

■ Features

- Power Rating: 42W
- Input Voltage: 108-305Vac
- Constant current design
- Output current (600mA-1200mA)
- Digital programming with external module and software
- Efficiency up to 89%
- Compatible with 0(0.1)-10V, PWM, external resistor, clock dimming applications
- UL Class 2 Output
- Lightning, OVP, SCP, OTP & Open Circuit Protection
- IP20 (PS/SS version) IP67 (ST version)
- 7-year warranty (ST case) 5-year warranty (PS/ST case)
- Surge Protection: Line to line 1kV, Line to earth 2kV

RoHS
Compliant


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

UL[®] US FC CE CB
Class P (Pending)

■ Application

- Outdoor and indoor LED lights
- LED lights with flexible current settings
- Downlights, high bay and low bay lights, spot lights, LED panels

■ 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
L4WCP042S120PS	108-305Vac	42W	18-55V	600mA	1200mA	89%	UL/cUL
L4WCP042S120SS	108-305Vac	42W	18-55V	600mA	1200mA	89%	UL/cUL
L4WCP042S120PS-BW	108-305Vac	42W	18-55V	600mA	1200mA	89%	UL/cUL
L4WCP042S120SS-BW	108-305Vac	42W	18-55V	600mA	1200mA	89%	UL/cUL
L4WCP042S120ST	108-305Vac	42W	18-55V	600mA	1200mA	89%	UL/cUL

■ Case type

Identification	Material	Length	Width	Height	Mounting	Overall Length	Weight	BW (Bottom Wiring)
PS	Plastic	108mm (4.25in)	45mm (1.77in)	29.5mm (1.16in)	98mm (3.86in)	108mm (4.25in)	0.13 kg (0.63lb)	√
SS	Metal	136mm (5.35in)	46mm (1.81in)	31mm (1.22in)	126mm (4.96in)	136mm (5.35in)	0.21 kg (0.79lb)	√
ST	Aluminum	118mm (4.65in)	48mm (1.89in)	32 mm (1.26in)	127mm(5.00in) 60mm(2.36in)	141mm(5.55in)1 18mm(4.65in)	0.37 kg (0.82lb)	

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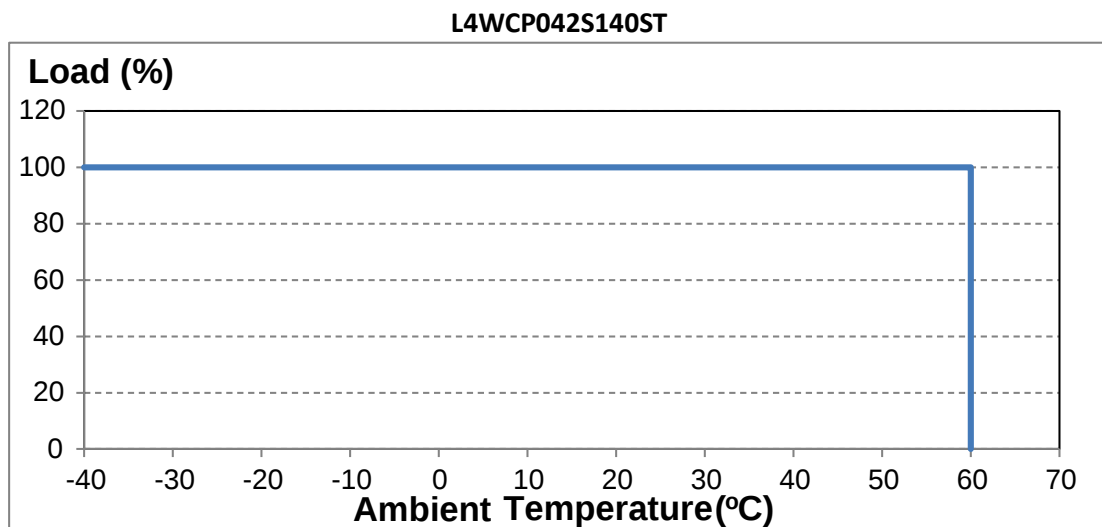
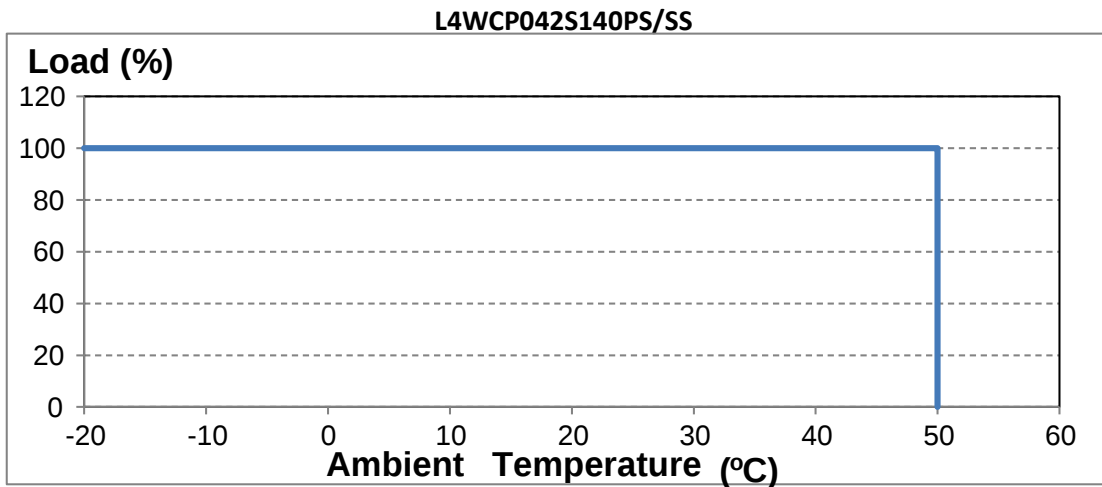
■ Technical Data

