

■ Features

- Power Rating: 96-100W
- Input Voltage: 347-480Vac
- Constant power design
- Output current(100mA-3000mA)
- Programmable using external interface and software
- Efficiency up to 90%
- Optional dimming function: 0-10V, PWM, Timing
- Protections: SCP, OTP, OVP
- IP65
- 5-year warranty
- Surge Protection: L/N-PE/GND: 10KV, L-N 6KV



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

■ Application

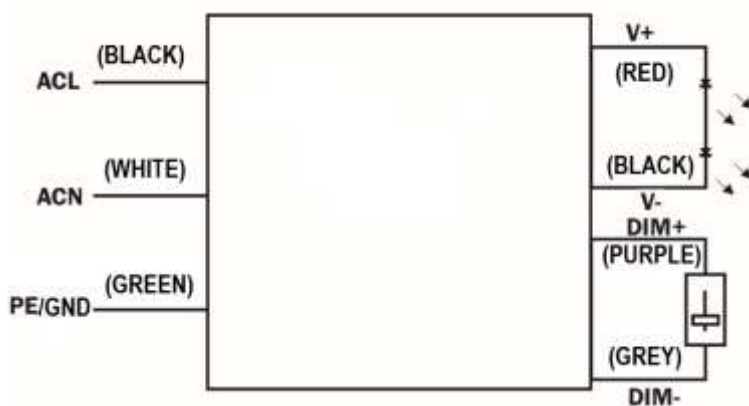
- Dry, damp and wet locations

■ 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
L3HCD100S300ST-RE	347-480Vac	96W	22-56V	350mA	3000mA	89%	UL/CCC/TUV BIS/SAA/CE
L3HCD100S105ST-RE	347-480Vac	100W	75-185V	100mA	1050mA	90%	UL/CCC/TUV BIS/SAA/CE

*Tested at 347Vac, full load, @25°C

■ Wiring Diagram / Dimming



■ Input Characteristics

Parameter	Min	Typ.	Max	Remarks	
Rated AC input range	347-480Vac		480Vac		
AC input range	249Vac		528Vac		
Input frequency range	47Hz		63Hz		
Max input current			0.8A	249Vac, full load	
Inrush current			60A	Cold start, 347Vac/50Hz, Twidth=450us measured at 50% Ipeak	
No load power	2W		3W	347Vac/50Hz, No load	
Power factor	0.93	0.95	347Vac/50Hz, full load		
	0.90		277-480Vac/50Hz, 80-100% Load		
THD			10%	347Vac/50Hz, full load	
			25%	277-480Vac/50Hz, 70-100% Load	

■ Output Characteristics

Parameter	Min	Typ.	Max.	Remarks
Output voltage range	L3HCD100S300ST-RE	22V	56V	Power derated@22-32Vdc
	L3HCD100S105ST-RE	75V	185V	Power derated@75-95Vdc
Rated Output Voltage	L3HCD100S300ST-RE	32V	56V	Po=Vo*Io=96W, full load
	L3HCD100S105ST-RE	95V	185V	
Rated Output Current	L3HCD100S300ST-RE	1.71A	3A	3A for 32V, 1.71A for 56V
	L3HCD100S105ST-RE	0.54A	1.05A	1.05A for 95V, 0.54A for 185V
Current range	L3HCD100S300ST-RE	0.35A	3A	Rated Io 70%-100% adjustable
	L3HCD100S105ST-RE	0.1A	1.05A	
No load Voltage	L3HCD100S300ST-RE			60V
	L3HCD100S105ST-RE			200V
Efficiency@347Vac	L3HCD100S300ST-RE	88%	89%	Output 40V/3A
	L3HCD100S105ST-RE	88%	90%	Output 54V/2.25A
Output current tolerance		-5%	+5%	
Output Current Ripple (pk-pk)		5%	10%	Full load
Start-up Current Overshoot				10%
Start-up Time		0.3S	0.5S	347Vac
Line Regulation		-1%	+1%	Full load
Load Regulation		-2%	+2%	

