4 Black wires on the DC output. This is to reduce power loss due to high current operation. During installation, connect same color wires together for desired current output.
** XLD200-124V-FC models LED output have 2 Red & 2 Black wires on the DC output. This is to reduce power loss due to high output current operation. During installation, connect same color wires together for desired current output.

2 Channel Output Models

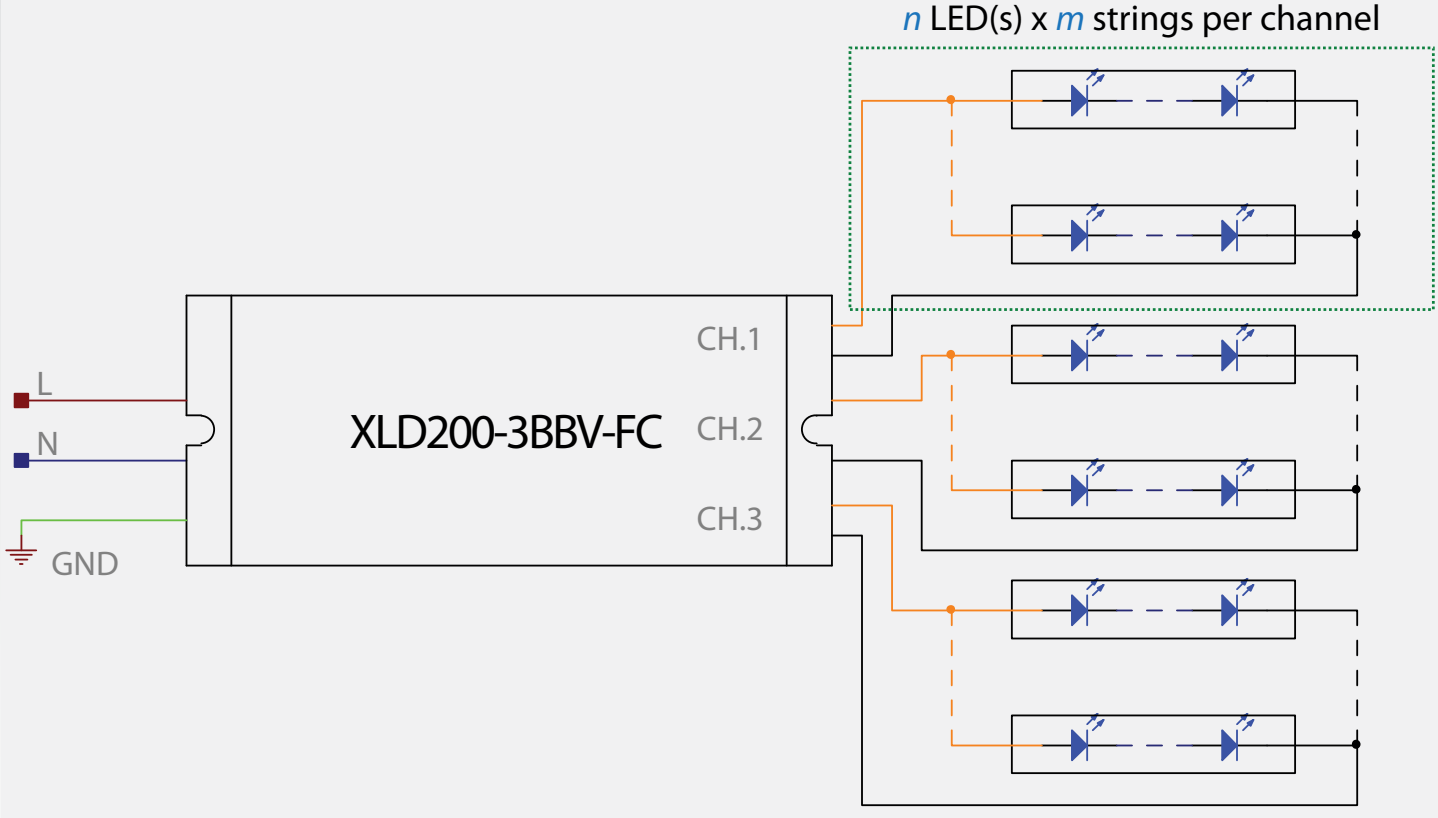


Dual Channels	CC mode LED Voltage Range (V)	Recommended n LED(s) per String *	Current POT Adjust Range (A)	LED Current per String
XLD200-224V-FC	16.8 - 25.2	4 - 9	0.83 - 8.75	$= \frac{I_{out}}{m\ Strings}$
XLD200-236V-FC	25.2 - 37.8	7 - 14	0.56 - 5.84	
XLD200-248V-FC	33.6 - 50.4	9 - 18	0.42 - 4.38	

* LED Vf range: 2.7-3.6V
** XLD200-112V-FC models have 4 Red and 4 Black wires on the DC output. This is to reduce power loss due to high current operation. During installation, connect same color wires together for desired current output.
** XLD200-124V-FC models LED output have 2 Red & 2 Black wires on the DC output. This is to reduce power loss due to high output current operation. During installation, connect same color wires together for desired current output.