Case Type	PS	SS	ST
Input voltage range	108-305Vac		
Frequency	47-63Hz		
Power factor	> 0.95 @120Vac & 80~100% Full load, > 0.90 @277Vac & 80~100% Full load		
Output voltage	18-55V		
Output power	42W		
Max. Current ripple	± 40%		
Max input current	0.5A		
Max input Power	50W		
Efficiency	89%		
Max. open circuit voltage	59.5V		
Dimming	0~10V, PWM, External Resistor, Clock		
Dimming Range	1~100%		
THD	< 20% @120/277Vac & 80~100% load condition		
Current Programmable	Yes		
Output Current Programmable Range	120-1200mA		
Protection	OVP, SCP, OTP, and open circuit protection		
Environmental Protection	UL Dry &Damp and Type TL		UL Dry and Damp and Wet
Working Temperature	-20~50°C		-40~60°C
Max Case Temperature	90°C		
Surge Protection	Line to line 1kV		Line to line 1kV, Line to Earth 2kV
ANSI Surge Type	1.2/50µs Combination Wave (w/t 2Ω)		
Isolation (Primary to Secondary)	3750Vac/10maMax/60 seconds		
Isolation (Primary to earth)	N/A / N/A		1875Vac/10maMax/60 seconds
Isolation (Secondary to earth)	N/A / N/A		500Vac/10maMax/60 seconds
Lifetime	>50,00 hours @full load, 75°C Tcase		>70,00 hours @full load, 75°C Tcase
Packing	80 units/carton; 24		

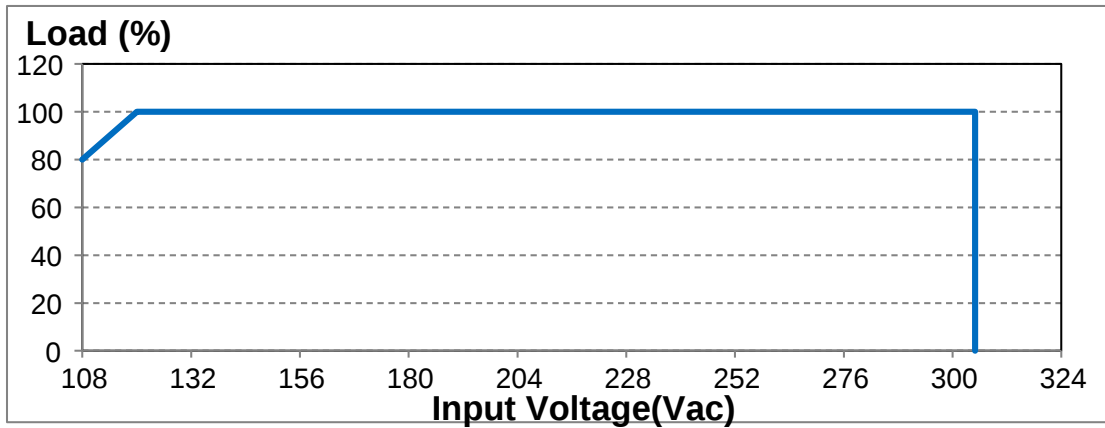
■ Safety Compliance

Case Type	PS	SS	ST
Safeties	U1310 Class 2		UL8750
Electromagnetic Compliance	Per Title 47 CFR Part 15 Class B		Per Title 47 CFR Part 15 Class A

