

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 ± 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 $V_{in}=277V$, 50Hz					
Input	Voltage Range		90 ~ 305 Vac				
	Frequency Range		47Hz ~63Hz				
	PFC (2)	110VAC	0.99	0.99	0.99	0.99	0.99
		220VAC	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%
	Inrush Current		65A cold start, $V_{in}=230V$				
Protections	AC Current (Typ.)		1.6 A / 110 VAC 0.75 A / 220 VAC				
	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				
		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

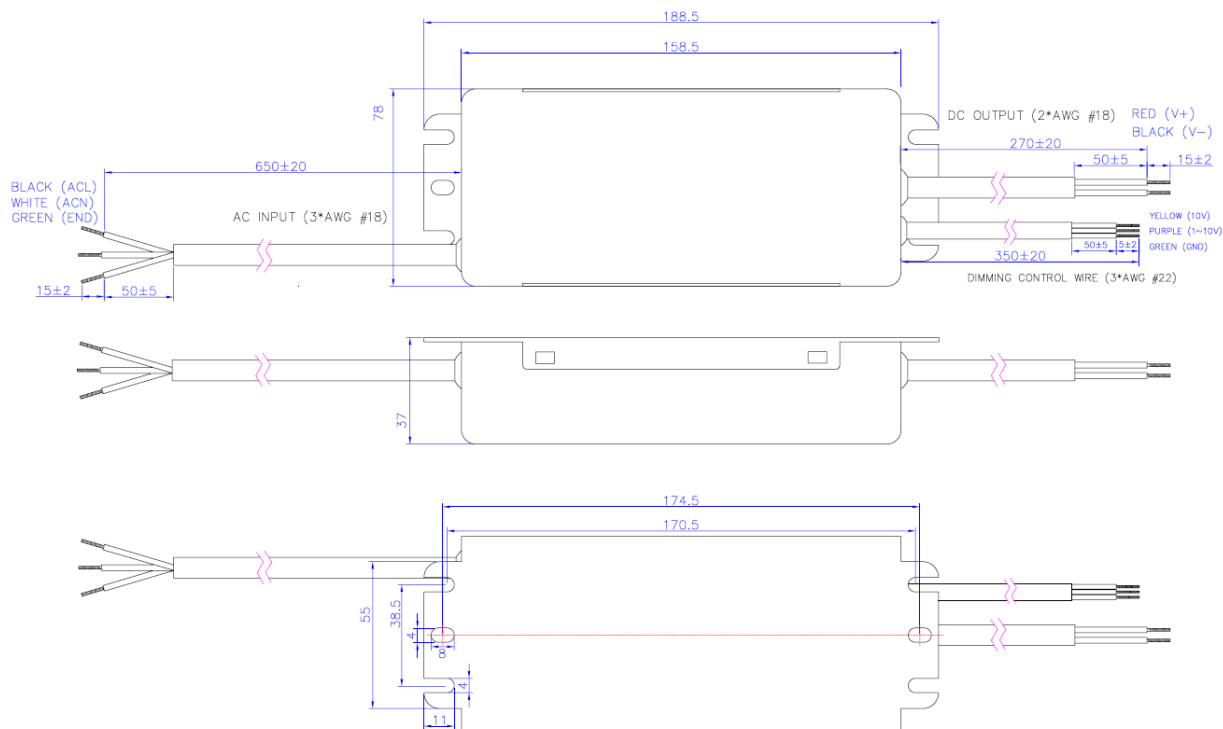
Model			LSWCD150S210ST	LSWCD150S280ST	LSWCD150S315ST	LSWCD150S350ST	LSWCD150S420ST
Output	Voltage		43~71	32~54	29~48	26~43	21~36
	Current Range		2100 mA	2800 mA	3150 mA	3500 mA	4200 mA
	No load Output Voltage ± 5 V		78	58	52	47	37
	Ripple & Noise (3)		2.1	1.6 V	1.4 V	1.3 V	1.1 V
	Line Regulation		1%				
	Load Regulation		3%				
	Turn-on Delay		1.0 ~2.0s				
	Leakage		0.75 mA Vin=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, Vin=230V				
Protections	AC Current (Typ.)		1.6 A / 110 VAC 0.75 A / 220 VAC				
	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 ±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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Safety & EMC	Safety Standards		UL8750, UL935, UL1012, CSA-C22.2 No.107.1 EN61347-1, EN61347-2-13				
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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:

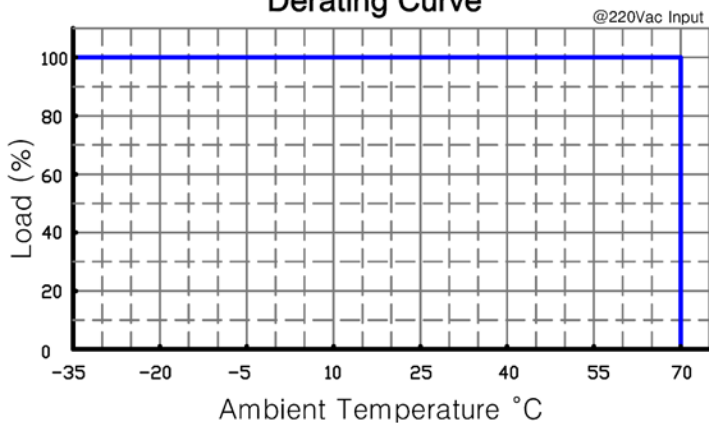
1. All specifications are typical at 25°C unless otherwise stated.
2. The “Efficiency” & “PF” values are measured at full load, after the unit is thermally stabilized, otherwise they will be lower about 1%.
3. The “Ripple & Noise” values are measured by 20MHz bandwidth oscilloscope and the output paralleled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

