



Safety Switch LED Driver with smart output monitor and AC power switch Multi Channel 200 Watt LED Driver

Coming in a revolutionary fail safe design, GRE Alpha's Safety Switch series comes with an in-built on/off AC power switch for safe installation. LED Indicators on the input and output ends allows users to easily diagnose and access whether the LED driver has been installed correctly. This will add valuable protection to ensure safe and easy installation of your LED Lighting system.

Efficient, Reliable and easy to install, the XLD 200 SS (200 Watt power rating) offers up to 4 channels output and is fully potted and can work in extremely low temperature environments (-40°C to +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

- Universal AC Input
- AC ON/OFF Power Switch with LED indicator and installation
- Easy-monitor LED indicator for DC output
- User-adjustable Output Voltage and Current
- Constant Current and Constant Voltage dual mode operation for flexibility and optimal performance.
- Active Power Factor Correction, PF > 0.9
- Heavy duty design for harsh environments
- Up to 4 output channels (can be combined)
- Built-in protection: SPC, OTP, OVP, OCP
- UL Class I and II, cUL, CE, FCC Title 47 CFR 15 Class B
- IP 65
- 3 Years Warranty

XLD200 SS

Dual Mode CC/CV LED Drivers



IP65

Model Selection Key

XLD200-A-BBV-SS

- Standard Housing with Switch
- Nominal Output Voltage
- Number of Output Channel(s)
- Series Name

Model Number	Input Voltage Range (V _{ac})*	Channel(s) Output	CCmode					CV Mode					Max Output Power (per Channel) (W)	Total Output Power (W)
			Rated Current (per Channel) (A)	Compliance (LED) Voltage (V _{bc})		Current Pot Adjustable Range (All Channels) (A)		Preset Vout (V _{bc})	Load Range (per Channel) (A)		Voltage Pot Adjustable Range (V _{bc})			
				min	max	min	max		min	max	min	max		
XLD200-1-12V-SS	90-305	1	16.7	6.0	12.0	1.67	17.50	12	0	17.50	8.4	12.6	200	200
XLD200-1-24V-SS	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-SS	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-SS	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-SS	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-SS	90-305	2	4.2	12.0	24.0	0.42	8.75	24	0	8.75	16.8	25.2	100	200
XLD200-2-36V-SS	90-305	2	2.8	18.0	36.0	0.28	5.83	36	0	5.83	25.2	37.8	100	200
XLD200-2-48V-SS	90-305	2	2.1	24.0	48.0	0.21	4.38	48	0	4.38	33.6	50.4	100	200
XLD200-3-15V-SS	90-305	3	4.4	7.5	15.0	0.44	14.00	15	0	14.00	10.5	15.8	70	200
XLD200-3-24V-SS	90-305	3	2.8	12.0	24.0	0.28	8.75	24	0	8.75	16.8	25.2	70	200
XLD200-3-30V-SS	90-305	3	2.2	15.0	30.0	0.22	7.00	30	0	7.00	21.0	31.5	70	200
XLD200-3-36V-SS	90-305	3	1.9	18.0	36.0	0.19	5.83	36	0	5.83	25.2	37.8	70	200
XLD200-3-48V-SS	90-305	3	1.4	24.0	48.0	0.14	4.38	48	0	4.38	33.6	50.4	70	200
XLD200-4-12V-SS	90-305	4	4.2	6.0	12.0	0.42	17.50	12	0	17.50	8.4	12.6	53	200

SS = Waterproof aluminum housing with AC power switch and LED indicators

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

* UL marking: for products manufactured in Vietnam only, effective October 2020.

