FEATURES

120W Constant Current with Dimming LSWCD120 Series

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

SPECIFICATION

Model			LSWCD120S035ST	LSWCD120S045ST	LSWCD120S070ST	LSWCD120S105ST	LSWCD120S140ST
Output	Voltage		214~357	167~278	107~179	71~119	54~89
	Current (min-max)		350 mA	450 mA	700 mA	1050 mA	1400 mA
	No load Output Voltage ± 5 V		375	292	188	125	93
	Ripple & Noise (3)		10.7 V	8.3 V	5.4 V	3.6 V	2.7 V
	Line Regulation		1%				
	Load Regulation		3%				
	Turn-on Delay Time (typ–max)		0.8~1.2 s				
	Leakage		0.75 mA Vin=277V, 50Hz				
Input	Voltage Range		90 ~ 305 Vac				
	Frequency Range		47Hz ~63Hz				
	PFC(2)	110	0.99	0.99	0.99	0.99	0.99
		220	0.96	0.96	0.96	0.96	0.96
	Efficiency (Typ.) at 220Vac (2)		93.0%	93.0%	92.0%	91.0%	91.0%
	Inrush Current		65A cold start, Vin=230V				
	AC Current (Typ.)		1.25 A / 110 VAC 0.61 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.)		1.3 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 ~ 70°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		275,000 HOURS				
	Life Time		82,000 hours				
	Dimension		Inches (L*W*H) 7.40*3.07*1.46 Millimeters (L*W*H) 188.5*78*37				
	Weight		1100G				

FEATURES

120W Constant Current with Dimming LSWCD120 SERIES

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SPECIFICATION

Model			LSWCD120S210ST	LSWCD120S280ST	LSWCD120S315ST	LSWCD120S420ST	LSWCD120S175ST
Output	Voltage		36~60	27~45	24~40	18~30	43~71
	Current Range		2100 mA	2800 mA	3150 mA	4200 mA	1750 mA
	No load Output Voltage ± 5 V		63	47	42	32	75
	Ripple & Noise (3)		1.8 V	1.4 V	1.2 V	0.9 V	2.1
	Line Regulation		1% (Vac from min to max)				
	Load Regulation		3% (Output current from min to max)				
	Turn-on Delay		0.8~1.2 s				
	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	0.97	0.99
		220VAC	0.96	0.96	0.97	0.97	0.96
	Efficiency (Typ.) at 220Vac (2)		90.0%	90.0%	89.5%	89.5%	90.0%
	Inrush Current		65A cold start, Vin=230V				
	AC Current (Typ.)		1.25 A / 110 VAC 0.61 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.)		1.3 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 ~ 70°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				
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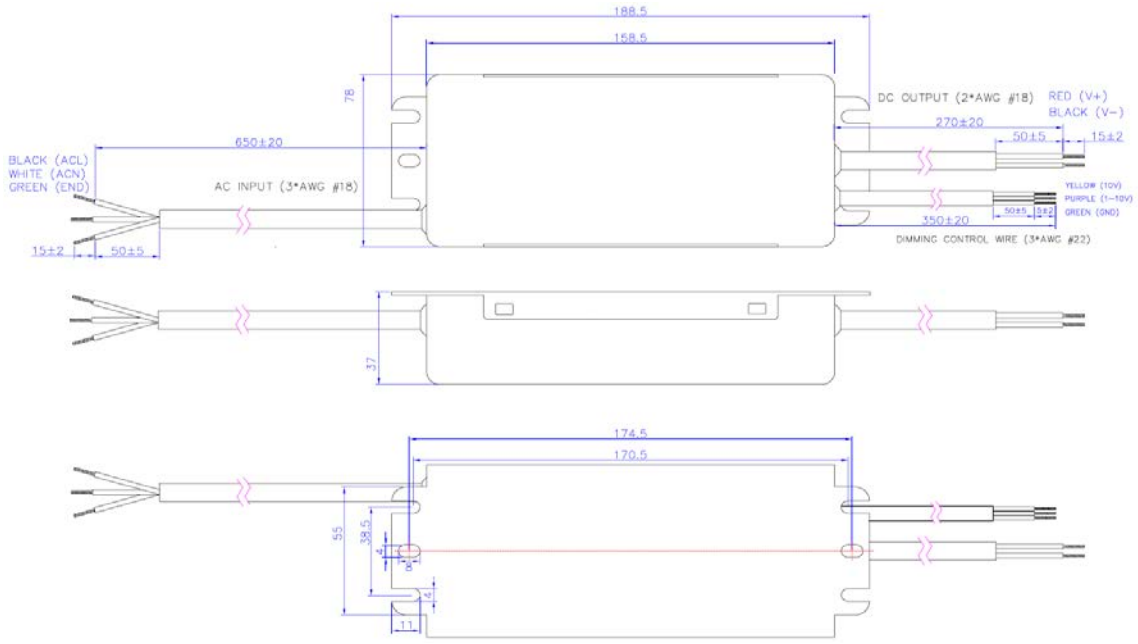
Others	MTBF		275,000 hours				
	Life Time		82,000 hours				
	Dimension (L*W*H)		Inches (L*W*H) 7.40*3.07*1.46 Millimeters (L*W*H) 188.5*78*37				
	Weight		1100G				

