

■ Features

- Power rating: 100W
- Input Voltage: 120-277Vac
- Constant Current Design
- Output Current (1780mA-2670mA)
- Efficiency up to 90%
- Isolated Dimming: 10-10V, PWM, Resistor
- Non-isolated Dimming: 1-10V, PWM
- Protections: SCP, OTP, OVP, and OPP
- UL Class P, Type HL, Class 2
- 5-year warranty
- Surge Protection: L/N-PE: 4KV, L-N: 2KV



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

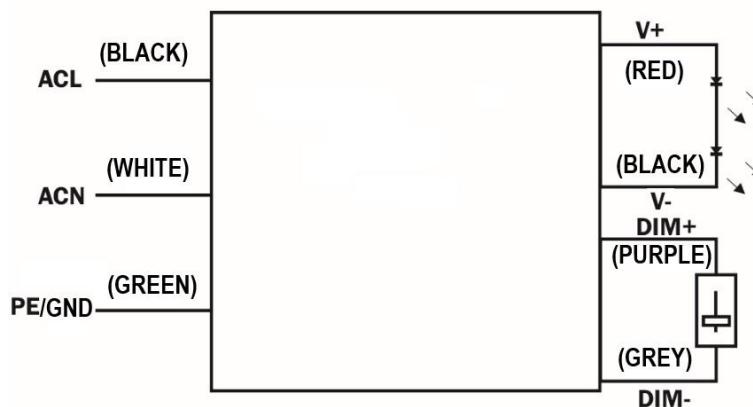
■ Application

- Hazardous 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
L3WCD100S267ST-HL	120-277Vac	96.1W	28-36V	2670mA	2670mA	89%	UL/cUL
L3WCD100S230ST-HL	120-277Vac	96.6W	30-42V	2300mA	2300mA	89%	UL/cUL
L3WCD100S200ST-HL	120-277Vac	96W	38-48V	2000mA	2000mA	90%	UL/cUL
L3WCD100S178ST-HL	120-277Vac	96.1W	40-54V	1780mA	1780mA	90%	UL/cUL

■ Wiring Diagram / Dimming



■ Input Characteristics

Parameter	Min	Typ.	Max	Remarks
Rated AC input range	120Vac		277Vac	
AC input range	108Vac		305Vac	
Input frequency range	47Hz	50/60Hz	63Hz	
Max input current			0.91A	120Vac, full load
Max Input Power			110W	120Vac, full load
Max. Inrush current (120Vac)			110A	Cold Start
Max. Inrush current (220Vac)			160A	Cold Start
Max. Inrush current (227Vac)			170A	Cold Start
No load power			1W	220Vac/50Hz, No load
Power factor	0.97	0.98		220Vac/50Hz, full load
	0.96			120-277Vac/50Hz, 70-100% Load
THD		8%	20%	220Vac/50Hz, full load
			20%	100-277Vac/50Hz, 70-100% Load

■ Output Characteristics

Parameter	Min	Typ.	Max	Remarks
Output Voltage Range (2.67A)	28V		36V	
Rated Output Voltage (2.67A)		36V		
Rated Output Current (2.67A)		2.67A		
No Load Voltage (2.67A)			48V	
Efficiency@120Vac (2.67A)	87%	88%		Output 36V/2.67A
Efficiency@220Vac (2.67A)	89%	90%		Output 36V/2.67A
Efficiency@270Vac (2.67A)	89%	90%		Output 36V/2.67A
Output Voltage Range (2.3A)	30V		42V	
Rated Output Voltage (2.3A)		42V		
Rated Output Current (2.3A)		2.3A		
No Load Voltage (2.3A)			48V	
Efficiency@120Vac (2.3A)	87%	88%		Output 42V/2.63A
Efficiency@220Vac (2.3A)	89%	90%		Output 42V/2.63A
Efficiency@270Vac (2.3A)	90%	91%		Output 42V/2.3A

