FEATURES

120W Constant Current Dimming LED Driver LSWCD120 Series

- Wide AC Input 90~305VAC
- High Efficiency & High Power Factor – Meets DLC & Energy Star
- Option to Specify Any Output Current in the Range
- 0-10V, PWM (Output) & Timer Dimming
- Operation from -35°C-70°C Full Load
- Certified to UL/cUL 8750, EN61347 & CE
- Short Circuit, Over Temperature & Over Voltage Protection
- IP67, Damp & Hazardous Location (HL) Certified
- RoHS Compliant

SPECIFICATIONS

Model #	Output Current Model Range (5)	Output Voltage Max. Range (5)	PF (2)		No Load Output Voltage	Ripple & Noise (3)	Efficiency (4)
			110VAC	277VAC			
LSWCD120S027-045	270-450mA	267-444V	0.99	0.9	107% of Maximum Rated Voltage	3% of Maximum Output Voltage	93.0%
LSWCD120S046-075	460-750mA	160-267V	0.99	0.9			92.0%
LSWCD120S076-125	760-1250mA	96-160V	0.99	0.9			91.0%
LSWCD120S126-208	1260-2080mA	58-96V	0.99	0.9			91.0%
LSWCD120S209-350	2090-3500mA	34-58V	0.99	0.9			90.0%
LSWCD120S355-500	3550-5000mA	24-34V	0.99	0.9			90.0%

Example: A **950mA** output would be model number LSWCD120S076-125 and part number for ordering purposes of **LSWCD120S095ST.** Both numbers would be shown on the label.

PART NUMBER BUILDER

LSWCD120SxxxST-xxx

- LS= LED Driver, "S" Series
- W=Wide Input Voltage 90~305Vac
- C=Constant Current
- D= 0-10V and PWM Dimming
- T= Class I, 3 Wire Input
- S=Metal Case
- XXX=Output Current Use any current from 027 (270mA) to 500 (5000mA)
- S=Single Output
- 120=Output Power (Watts)

Autec Power Systems
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Output	Line Regulation		1%
	Load Regulation		3%
	Turn-on Delay		0.8~1.2 s (Typ)
Input	Rated Voltage Range		100-277 Vac
	Frequency Range		47Hz ~63Hz
	Inrush Current		65A cold start, Vin=230V
	AC Current (Typ.)		1.25 A / 110 VAC, 0.61 A / 220 VAC @ full load
	THD		≤ 20% @277Vac, 70% load
	Leakage		0.75 mA Vin=277V, 50Hz
Protections	Short Circuit		Protection type : Hiccup mode, recovers automatically after fault condition is removed
	Over Temperature		110°C internal temperature auto recovers after power supply cools
	Over Voltage (Typ.)		130% of max. output voltage Latch mode. The power supply shall return to normal operation after recycling AC.
Environmental	Temperature Range	Operational	- 35°C - 70°C, Max. case temperature 85°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
	Dimensions	(L*W*H) 7.40*3.07*1.46 inches / (L*W*H) 188.5*78*37mm
	Weight	900G

NOTES:

1. All specifications are typical at 25**°C** unless otherwise stated.
2. The values are measured at 70% load, after the unit is thermally stabilized.
3. The "Ripple & Noise" values are measured by 20MHz bandwidth oscilloscope and the output parallel a 0.1uF ceramic capacitor and a 10uF electrolytic capacitor.
4. @220Vac.
5. ±5V
6. Measured at 220VAC