■ Other Characteristics

Parameter		Min	Typ.	Max	Remarks
0-10V Dimming (optional)	Dim Vmax	0V		10V	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	1KHz		2KHz	
	PWM Duty	1%		99%	
Timing Curve (optional)	IC Control	By Programming			Typically, 3-4 sections
	Timing	5H/6H/7H/8H per section			Default Mode: 24 Hour/Circle with 50% load
Protection	OTP	90°C	100 °C	110 °C	Tc, Self-recovery
	Short Circuit Protection	Driver will not damage with short-circuit power <10W			Current Limit mode
Life Time		55,000hrs			347Vac full load, Tc 75°C
MTBF		200,000hrs			347Vac full load, Ta=25°C, (MIL-HDBK-217F)
Temperature Coefficient		-0.03%/°C			+0.03%/°C 0°C~85°C
Tc		85°C			
Warranty		5 years			Tc75°C
Net Weight		1050g			
Dimension		221x71x40			D x H x L

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

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■ Environmental Data

Parameter	Min	Typ.	Max	Remarks
Operating Temperature	-40°C	25°C	+90°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			

■ Safety Compliance

Certification		Standard	Status	Remark
UL/cUL		UL8750	✓	
CE		EN 61347-2-13:2014 EN61347-1:2008+A1:2011+A2:2013	✓	
Item		Standard	Remark	
Insulation Strength	Input-output	3200Vac/5mA Max/60s	Reinforced insulation	
	Primary-Earth	2000Vac/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	480Vac	
Item		Criterion	Remark	
Conduction Emission		FCC Part 15: Subpar B ANSI 63.4:2014	Class A	
Radiation Emission		FCC Part 15: Subpar B ANSI 63.4:2014	Class A	
Harmonic Current Emissions		IEC/EN 61000-3-2	Class A	
Surge		IEC/EN61000-4-5	Difference mode 6KV, Common mode 10KV 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.

