



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 wide temperature environments (-40°C to 60°C). With user adjustable output voltage and current pots, this universal input 90-305 V_{AC} 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 V_{AC}
- User Adjustable Output Voltage/Current
- High Efficiency: Active PFC
- Extremely Low operating temperature - 40°C to 60°C
- SCP, OCP, OTP, OVP
- Remote Dimming Options
- 3 Years Warranty

XLD200

UL/cUL Listed LED Drivers

US Patent Numbers: 7,154,755 & 7,738,253



Model Selection Key

XLD200-ABBV-FC

- Mounting and Connection Type
- Nominal Output Voltage
- Number of Output Channel(s)
- Series Name

Model Number	Input Voltage Range (V _{AC})*	Channel(s) Output	CC mode				CV Mode				Max Output Power (per Channel) (W)	Total Output Power (W)		
			Rated Current (per Channel) (A)	Compliance (LED) Voltage (V _{DC})		Current Pot Adjustable Range (All Channels) (A)		Preset Vout (V _{DC})	Load Range (per Channel) (A)				Voltage Pot Adjustable Range (V _{DC})	
				min	max	min	max		min	max			min	max
XLD200-1-12V-FC	90-305	1	16.7	6.0	12.0	1.67	1750	12	0	1750	8.4	12.6	200	200
XLD200-1-24V-FC	90-305	1	8.3	12.0	24.0	0.83	8.75	24	0	8.75	16.8	25.2	200	200
XLD200-1-48V-FC	90-305	1	4.2	24.0	48.0	0.42	4.38	48	0	4.38	33.6	50.4	200	200
XLD200-1-70V-FC	90-305	1	2.9	35.0	70.0	0.29	3.00	70	0	3.00	49.0	73.5	200	200
XLD200-1-105V-FC	90-305	1	1.9	52.5	105.0	0.19	2.00	105	0	2.00	73.5	110.3	200	200
XLD200-2-24V-FC	90-305	2	4.2	12.0	24.0	0.42	8.75	24	0	4.38	16.8	25.2	100	200
XLD200-2-36V-FC	90-305	2	2.8	18.0	36.0	0.28	5.83	36	0	2.92	25.2	37.8	100	200
XLD200-2-48V-FC	90-305	2	2.1	24.0	48.0	0.21	4.38	48	0	2.19	33.6	50.4	100	200
XLD200-3-15V-FC	90-305	3	4.4	7.5	15.0	0.44	14.00	15	0	4.67	10.5	15.8	70	200
XLD200-3-24V-FC	90-305	3	2.8	12.0	24.0	0.28	8.75	24	0	2.92	16.8	25.2	70	200
XLD200-3-30V-FC	90-305	3	2.2	15.0	30.0	0.22	7.00	30	0	2.33	21.0	31.5	70	200
XLD200-3-36V-FC	90-305	3	1.9	18.0	36.0	0.19	5.83	36	0	1.94	25.2	37.8	70	200
XLD200-3-48V-FC	90-305	3	1.4	24.0	48.0	0.14	4.38	48	0	1.46	33.6	50.4	70	200
XLD200-4-12V-FC	90-305	4	4.2	6.0	12.0	0.42	17.50	12	0	4.38	8.4	12.6	53	200

FC = Patented, easy install enclosure with integral wiring compartments.

* = CCC Approval: 100-240 VAC Only, PSE Approval: 100-120 VAC Selected Models Only.

Input Specification

Voltage Range	Frequency Rang	Max Inrush Current	Power Factor	THD
90-305 V _{AC} (NOM: 120/240/277 V _{AC})	47-63 Hz	50A@230 V _{AC} input, 25°C, cold start-up	0.9 min	<25% @ full load

Output Specification

Max Power	200 W	Transient Response	8 mS, full load to Half load, 100 V _{AC} Input
Load Regulation	+/- 1% Max	Short Circuit Protection	Hiccup-Mode, Auto-Recovery upon removal of short circuit condition.
Efficiency	>80% @ Full Load, 230 V _{AC} input	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, 100V _{AC} input	Over Current Protection	Constant-current limiting, Auto-Recovery upon removal of short circuit condition
		Over temperature Protection	105°C Max, Hiccup-Mode, Auto-Recovery



* 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 to 60°C (Full load)	-40°C to 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 Location UL 48, cUL, CE, UL #: E342485 EN 61347-2-13, CCC, PSE
Weatherability:	EN60529 IP 65
Surge Immunity	Line - Line: 2.5kV Line - Earth: 4kV