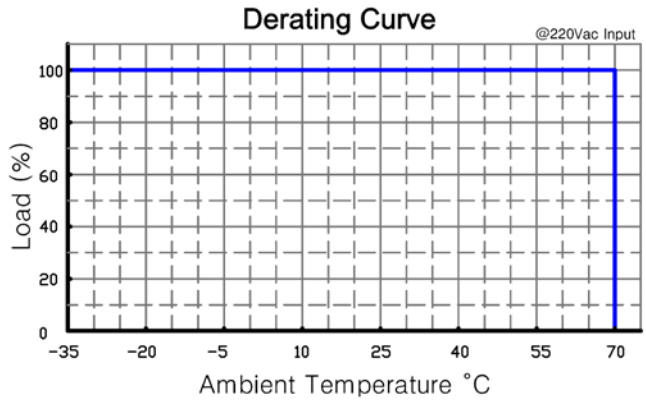
NOTE

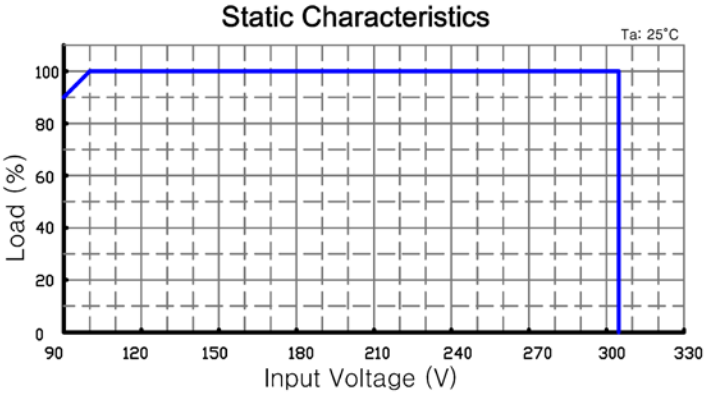
1. All specifications are typical at 25°C unless otherwise stated.
2. The “Efficiency” & “PF” values are measured at full load, after the unit is thermally stabilized, otherwise they will be lower about 1%.
3. The “Ripple & Noise” values are measured by 20MHz bandwidth oscilloscope and the output paralleled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