■ **Performance Curve**

Fig. 1 O/P Voltage VS Output Current

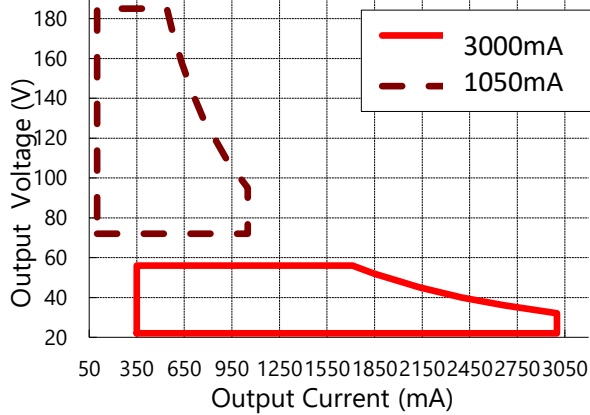


Fig. 2 O/P Power VS Ambient Temperature

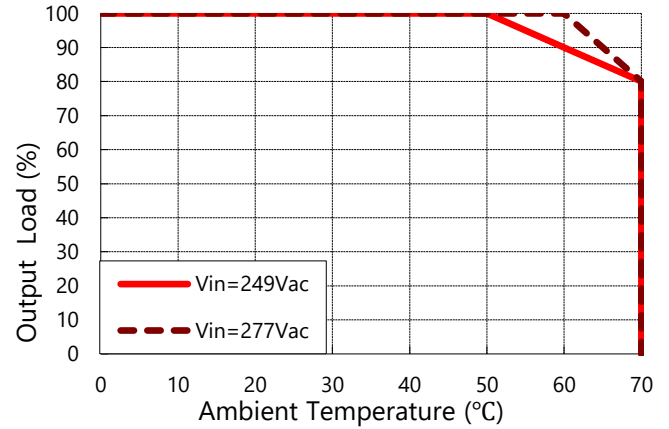


Fig. 3 Power Factor VS Output Power

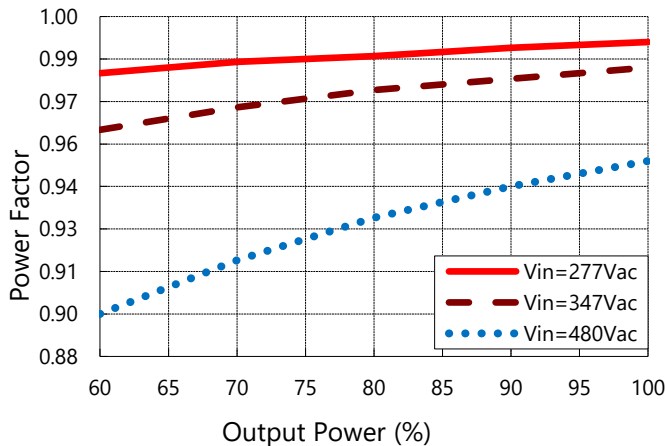