■ Derating curve

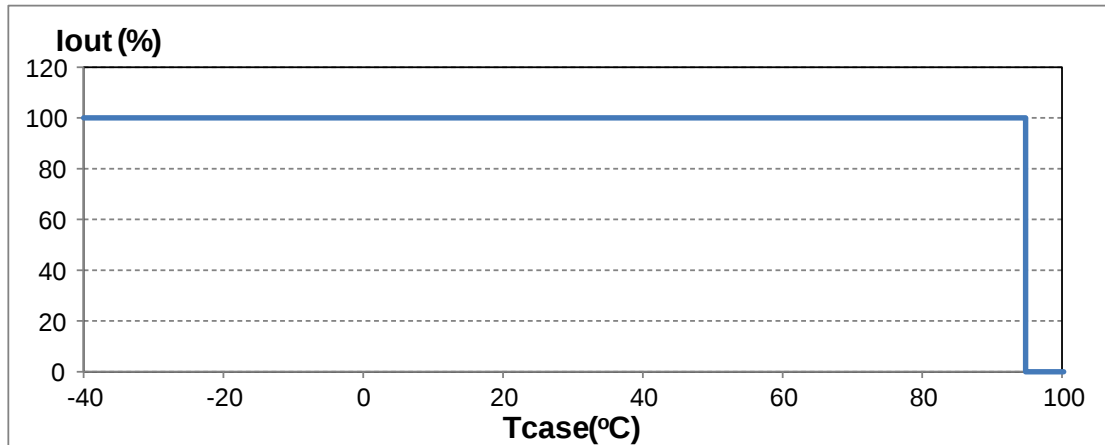


■ Static Characteristics

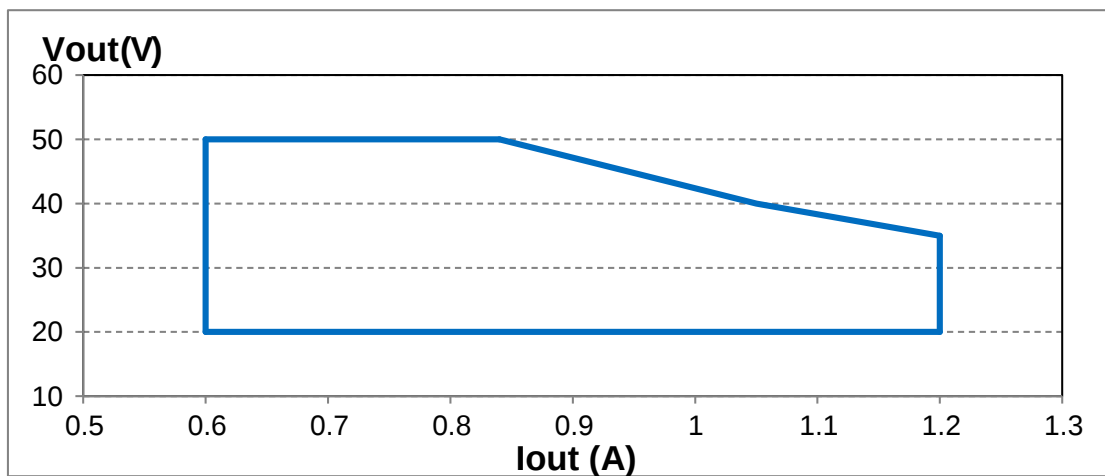


■ Electrical Specifications

Output Current vs. Case Temperature (with $\pm 5^\circ\text{C}$ Tolerance)

