

**FEATURES**

**150W Constant Current With Dimming**

**LSWCD150 SERIES**

- Ultra High Efficiency (Up to 93%)
- Build-in Active PFC (0.99 Typical)
- All-Round protection: OVP, SCP, OTP
- Dimming Function
- Waterproof (IP67)
- Constant Output Current



**SPECIFICATION**

Model		LSWCD150S035ST	LSWCD150S045ST	LSWCD150S070ST	LSWCD150S105ST	LSWCD150S140ST	LSWCD150S175ST	
Output	Voltage	257~429	200~333	129~214	86~143	64~107	52~86	
	Current (min-max)	350 mA	450 mA	700 mA	1050 mA	1400 mA	1750 mA	
	No load Output Voltage $\pm 5$ V	446	347	223	149	111	89	
	Ripple & Noise (3)	12.9 V	10.0 V	6.4 V	4.3 V	3.2 V	2.6 V	
	Line Regulation	1%						
	Load Regulation	3%						
	Turn-on Delay Time (typ-max)	1.0 ~2.0s						
	Leakage	0.75 m A Vin=277V, 50Hz						
Input	Voltage Range	90 ~ 305 Vac						
	Frequency Range	47Hz ~63Hz						
	PFC (2)	110VAC	0.99	0.99	0.99	0.99	0.99	0.99
		220VAC	0.96	0.96	0.96	0.96	0.96	0.96
	Efficiency (Typ.) at 220Vac *(2)	93.0%	93.0%	93.0%	93.0%	92.5%	92.5%	
	Inrush Current	65A cold start, Vin=230V						
AC Current (Typ.)	1.6 A / 110 VAC		0.75 A / 220 VAC					
Protections	Short Circuit Protection	Protection type : Hiccup mode, recovers automatically after fault condition is removed						
	Over Temperature Protection (Typ.)	110 °C						
	Over Voltage (Typ.)	1.2% Vo $\pm$ 5% floating deviation (Latch mode. The power supply shall return to normal operation only after the power is turn-on again.)						
Environmental	Temperature Range	Operational	- 35°C ~ 60°C					
		Storage	- 40 ~ +85°C					
	Humidity	Operational	10% ~ 100% RH					
		Storage	5% ~100% R.H					
Safety & EMC	Safety Standards	UL8750, UL935, UL1012, CSA-C22.2 No.107.1 EN61347-1, EN61347-2-13						
	EMI Conduction & Radiation	EN55015						
	EMS Immunity	EN61000-3-2, EN61000-3-3, EN61000-4-2, EN61000-4-3, EN61000-4-4, EN61000-4-5, EN61000-4-6, EN61000-4-8, EN61000-4-11, EN61547						
Others	MTBF	350,000 HOURS						
	Life Time	75,000 hours						
	Dimension	Inches (L*W*H)		7.40*3.07*1.46		Millimeters (L*W*H) 188.5*78*37		
	Weight	1100G						



