

Airport**Lighting**Company
An ISO 9001:2015 Certified Company

OWNER'S MANUAL



I-Lux LED
ICAO 800mm
LEDV3 LED Strip





Airport**Lighting**Company

An ISO 9001:2015 Certified Company

I-Lux LED ICAO 800mm LEDV3 LED Strip

ETL Certified to:
ICAO: Annex 14 Sixth Edition



Manufactured by:
Airport Lighting Company

108 Fairgrounds Drive
Manlius, New York 13104
(315) 682-6460

Email: info@airportlightingcompany.com
Website: www.airportlightingcompany.com



Compliances (Current Editions)

ICAO: Annex 14 Sixth Edition



Key Features

- LED Life >100,000 hours at high intensity
- IP68 Rated LED Lighting
- I-LUX design offers strength and size flexibility while lowering operating costs
- Heavy-gauge aluminum construction
- Free of gaps and joints that weaken modular signs and allow penetration of wind, rain, dirt and snow
- ALC's Single Panel design inherently stronger than competitors modular signs
- Seamless panels display messages without distortion
- 30 times more impact resistant than other brands
- No power tools required for re-lamping
- Brightness controls use field proven technology
- Stainless steel hardware
- Wind velocity: 322km/h (200 mph) or 483km/h (300 mph)
- 4 Year Warranty on LED Modules and LED Circuitry
- Operation from -40 degrees F (-40 degrees C) to 131 degrees F (55 degrees C) environment

**** I-LUX and AGM Airfield Guidancesign Mfr registered trademarks under Airfield Lighting Company**



Specifications

General Catalog Numbers

I □ 00 □ □ . □ SF □

Size

6= 600mm panel,
300mm legend
8 = 800mm panel,
400mm legend

Light Option

J = 2.8A - 6.6A
S = Solar

Faces

SF = Single Face

Modules

1.0 = 1 Module Length
2.0 = 2 Modules Length
3.0 = 3 Modules Length
4.0 = 4 Modules Length

Options

1 = On/Off Switch
3 = 300 MPH
P = View Port
E = External Power Cord

NOTE: 1 module signs come with 1 tether, all the rest with 2 per sign. More can be ordered.

All signs supplied from the floor flange up. Base cans, transformers, connector kits and secondary cables are sold separately.

Replacement Parts

(LED Light Option)

Part Number	Description
C7-LVCV2-24	Low voltage power control module 24 VDC
I7-LEDV3xx.x	LEDV3LED Strip - 6 =600, 8=800, then module of sign
C7-GDTH	Gas Discharge Tube Harness
C7-BRG	Bridge Rectifier

Other Replacement Parts

I8-600LPxx	600mm Legend Panel
I8-600BPxx	600mm Blank Panel
I8-800LPxx	800mm Legend Panel
I8-800LPxx	800mm Blank Panel
C6-SF6	Slip Flange
C6-FF235	Floor Flange
C7-60PC	Power Cord
22-00080	Tether (2 per Sign)

Transformer Requirements: LEDV3 IP68 Strip

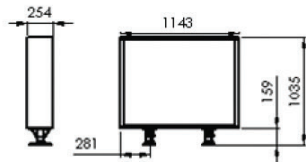
Size	Modules	Transformer	VA Load	Power Factor
600	1.0	100W	50	.93
600	2.0	200W	76	.90
600	3.0	200W	91	.91
600	4.0	300W	107	.91
800	1.0	150W	49	.92
800	2.0	150W	72	.93
800	3.0	300W	93	.90
800	4.0	500W	111	.90

Specifications

Dimensions (mm):

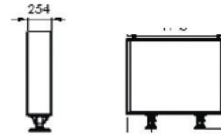
800mm

1.0



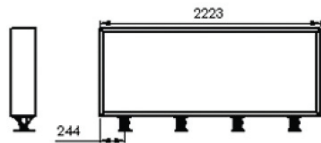
Boxed 1168.4L x 304.8W x 1066.8H - 431 kg