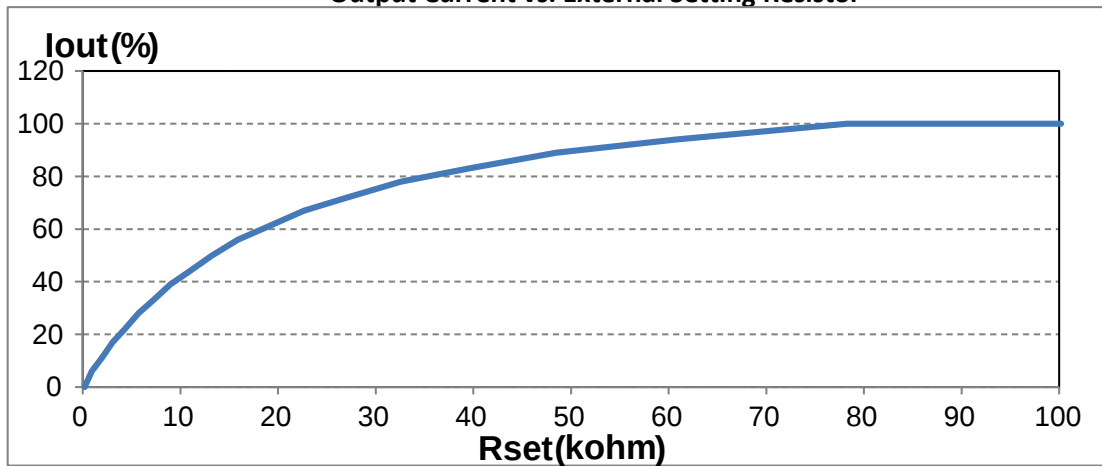


I-V Programming Area Output Voltage vs. Output Current



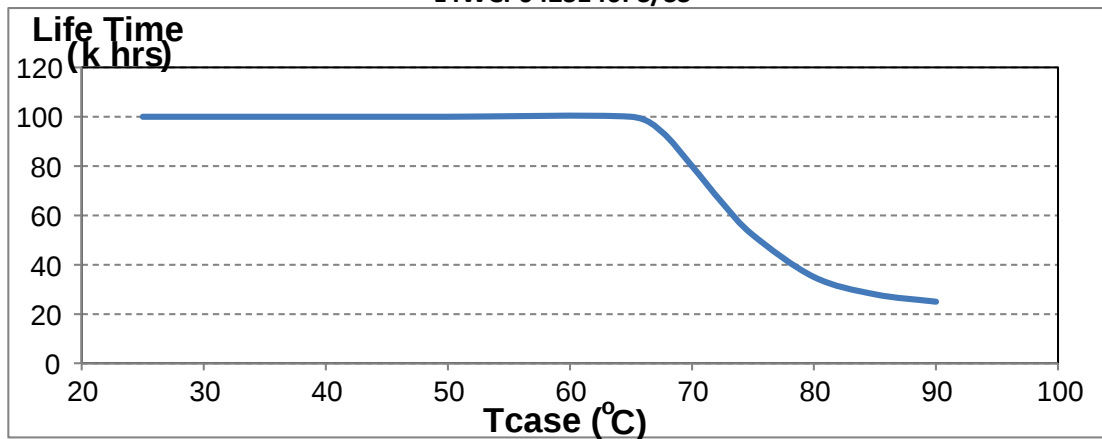
■ **Electrical Specifications(cont.)**

Output Current vs. External Setting Resistor

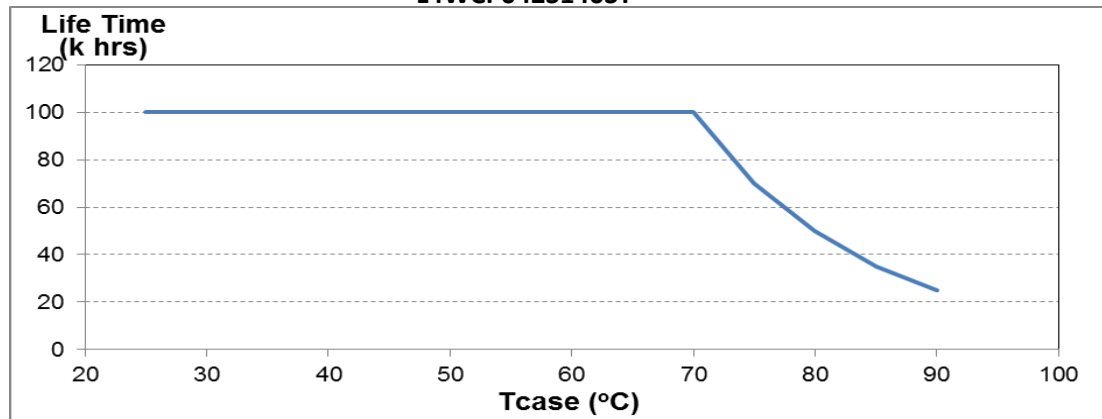


■ **Lifetime vs Case Temperature**

L4WCP042S140PS/SS

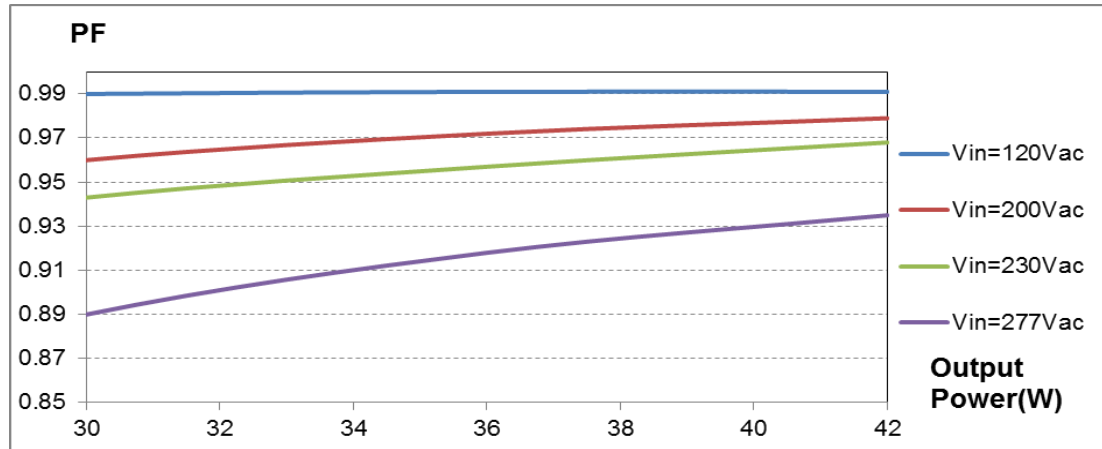


L4WCP042S140ST



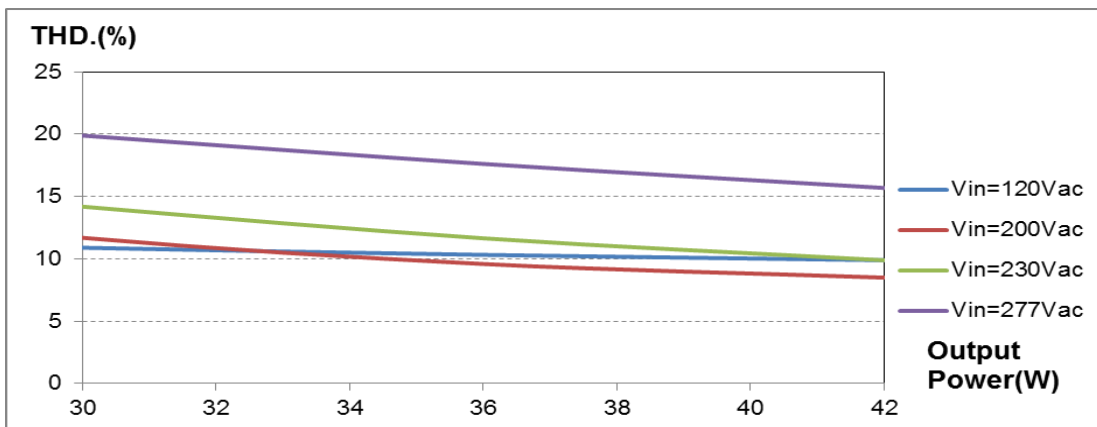
■ Power Factor vs. Output Power

(@ 25°C)



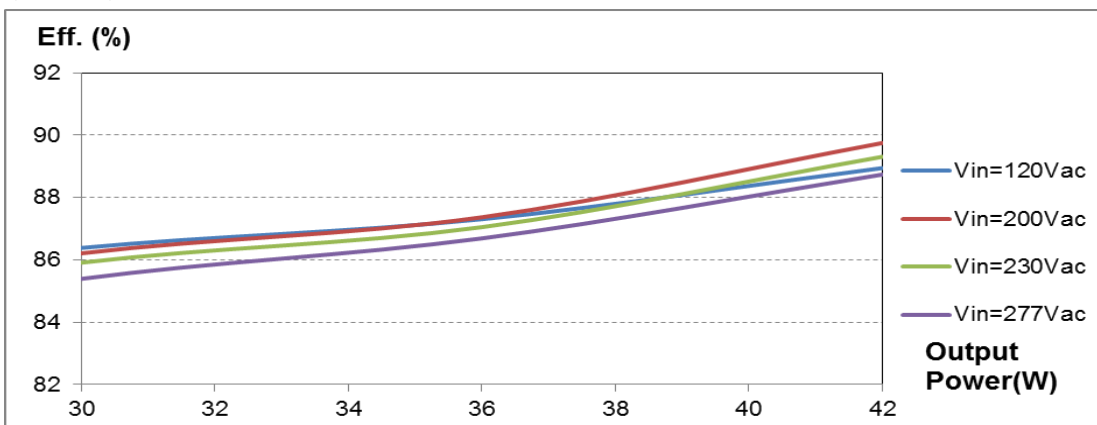
■ THD vs. Output Power

(@ 25°C)