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**SPECIFICATION**

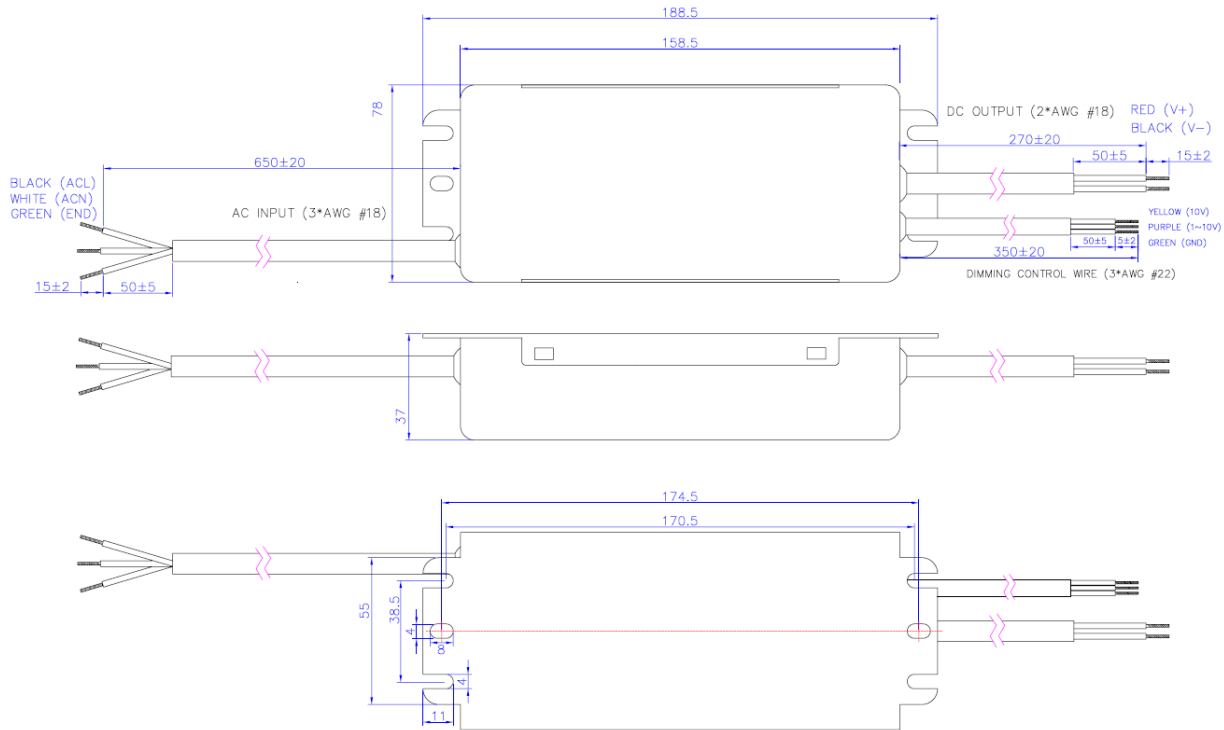
Model		LSWCD150S210ST	LSWCD150S280ST	LSWCD150S315ST	LSWCD150S350ST	LSWCD150S420ST	
Output	Voltage	43~71	32~54	29~48	26~43	21~36	
	Current Range	2100 mA	2800 mA	3150 mA	3500 mA	4200 mA	
	No load Output Voltage $\pm 5$ V	78	58	52	47	37	
	Ripple & Noise (3)	2.1	1.6 V	1.4 V	1.3 V	1.1 V	
	Line Regulation	1%					
	Load Regulation	3%					
	Turn-on Delay	1.0 ~2.0s					
	Leakage	0.75 mA $V_{in}=277V, 50Hz$					
Input	Voltage Range	90 ~ 305 Vac					
	Frequency Range	47Hz ~ 63Hz					
	P FC (2)	110VAC	0.99	0.99	0.99	0.99	0.99
		220VAC	0.96	0.96	0.96	0.96	0.96
	Efficiency (Typ.) at 220Vac (2)	92.0	91.0%	91.0%	91.0%	91.0%	
	Inrush Current	65A cold start, $V_{in}=230V$					
AC Current (Typ.)	1.6 A / 110 VAC		0.75 A / 220 VAC				
Protections	Short Circuit Protection	Protection type : Hiccup mode, recovers automatically after fault condition is removed					
	Over Temperature Protection (Typ.)	110 °C					
	Over Voltage (Typ.)	1.2% $V_o \pm 5\%$ floating deviation (Latch mode. The power supply shall return to normal operation only after the power is turn-on again.)					
Environmental	Temperature Range	Operational	- 35°C ~ 60°C				
		Storage	- 40 ~ +85°C				
	Humidity	Operational	10% ~ 100% RH				
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Others	MTBF	350,000 hours					
	Life Time	75,000 HOURS					
	Dimension (L*W*H)	Inches (L*W*H) 7.40*3.07*1.46		Millimeters (L*W*H) 188.5*78*37			
	Weight	1100G					