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	Auto-Shutdown at 105°C
Efficiency	230 V _{AC} 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, 100V _{AC} 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 to 60°C (Full load)	-40°C to 85°C	5% - 95 %

Compliance / Safety

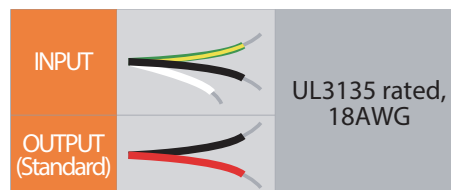
EMI/RFI:	CISPR-22 Class B FCC part 15 Class B EN 55015
Safety Standards:	UL1012/1585, UL8750, UL879, UL Class 2 Damp Location, UL 48, cUL, CE, UL #: E342485 EN 61347-2-13, PSE
Weatherability:	EN60529 IP 65

Mechanical

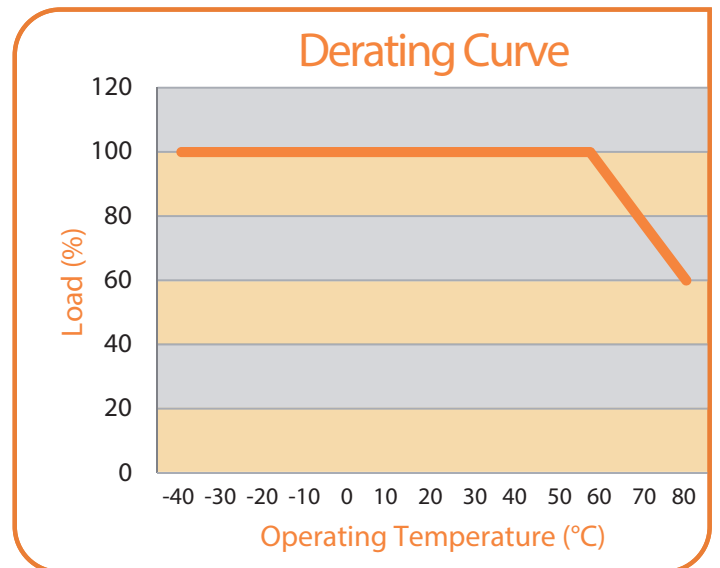
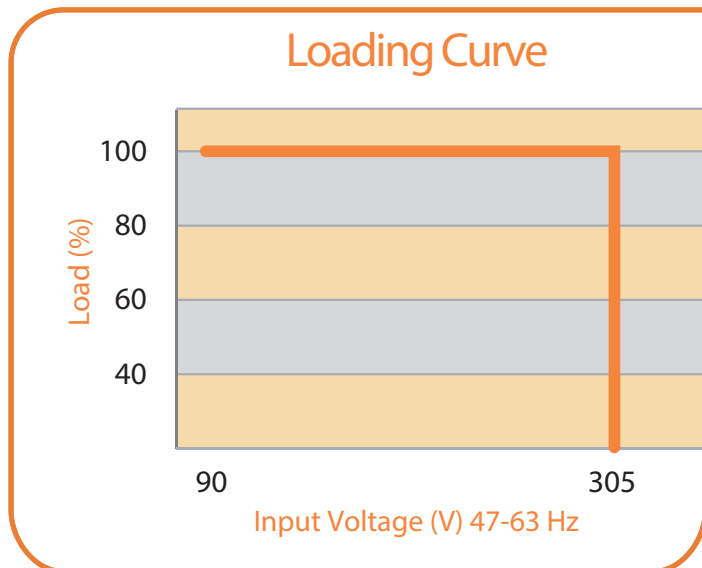
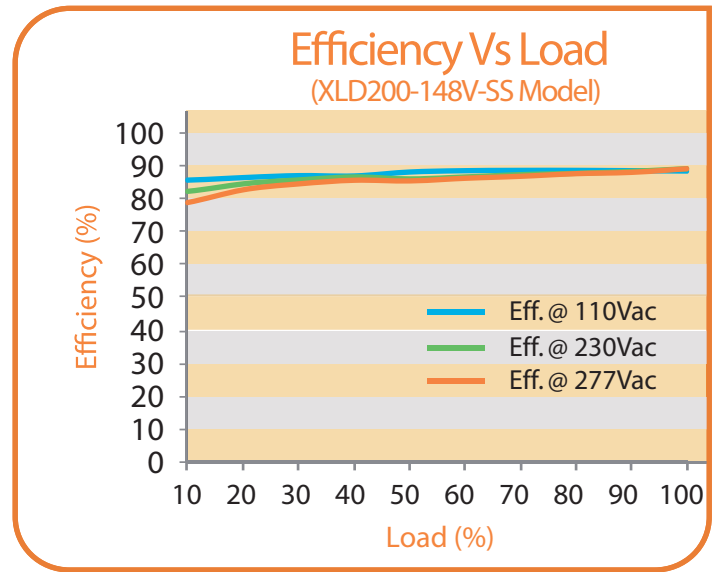
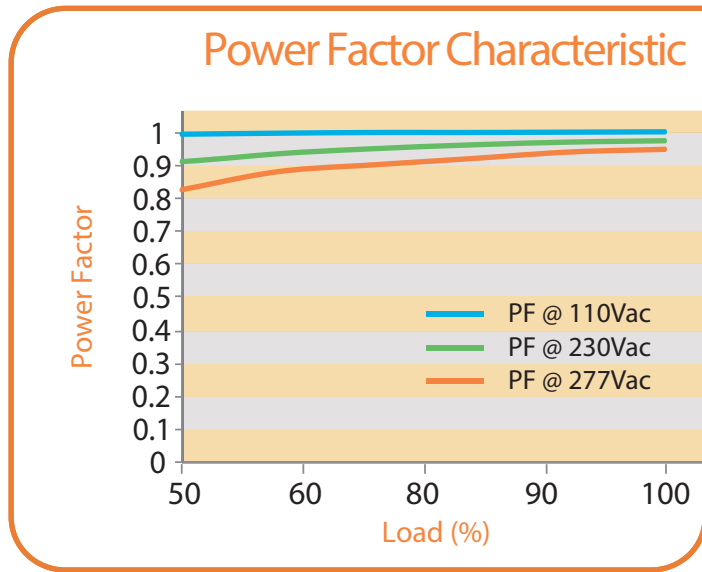
Material:	NEMA 3 Aluminum extruded enclosure. with IP 65 Waterproof On/OFF switch and LED indicator,fully potted PCB.
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Remote Dimming Options