Configuration Arrays

3 Channel Output Models

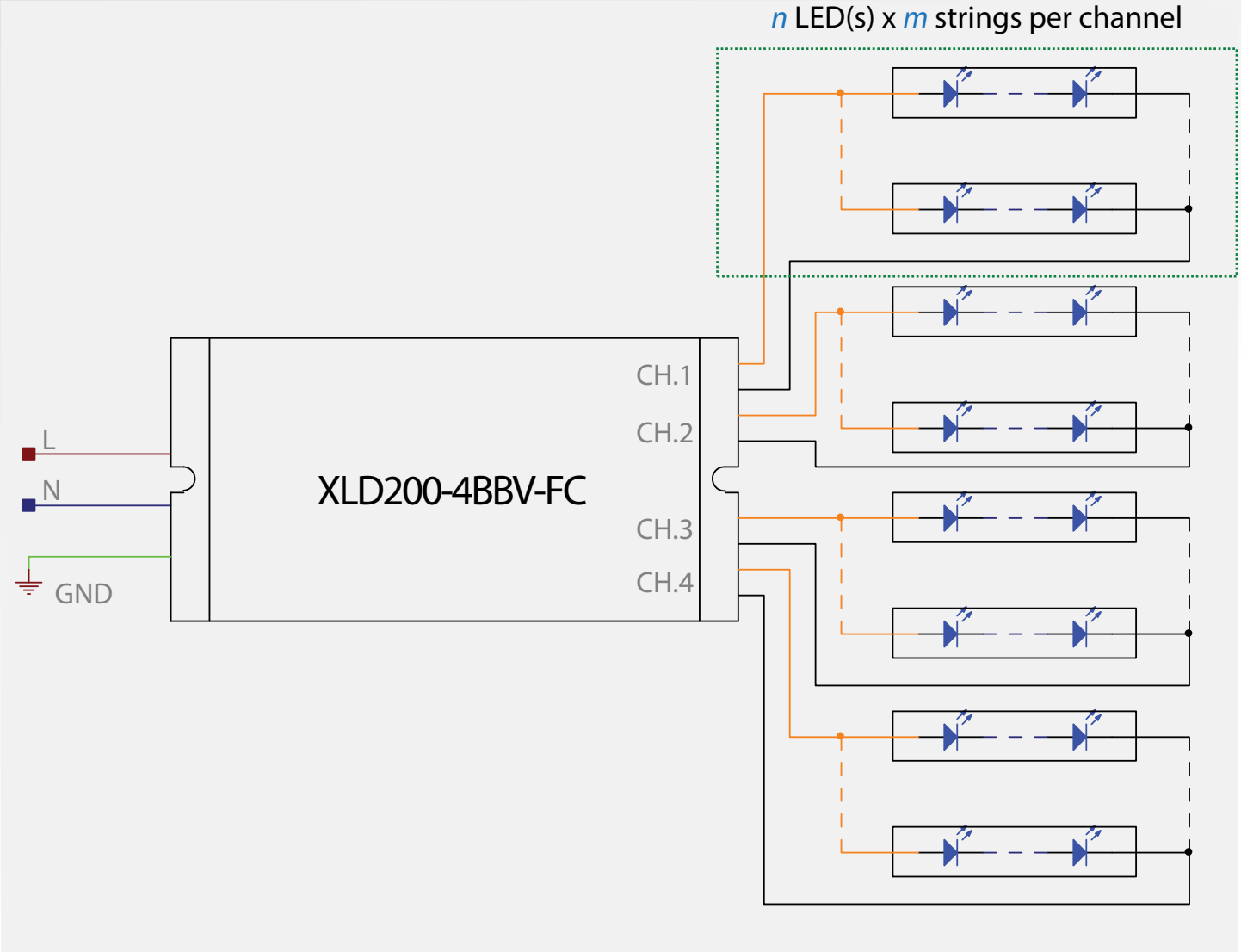


3 Channels	CC mode LED Voltage Range (V)	Recommended n LED(s) per String *	Current POT Adjust Range (A)	LED Current per String
XLD200-315V-FC	10.5 - 15.75	2 - 5	1.33 - 14	$= \frac{I_{out}}{m\ Strings}$
XLD200-324V-FC	16.8 - 25.2	4 - 9	0.83 - 8.75	
XLD200-330V-FC	21 - 31.5	5 - 11	0.67 - 7	
XLD200-336V-FC	25.2 - 37.8	7 - 14	0.56 - 5.84	
XLD200-348V-FC	33.6 - 50.4	9 - 18	0.42 - 4.38	

*LED Vf range: 2.7-3.6V, CH.1 ~ CH.3 Output Voltage/Current outputs equal

Configuration Arrays

4 Channel Model



Dual Channels	CC mode LED Voltage Range (V)	Recommended n LED(s) per String *	Current POT Adjust Range (A)	LED Current per String
XLD200-408V-FC	5.6 - 8.4	1 - 3	2 - 21	$= \frac{I_{out}}{m\ Strings}$
XLD200-412V-FC	8.4 - 12.6	2 - 4	1.67 - 17.5	
*LED Vf range: 2.7-3.6V, CH.1 ~ CH.4 Output Voltage/Current outputs equal				