

Power Supplies

Specifications Guide

ACV-ACVN Series



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Allanson

LED Power Supplies

Product Description

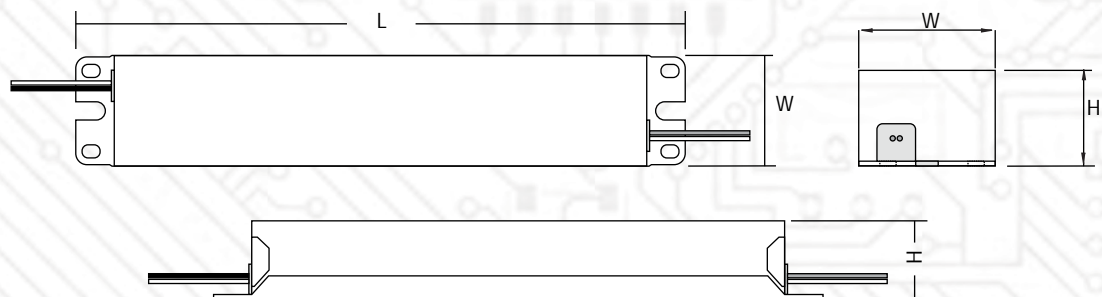
Allanson's ACVN and ACV series of fixed output voltage LED power supply comes with affordable and reliable features. Compatible with signage from any manufacturer. 12V major output voltage with 1,2, or 3 multi-channel selection for different lumen application. ACVN and ACV series meets North American safety certifications, and compliant with FCC Immunity/Emissions/Harmonic requirements. The products are designed and rigorously tested to work in various outdoor and indoor signage LED lighting conditions.

Product Features

- Constant voltage design
- Universal input voltage from 120-277 Vac
- Multi-channel output and independent operating
- Class 2 output
- Dry & damp location
- Operating temperature range -40°C to +55°C

Specifications Chart

Catalogue Number	Input Voltage	Input Current Amps	Output Volts DC	Output Current	Output Watts	Housing (inches)			Power Factor	Rating
						L	W	H		
ACVN125-120-277V	120-277	1.20A-0.70A	12	5.0	60	5.50	1.70	1.18	NPF	Dry & Damp
ACV125-120-277V	120-277	0.59A-0.26A	12	5.0	60	6.50	1.70	1.18	HPF	Dry & Damp
ACV2125-120-277V	120-277	1.15A-0.50A	12	2 x 5.0	120	11.75	1.70	1.18	HPF	Dry & Damp
ACV3125-120-277V	120-277	1.70A-0.75A	12	3 x 5.0	180	16.70	1.70	1.18	HPF	Dry & Damp



Wire Size Recommendation

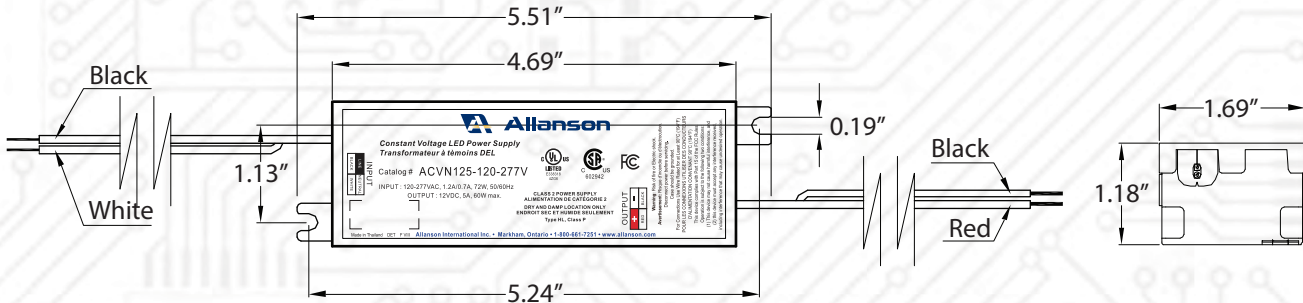
Recommended wire size from LED Module to Power Supply