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

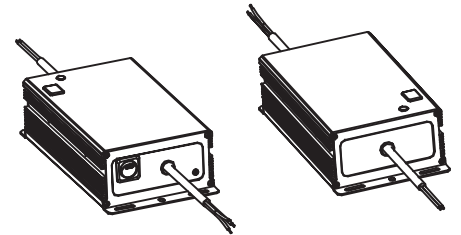
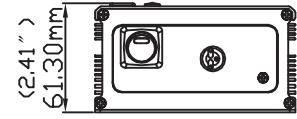
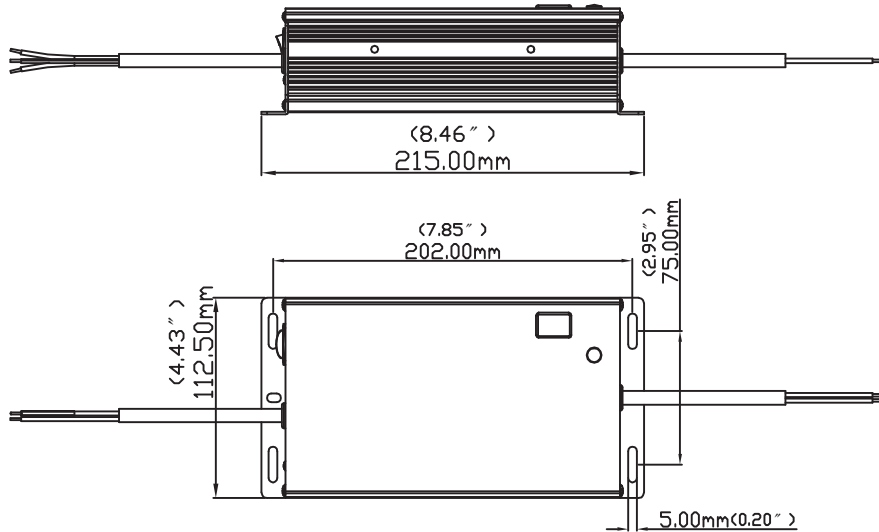