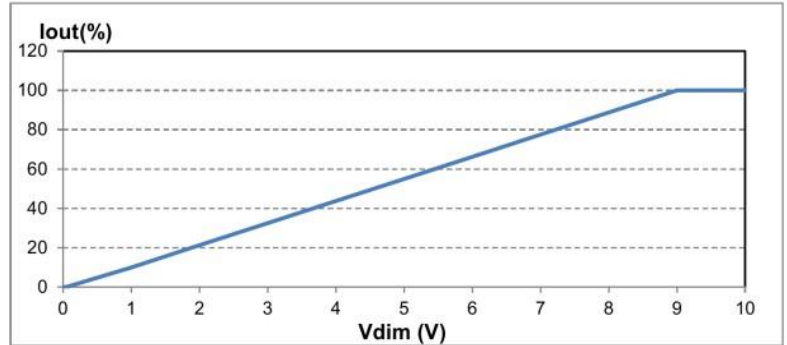
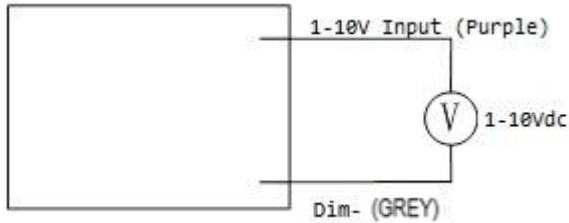
■ Efficiency vs. Output Power

(@ 25°C)

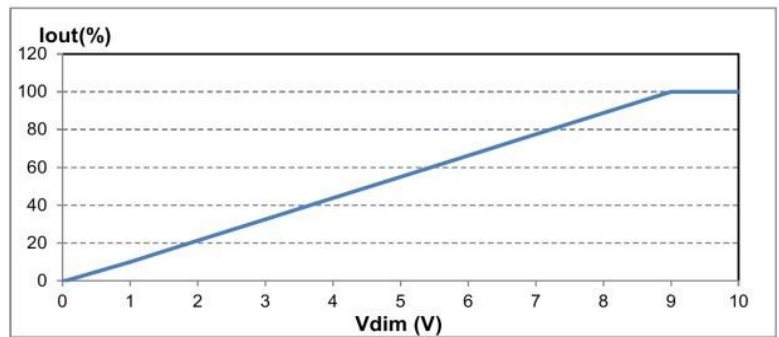
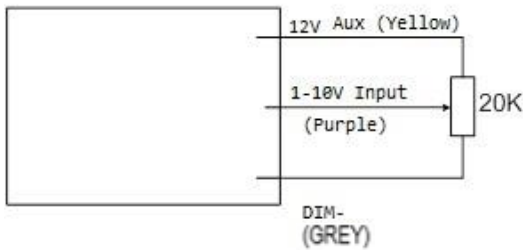


■ Dimming

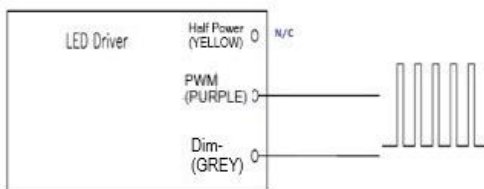
Mode 1 : 1-10Vdc Input on Dimming Control



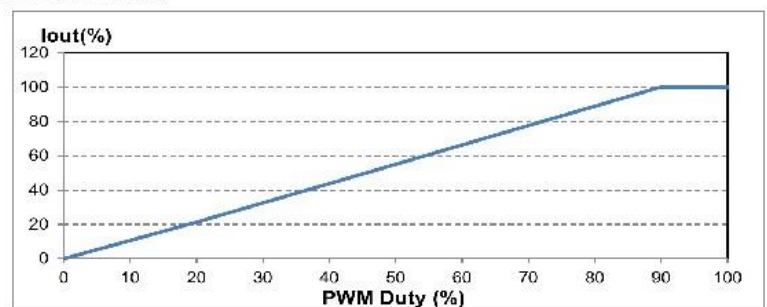
Mode 2 : Potentiometer on Dimming Control



Mode 3 : PWM Signal on Dimming Wires



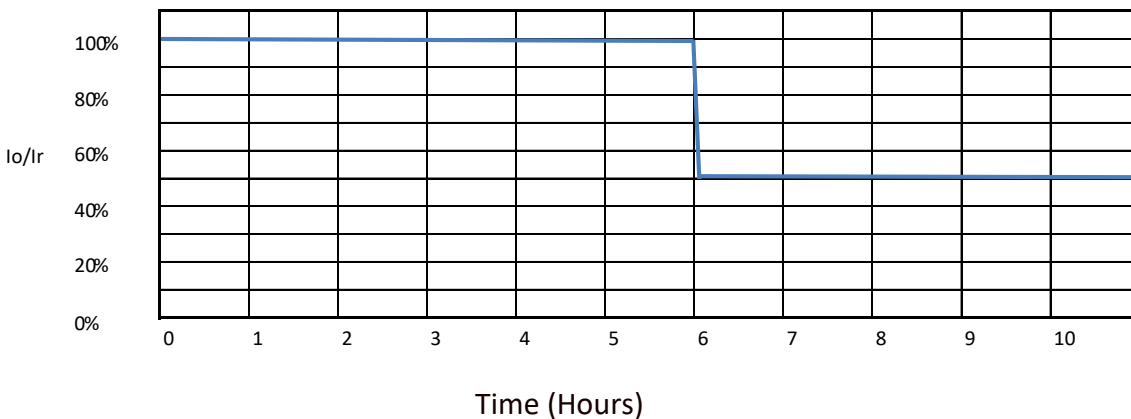
Io/Ir vs PWM Duty



■ **Dimming(cont.)**

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 4 : Timer Dimming (Does not require dimming wires)

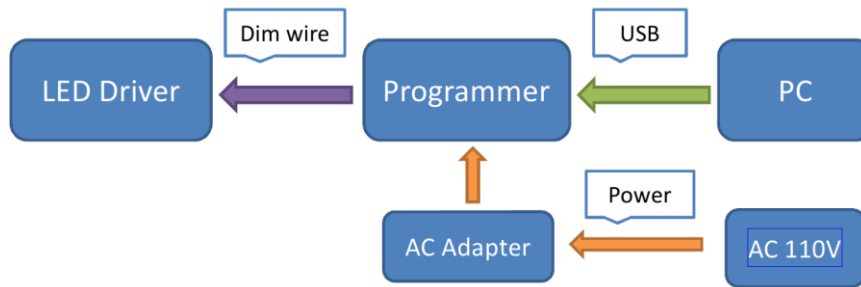


Standard power/time combination above, can be factory set to customer specification. Recycle AC to restart timer.

