



Safety Switch LED Driver with smart output monitor and AC power switch

Class 2 75 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 75-SS (75 Watt power rating) is fully potted and can work in extremely low temperature environments (-40°C to +60°C). This unit features universal input 90-305 VAC and its user-friendly output voltage/current adjust pots allow you to easily tune the unit to drive your system at the appropriate power levels enabling flexibility and compatibility with a wide variety of indoor/outdoor LED lighting systems.

XLD75-SS

Dual Mode CC/CV LED Drivers



IP65

Model Selection Key

XLD75-ABBV-SS

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

Features

- Universal AC input
- AC ON/OFF Power Switch with LED indicator for easy monitoring 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
- Built-in protection: SCP,OTP,OVP,OCP
- UL Class I and II, cUL,CE,FCC Title 47 CFR 25 Class B
- IP 65
- 3 Years Warranty

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
XLD75-112V-SS	90-305	1	5.0	6.0	12.0	0.50	5.25	12	0	5.25	8.4	12.6	60	60
XLD75-115V-SS	90-305	1	5.0	7.5	15.0	0.50	5.25	15	0	5.25	10.5	15.8	75	75
XLD75-124V-SS	90-305	1	3.1	12.0	24.0	0.31	3.30	24	0	3.30	16.8	25.2	75	75
XLD75-136V-SS	90-305	1	2.1	18.0	36.0	0.21	2.18	36	0	2.18	25.2	37.8	75	75
XLD75-148V-SS	90-305	1	1.6	24.0	48.0	0.16	1.65	48	0	1.65	33.6	50.4	75	75

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

* = PSE Approval: 100-120 VAC Only

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

Input Specification

Voltage Range	Frequency Range	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 @100-277 V _{AC} Full load	< 25% @ Full load

Output Specification

Max Power	75 W	Transient Response	8 mS, full load to Half load, 120 VAC Input
Line Regulation	+/- 1% Max	Short Circuit Protection	Hiccup-Mode, Auto-Recovery upon removal of short circuit condition.
Efficiency	>80% @ Full Load, 230 VAC 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	+/- 5% Max (Current Setting Adjustable via on-board pot: +5%/-90%)
Over Current Protection	125% Max	Over Voltage Protection	132% Max
Hold-up Time	2 mS @ full load, 120V _{AC} input	Start-up Time	2 sec. Typical@ start-up to full load, 120V _{AC} input
		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 Damp Locations, UL 48, cUL, CE, UL #: E342485 EN 61347-2-13, PSE
Weatherability:	EN60529 IP 65