Performance Curves



Mechanical Diagrams

Single Channel Models *



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

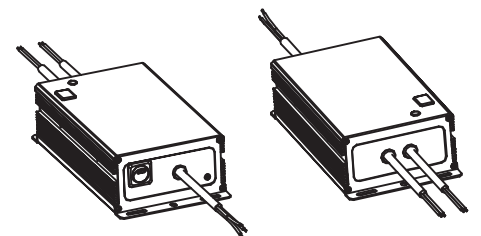
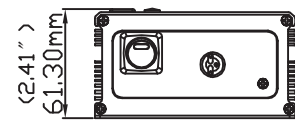
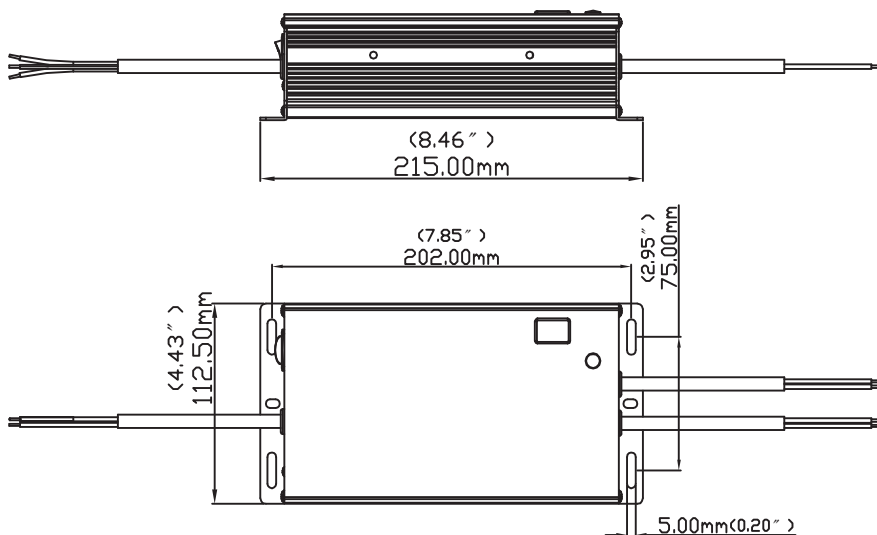
Packing Information

Carton size: L256xW256xH204(MM)

Weight: 2.21kg/pcs;

Total Weight: 4pcs/carton; G.W.9.90KG; N.W.8.84KG

Dual Channel Model



Packing Information

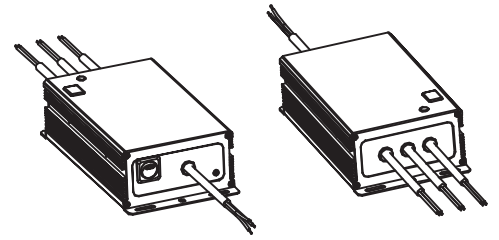
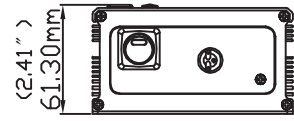
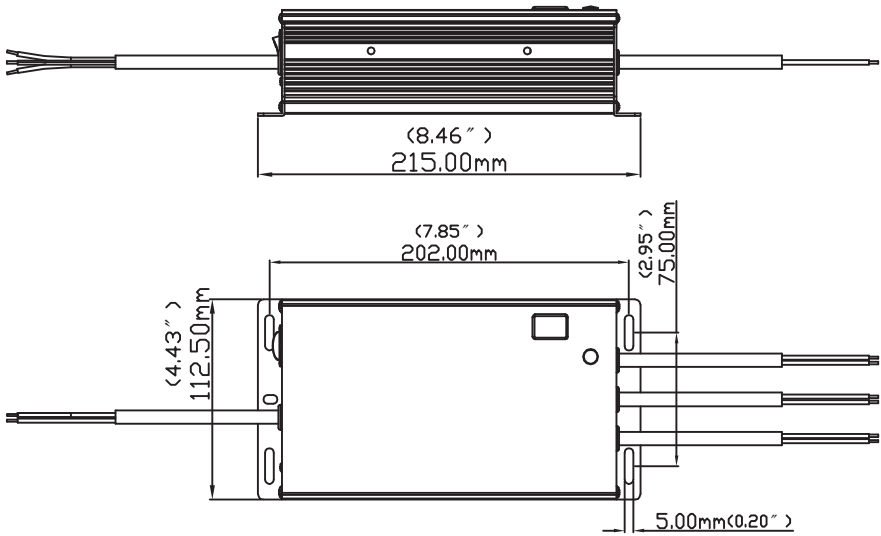
Carton size: L256xW256xH204(MM)