INPUT		UL3135 rated, 18AWG
OUTPUT (Standard)		

Remote Dimming Options

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

Mechanical

Material:

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

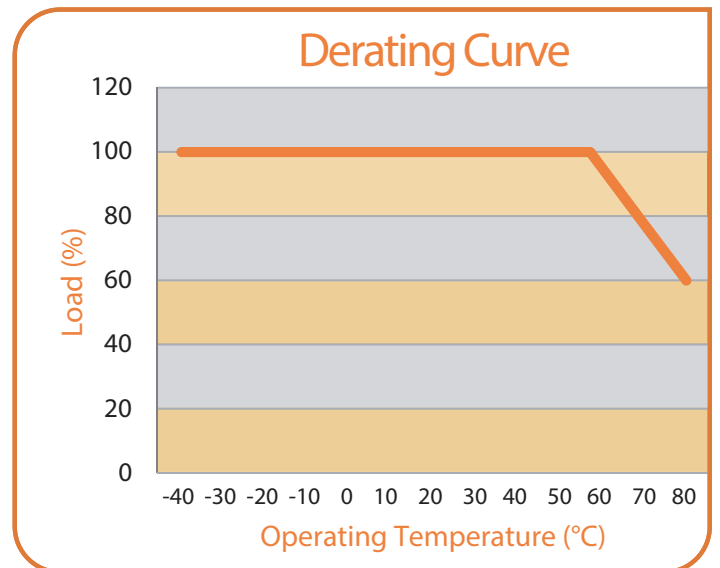
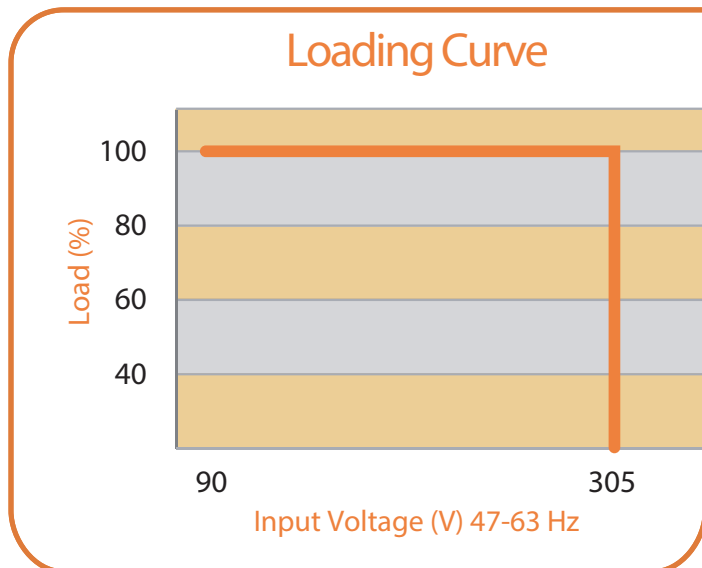
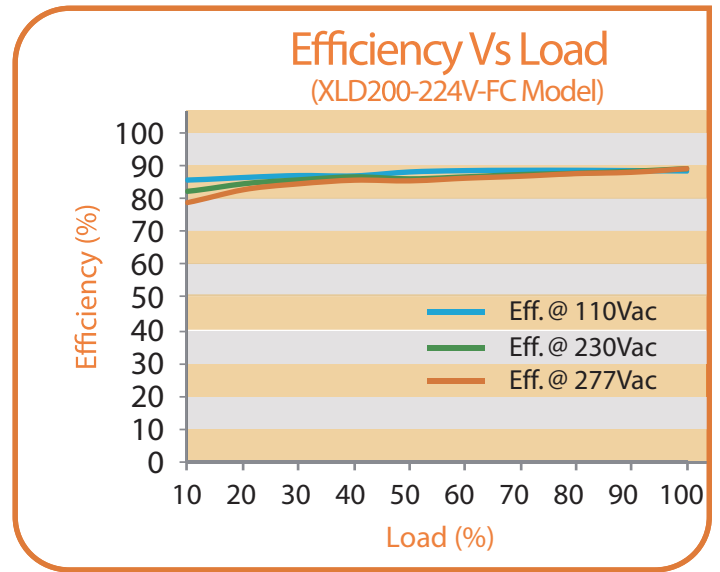
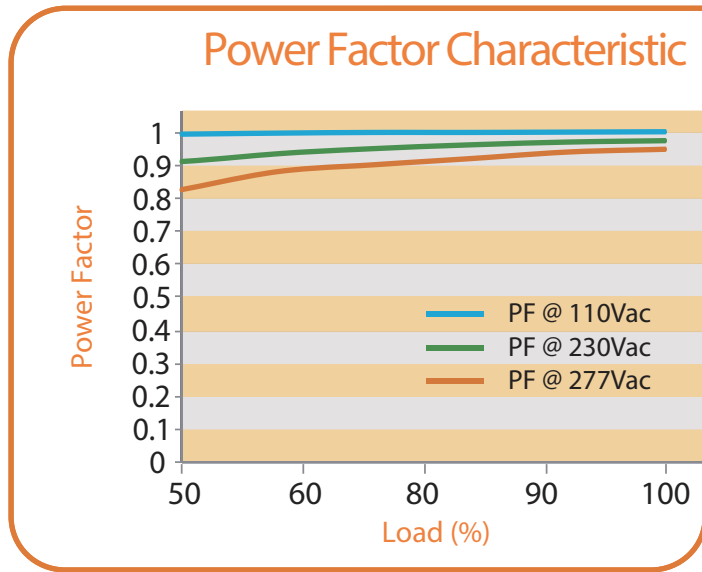
Dimensions:

312.0 * 113.5 * 60.5 mm

Packing Infomation

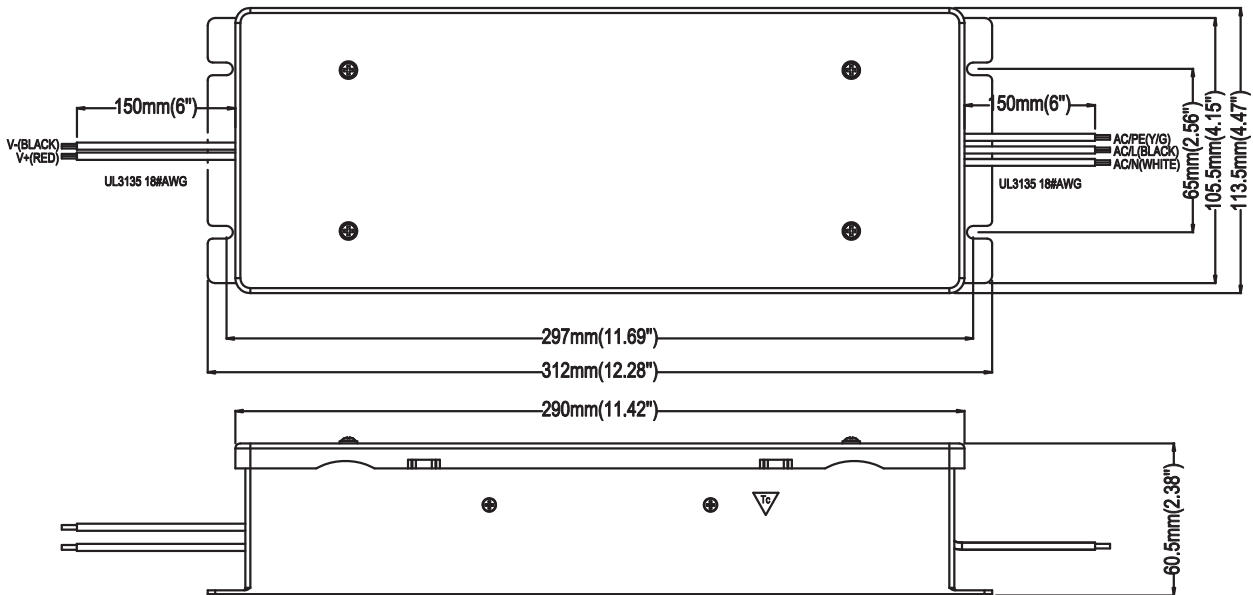
Model	Weight/pc (Kg)	Pcs Per Carton	Kgs Per Carton	Carton Dimensions (LxWxH)
Single Channel	2.5	6	16.8	440x395x240
Dual Channel	2.55	6	16.8	440x395x240
3-Channel	2.6	6	17	440x395x240
4-Channel	2.65	6	17	440x395x240