NOTE:

1. If the dimming function is not used, cap the dimming wires and don't use them.
2. I_o is actual output current and I_r is rated current without dimming control.
3. For the driver to operate properly, the load voltage must be maintained above the minimum voltage threshold, approximately 50% of the max. output voltage for any given mode.
4. The dimming signal can be less than 1V, when it is 0-1V, the output current can maintain about 10% I_r , however, the connected LEDs may flicker. Maintain dimming voltage greater than 1V in the application is strongly recommended.
5. Pulse width less than 10% will cause the driver to work improperly.

■ PC Programming Diagram

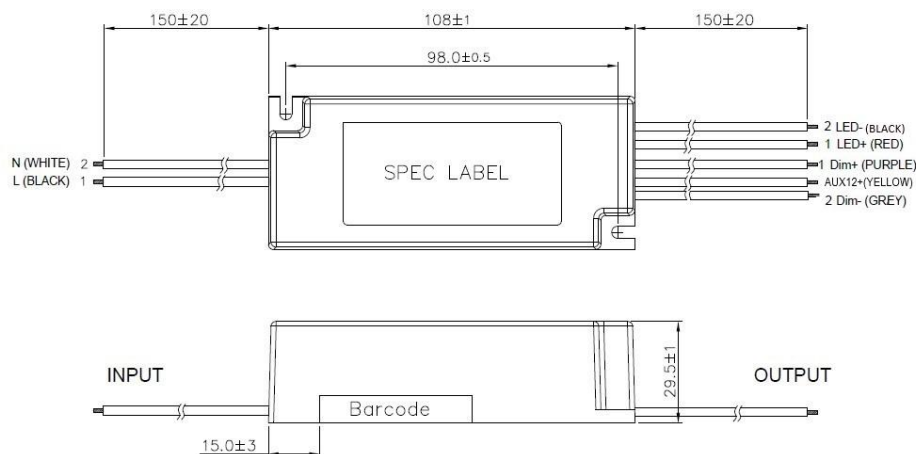


NOTES:

1. To set the desired output current, begin by installing the programming software on your PC and connect the programming module to your PC.
2. Next, connect the LED Driver to the programming module using the Dimming wires.
3. Please note an external power source is needed to provide power to the programming module.
4. Contact Autec Sales for current programming software and complete programming instructions.

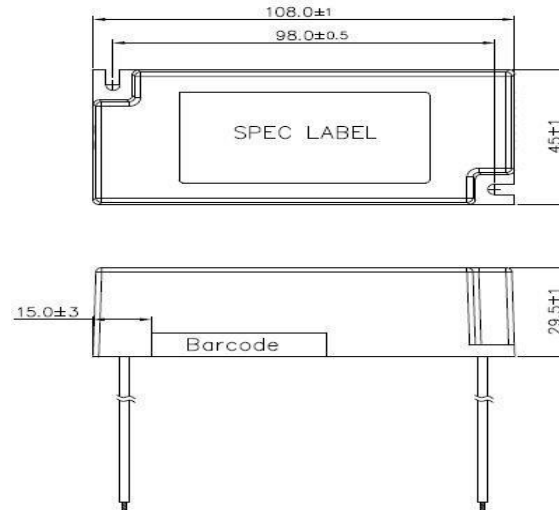
■ Mechanical Design

L4WCP042S140PS



■ **Mechanical Design(cont.)**

L4WCP042S140PS-BW

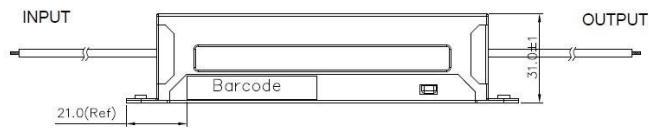
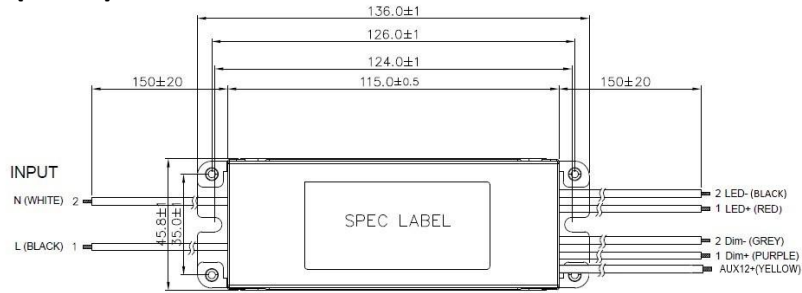


- Notes**
1. Outline Dimension 108*45*29.5
 2. Input and Output Connector and Pin Assignment
 3. The Yellow Dimming wire is optional for 12V Auxiliary Power

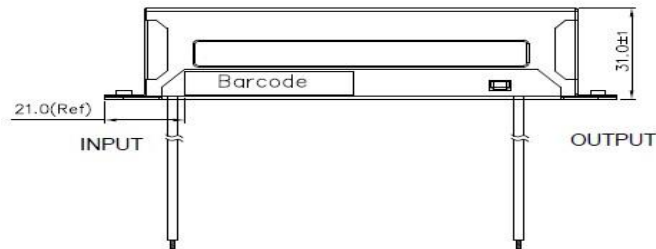
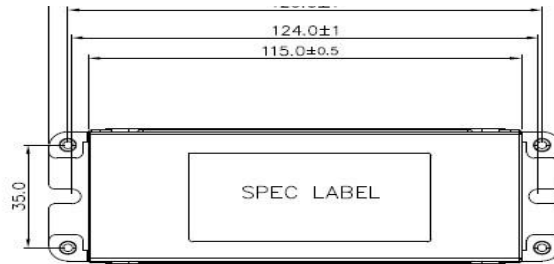
Wire Specifications		Colors
Input Wire	2/#18AWG	L= Black, N=White
Output	2/#18AWG	V+ is Red, V- is Black
Dimming Wire	3/#22AWG	Dim + is Purple, Dim Return is Grey, AUX12V+/100mA is Yellow