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■ **Output Characteristics(cont.)**

Parameter	Min	Typ.	Max	Remarks
Output Voltage Range (2A)	38V		48V	
Rated Output Voltage (2A)		48V		
Rated Output Current (2A)		2A		
No Load Voltage (2A)			60V	
Efficiency@120Vac (2A)	87%	88%		Output 48V/2A
Efficiency@220Vac (2A)	89%	90%		Output 48V/2A
Efficiency@270Vac (2A)	90%	91%		Output 48V/2A
Output Voltage Range (1.78A)	40V		54V	
Rated Output Voltage (1.78A)		54V		
Rated Output Current (1.78A)		1.78A		
No Load Voltage (1.78A)			60V	
Efficiency@120Vac (1.78A)	88%	89%		Output 54V/1.78A
Efficiency@220Vac (1.78A)	90%	91%		Output 54V/1.78A
Efficiency@270Vac (1.78A)	90%	91%		Output 54V/1.78A
Output Current Tolerance	-5%		+5%	
Output Current Ripple(PK-AV)			10%	
Start-up Current Overshoot			10%	Full load
Start-up Time			0.5S	120Vac
			0.5S	220Vac
Line Regulation	-1%		+1%	Full Load
Load Regulation	-2%		+2%	
Temperature Coefficient	-0.03%/°C		+0.03%/°C	Tc:0°C-90°C
OTP	90C	100	110C	Tc, Decreases output current, returning to normal after over temperature is removed.
Short Circuit Protection			10W	Driver will not be damaged, Hiccup mode

■ Other Characteristics

Parameter		Min	Typ.	Max	Remarks
0-10V Dimming (optional)	Dim Vmax	0V		12V	1. 3 in 1 Dimming; 1-10V, PWM and Resistor Dimming 2. 2-in1 dimming: 1-10V, PWM Dimming
	Dim Range	10% lo max		100% lo set	
	Rec. Dim Range	1V		10V	
PWM Dimming (Optional)	High	9.8V		10.2V	
	Low	0V		0.3V	
	Frequency	1KHz		2KHz	
	PWM Duty	10%		100%	
Resistor Dimming (optional)	Resistance	10K Ohm		100K Ohm	
	Dimming	10% lo max		100% lo Set	
Life Time(Tc≤75°C)		62,000hrs			80% load
MTBF		236,000hrs			220Vac, full load, Ta=25°C(MIL-HDBK-217F)
Tc		90°C			
Warranty		5 years			
Net Weight		530g			
Dimension		215.2 x45.5x31mm			LxWxH
Operating Temperature(Tcase)		-40C	25C	+90C	
Storage Temperature		-40C	25C	+85C	
Operation Humidity		10%RH		90%RH	
Storage Humidity		5%		95%	
Altitude		-65m		4000m	

NOTE: All the parameters above are tested Ta 25°C, unless specified.

■ **Safety Compliance**

Certification	Standard	Status	Remark
UL/cUL	UL8750	√	
TUV	EN 61347-2-13:2014 EN61347-1:2008+A1:2011+A2:2013 EN62493:2015		
RCM	AS/NZS61347.2.13		
CCC	GB 19510.14-2009		
CE	EN 61347-2-13:2014 EN61347-1:2008+A1:2011+A2:2013	√	

■ **EMI/EMS Standards**

Item	Criterion	Remark
Conduction Emission	FCC Part15: Subpart A ANSI 63.4:2014	Class A
Radiation Emission	FCC Part15: Subpart A ANSI 63.4:2014	Class A
Harmonic Current Emissions	IEC/EN 61000-3-2	Class C
Surge	IEC/EN61000-4-5	Difference mode 4kV, Common mode 2kV Criterion B
Ring Wave	IEC/EN 61000-4-12	Difference mode 4kV, Common mode 4kV,Criterion B