Performance Curves



Mechanical Diagrams

Single Channel Models *

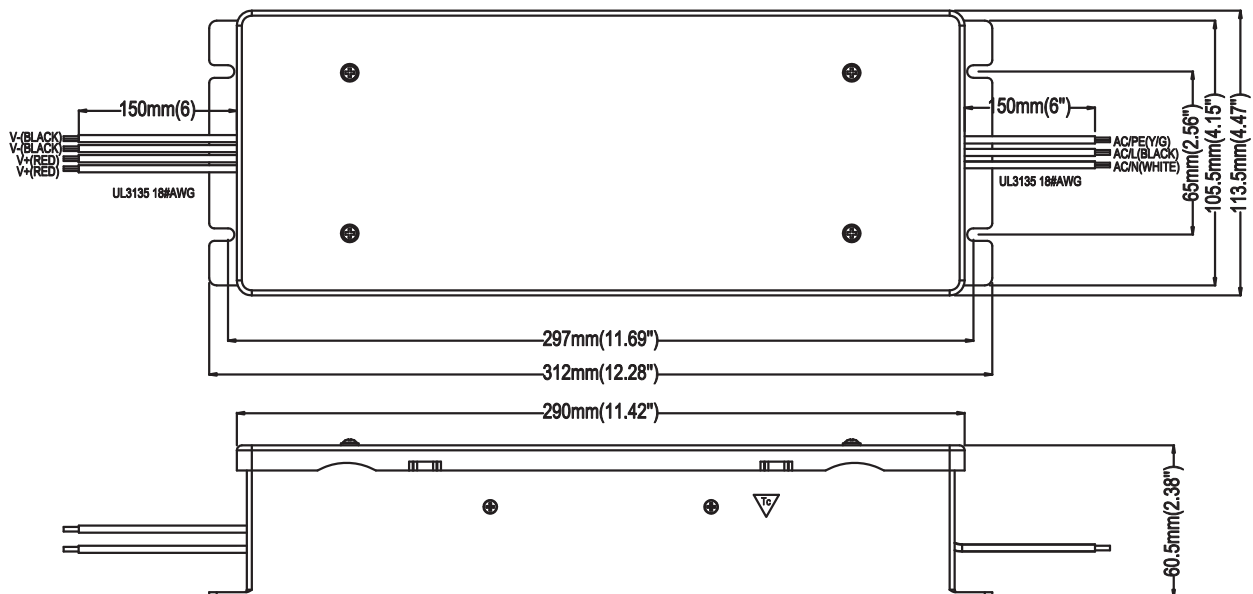


(* - Number of wires vary for different models . Pls. refer to Configuration Arrays in details.)

Packing Information

Weight: 2.50 kgs/pcs, 16.8 kgs/carton
 6 pcs/carton, L370xW344WxH156 (mm)
 US Patent Numbers: 7,154,755 & 7,738,253