Distance to Power Supply	Stranded Copper Wire Gauge	Expected Voltage Drop
13 Feet	16 AWG	5%
20 Feet	14 AWG	5%
30 Feet	12 AWG	5%

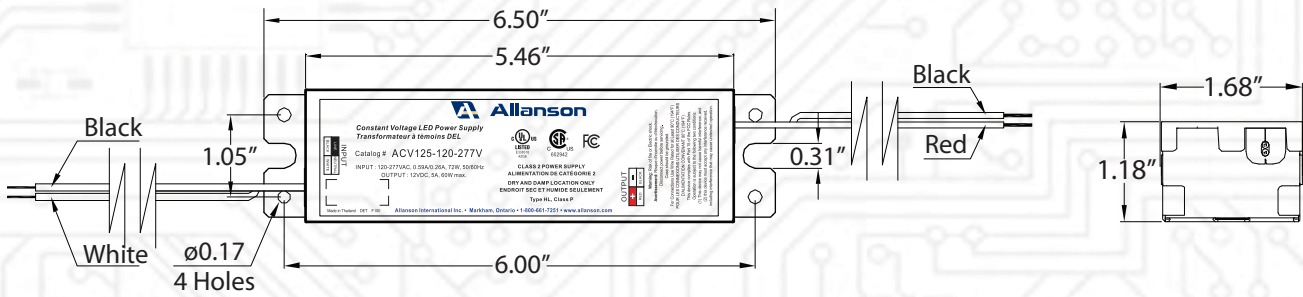
Product Dimensions

All dimensions are in inches. Drawings are not to scale.