Mechanical

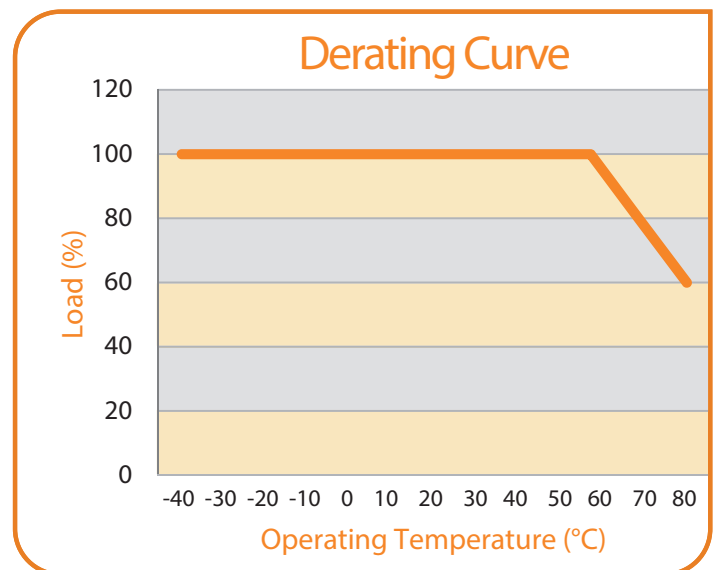
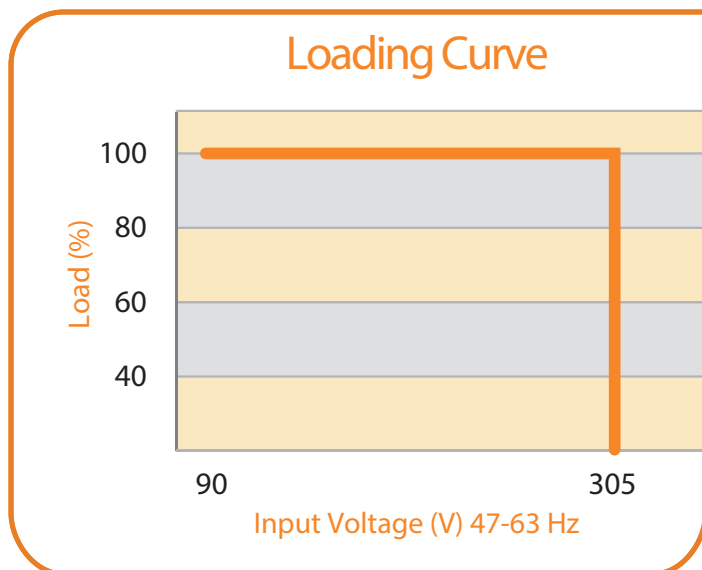
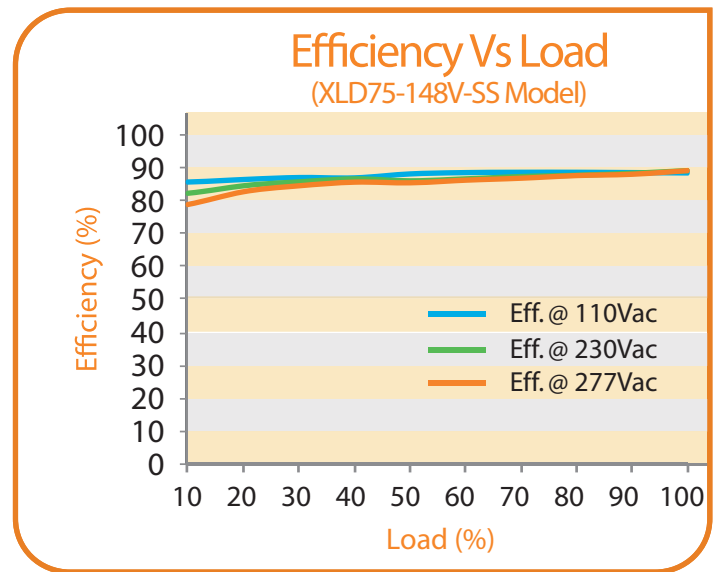
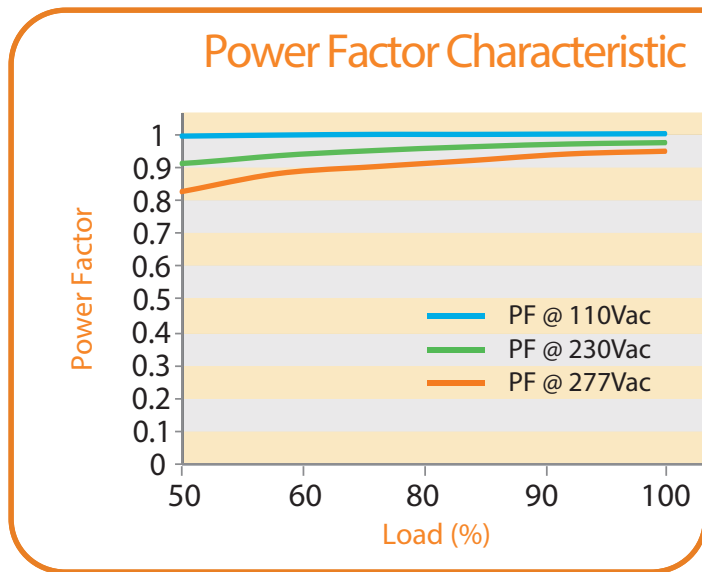
Material:	NEMA 3 Aluminum extruded enclosure. with IP 65 Waterproof On/OFF switch and LED indicator, fully potted PCB.
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Remote Dimming Options