Dual Channel Model

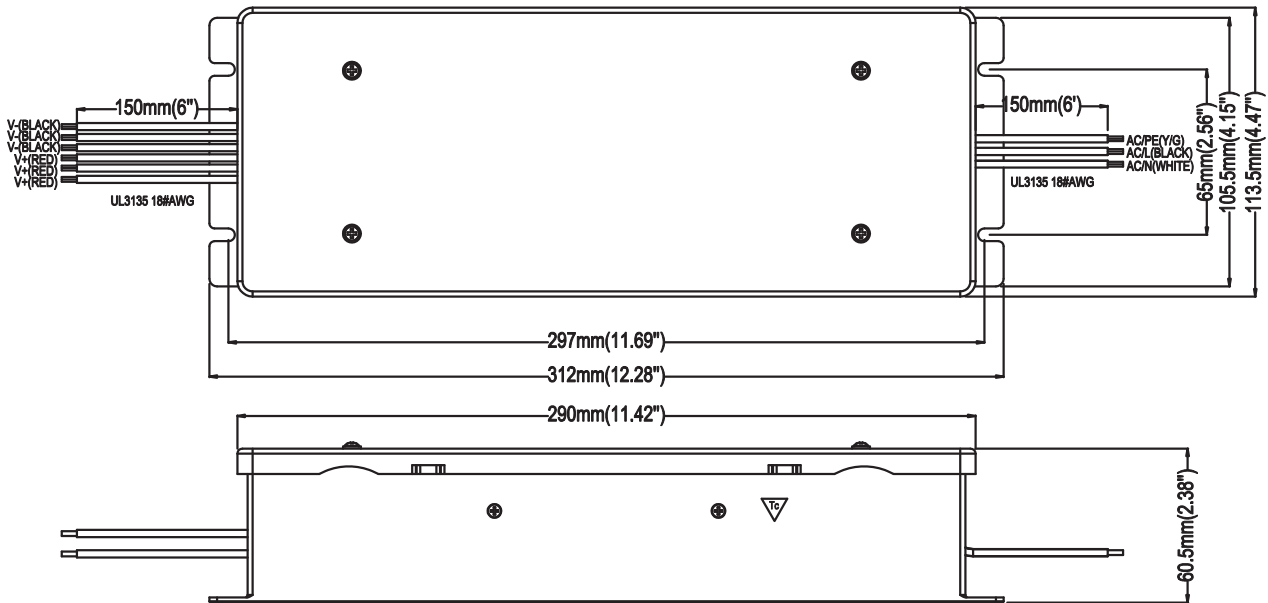


Packing Information

Weight: 2.55 kgs/pcs, 16.8 kgs/carton
 6 pcs/carton, L370xW344WxH156 (mm)
 US Patent Numbers: 7,154,755 & 7,738,253

Mechanical Diagrams

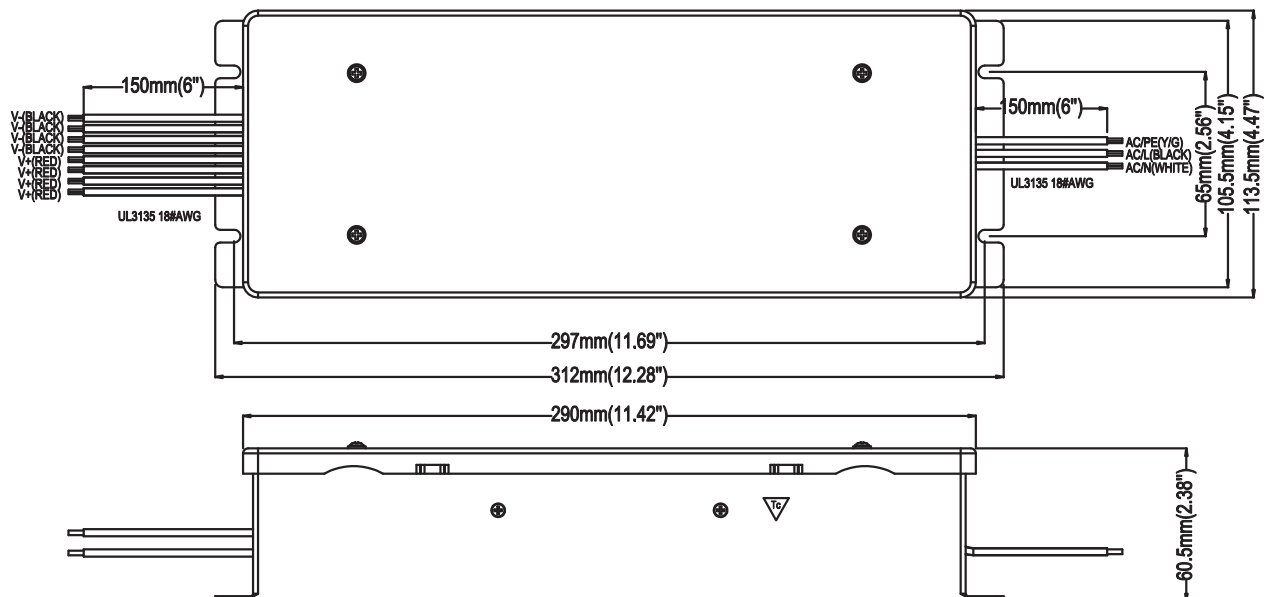
3 Channel Model



Packing Information

Weight: 2.60 kgs/pcs, 17.0 kgs/carton
 6 pcs/carton, L370xW344xH156 (mm)
 US Patent Numbers: 7,154,755 & 7,738,253