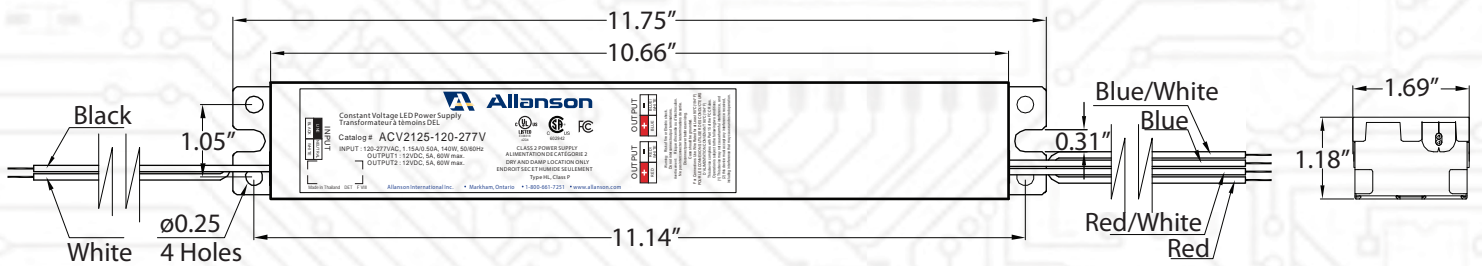
ACVN125-120-277V



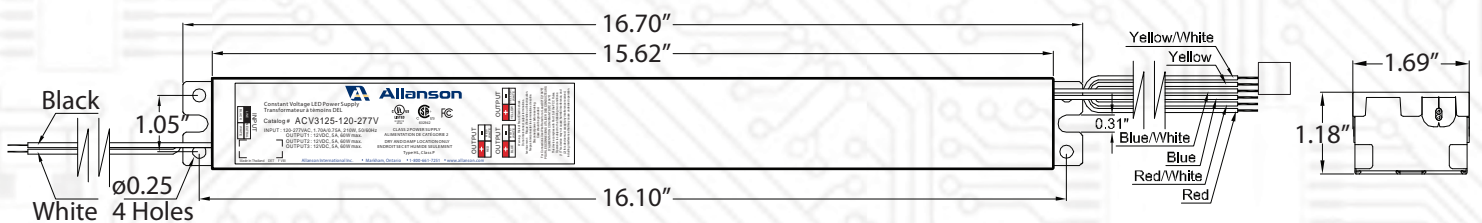
ACV125-120-277V



ACV2125-120-277V



ACV3125-120-277V




Installation Instructions

Scan the QR Codes to access electronic .pdf files

ACVN125-120-277V

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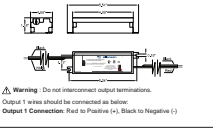
INSTALLATION INSTRUCTIONS FOR CLASS 2, 12 VOLTS ELECTRONIC LED POWER SUPPLY INDOOR AND OUTDOOR DRY AND DAMP

WARNING

To avoid electrical shock or fire. Disconnect power at service panel prior to installation, troubleshooting or maintenance. Always follow NEC and local electrical codes. Properly ground power supply and fixture. Do not connect output of power supplies in series or parallel to double up voltage or current.

Thank you for purchasing Allanson's LED Power Supply. Should you have questions or concerns please do not hesitate to contact us. Please read all installation instructions before installing the system.

SPECIFICATIONS	
Part #	ACVN125-120-277V
Input Voltage	120/277V
Input Frequency	50/60Hz
Input Current @ Rated Load	1.25A @ 120V
Input Current @ Rated Load	0.75A @ 277V
Power Factor	HPF>95%
Output Voltage	12Vdc +/- 3%
Output Current 1	5A
Size (LxWxH)	8.51x1.68x1.18"
Max Ambient Operating Temperature	-40°C to 55°C
Certification	UL, CSA



Warning: Do not interconnect output terminations. Output 1 wires should be connected as below.
Output 1 Connection: Red to Positive (+), Black to Negative (-)

Illustration 1

INSTALLATION AND OPERATION

- Firmly secure the case to the application with proper size screws.
- LED power supply and all surrounding metal should be bonded to ground. All metal parts of the individual channel letter and the sign frame must be grounded to the point of power connection in accordance with local electrical codes and other ordinances.
- Wire the power supply to a standard three-wire grounded power source.
- Use output leads #18 AWG or heavier to wire the LED modules. For best results, keep the leads as short as possible. The recommended length between the output of the power supply and the LED modules should be less or equal to 3 feet using #18 AWG (expected 5% voltage drop).
- If you need to extend the distance between the power supply to the LED modules, please increase the wire gauge to minimize the voltage drop to the modules. A reduction in voltage to the modules will cause a proportional reduction in light output. The table attached is only a guide.

Distance to Power Supply	Standard Copper Wire Gauge	Expected Voltage Drop
13 ft	#18 AWG	5%
20 ft	#16 AWG	5%
30 ft	#12 AWG	5%

- Firmly secure the LED modules to a flat metal surface.
- Attach the positive lead wire of the LED module to the positive (+) terminal of the power supply. Attach the negative terminal of the LED module to the negative (-) terminal of the power supply.
- Do not overload the unit. Follow each system's specification for correct loading.
- The power supply and the LED modules generate heat during normal operation and it is necessary to allow heat to dissipate. It is recommended they are mounted with as much of their surface in direct contact with other metal surfaces as possible. Letters should be well ventilated.
- Power supplies may be ground together on the primary side with a junction box in a wide array of configurations. All connections must be performed in accordance with NEC and local electrical codes.
- For installation in dry and damp locations, the junction box MUST BE a UL Listed or CSA Certified junction box.