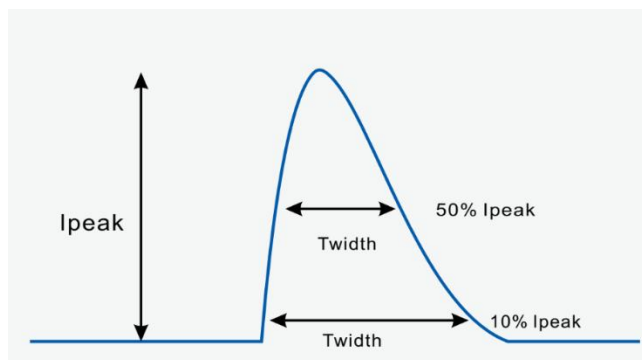
Disclaimer:

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.

■ Safety Test Items

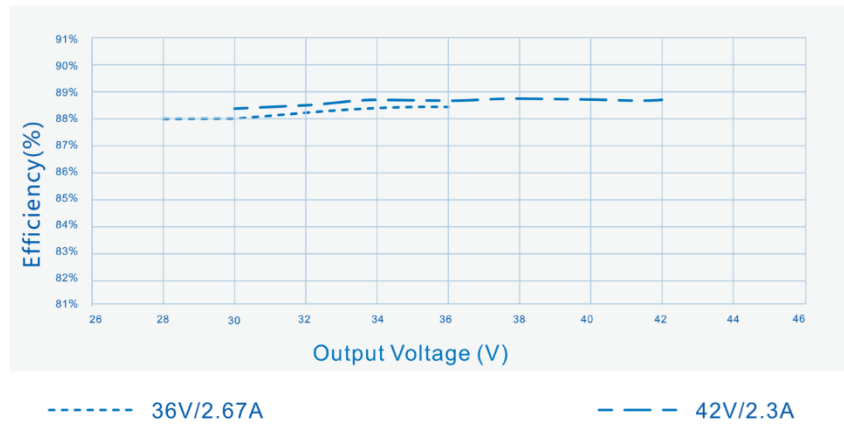
Insulation Requirements	UL Insulation Requirements	TUV Insulation Requirements	CCC Insulation Requirements	Remarks
Input-Output	1600Vac	3000Vac	3750Vac	Reinforced insulation
Input-Case	1600Vac	1500Vac	1875Vac	Basic insulation
Input-Dim	1600Vac	3000Vac	3750Vac	Reinforced insulation 3-1 Dimming Model
Input-Dim	1600Vac	1000Vac	1000Vac	Additional insulation 3-1 Dimming Model
Output-Case	500Vac	1000Vac	1000Vac	Function insulation
Dim-Case	500Vac	250Vac	250Vac	3-1 Dimming Model
Insulation Resistance				Input-Output, Test voltage:500Vdc
Ground Resistance				25A/1min
Leak Current				277Vac

■ Input Inrush Current

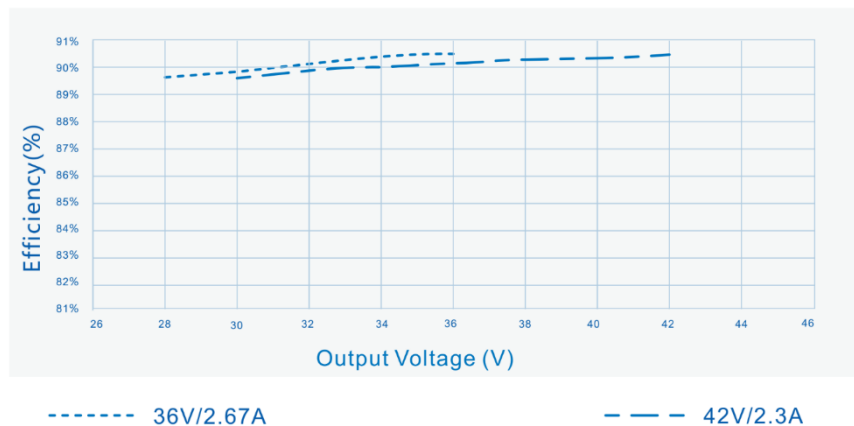


Vin	Ipeak	T(@10% of Ipeak)	T(@50% of Ipeak)
120Vac	110A		200uS
220Vac	160A		200uS
277Vasc	170A	500uS	