4 Channel Model

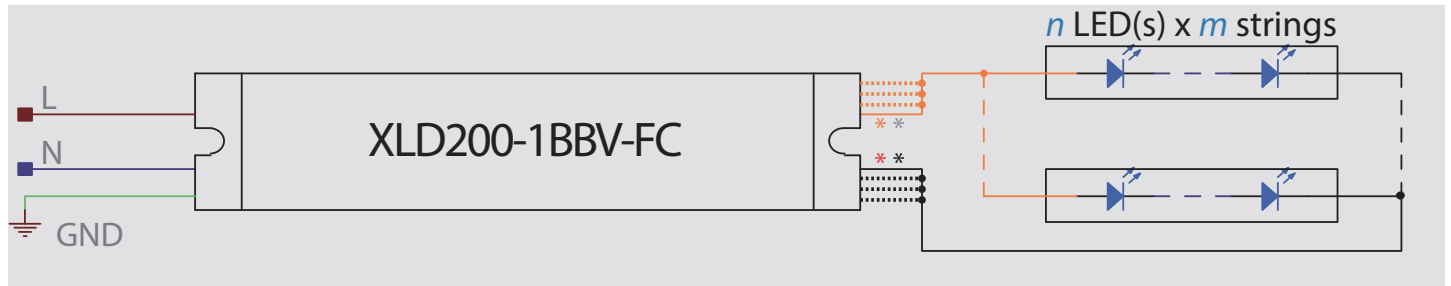


Packing Information

Weight: 2.65 kgs/pcs, 17.0 kgs/carton
 6 pcs/carton, L370xW344xH156 (mm)
 US Patent Numbers: 7,154,755 & 7,738,253

Configuration Arrays

Single Channel Output Models



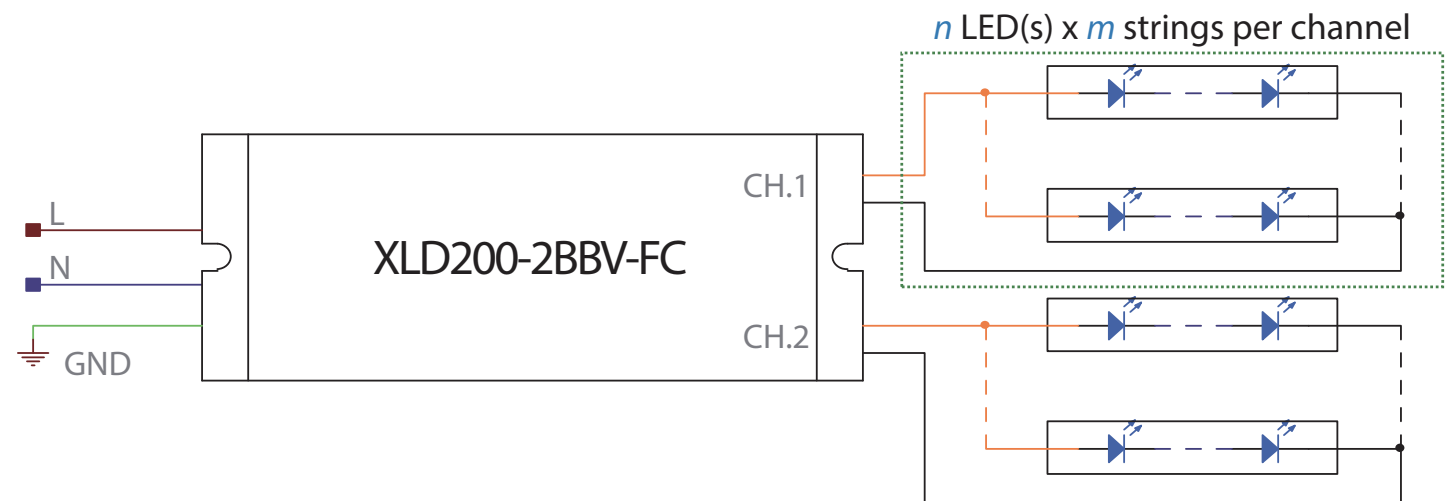
Single Channel	CC mode LED Voltage Range (V)	Recommended n LED(s) per String *	Current POT Adjust Range (A)	LED Current per String
XLD200-112V-FC**	6 - 12	2 - 4	1.67 - 17.5	$= \frac{I_{out}}{m \text{ Strings}}$
XLD200-124V-FC**	12 - 24	4 - 9	0.83 - 8.75	
XLD200-148V-FC	24 - 48	9 - 18	0.42 - 4.38	
XLD200-170V-FC	35 - 70	13 - 27	0.29 - 3.00	
XLD200-1105V-FC	52.5 - 105	20 - 40	0.19 - 2.00	

* 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	12.0 - 24.0	4 - 9	0.42 - 8.75	$= \frac{I_{out}}{m \text{ Strings}}$
XLD200-236V-FC	18.0 - 36.0	5 - 13	0.28 - 5.83	
XLD200-248V-FC	24.0 - 48.0	7 - 18	0.21 - 4.38	