Mechanical Specification



Derating Character





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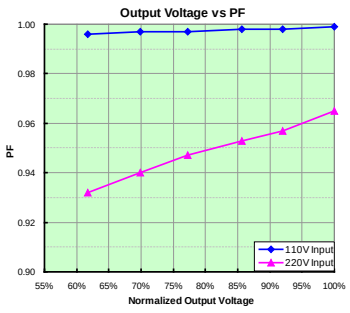
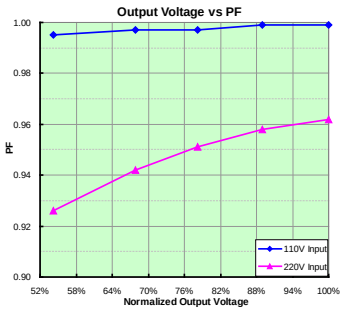
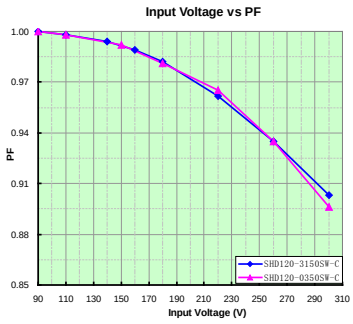
Power Factor Characters

LSWCD120S035ST



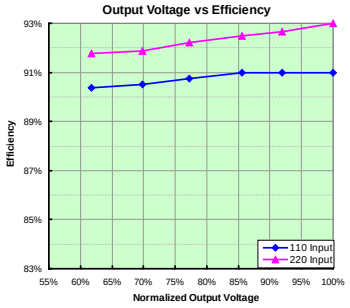
LSWCD120S315ST



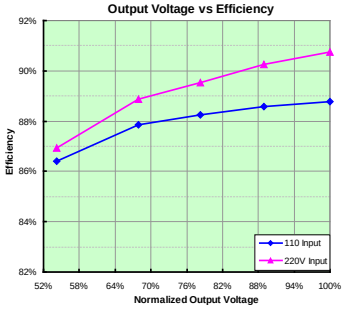


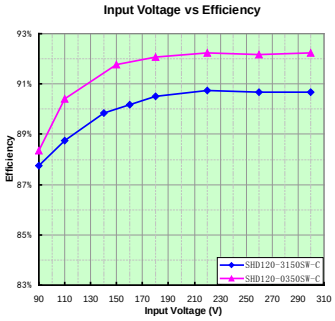
Efficiency vs Load

LSWCD120S035ST

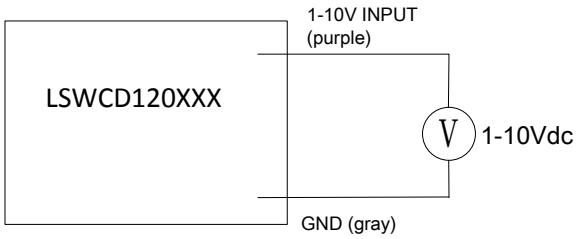


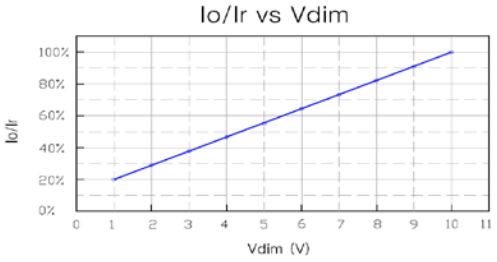
LSWCD120S315ST



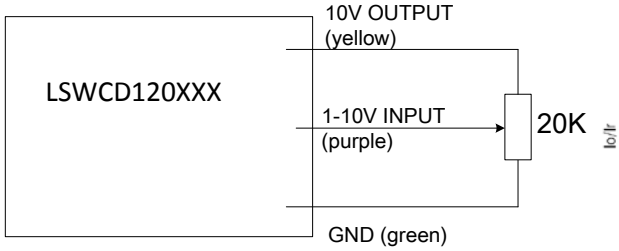


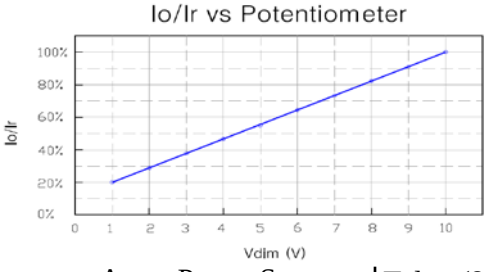
Dimming Function





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. Io is actual output current and Ir 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%Ir, 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 cannot work normally.

PART NUMBER SCHEME