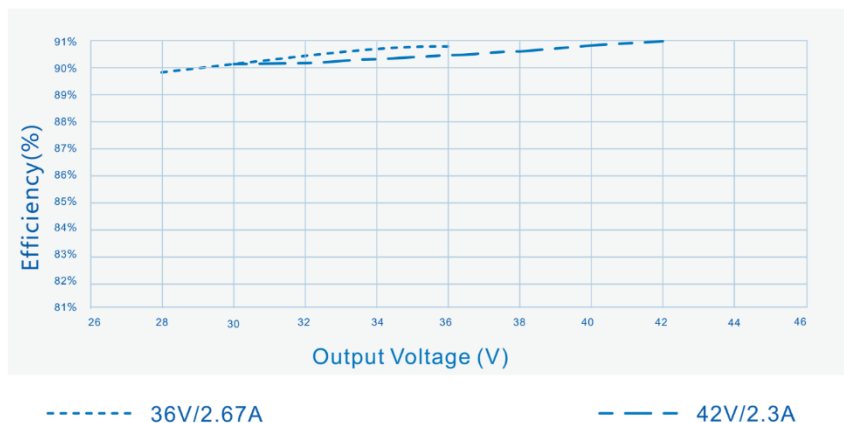
■ **Efficiency Vs Output Voltage (Vin=120Vac)**



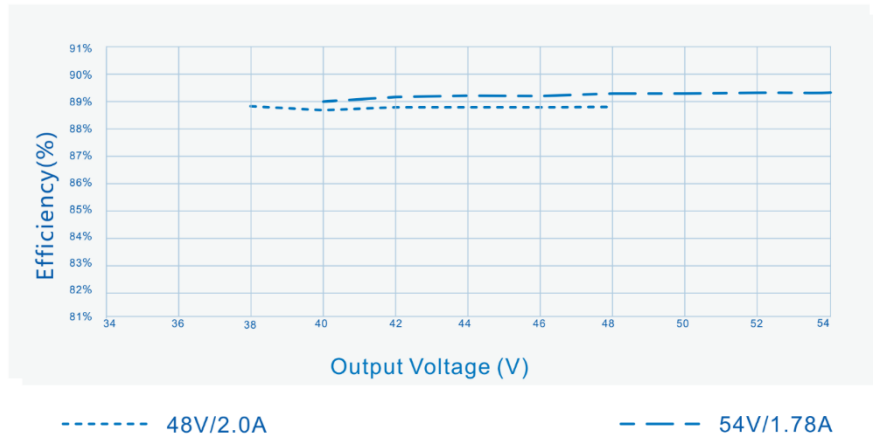
■ **Efficiency Vs Output Voltage (Vin=220Vac)**



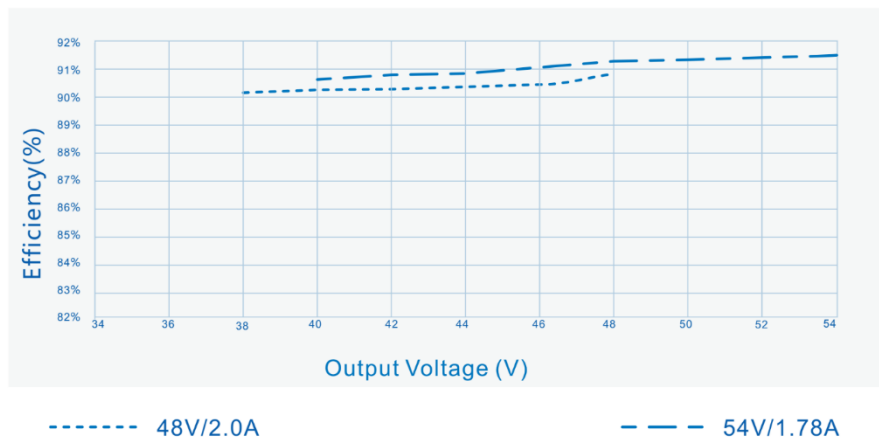
■ **Efficiency Vs Output Voltage (Vin=277Vac)**