■ **Mechanical Design(cont.)**

L4WCP042S140SS



L4WCP042S140SS-BW

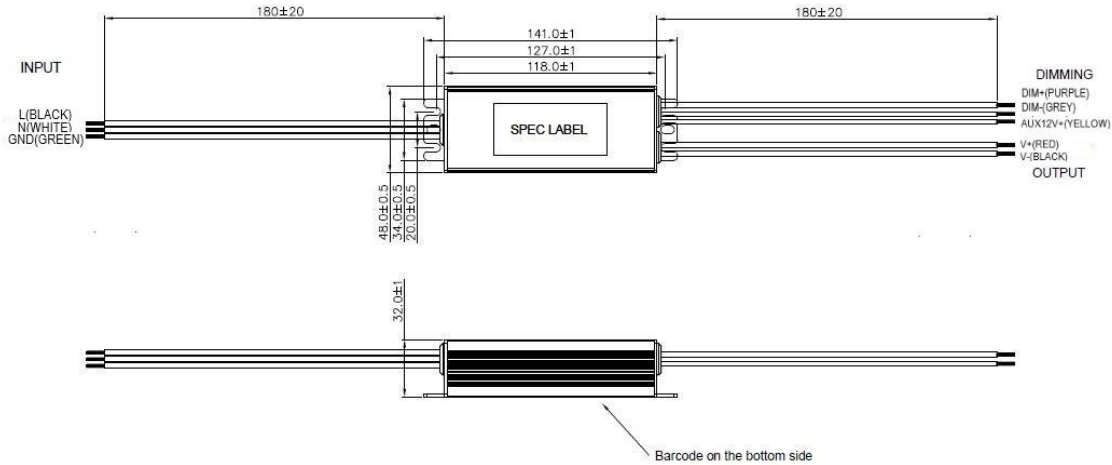


- Notes**
1. Outline Dimension 136*46*31
 2. Input and Output Connector and Pin Assignment
 3. The Yellow Dimming wire is optional for 12V Auxiliary Power

Wire Specifications		Colors
Input Wire	2/#18AWG	L= Black, N=White
Output	2/#18AWG	V+ is Red, V- is Black
Dimming Wire	3/#22AWG	Dim + is Purple, Dim Return is Grey, AUX12V+/100mA is Yellow

■ **Mechanical Design(cont.)**

L4WCP042S140ST



- Notes**
1. Outline Dimension 141*48*32
 2. Input and Output Connector and Pin Assignment
 3. The Yellow Dimming wire is optional for 12V Auxiliary Power

Wire Specifications		Colors
Input Wire	3/#18AWG	L= Black, N=White, GND=Green
Output	2/#18AWG	V+ is Red, V- is Black
Dimming Wire	3/#22AWG	Dim + is Purple, Dim Return is Grey, AUX12V+/100mA is Yellow

Part Number Scheme

L W C P 042 S XXX S T

L4=LED Driver Series

W=Input Voltage 108-305VAC

C=Constant Current

P=Programmable

030=Output Power(Watts)