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ACV125-120-277V

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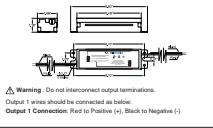
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Input Current @ Rated Load	1.25A @ 120V
Input Current @ Rated Load	0.75A @ 277V
Power Factor	HPF>95%
Output Voltage	12Vdc +/- 3%
Output Current 1	5A
Size (LxWxH)	8.51x1.68x1.18"
Max Ambient Operating Temperature	-40°C to 55°C
Certification	UL, CSA



Warning: Do not interconnect output terminations. Output 1 wires should be connected as below.
Output 1 Connection: Red to Positive (+), Black to Negative (-)

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- Attach the positive lead wire of the LED module to the positive (+) terminal of the power supply. Attach the negative terminal of the LED module to the negative (-) terminal of the power supply.
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ACV2125-120-277V

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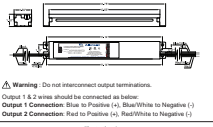
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SPECIFICATIONS	
Part #	ACV2125-120-277V
Input Voltage	120/277V
Input Frequency	50/60Hz
Input Current @ Rated Load	1.25A @ 120V
Input Current @ Rated Load	0.75A @ 277V
Power Factor	HPF>95%
Output Voltage	12Vdc +/- 3%
Output Current 1	5A
Output Current 2	5A
Size (LxWxH)	11.75x1.68x1.18"
Max Ambient Operating Temperature	-40°C to 55°C
Certification	UL, CSA



Warning: Do not interconnect output terminations. Output 1 & 2 wires should be connected as below.
Output 1 Connection: Yellow to Positive (+), Yellow/White to Negative (-)
Output 2 Connection: Blue to Positive (+), Blue/White to Negative (-)

Illustration 1

INSTALLATION AND OPERATION

- Firmly secure the case to the application with proper size screws.
- LED power supply and all surrounding metal should be bonded to ground. All metal parts of the individual channel letter and the sign frame must be grounded to the point of power connection in accordance with local electrical codes and other ordinances.
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ACV3125-120-277V

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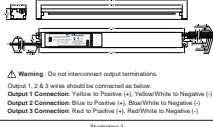
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Input Voltage	120/277V
Input Frequency	50/60Hz
Input Current @ Rated Load	1.25A @ 120V
Input Current @ Rated Load	0.75A @ 277V
Power Factor	HPF>95%
Output Voltage	12Vdc +/- 3%
Output Current 1	5A
Output Current 2	5A
Output Current 3	5A
Size (LxWxH)	15.37x1.68x1.18"
Max Ambient Operating Temperature	-40°C to 55°C
Certification	UL, CSA



Warning: Do not interconnect output terminations. Output 1, 2 & 3 wires should be connected as below.
Output 1 Connection: Yellow to Positive (+), Yellow/White to Negative (-)
Output 2 Connection: Blue to Positive (+), Blue/White to Negative (-)
Output 3 Connection: Red to Positive (+), Red/White to Negative (-)

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Loading Recommendation

Maximum LED Modules Per Power Supply

Part Number	LED Power Consumption (Watts)	ACVN125-120-277V ACV125-120-277V	ACV2125-120-277V	ACV3125-120-277V
White Modules				
S03W2CW B M	0.30	180	150 + 150	150 + 150 + 150
S04W1CW B M	0.36	150	142 + 142	142 + 142 + 142
S05W2CW B	0.50	108	108 + 108	108 + 108 + 108
S07W2CW B	0.75	72	72 + 72	72 + 72 + 72
S07W2CW BLP	0.73	72	72+72	72 + 72 + 72
S07W2WW BLP	0.73	72	72+72	72 + 72 + 72
S07W2TW B	0.73	72	72+72	72 + 72 + 72
S07W2WW B	0.75	72	72+72	72 + 72 + 72
S1W2CW B	1.10	50	50 + 50	50 + 50 + 50
S1W2NW B	1.10	50	50 + 50	50 + 50 + 50
S1W2TW B	1.10	50	50 + 50	50 + 50 + 50
V07W2TW B	0.75	72	72 + 72	72 + 72 + 72
Color Modules				
S04W1RD B M*	0.36	142	142+142	142+142+142
S05W2BL B*	0.50	108	108+108	108+108+108
S05W2OR B*	0.50	108	108+108	108+108+108
S05W2RD B*	0.50	108	108+108	108+108+108
S1W2GR B*	1.00	54	50+50	50+50+50
S1W2OR B*	1.00	54	50+50	50+50+50
S1W2RD B*	1.00	54	50+50	50+50+50
RGB Modules				
ACLW-RGB3 40	0.72	80	80 + 80	80 + 80 + 80
ACLW-RGB AD 2	0.72	80	80 + 80	80 + 80 + 80
RGB SkyLine Flexible Border Tubing (RGB Color Changing)				
AFB1-XXXRGB-12V Q AB**	3.5W/ft (11.5W/m)	16' 4" (5m)	16' 4" (5m) + 16' 4" (5m)	16' 4" (5m) + 16' 4" (5m) + 16' 4" (5m)

