



# SLD120

## Signage / Architectural LED Drivers

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



### Model Selection Key

SLD120-ABBV-FC

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

## Plug-and-Play Class 2 120 Watt LED Driver

The SLD 120 is an installation-ready, dual channel, 120 Watt, LED driver. This switched-mode, AC/DC design comes with 90-264VAC input, adjustable voltage/current trim pots, and is fully potted to enable maximum flexibility of use, for both indoor and outdoor LED lighting applications. This unit's revolutionary design allows for all DC and AC wiring to be done inside the unit, without the need for external junction boxes, saving you valuable time and installation costs, as well improving overall reliability of your LED lighting system.

### Features

- Plug-and-Play Conduit Entry Ports and Wiring Compartments eliminate need for external Junction boxes.
- Universal Input 90-264 V<sub>AC</sub>
- Dual Channel Operation for multiple strings of LEDs
- User Adjustable Output Voltage and Current
- UL/cUL/FCC/CE/EMC
- Built in Over Current, Over Voltage, and Short Circuit Protection
- Low peak/noise current
- Up to IP 67
- Remote Dimming Options
- 3 Years Warranty

### Applications

- Architectural Lighting
- Effect & Contour Lighting
- Office General Illumination
- Residential Lighting
- Signage
- Strip Lighting
- Horticultural Lighting

Model Number	Input Voltage Range (V <sub>AC</sub> )	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 <sub>DC</sub> )		Current Pot Adjustable Range (All Channels) (A)		Preset Vout (V <sub>DC</sub> )	Load Range (per Channel) (A)		Voltage Pot Adjustable Range (V <sub>DC</sub> )			
				min	max	min	max		min	max	min	max		
SLD120-210V-FC	90-264	2	5.00	7.0	10.5	0.50	10.00	10	0	5.00	7.0	10.5	53	100
SLD120-212V-FC	90-264	2	5.00	8.4	12.6	0.50	10.00	12	0	5.00	8.4	12.6	63	120
SLD120-215V-FC	90-264	2	5.00	10.5	15.8	0.50	8.00	15	0	5.00	10.5	15.8	79	120
SLD120-218V-FC	90-264	2	5.00	12.6	18.9	0.50	6.67	18	0	5.00	12.6	18.9	95	120
SLD120-221V-FC	90-264	2	4.57	14.7	22.1	0.46	5.70	21	0	4.57	14.7	22.1	100	120
SLD120-224V-FC	90-264	2	4.00	16.8	25.2	0.40	5.00	24	0	4.00	16.8	25.2	100	120
SLD120-227V-FC	90-264	2	3.55	18.9	28.4	0.36	4.44	27	0	3.55	18.9	28.4	100	120
SLD120-236V-FC	90-264	2	2.66	25.2	37.8	0.27	3.33	36	0	2.66	25.2	37.8	100	120
SLD120-248V-FC	90-264	2	2.00	33.6	50.4	0.20	2.50	48	0	2.00	33.6	50.4	100	120

FC = Patented, easy install enclosure with integral wiring compartments

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

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

## Input Specification

Voltage Range	Frequency Range	Max In rush Current	Power Factor	THD
90-264 V <sub>AC</sub> (NOM: 120/240 V <sub>AC</sub> )	47-63 Hz	50A@230 V <sub>AC</sub> input, 25°C, cold start-up	0.9 min	<25% @ Full Load

## Output Specification

Max Power	120 W	Transient Response	4 mS, full load to half load, 100 V <sub>AC</sub> Input
Load Regulation	+/- 1% Max	Short Circuit Protection	Hiccup-Mode, Auto-Recovery upon removal of short circuit condition.
Efficiency	80% typ.	Constant Voltage (CV) Mode Load Regulation	+/- 3% 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 sec. Typical	Over Voltage Protection	132% Max
Hold-up Time	16mS @ full load, 100V <sub>AC</sub> input	Over Current Protection	Constant-current limiting

\* 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
100,000 hours (Full load @ 25°C Ambient, Based on MIL-217F)	Convection	-30°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/cUL 1012/1585 UL 1310 Class 2, UL 48 CE
Weatherability:	EN60529 Up to IP 67

## 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 DIM	<ul style="list-style-type: none"> <li>1-10V DC</li> <li>Potentiometer</li> <li>Serial Comm. (2-wire)</li> <li>Wireless Remote</li> </ul>