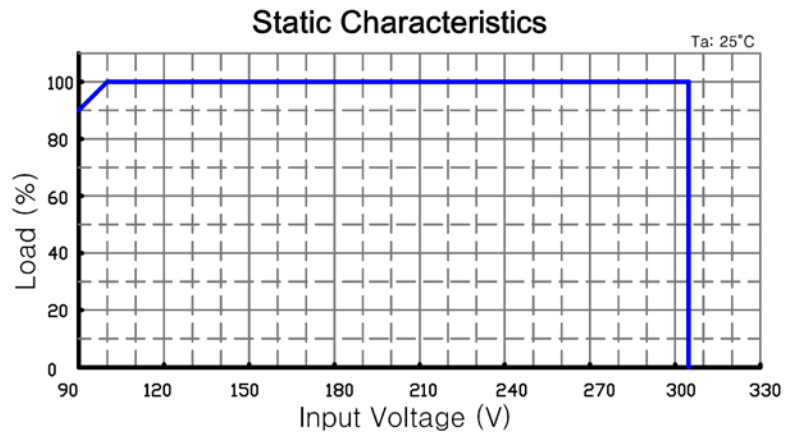
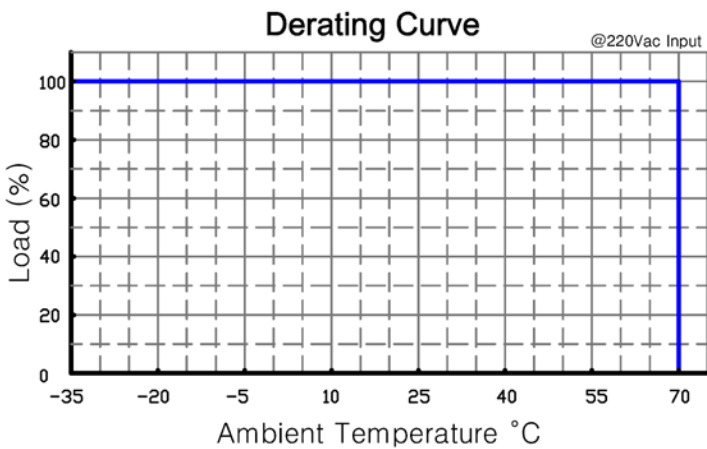
**NOTE:**

1. All specifications are typical at 25°C unless otherwise stated.
2. The “Efficiency” & “PF” values are measured at full load, after the unit is thermally stabilized, otherwise they will be lower about 1%.
3. The “Ripple & Noise” values are measured by 20MHz bandwidth oscilloscope and the output paralleled a 0.1uF ceramic capacitor and a 10uF electrolytic capacitor.

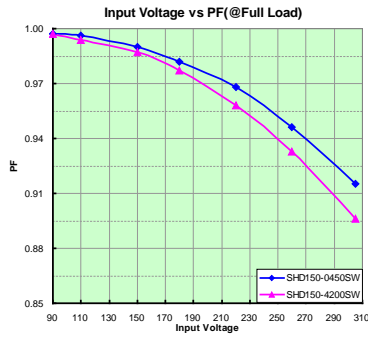
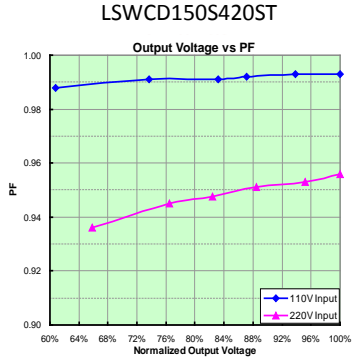
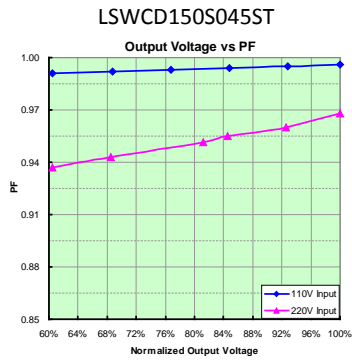
**Mechanical Specification**



