

■ Features

- Power Rating: 120W
- Input Voltage: 100-277Vac
- Constant current design
- Output current(1200mA-3750mA)
- Selectable output through POT switch
- Efficiency up to 91%
- 3-1 Dimming, 0-10V/PWM/Resistor
- Isolated Dimming(Contact Autec Sales)
- Major World Safeties all in one Driver: UL/CCC/TUV/BIS/SAA/CE
- Protections: SCP, OTP, OVP
- IP65
- 5-year warranty
- Surge Protection: L/N-PE: 4KV, L-N: 4KV



*Product images are for illustrative purposes only and may vary from actual design.

■ Application

- High bay light
- Dry, damp and wet locations

■ Model List*(See part number scheme for model number details)

Model Number	Input Voltage Range	Output Power	Output Voltage	Output Current Min.	Output Current Max.	Efficiency	Certification
L3WCD120S375STR	100-277Vac	120W	24-40V	2000mA	3750mA	90%	UL/CCC/TUV BIS/SAA/CE
L3WCD120S285STR	100-277Vac	120W	27-54V	1500mA	2850mA	91%	UL/CCC/TUV BIS/SAA/CE
L3WCD120S215STR	100-277Vac	120W	40-68V	1200mA	2150mA	91%	UL/CCC/TUV BIS/SAA/CE

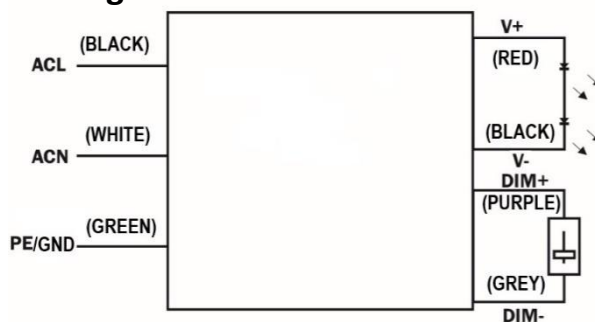
*Timer dimming option available, contact Autec Sales.

Autec power supplies are designed to meet and comply with the safety standards listed above. Contact Autec Sales to confirm available safety approvals for your specific power supply application.

Notes:

1. Output current selectable by POT switch
2. Torque: 0.98 to 19.6mN·m (10 to 200gf·cm) max.
3. Stop strength: 49.0mN·m (500gf·cm) min

■ Wiring Diagram / Dimming



Technical Sales / Customer Service: +1-818-338-7788 • Email: sales@autec.com

31328 Via Colinas Suite 102 • Westlake Village, CA 91362 USA • www.autec.com

October 15, 2019

1 / 7

■ Input Characteristics

Parameter	Min	Typ.	Max	Remarks
Rated AC input range	100Vac		277Vac	
AC input range	90Vac		305Vac	
Input frequency range	47Hz		63Hz	
Max input current			1.6A	90Vac, full load
Inrush current			60A	230Vac/50Hz, cold start
No load power		1W	2W	277Vac/50Hz, No load
Power factor	0.95	0.98		230Vac/50Hz, full load
	0.90			100-277Vac/50Hz, 70-100% Load
THD		7%	10%	230Vac/50Hz, full load
			20%	100-277Vac/50Hz, 70-100% Load