Weight: 2.21kg/pcs;

Total Weight: 4pcs/carton; G.W.9.90KG; N.W.8.84KG

Mechanical Diagrams

3 Channel Model



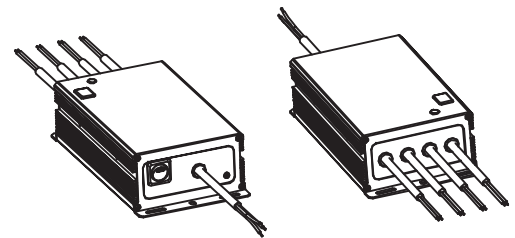
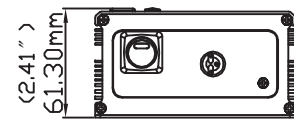
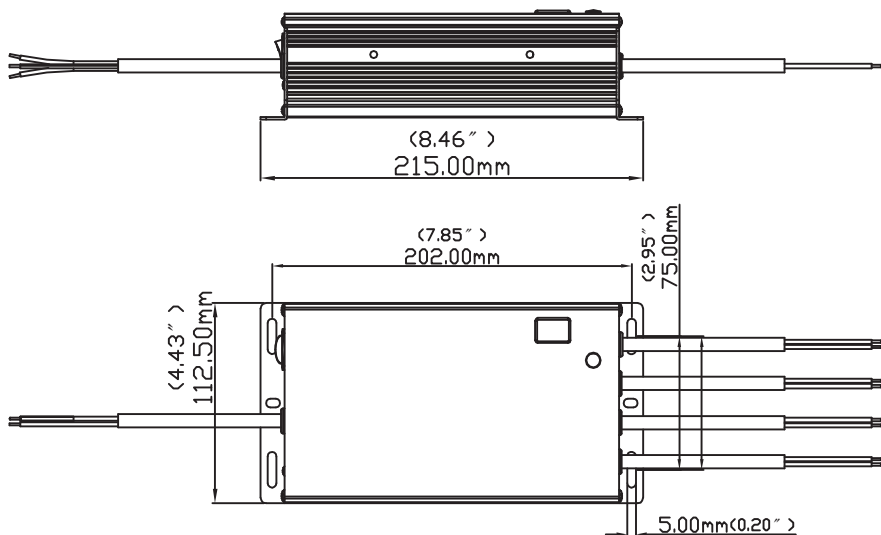
Packing Information

Carton size: L256xW256xH204(MM)

Weight: 2.21kg/pcs;

Total Weight: 4pcs/carton; G.W.9.90KG; N.W.8.84KG

4 Channel Model



Packing Information

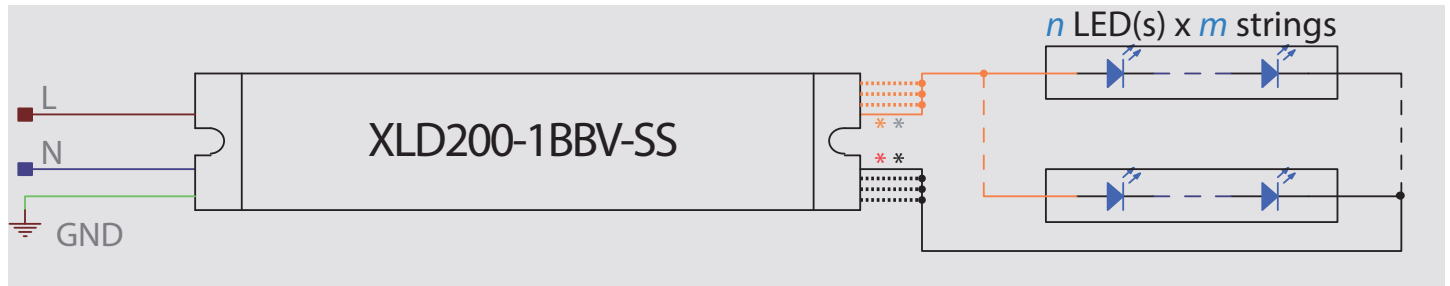
Carton size: L256xW256xH204(MM)