S=Class I, 3 Wire Input

S=Metal Case

XXX=Rated Current
Ex.) 120=1200mA

S=Single Output

Part Number Scheme

L W C P 042 S XXX S S

L4=LED Driver Series

W=Input Voltage 108-305VAC

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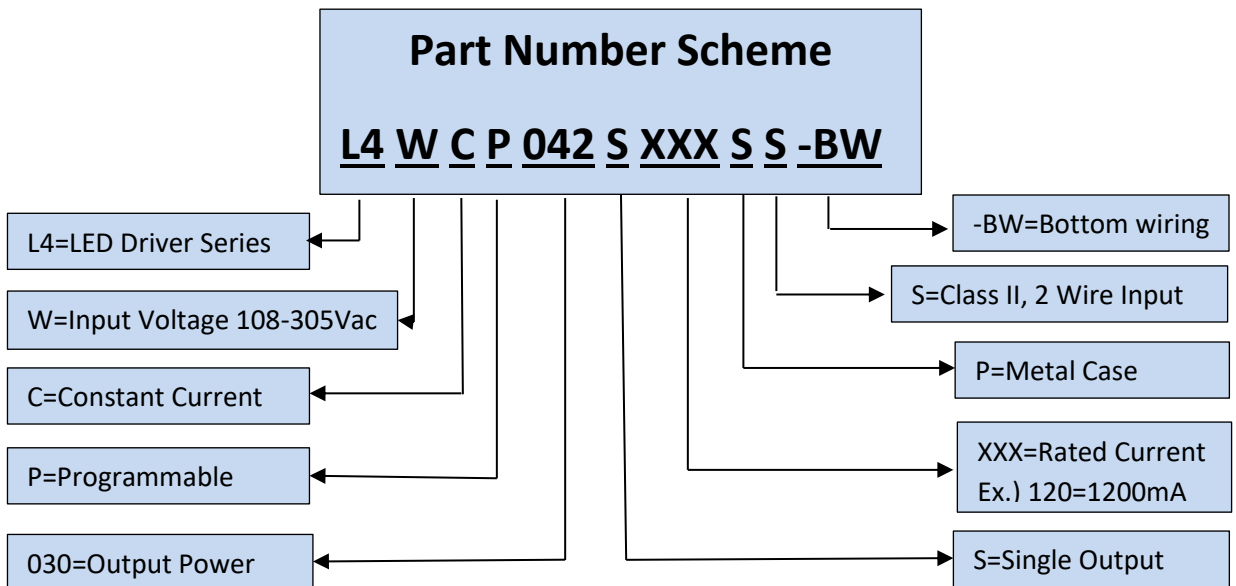
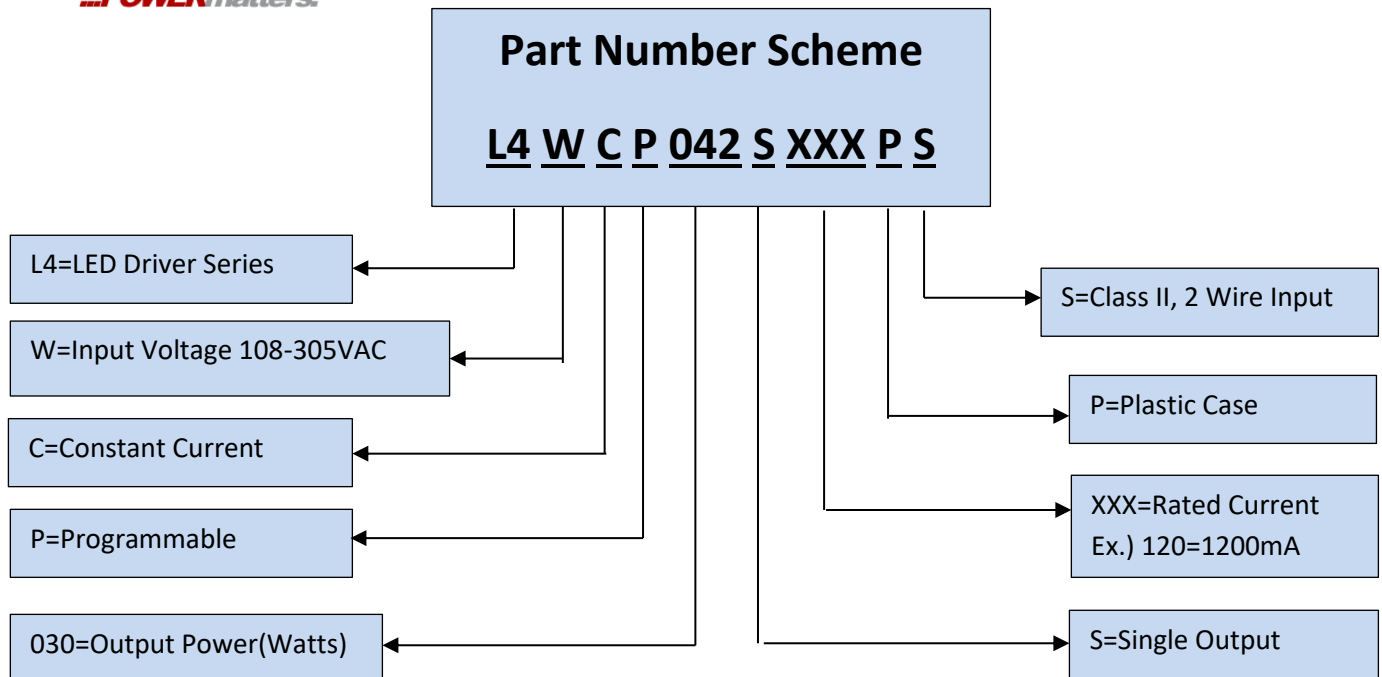
030=Output Power(Watts)

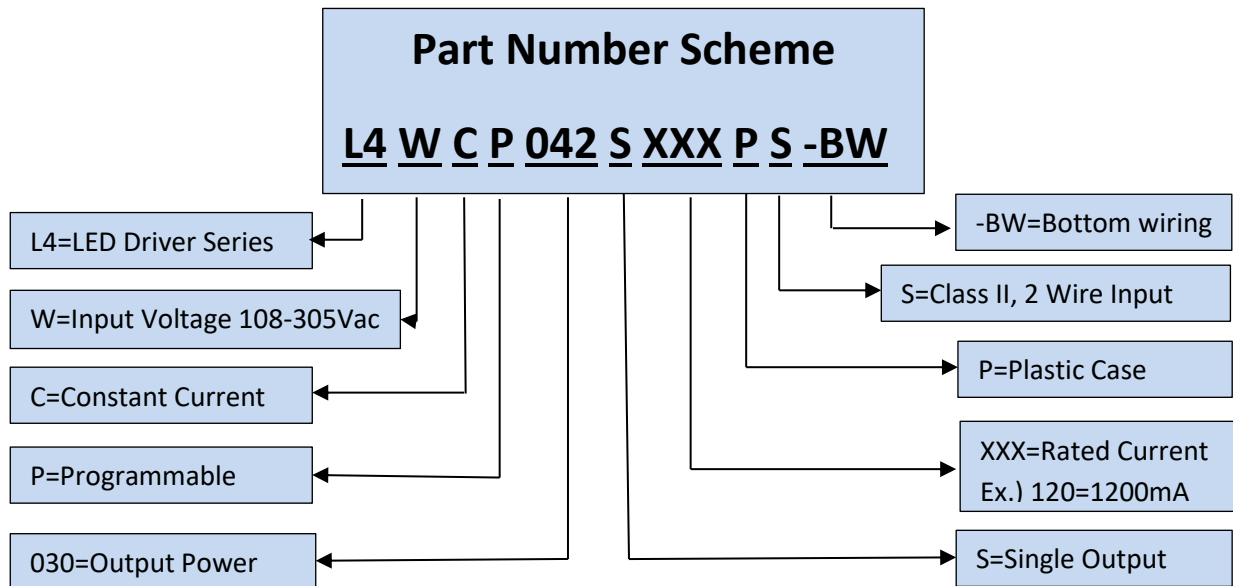
S=Class II, 2 Wire Input

S=Metal Case

XXX=Rated Current
Ex.) 120=1200mA

S=Single Output





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