■ Output Characteristics

Parameter	Min	Typ.	Max.	Remarks
Output voltage range	L3WCD120S375STR	24V	40V	Power derated@24-32Vdc
	L3WCD120S285STR	27V	54V	Power derated@27-42Vdc
	L3WCD120S215STR	40V	68V	Power derated@40-56Vdc
Rated Output Voltage	L3WCD120S375STR	32V	40V	$P_o = V_o \cdot I_o = 120W$, full load
	L3WCD120S285STR	42V	54V	
	L3WCD120S215STR	56V	68V	
Rated Output Current	L3WCD120S375STR	3A	3.75A	3A for 40V, 3.75A for 32V
	L3WCD120S285STR	2.25A	2.85A	2.25A for 54V, 2.85A for 42V
	L3WCD120S215STR	1.75A	2.15A	2.25A for 54V, 2.85A for 42V
Current Adjustable range	L3WCD120S375STR	2A	3.75A	Rated I_o 70%-100% adjustable
	L3WCD120S285STR	1.5A	2.85A	
	L3WCD120S215STR	1.2A	2.15A	
No load Voltage	L3WCD120S375STR	40.5V	42V	43.5V
	L3WCD120S285STR	54.5V	56V	57.5V
	L3WCD120S215STR	68.5V	70V	71.5V
Efficiency@230Vac	L3WCD120S375STR	88%	90%	Output 40V/3A
	L3WCD120S285STR	89%	91%	Output 54V/2.25A
	L3WCD120S215STR	89%	91%	Output 68V/1.75A
Output current tolerance	-5%		+5%	
Output Voltage Ripple (pk-pk)		1%	2%	Full load
Output Current Ripple (pk-pk)		5%	10%	Full load
Start-up Current Overshoot			10%	
Start-up Time		1S	2S	230Vac
Line Regulation	-1%		+1%	Full load
Load Regulation	-2%		+2%	

Technical Sales / Customer Service: +1-818-338-7788 • Email: sales@autec.com

31328 Via Colinas Suite 102 • Westlake Village, CA 91362 USA • www.autec.com

October 15, 2019

2 / 7

■ Safety Compliance

Certification	Standard	Status	Remark
UL/cUL	UL8750	✓	
CE	EN 61347-2-13:2014 EN61347-1:2008+A1:2011+A2:2013 EN62493:2015	✓	
SAA	AS/NZS61347.2.13	✓	
CCC	GB 19510.14-2009	✓	
BIS	IS15885:2012 Part 2 Sec 13	✓	Only for 3-in-1 Dimming
CE	EN61347-2-13:2014 EN61347-1:2008+A1:2011+A2:2013	✓	
Item	Standard	Remark	
Insulation Strength	Input-output	3200Vac/5mA Max/60s	Reinforced insulation
	Primary-Earth	1600Vac/5mA Max/60s	Basic insulation
	Sec.- Earth	1000Vac/5mA Max/60s	Function insulation
Insulation Resistance	Input-output	≥10 MΩ	Testing Voltage: 500Vdc
Ground Resistor	≤0.1Ω	25A/1min	
Leakage Current	≤0.75mA	277Vac	
Item	Criterion	Remark	
Conduction Emission	EN55015:2013+A1:2015		
Radiation Emission	EN55015:2013+A1:2015		
Harmonic Current Emissions	IEC/EN 61000-3-2	Class C	
Surge	IEC/EN61000-4-5	Difference mode 4kV, Common mode 4kV Criterion B	

Disclaimer:

Autec Power Systems' (Autec) LED Drivers are Hi-Pot tested during the manufacturing process. Autec assumes no responsibility for secondary Hi-Pot testing at customer location or designated production line(s). Should customer require further Hi-Pot testing, at their own production line, following assembly of the LED Driver into the customer's assembled fixture, Autec requests advance notice. This request must be communicated to Autec in a timely manner and is recommended to be requested at time of issuing each purchase order.

■ Environmental Data

Parameter	Min	Typ.	Max	Remarks
Operating Temperature	-40°C	25°C	+60°C	
Storage Temperature	-40°C	25°C	+85°C	
Operation Humidity	10%RH		90%RH	
Storage Humidity	5%RH		95%RH	
Altitude	-65m		4,000m	
Cooling Method	Air Cooling			
Packing	10pcs/carton, Carton Dimensions: 500mmx390mmx170mm			