Weight: 2.21kg/pcs;

Total Weight: 4pcs/carton; G.W.9.90KG; N.W.8.84KG

Configuration Arrays

Single Channel Output Models



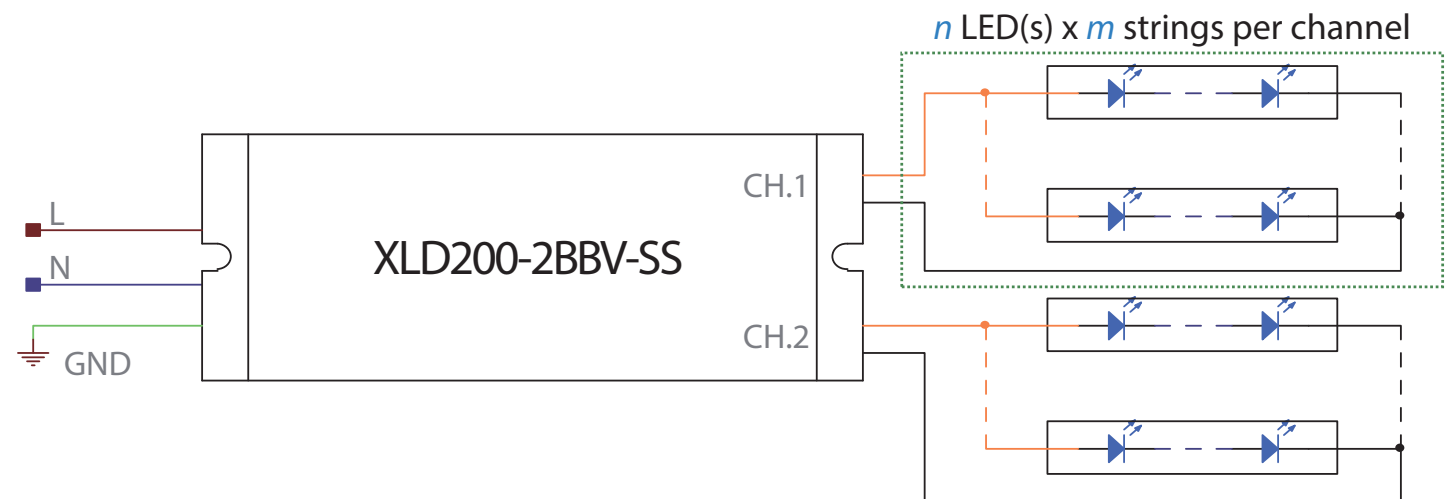
Single Channel	CC mode LED Voltage Range (V)	Recommended n LED(s) per String *	Current POT Adjust Range (A)	LED Current per String
XLD200-112V-SS**	6 - 12	2 - 4	1.67 - 17.5	$= \frac{I_{out}}{m \text{ Strings}}$
XLD200-124V-SS**	12 - 24	4 - 9	0.83 - 8.75	
XLD200-148V-SS	24 - 48	9 - 18	0.42 - 4.38	
XLD200-170V-SS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

* LED Vf range: 2.7-3.6V

** XLD200-112V-SS 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-SS 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-SS	12.0 - 24.0	3 - 9	0.28 - 8.75	$= \frac{I_{out}}{m \text{ Strings}}$
XLD200-236V-SS	18.0 - 36.0	5 - 13	0.22 - 5.83	
XLD200-248V-SS	24.0 - 48.0	7 - 18	0.21 - 4.38	