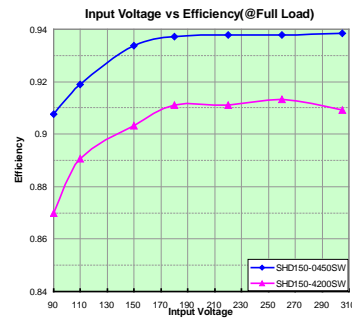
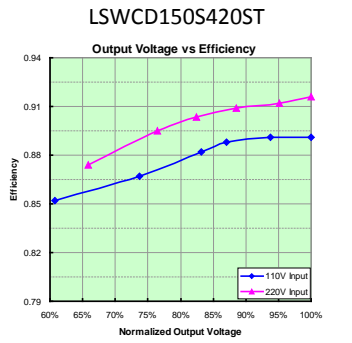
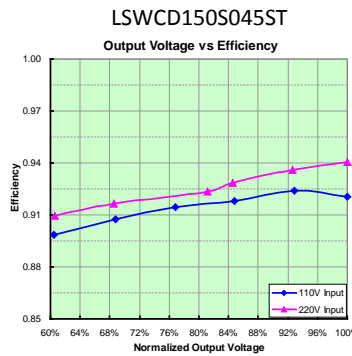
**Derating Character**



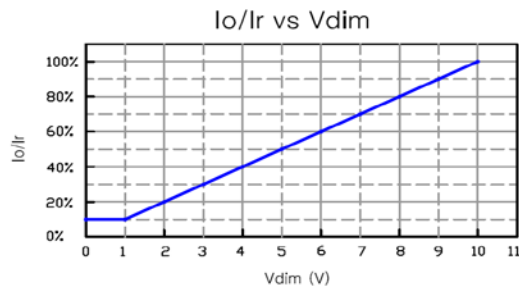
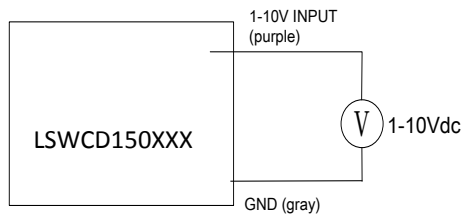
**Power Factor Characters**



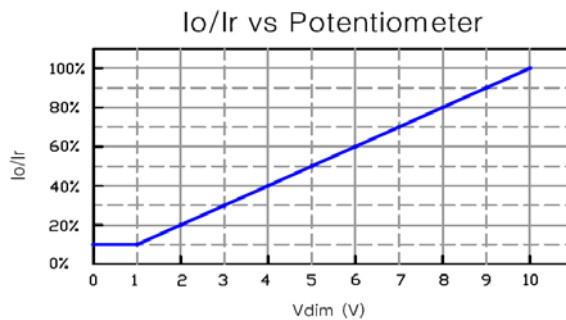
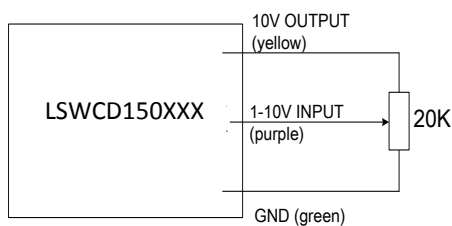
**Efficiency vs Load**



**Dimming Function**



**Mode 1 : 1-10Vdc Input on Dimming Control**



## Mode 2 : External Resistor on Dimming Control

- NOTE:**
- 1.If the dimming function is not used, short 10V output pin (yellow) and 1-10V input pin (purple).
  2.  $I_o$  is actual output current and  $I_r$  is rated current without dimming control.
  3. For the driver to operate properly, the load voltage must be maintained above the minimum voltage threshold, proximally 50% of the max. output voltage for any given mode.
  4. The dimming signal is allowed to be less than 1V, when it for 0-1V, the output current can maintain about 10%  $I_r$ , however, the connected LEDs may flicker. Keeping dimming voltage greater than 1V in application is strongly recommended.
  5. Do not connect the GND of dimming to the output. Otherwise, the LED driver will not work.

### PART NUMBER SCHEME