Technical Sales / Customer Service: +1-818-338-7788 • Email: sales@autec.com

31328 Via Colinas Suite 102 • Westlake Village, CA 91362 USA • www.autec.com

October 15, 2019

3 / 7

■ Other Characteristics

Parameter		Min	Typ.	Max	Remarks
0-10V Dimming (optional)	Dim Vmax	-20V		14V	3 in 1 Dimming; 0-5V Dimming optional; Negative Logic Dim Optional
	Dim Range	10% Io max		100% Io set	
	Voltage	1V		10V	
	OFF	0.3V	0.5V	0.7V	Dim-off value
	On	0.5V	0.7V	0.9V	
PWM Dimming (Optional)	High	5V		10V	
	Low	-0.3V		-0.6V	
	Frequency	200Hz		2KHz	
	PWM Duty	1%		99%	
Resistor Dimming (optional)	Resistance	10K Ohm		100K Ohm	
	Dimming	10% Io max		100% Io Set	
Timing Curve (optional)	IC Control	By Programming			Typically, 3-4 sections
	Timing	5H/6H/7H/8H per section			DefaultMode:24 Hour/Circle with 50% load
Protection	OTP	80°C	85°C	90°C	Shut down o/p voltage, re-power on to recovery
	Short Circuit Protection	Driver will not be damage with Short-circuit power <10W			Hiccup mode
Life Time		55,000hrs			230Vac full load, Tc 75°C
MTBF		200,000hrs			230Vac full load, Ta=25°C, (MIL-HDBK-217F)
Temperature Coefficient		-0.03%/°C			0°C~90°C
Tc					85°C
Warranty		5 years			Tc75°C
Net Weight		1200g			
Dimension		φ132mm*71mm			D x H