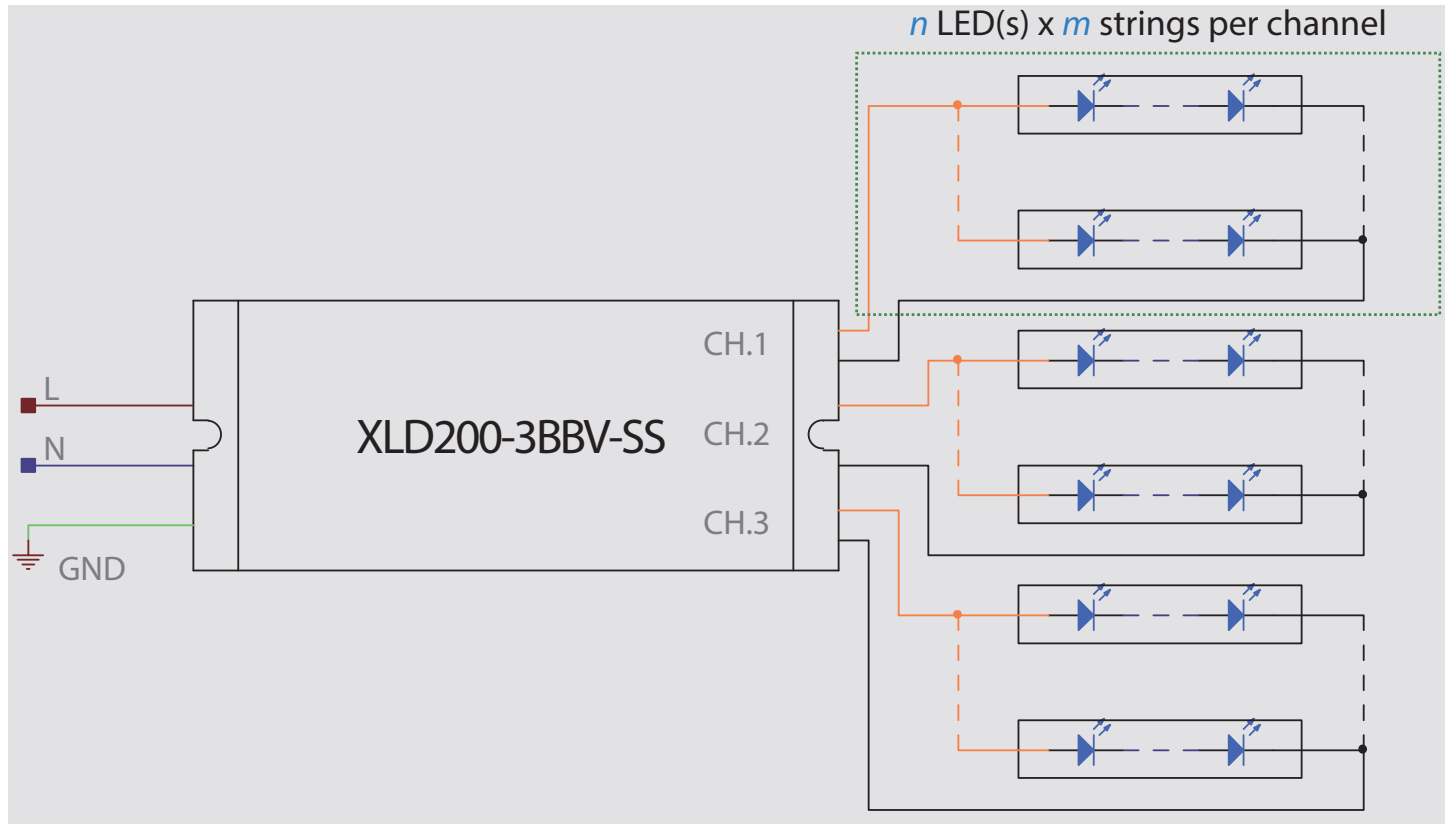
* LED Vf range: 2.7-3.6V

** XLD200-112V-SS 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-SS 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