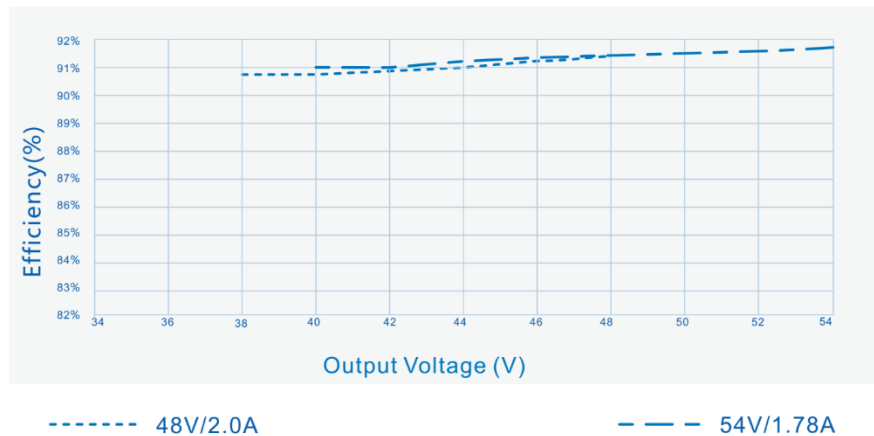
■ **Efficiency Vs Output Voltage (Vin=120Vac)**



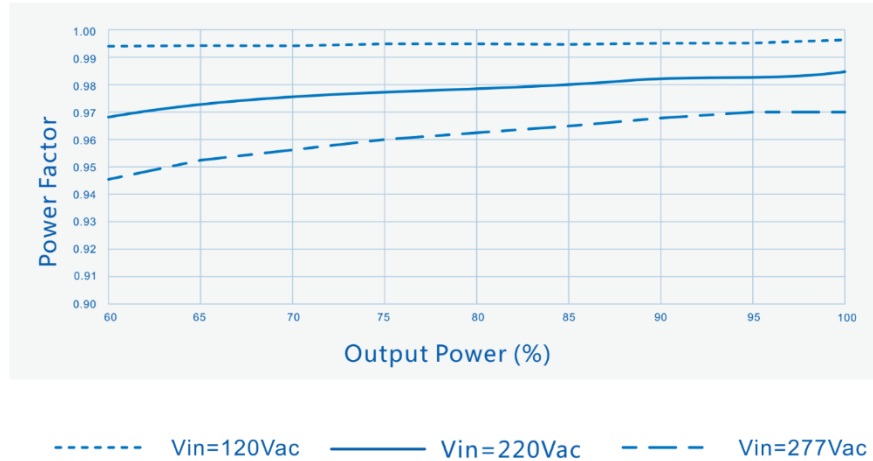
■ **Efficiency Vs Output Voltage (Vin=220Vac)**