600mm



Boxed 990.6L x 304.8W, x 863.6H - 30.84kg

2.0

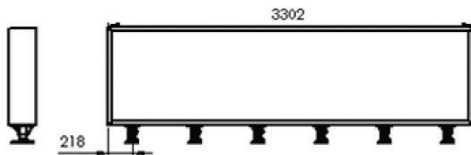


Boxed 2235.2L x 304.8W x 1066.8H - 83.92 kg

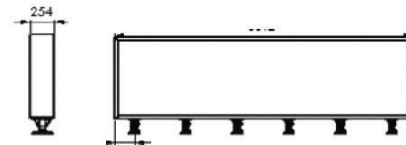


Boxed 1905L x 304.8W x 863.6H - 60.78kg

3.0

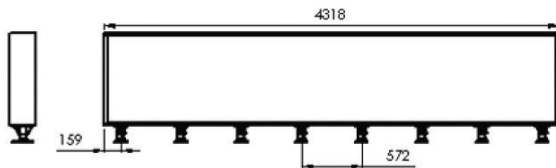


Boxed 3327.4L x 304.8W x 1066.8H - 124.74 kg

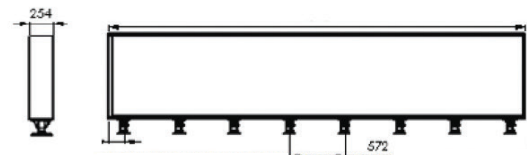


Boxed 2819.4L x 304.8W x 863.6H - 91.17kg

4.0



Boxed: 4394.2L x 304.8W x 1066.8H - 165.56 kg



Boxed 2819.4L x 304.8W x 863.6H - 91.17kg

NOTE: All shipments outside of the US and US territories will use ISPM 15 compliant pallets.



Test Verification of Conformity

Verification Number: 105455047CRT-002TVOC

On the basis of the tests undertaken, the sample<s> of the below product have been found to comply with the requirements of the referenced specification<s>/standard<s> at the time the tests were carried out. This verification is part of the full test report<s> and should be read in conjunction with it <them>.

Applicant Name & Address:	AGM Airfield Guidancesign Mfrs Inc 108 Fairgrounds Dr Ste 8 Manlius, NY 13104-2450 USA
Product Description:	600mm, Code 1 or 2 Mandatory, Code 3 or 4 Direction, Location sign.
Ratings & Characteristics:	face height 600mm, legend height 300mm, LED, operating range 2.8A – 6.6A Operations are conducted in runway visual range conditions less than a value of 800m, non-retroreflective.
Models/Type References:	I600JX.XSFX
Specification<s>/Standards:	International Civil Aviation Organization (ICAO), Aerodromes, Annex 14, Volume 1, Ninth Edition, dated July 2022. ICAO Photometry - Appendix 4, Sections 4-8 Chromaticity – Appendix 1, Figure A1-4 (night-time only) Frangibility – Section 5.4.1.3 Physical Characteristics – Appendix 4
Verification Issuing Office Name & Address:	Intertek Testing Services NA, Inc. 3933 US Rt 11 Cortland, NY 13045 USA
Test Report Number(s):	105455047CRT-001 (Dec 2023), 104115555CRT-001 (Jan 2019)

Additional information in Appendix.

Signature: 
Name: Christopher W Metcalf
Position: Engineering Supervisor
Date: 20 December 2023

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Test Verification of Conformity

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Applicant Name & Address:	AGM Airfield Guidancesign Mfrs Inc 108 Fairgrounds Dr Ste 8 Manlius, NY 13104-2450 USA
Product Description:	800mm, Code 3 or 4 Mandatory, Direction, Location sign.
Ratings & Characteristics:	face height 800mm, legend height 400mm, LED, operating range 2.8A – 6.6A Operations are conducted in runway visual range conditions less than a value of 800m, non-retroreflective.
Models/Type References:	I800JX.XSFX
Specification<s>/Standards:	International Civil Aviation Organization (ICAO), Aerodromes, Annex 14, Volume 1, Ninth Edition, dated July 2022. ICAO Photometry - Appendix 4, Sections 4-8 Chromaticity – Appendix 1, Figure A1-4 (night-time only) Frangibility – Section 5.4.1.3 Physical Characteristics – Appendix 4
Verification Issuing Office Name & Address:	Intertek Testing Services NA, Inc. 3933 US Rt 11 Cortland, NY 13045 USA
Test Report Number(s):	105455047CRT-001 (Oct 2023), 104115555CRT-001 (Jan 2019)

Additional information in Appendix.

Signature: 
Name: Christopher W Metcalf
Position: Engineering Supervisor
Date: 11 October 2023

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Have Questions? Contact Us:



GENERAL INQUIRY:

(315) 682-6460



EMAIL:

info@airportlightingcompany.com



TECHNICAL SUPPORT:

(866) 212-1060



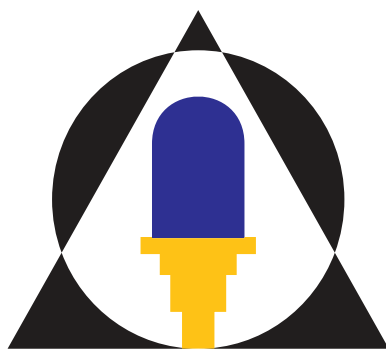
EMAIL:

support@airportlightingcompany.com



WEBSITE:

www.airportlightingcompany.com



Airport**Lighting**Company

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**108 Fairgrounds Drive
Manlius, New York 13104**



Statement of Warranty

Airport Lighting Company's I-Lux Airfield Guidance Signs are warranted against mechanical and physical defects in design or manufacture for a period of 2 years from date of installation. ALC will correct such by repair or replacement, at its option, provided the signs have been properly handled and stored prior to installation, properly installed and operated after installation, and provided further that the buyer has notified ALC in writing within the warranty period and a reasonable time after notice of such defects. Refer to handling, storage, installation, and operational instructions for proper procedural guidance that must be followed to maintain warranty provisions.