*RD= Red, BL=Blue, GR=Green,OR=Orange

**XXX in part number for RGB SkyLine Flexible Border Tubing denotes length in inches. Q denotes jacket color, A denotes power lead, and B denotes end cap type. Please refer to product specifications for more information.

Loading Recommendation

Maximum Retrofit Lamps Per Power Supply

Part Number	LED Power Consumption (Watts)	ACVN125-120-277V ACV125-120-277V	ACV2125-120-277V	ACV3125-120-277V
LEDrofit (Retrofit Fluorescent Replacement)				
Single Sided LEDrofit				
ALDF-18CW-SS	3.50	15	15 + 15	15 + 15 + 15
ALDF-24CW-SS	5.90	9	9 + 9	9 + 9 + 9
ALDF-30CW-SS	7.10	8	8 + 8	8 + 8 + 8
ALDF-36CW-SS	9.30	6	6 + 6	6 + 6 + 6
ALDF-42CW-SS	10.50	5	5 + 5	5 + 5 + 5
ALDF-48CW-SS	12.70	4	4 + 4	4 + 4 + 4
ALDF-60CW-SS	16.00	3	3 + 3	3 + 3 + 3
ALDF-64CW-SS	16.70	3	3 + 3	3 + 3 + 3
ALDF-72CW-SS	18.80	3	3 + 3	3 + 3 + 3
ALDF-84CW-SS	21.60	2	2 + 2	2 + 2 + 2
ALDF-96CW-SS	23.60	2	2 + 2	2 + 2 + 2
ALDF-108CW-SS	26.30	2	2 + 2	2 + 2 + 2
ALDF-117CW-SS	27.40	2	2 + 2	2 + 2 + 2
ALDF-120CW-SS	29.50	2	2 + 2	2 + 2 + 2
Double Sided LEDrofit				
ALDF-18CW-DS	7.00	7	7 + 7	7 + 7 + 7
ALDF-24CW-DS	11.70	4	4 + 4	4 + 4 + 4
ALDF-30CW-DS	13.90	4	4 + 4	4 + 4 + 4
ALDF-36CW-DS	18.10	3	3 + 3	3 + 3 + 3
ALDF-42CW-DS	20.40	2.5	2.5 + 2.5	2.5 + 2.5 + 2.5
ALDF-48CW-DS	24.60	2	2 + 2	2 + 2 + 2
ALDF-60CW-DS	30.70	1.5	1.5 + 1.5	1.5 + 1.5 + 1.5
ALDF-64CW-DS	31.90	1.5	1.5 + 1.5	1.5 + 1.5 + 1.5
ALDF-72CW-DS	36.00	1.5	1.5 + 1.5	1.5 + 1.5 + 1.5
ALDF-84CW-DS	41.00	1	1 + 1	1 + 1 + 1
ALDF-96CW-DS	45.50	1	1 + 1	1 + 1 + 1
ALDF-108CW-DS	49.10	1	1 + 1	1 + 1 + 1
ALDF-117CW-DS	51.00	1	1 + 1	1 + 1 + 1
ALDF-120CW-DS	55.80	1	1 + 1	1 + 1 + 1

Notes:

- 0.5 represents 1 pair of wires for any double sided LEDrofit.
- Charts above represent loading recommendation at 90%.



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