■ **Efficiency Vs Output Voltage (Vin=277Vac)**

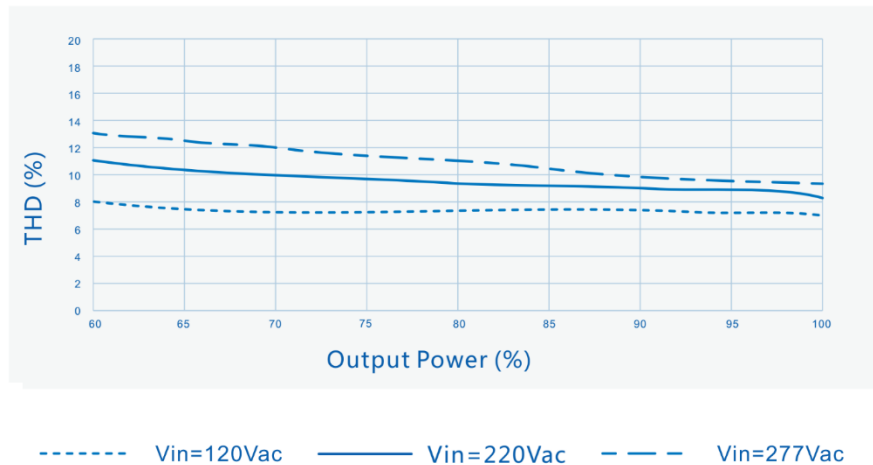


■ Power Factor Vs. Output Power

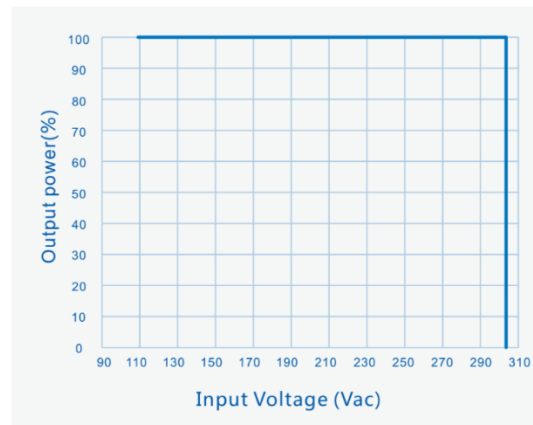


■ THD Vs. Output Power

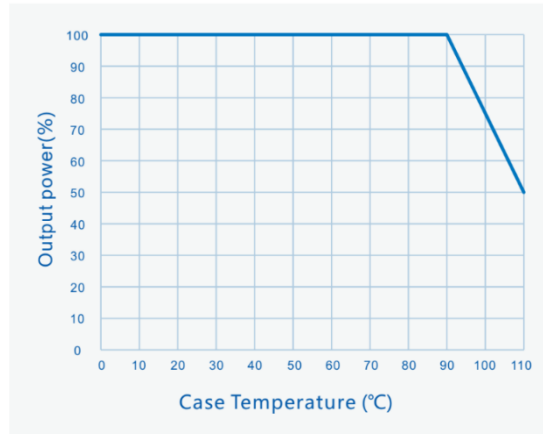
THD Vs. Output Power



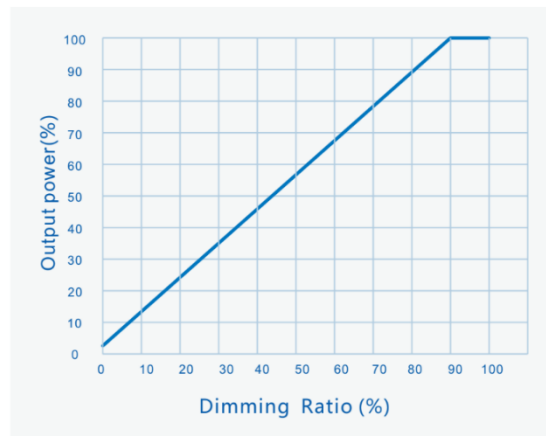
■ Output Power Vs. Input Voltage(Ta Max. 60°C)