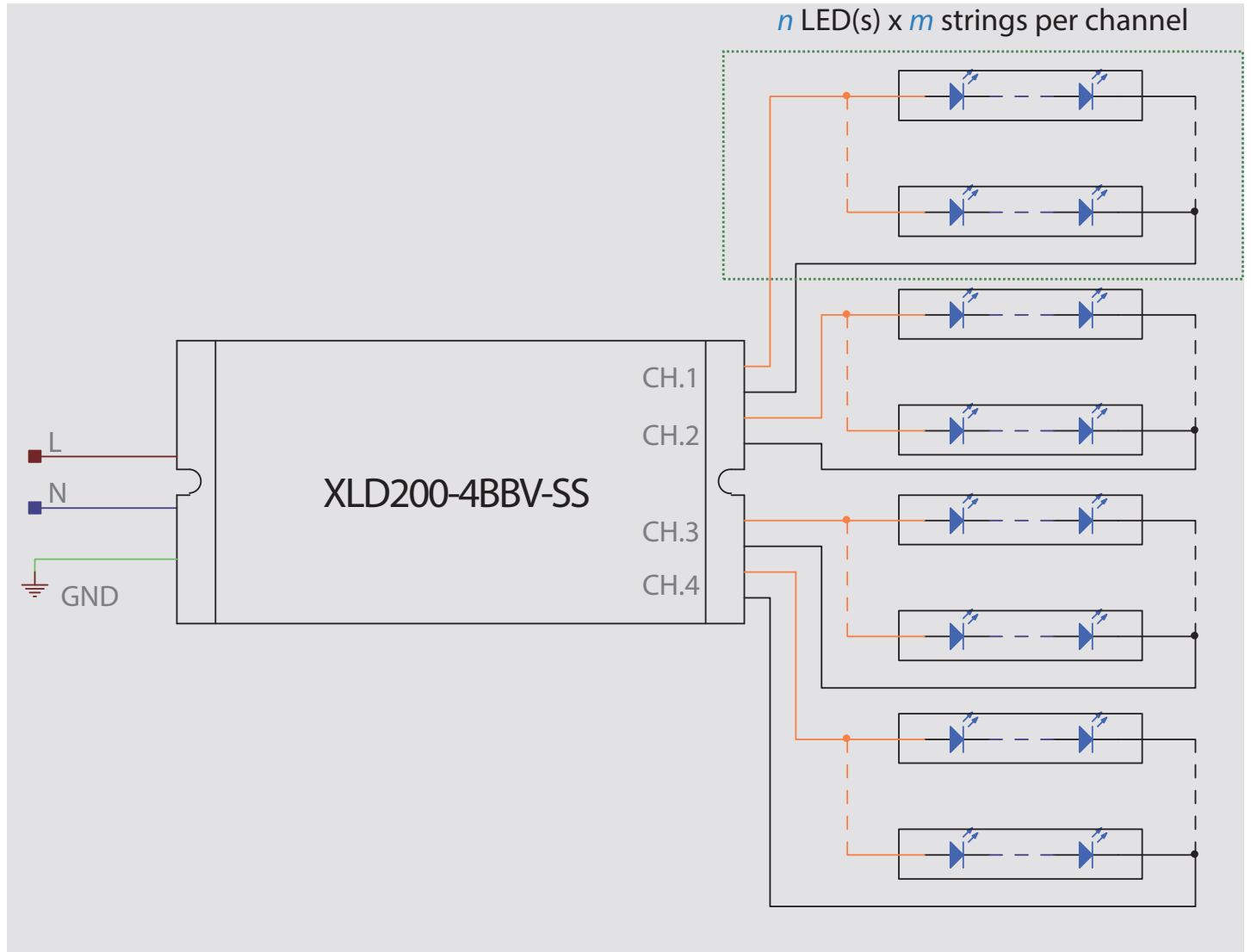


3 Channels	CC mode LED Voltage Range (V)	Recommended n LED(s) per String *	Current POT Adjust Range (A)	LED Current per String
XLD200-315V-SS	7.5 - 15.0	2 - 5	0.44 - 14.00	$= \frac{I_{out}}{m \text{ Strings}}$
XLD200-324V-SS	12.0 - 24.0	3 - 9	0.28 - 8.75	
XLD200-330V-SS	15.0 - 30.0	4 - 11	0.22 - 7.00	
XLD200-336V-SS	18.0 - 36.0	5 - 13	0.19 - 5.83	
XLD200-348V-SS	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-SS	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				

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