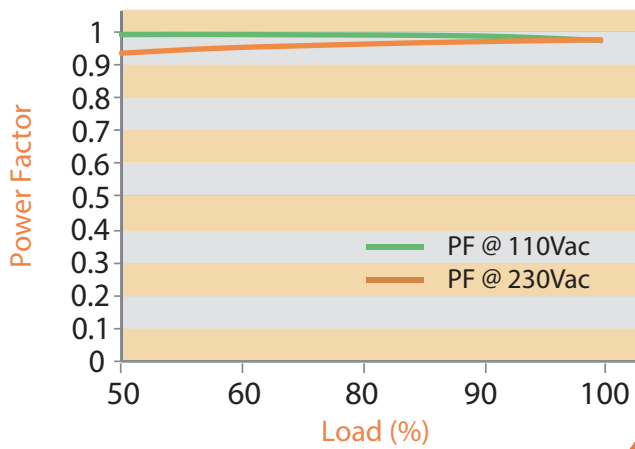


## Mechanical

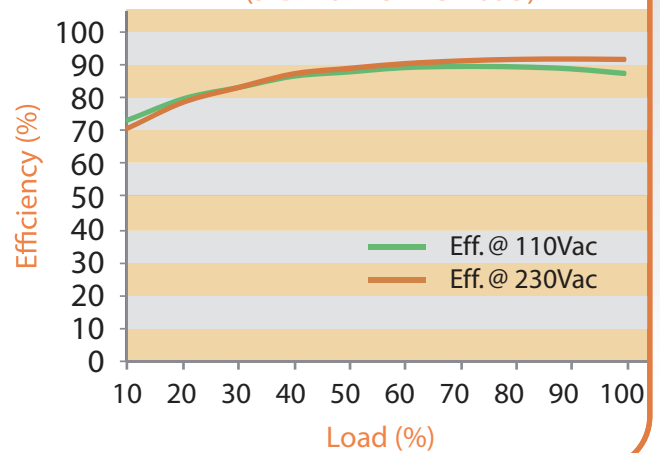
Material:
NEMA 3 Design with patented AC and DC Wiring compartments, fully potted PCB.

## Performance Curves

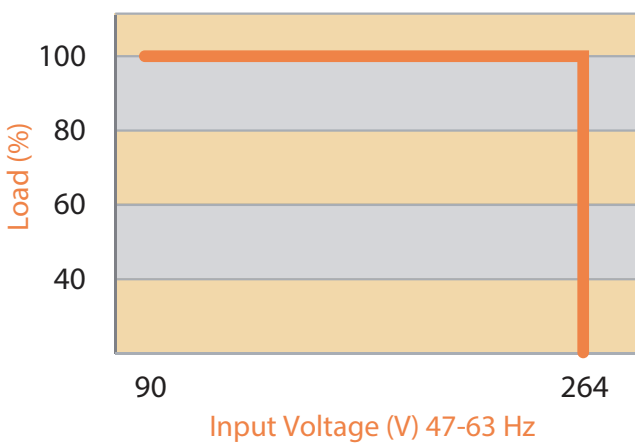
### Power Factor Characteristic



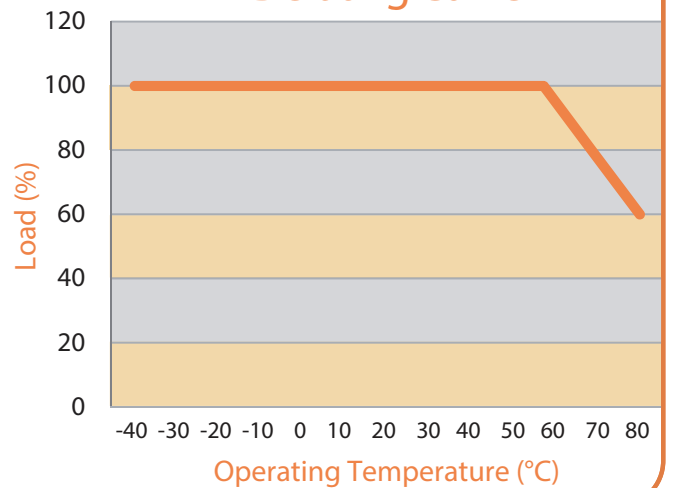
### Efficiency Vs Load (SLD120-248V-FC Model)