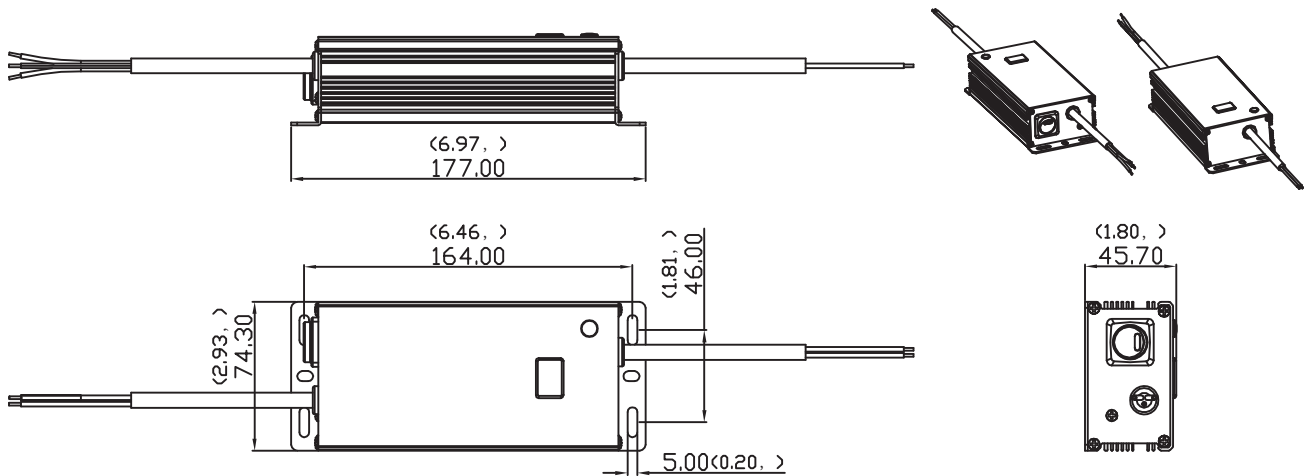
Dimming Types	Dimming Control
1. PWM-1kHz, 1-100%	• 1-10V DC
2. Constant Current, 10-100%	• Potentiometer
3. Output Voltage, 75-100%	• Serial Comm. (2-wire)
4. Compatible with SLD/XLD DIM	• Wireless Remote



Performance Curves



Mechanical Diagrams



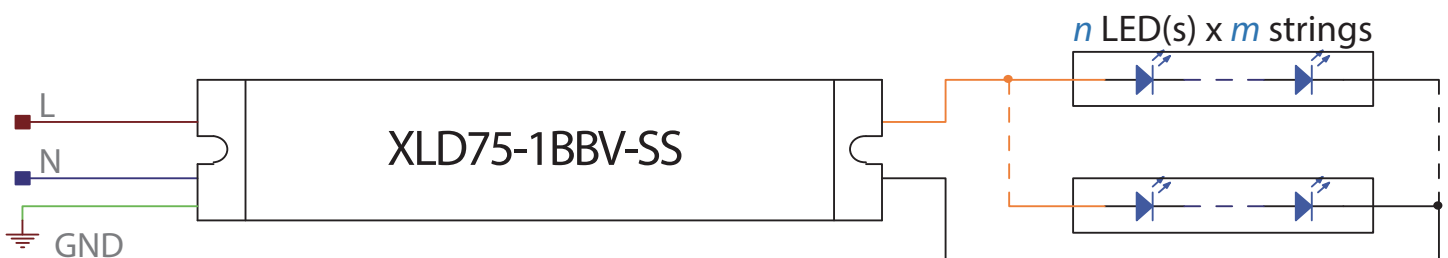
Packing Information

Carton size: L259xW218xH156(MM)

Weight: 0.88kg/pcs;

Total Weight: 6pcs/carton; G.W.6.30KG; N.W.5.28KG

Configuration Arrays



Model	CC mode LED Voltage Range (V)	Recommended n LED(s) per String *	Current POT Adjust Range (A)	LED Current per String
XLD75-112V-SS	6 - 12	2 - 4	0.5 - 5.25	$= \frac{I_{out}}{m \text{ Strings}}$
XLD75-115V-SS	7.5 - 15	2 - 5	0.5 - 5.25	
XLD75-124V-SS	12 - 24	4 - 9	0.31 - 3.29	
XLD75-136V-SS	18 - 36	7 - 14	0.21 - 2.18	
XLD75-148V-SS	24 - 48	9 - 18	0.16 - 1.64	

* LED Vf range: 2.7-3.6V

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