Technical Sales / Customer Service: +1-818-338-7788 • Email: sales@autec.com

31328 Via Colinas Suite 102 • Westlake Village, CA 91362 USA • www.autec.com

October 15, 2019

4 / 7

■ Performance Curve

Fig. 1 O/P Voltage VS Output Current

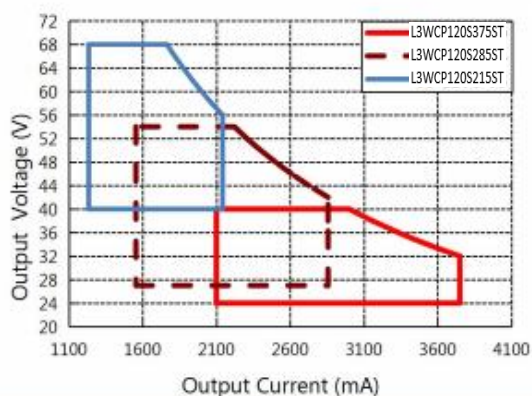


Fig. 2 O/P Power VS Ambient Temperature

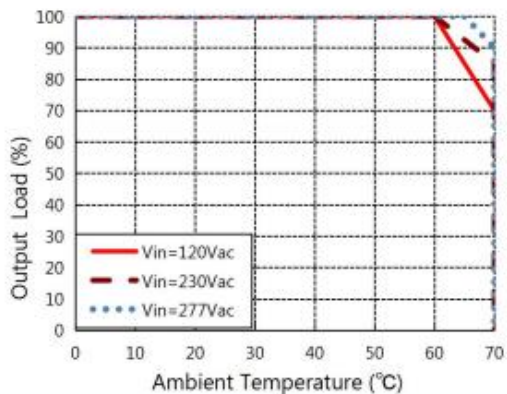


Fig. 3 Power Factor VS Output Power