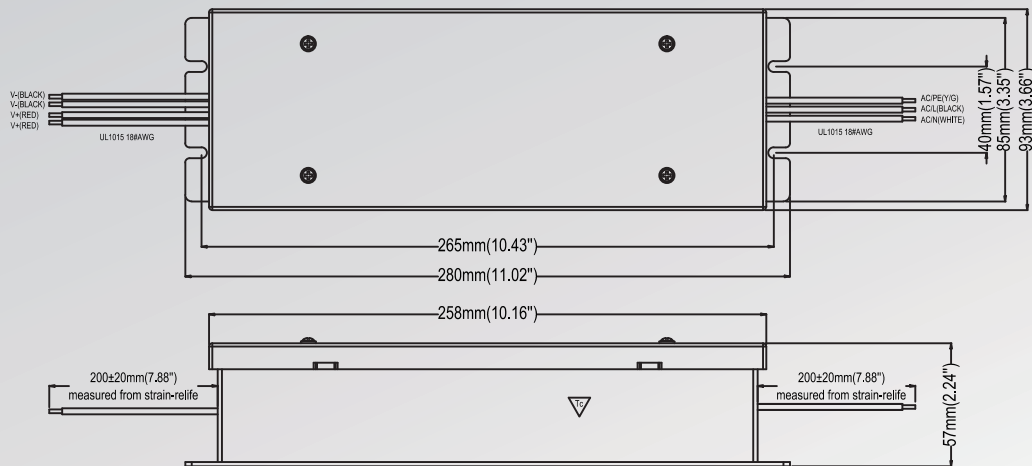
### Loading Curve



### Derating Curve

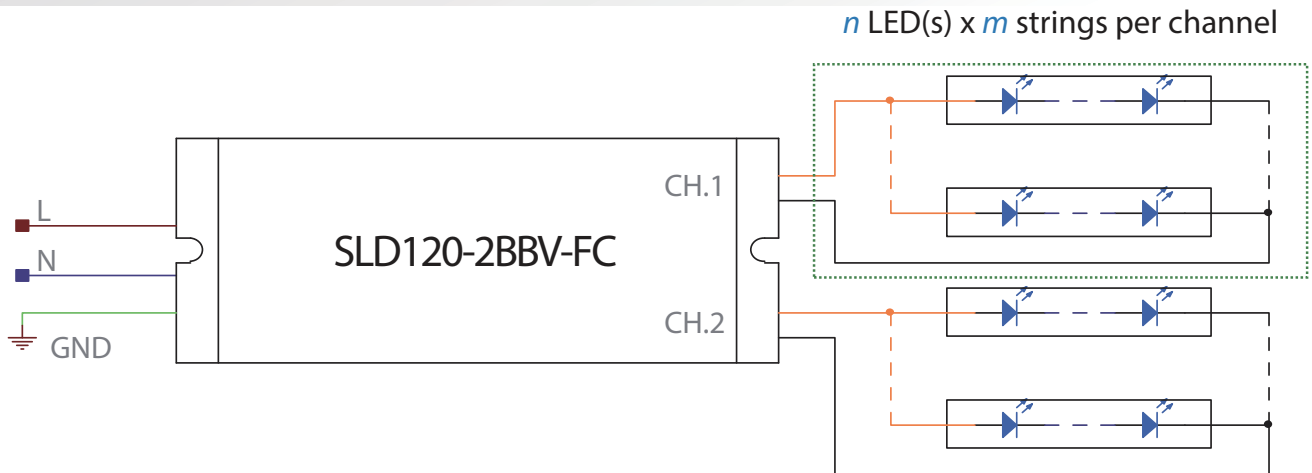


## Mechanical Diagrams



**Packing Information**  
 Weight: 1.550 kg/pcs, 12.0 kg/carton  
 12 pcs/carton; L395xW365xH230 (mm)  
 US Patent Numbers: 7,154,755 & 7,738,253

## Configuration Arrays



Model	CC mode LED Voltage Range (V)	Recommended n LED(s) per String *	Current POT Adjust Range (A)	LED Current per String
SLD120-210V-FC	7.0-10.5	2-4	0.5 0-10.00	$= \frac{I_{out}}{m \text{ Strings}}$
SLD120-212V-FC	8.4-12.6	3-5	0.50-10.00	
SLD120-215V-FC	10.5-15.8	3-6	0.50-8.00	
SLD120-218V-FC	12.6-18.9	4-7	0.50-6.67	
SLD120-221V-FC	14.7-22.1	4-8	0.46-5.70	
SLD120-224V-FC	16.8-25.2	5-9	0.40-5.00	
SLD120-227V-FC	18.9-28.4	5-10	0.36-4.44	
SLD120-236V-FC	25.2-37.8	7-14	0.27-3.33	
SLD120-248V-FC	33.6-50.4	9-18	0.20-2.50	
*LED Vf range: 2.7-3.6V, CH.1 & CH.2 Output Voltage/Current equal				

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