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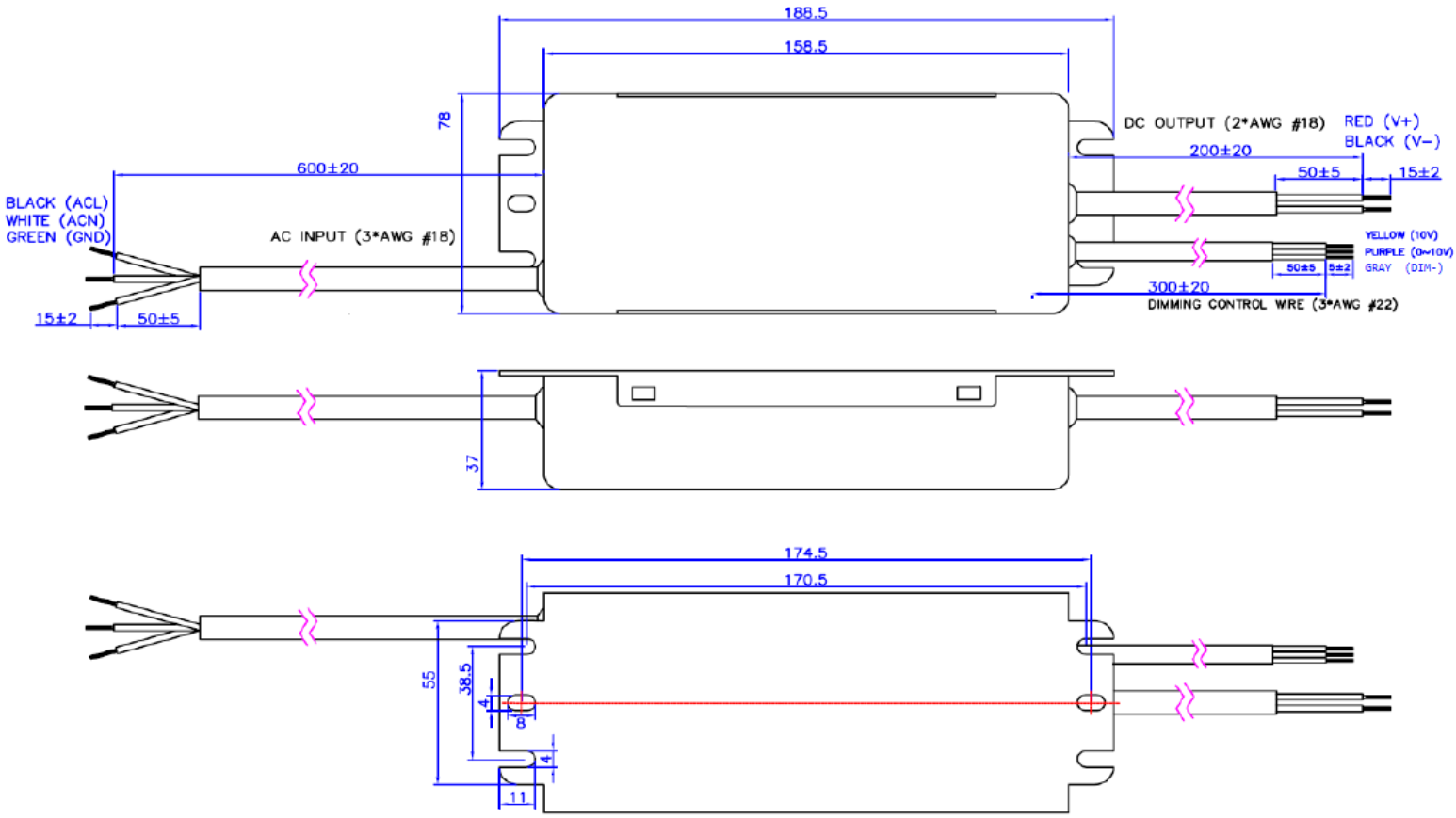
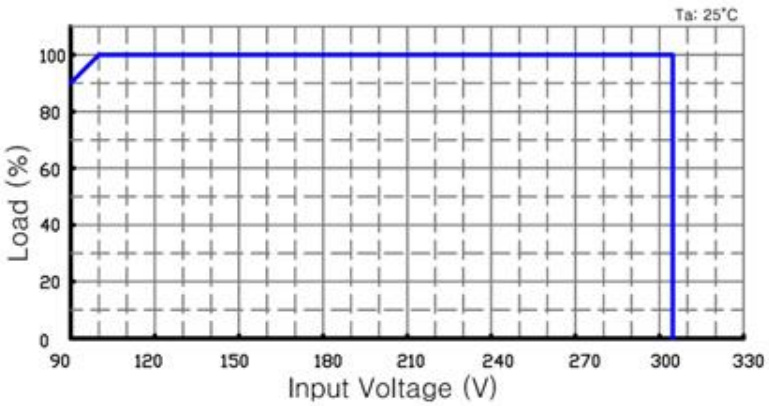
Mechanical Specifications