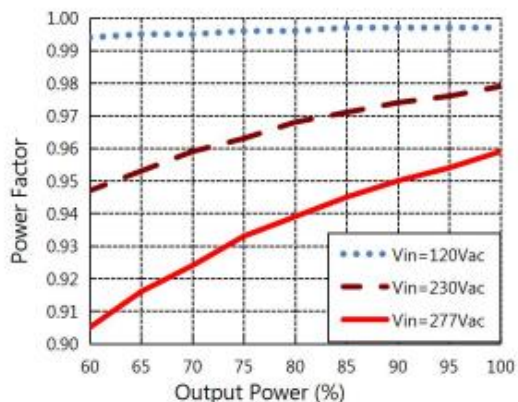


Fig. 4 THD VS Output Power

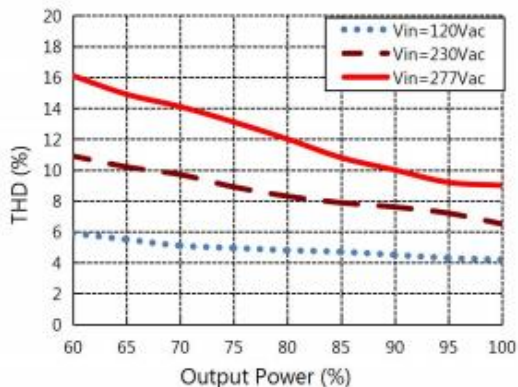


Fig. 5 Efficiency VS Output Power

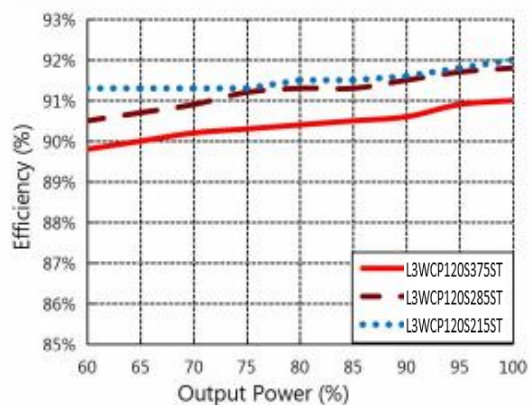
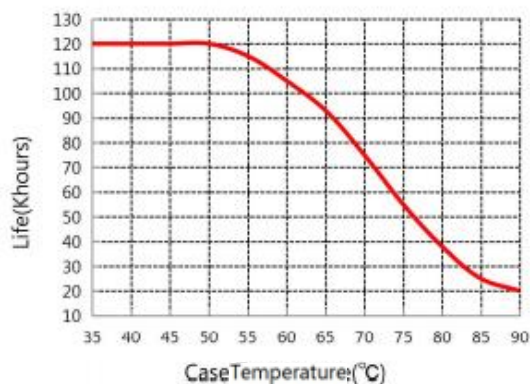


Fig. 6 Lifespan VS Case Temperature



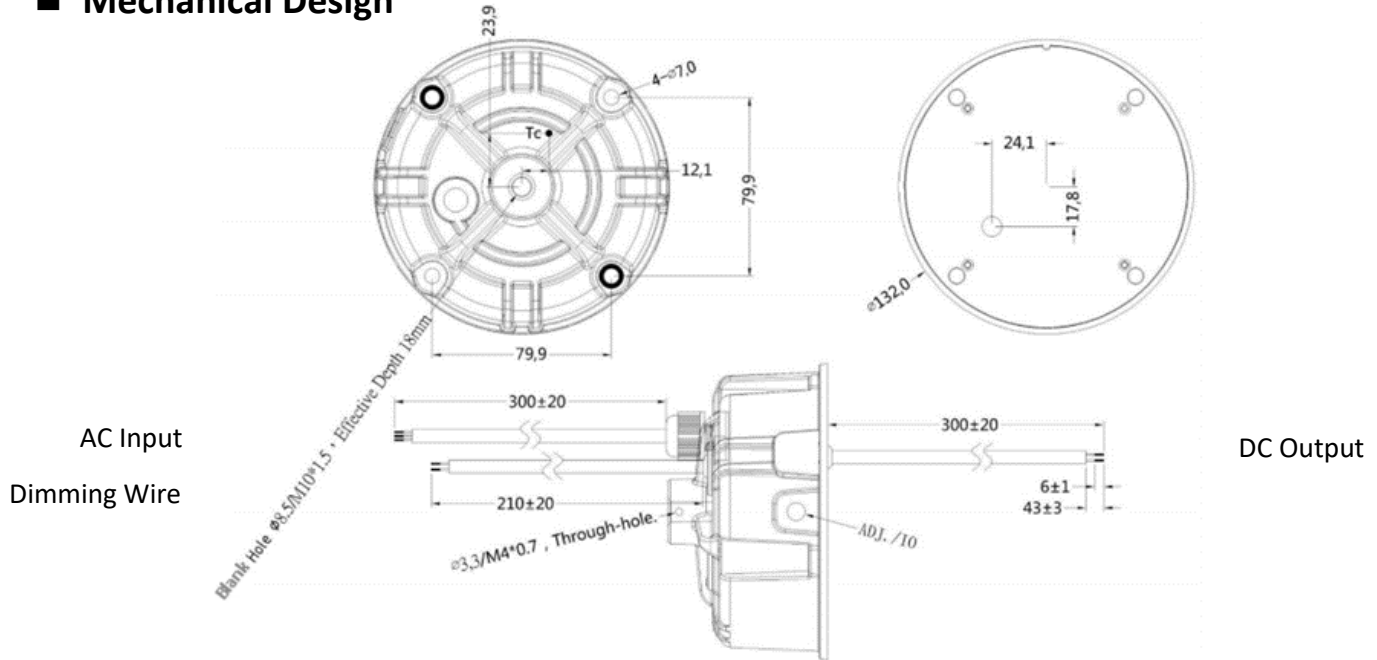
Technical Sales / Customer Service: +1-818-338-7788 • Email: sales@autec.com