Mechanical Specification

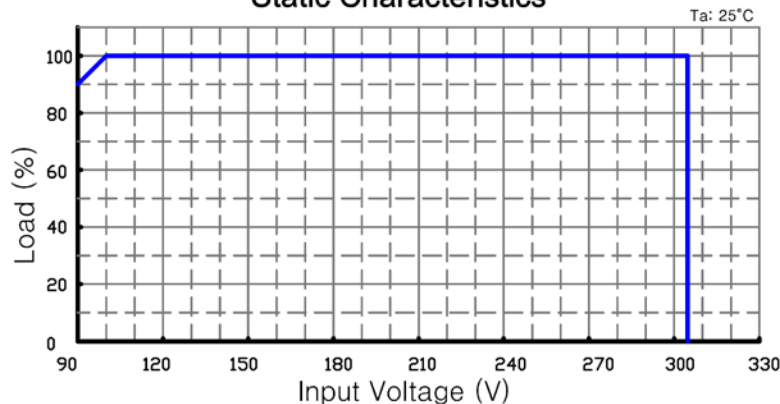


Derating Character

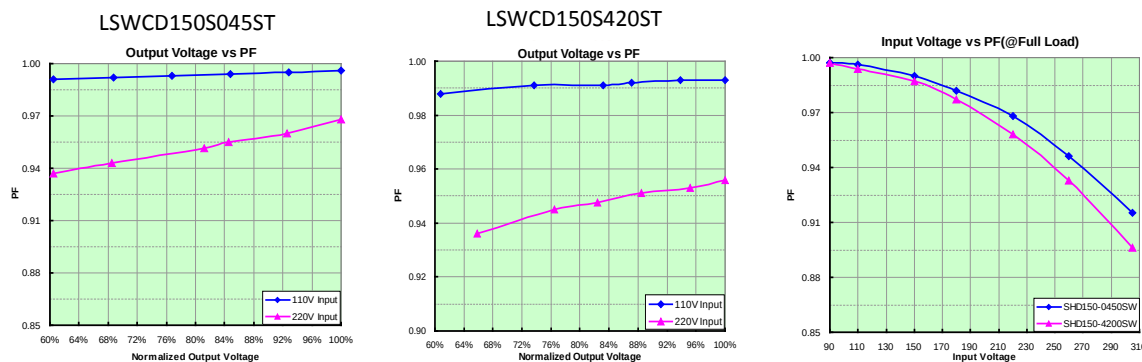
Derating Curve



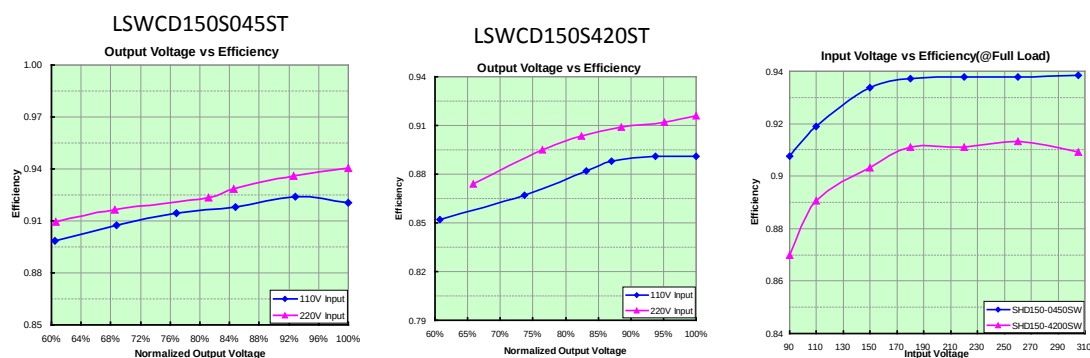
Static Characteristics



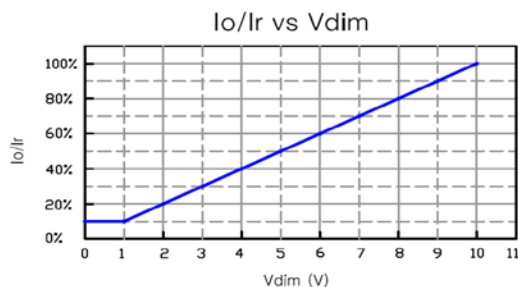
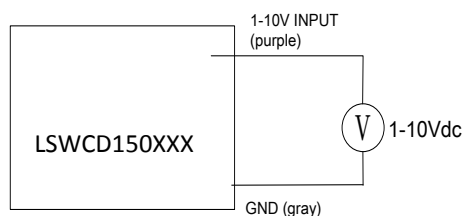
Power Factor Characters



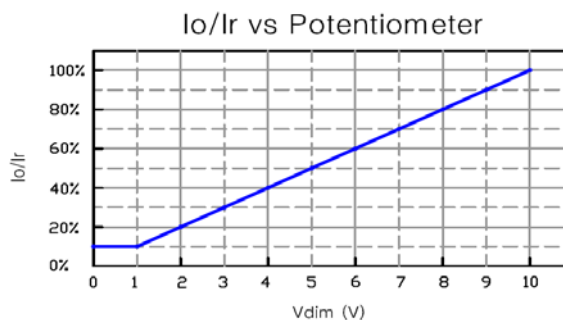
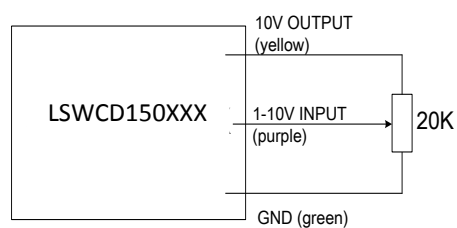
Efficiency vs Load



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