Fig. 4 THD VS Output Power

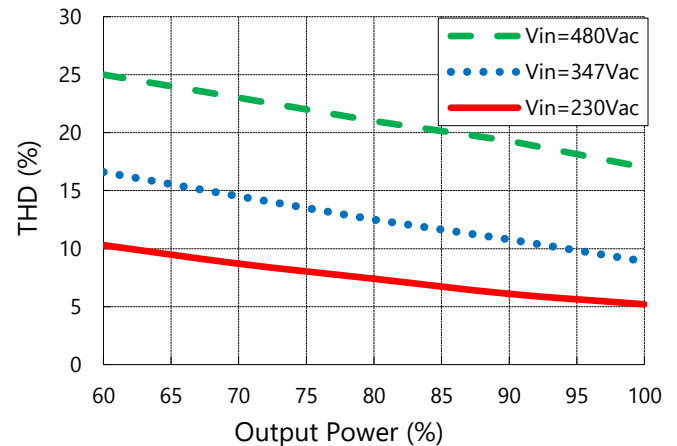


Fig. 5 Efficiency VS Output Power

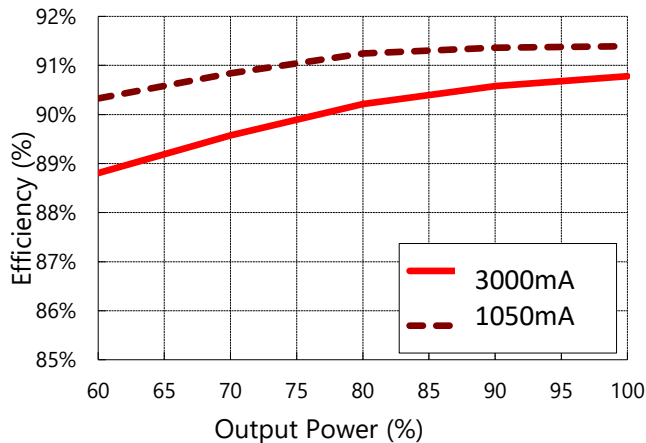
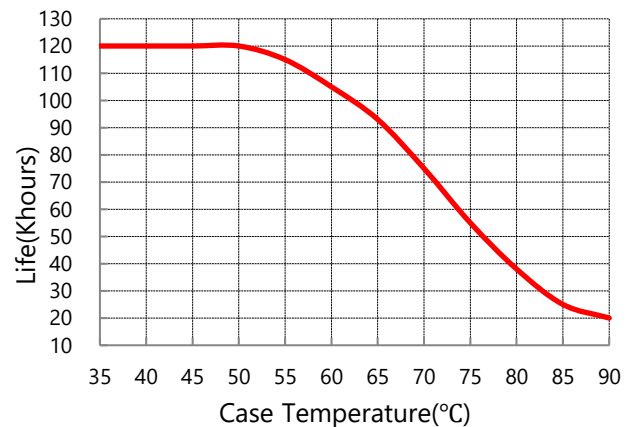
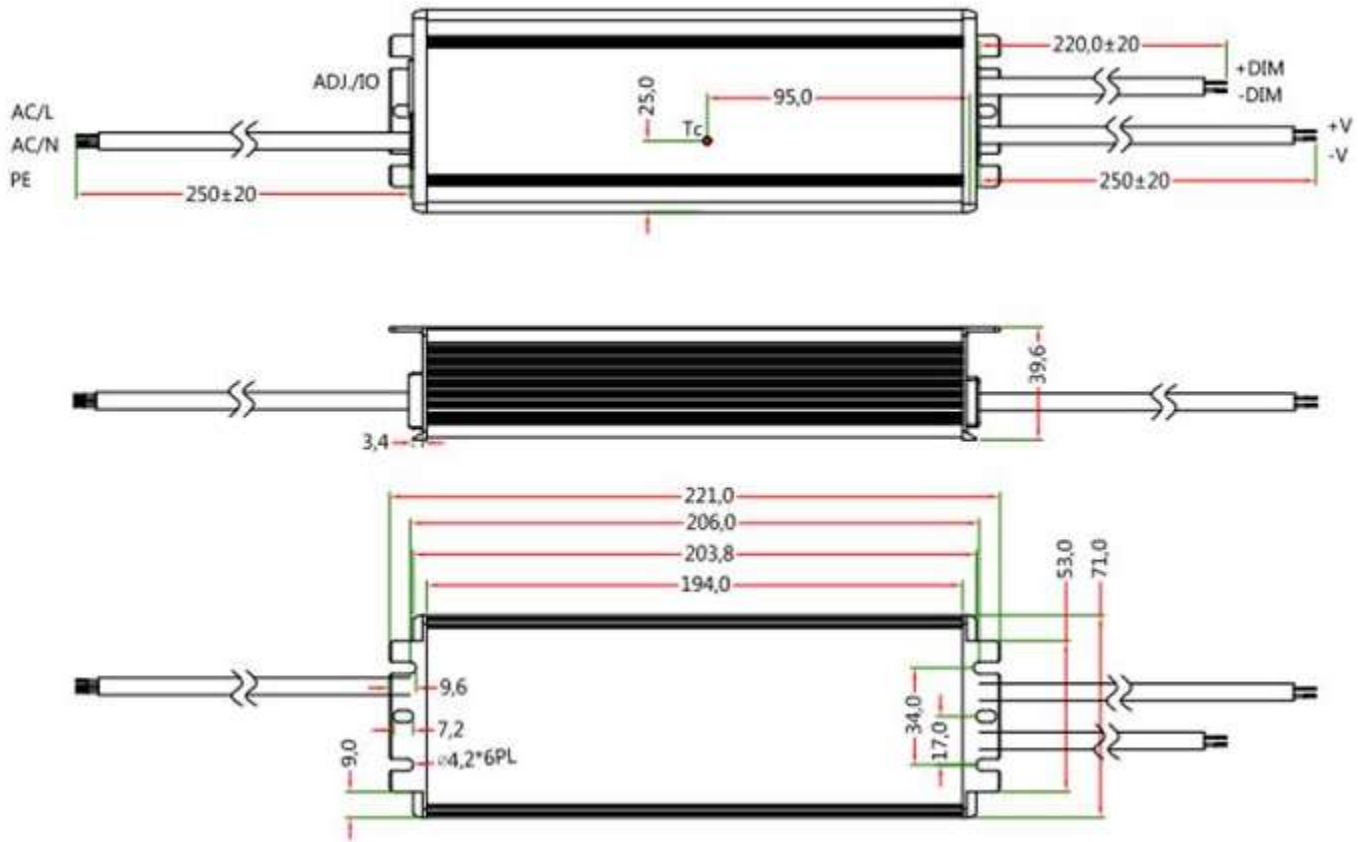