31328 Via Colinas Suite 102 • Westlake Village, CA 91362 USA • www.autec.com

October 15, 2019

5 / 7

Mechanical Design



Wire Specifications	
Input Wire	UL STW #18AWG, 3 X 0.824mm ² , O.D. 7.8mm, GREEN: PE, BLACK: L, WHITE: N
Output Wire	UL SJTW #18AWG 2X0.824mm ² , O.D. 7.8mm, RED: V+, BLACK: V-
Dim Wire	STYLE 2733, #22AWG O.D. 5.8mm, PURPLE: DIM+, GREY: DIM-

Dimming

0-10V Dimming (Typ.)

Voltage Range	1V	2V	3V	4V	5V	6V	7V	8V	9V	10V	Open
Rated Current Percentage	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	95-108%

PWM Duty	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	Open
Rated Current Percentage	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	95-108%

Resistor(Typ.)

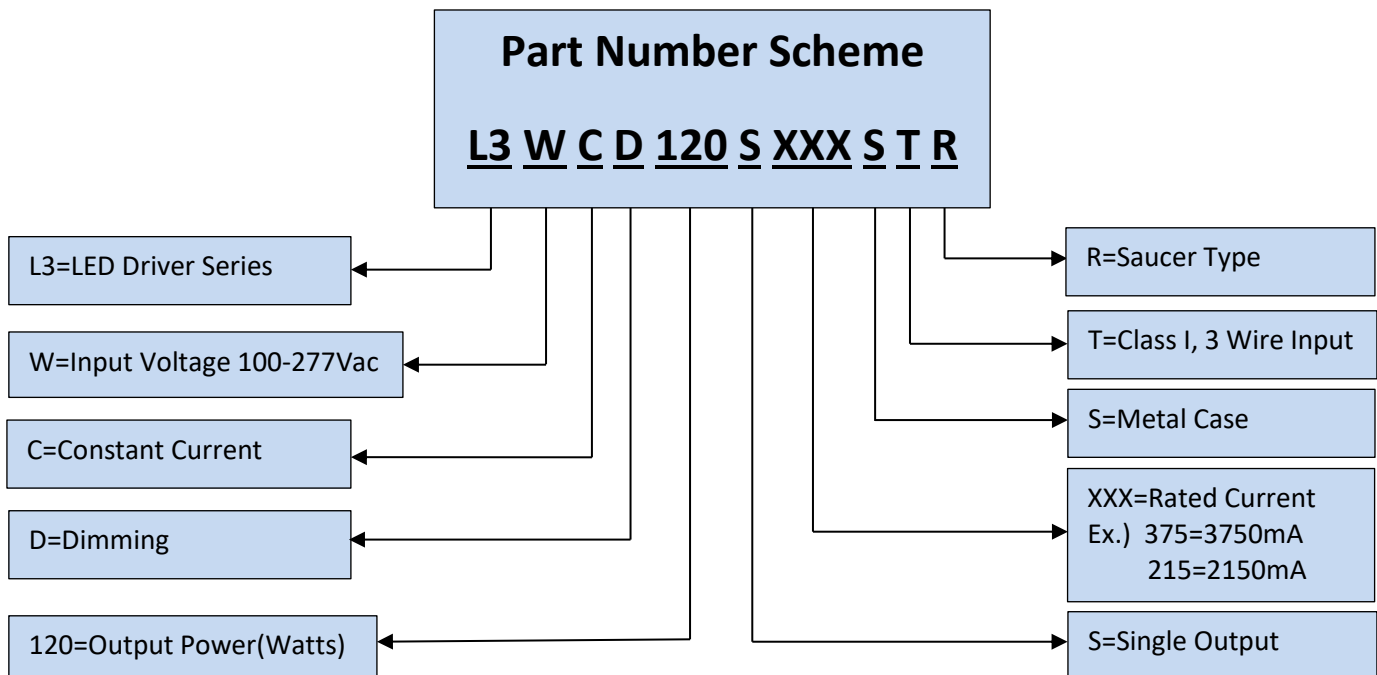
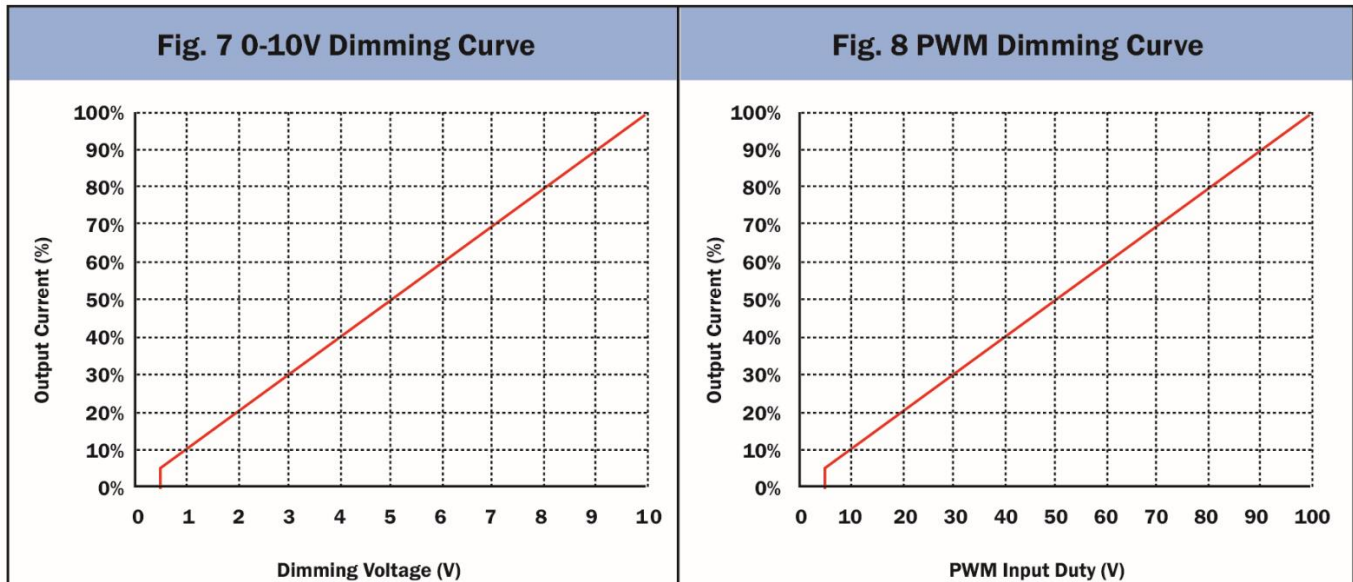
Resistor	10KΩ	20KΩ	30KΩ	40KΩ	50KΩ	60KΩ	70KΩ	80KΩ	90KΩ	100 KΩ	Open
Rated Current Percentage	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	95-108%

Technical Sales / Customer Service: +1-818-338-7788 • Email: sales@autec.com

31328 Via Colinas Suite 102 • Westlake Village, CA 91362 USA • www.autec.com

October 15, 2019

■ Dimming Curve



*Product images are for illustrative purposes only and may vary from actual design.

*Specifications are subject to change without notice. Autec is not responsible for issues arising from errors or omissions.

Technical Sales / Customer Service: +1-818-338-7788 • Email: sales@autec.com

31328 Via Colinas Suite 102 • Westlake Village, CA 91362 USA • www.autec.com

October 15, 2019

7 / 7