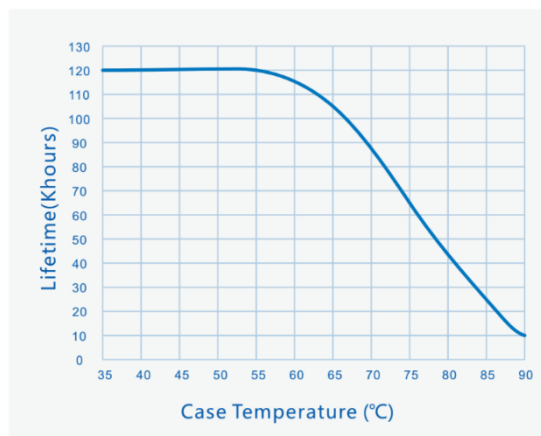
■ Output Power Vs. Case Temperature



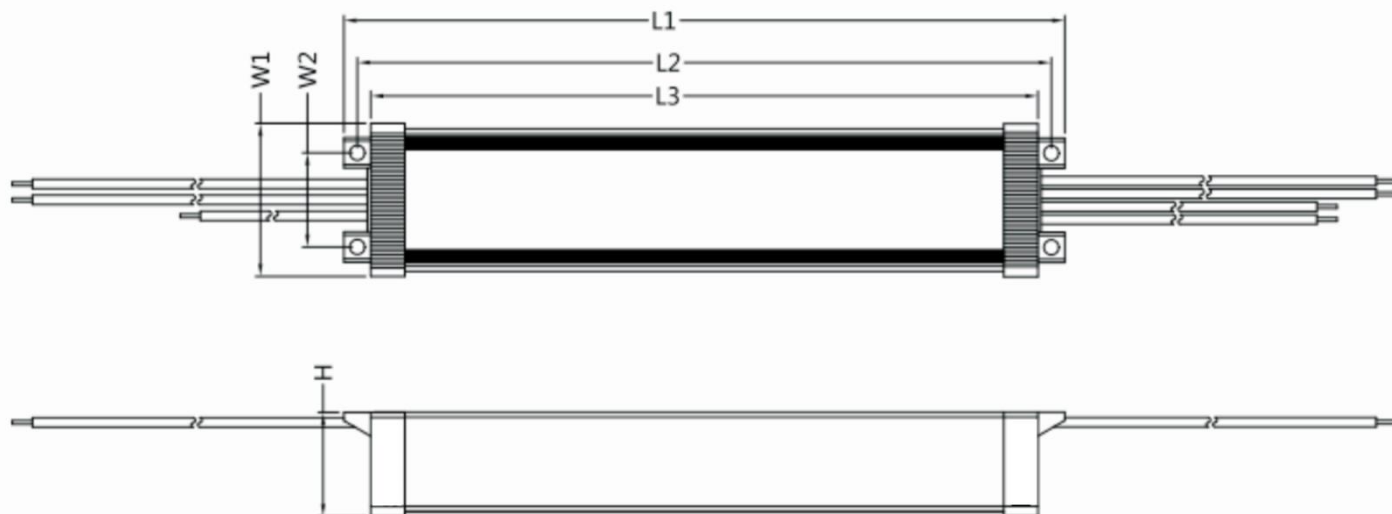
■ Output Power Vs. Dimming



■ Lifetime Vs. Case Temperature

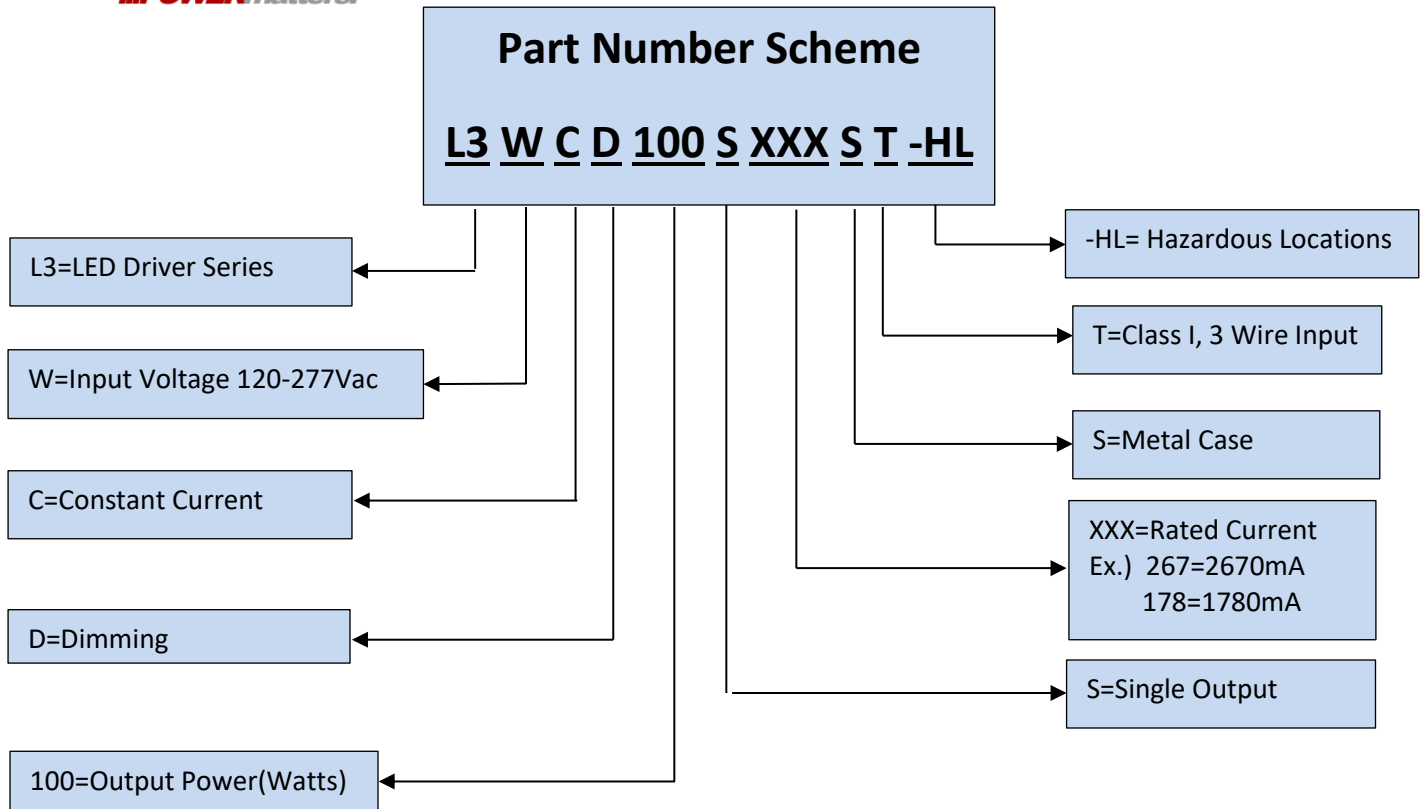


■ **Mechanical Diagram**



Name Description	Standard Code	mm(In.)
Case Length	L3	199.2(7.84)
Case Width	W1	45.5(1.79)
Case Height	H	31(1.22)
Overall Length	L1	215.2(8.47)
Mounting Hole Length	L2	207.2(8.16)
Mounting Hole Width	W2	28(1.1)

Wire Specifications	
AC Input Cable	UL model: 18AWG 105°C 600V, I.D: 1.0mm, O.D: 2.2mm, Electronic line, Black: L, White: N, Green: PE
DC Output Cable	UL model: 18AWG 105°C 600V, I.D: 1.0mm, O.D: 2.2mm, Electronic line, Red: LED+, Black: LED-
Dim Cable	UL model: 18AWG 105°C 600V, I.D: 1.0mm, O.D: 2.2mm, Electronic line, Purple: DIM+, Grey: DIM-
AC/DC Cable Lead Length	350±10mm
DIM Cable Lead Length	250±10mm



***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.**