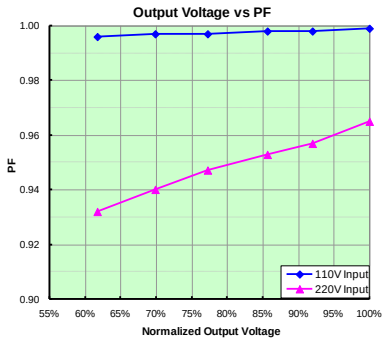


Derating Curves

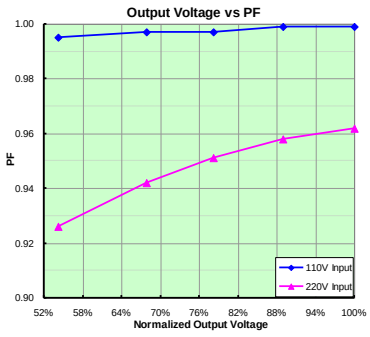


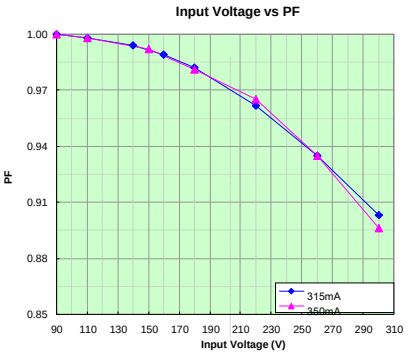
Power Factor Curves

LSWCD120S035ST



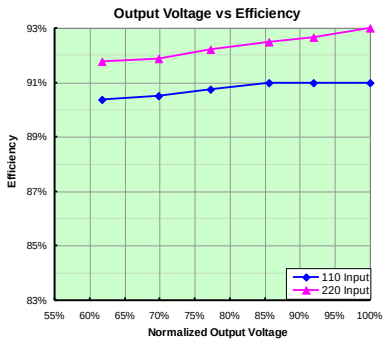
LSWCD120S315ST



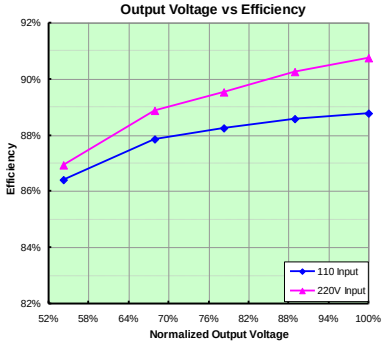


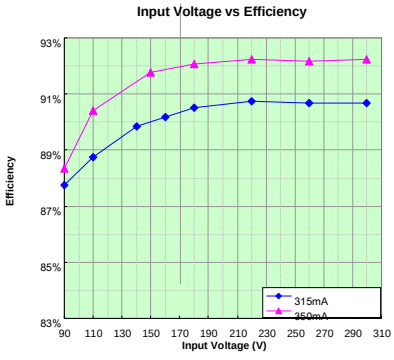
Efficiency vs Load

LSWCD120S035ST

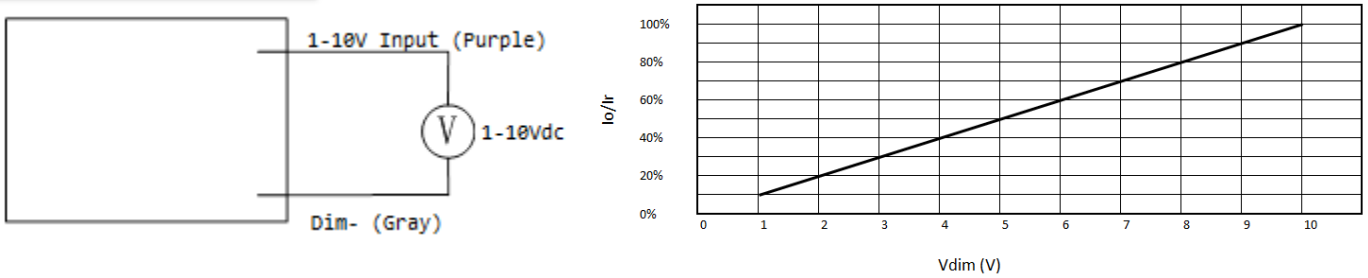


LSWCD120S315ST

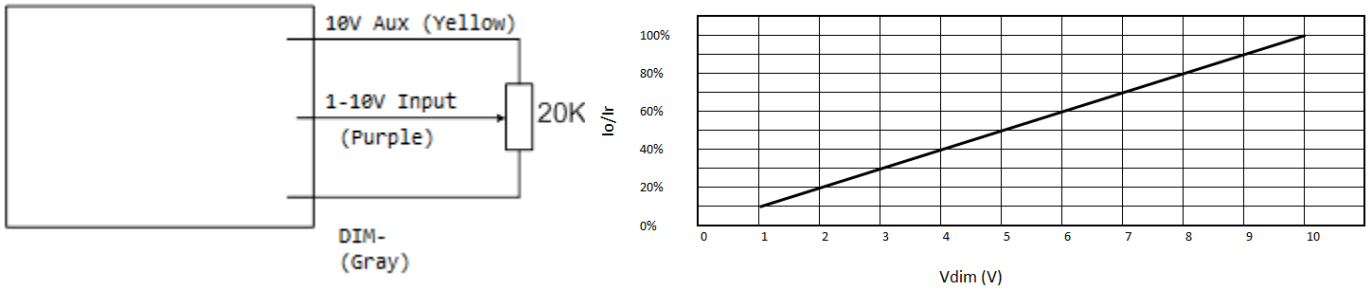




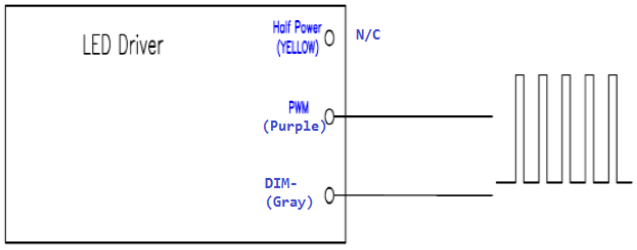
Dimming Function

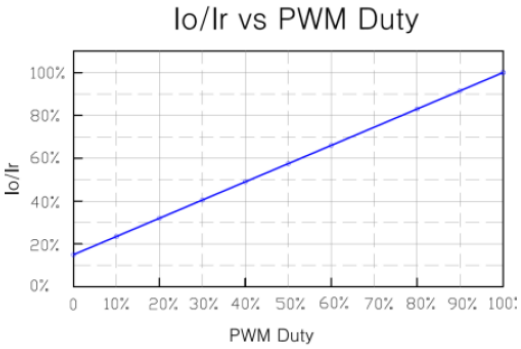


Mode 1：1-10Vdc Input on Dimming Control



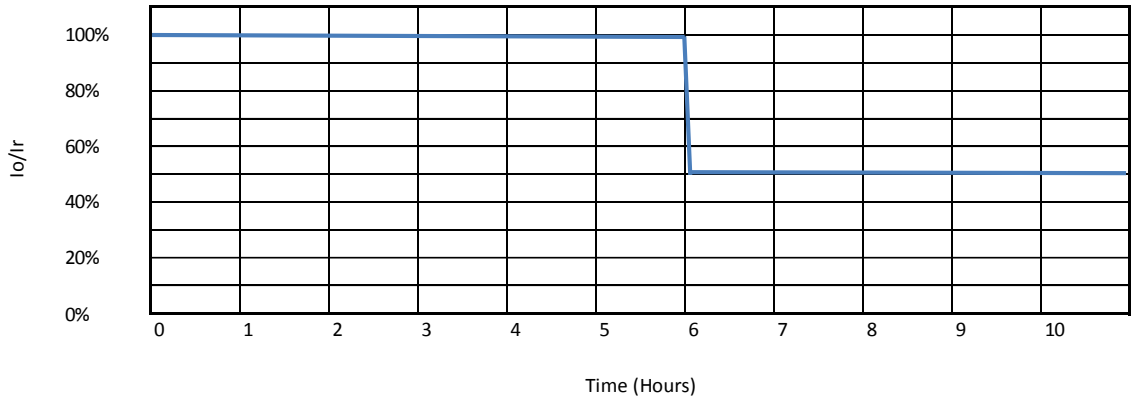
Mode 2：Potentiometer on Dimming Control





Parameter	Values	Conditions
Input Voltage	0~10 V	Purple wire.
Input Current	10 mA	
PWM Frequency	0.5 ~ 3 kHz	
PWM Pulse Width	10%~100%	

Mode 3：PWM Signal on Dimming Wires



Mode 4：Timer Dimming (Does not require dimming wires)

Standard power/time combination above, can be factory set to customer specification. Recycle AC to restart timer.

NOTE:
1. If the dimming function is not used, short 10V aux 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 is 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. Pulse width less than 10% will cause the driver working improperly.