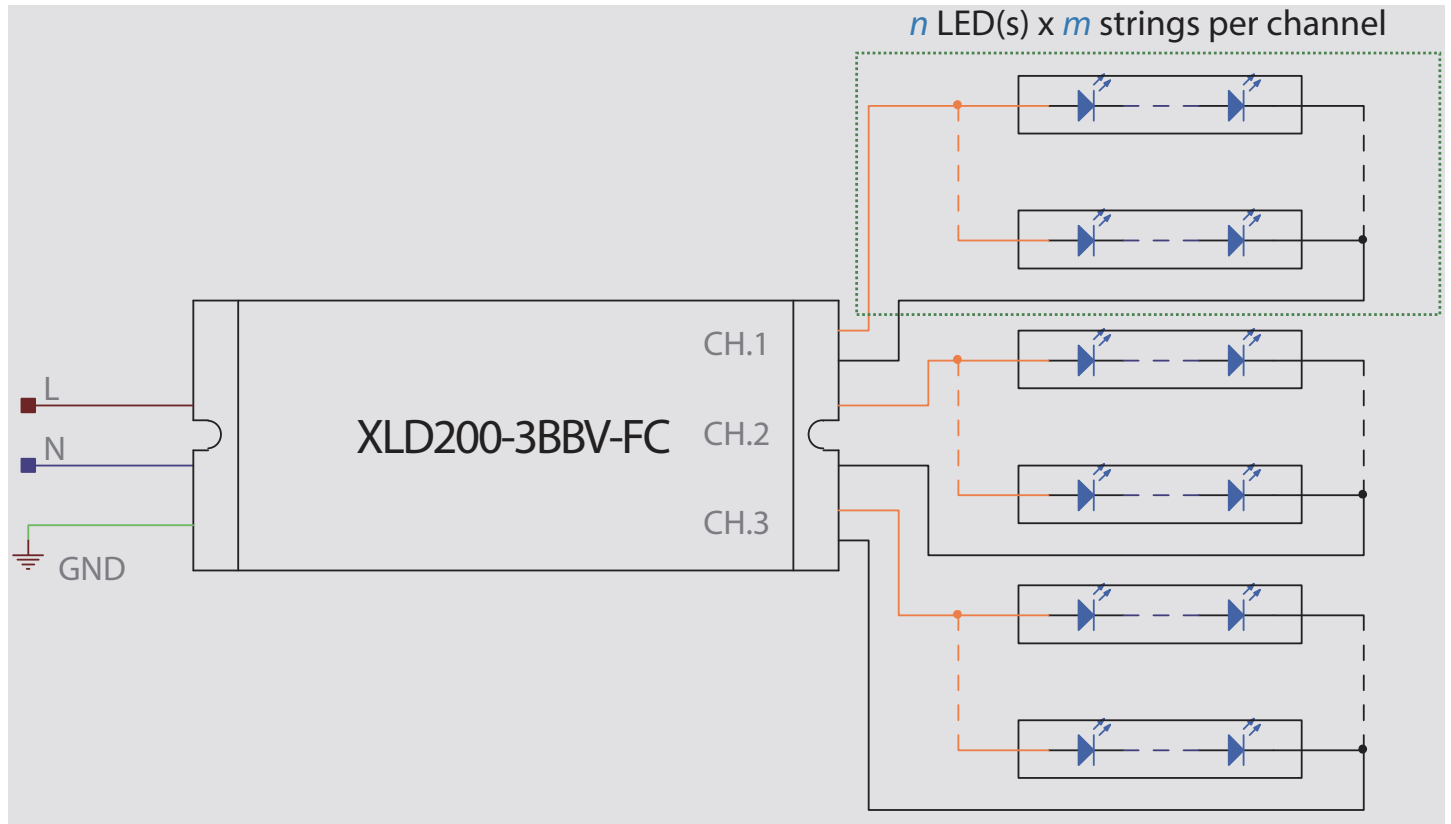
* LED Vf range: 2.7-3.6V

** 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

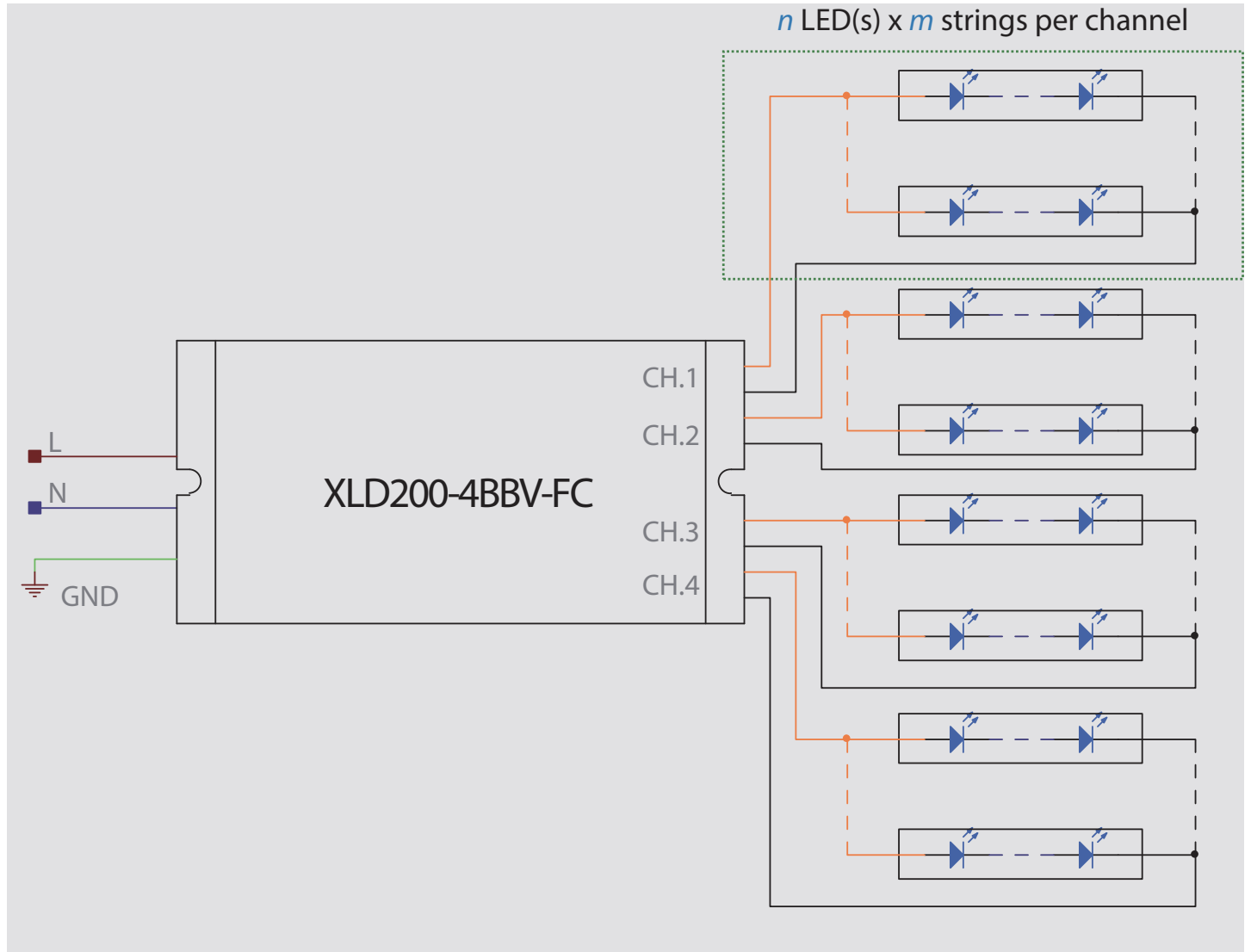


3 Channels	CC mode LED Voltage Range (V)	Recommended n LED(s) per String *	Current POT Adjust Range (A)	LED Current per String
XLD200-315V-FC	7.5 - 15.0	2 - 5	0.44 - 14	$= \frac{I_{out}}{m \text{ Strings}}$
XLD200-324V-FC	12.0 - 24.0	3 - 9	0.28 - 8.75	
XLD200-330V-FC	15.0 - 30.0	4 - 11	0.22 - 7.00	
XLD200-336V-FC	24.0 - 36.0	5 - 13	0.19 - 5.83	
XLD200-348V-FC	24.0 - 48.0	7 - 18	0.14 - 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
XLD200-412V-FC	6.0 - 12.0	2 - 4	0.42 - 17.50	$= \frac{I_{out}}{m \text{ Strings}}$
*LED Vf range: 2.7-3.6V, CH.1 ~ CH.4 Output Voltage/Current outputs equal				

Information furnished is believed to be accurate and reliable. However, GRE Alpha assumes no responsibility for the consequences of use of such information nor for any infringement of patents or other rights of third parties which may result from its use. No license is granted by implication or otherwise under any patent or patent rights of GRE Alpha. Specifications mentioned in this publication are subject to change without notice. This publication supersedes and replaces all information previously supplied.

The GRE Alpha logo is a registered trademark of GRE Alpha Electronics Ltd.
All other names are the property of their respective owners