Fig. 6 Lifespan VS Case Temperature



■ **Mechanical Diagram**



Wiring Diagram	
Input Wire	UL STW #18AWG 3*0.824 mm ² , O.D: 9mm, GREEN: PE, BLACK: L, WHITE: N
Output Wire	UL SJTW #18AWG 2*0.824 mm ² , O.D: 7.6mm, RED: V+, BLACK: V-
Dim Wire	STYLE 2733 #22AWG O.D: 5.8mm, PURPLE: DIM+, GRAY: DIM-

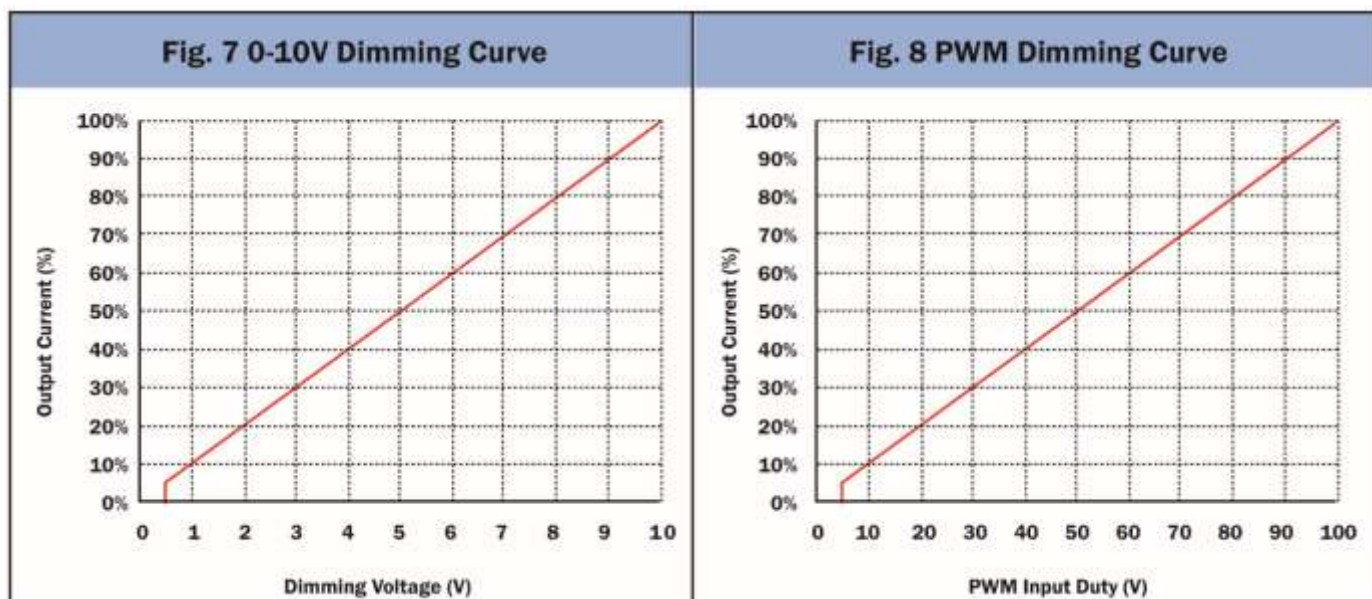
■ Dimming

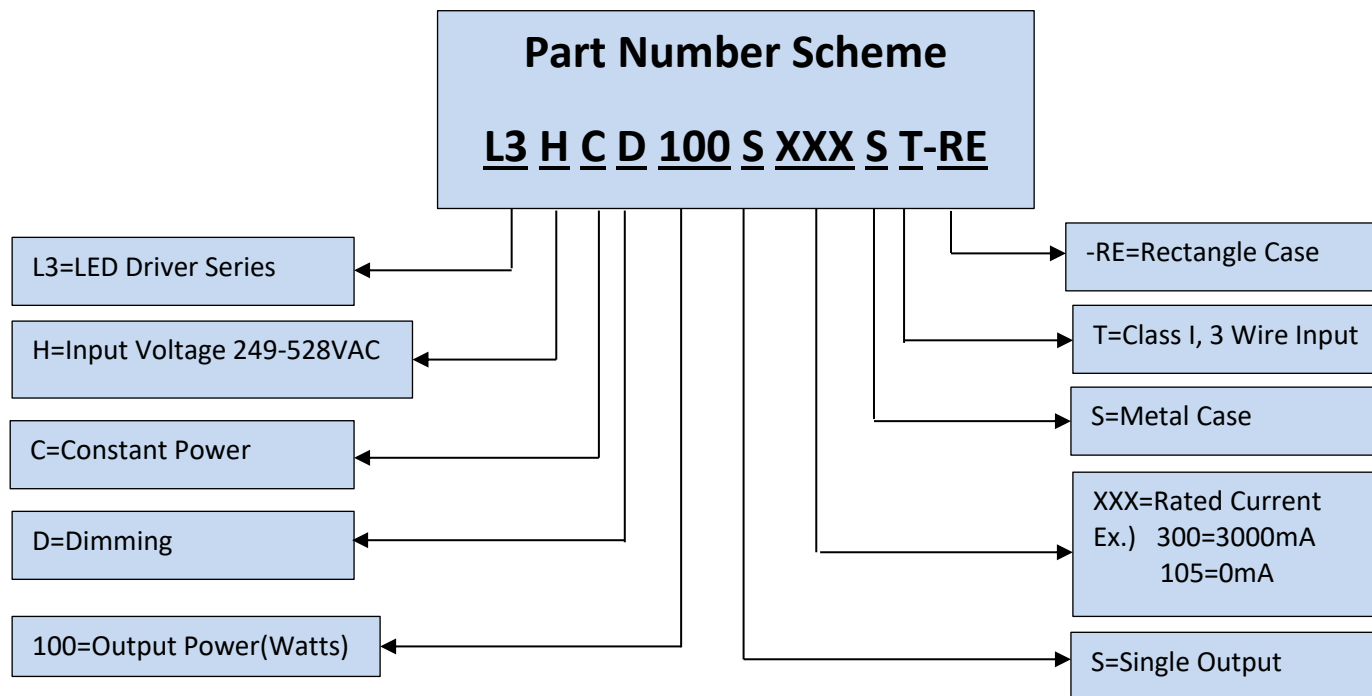
0-10V Dimming (Typ.)

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%

■ Dimming Curve





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

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