This warranty is in effect for the specified term as long as the equipment has not been, in ALC's judgment: altered in such a way as to affect the equipment adversely; subjected to accident, negligence, and/or improper storage; and has been operated and maintained in accordance with ALC's published operational guidelines.

ALC reserves the right to examine signs on which a claim has been made. Equipment must be presented in the same condition as when the defect was discovered. ALC also reserves the right to require the return of equipment to establish any claim.

Disclaimer: Airport Lighting Company's obligation under this warranty is limited to repair or replacement of defective equipment sold by ALC. This does not include any other costs such as the cost of removal, shipping, or installation of the defective part or repaired product, including labor or any consequential damages of any kind. ALC shall not be liable for any indirect or consequential damages.

Under no circumstances will ALC's liability exceed its sales price of the signs claimed to be defective. All transportation costs under this warranty are the responsibility of the buyer. Replacement parts and/or equipment provided under this warranty are covered under the same terms until the expiration of the original warranty period that began upon the first installation of the equipment.

This is ALC's sole and exclusive warranty with respect to the equipment sold to the buyer. There are no express or implied warranties of fitness for any particular purpose or any implied warranties other than those made expressly herein.

ALC shall not be liable to the buyer of this product or third parties for indirect or consequential damages, or for damages arising from the use of any options or parts other than those designated by ALC as approved products. Damage caused by lightning, flood and other natural or man-made causes are outside the scope of this warranty.



All Airport Lighting Company signs have been tested at the factory and set to function within ICAO Annex 14, Annex 14, Volume 1, Ninth Edition.

Installation and operation issues most frequently trace back to an undersized isolation transformer or to damage during shipping. Before commencing repairs, please contact Airport Lighting Company (315-682-6460 or info@airportlightingcompany.com) with the catalog number and serial number from the name plate of the malfunctioning sign to determine warranty coverage.

If following the troubleshooting guidelines below does not resolve the operational issues, we are pleased to assist you via telephone or email. We keep parts in stock, and usually ship within 24 hours.

Consider upgrading your unlighted signs to energy efficient LED signs. ALC has retrofit kits for just that purpose – no need to purchase a whole new sign. Please contact ALC to learn more about the possibilities.

I-Lux Sign Handling

Airport Lighting Company I-Lux signs are shipped in a corrugated wrapping to protect against abrasion during shipping. The packaged signs are meant to be hand carried (sling straps are effective) or placed on dolly carts. The packaged sign is NOT designed to be handled by forklifts.

Make sure to note any damage that occurred during shipping when receiving the signs and be sure to document it with the carrier. When installing the sign make sure that the correct L830 isolation transformer is connected. When accessing the sign cabinet, use only hand tools to tighten the bolts.

I-Lux Sign Storage

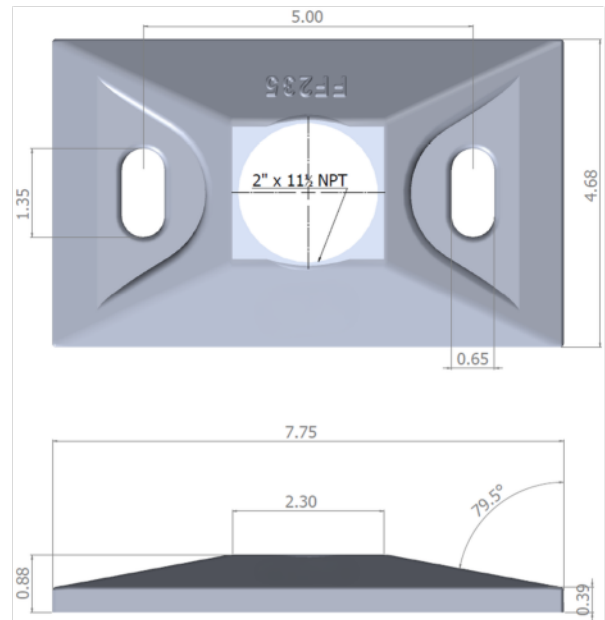
If the signs are to be stored before installation, keep them in the original corrugated wrapping for protection and store them upright in a dry location. If the corrugated wrapping becomes wet, it should be removed and recycled because it can cause damage as a result of aggravated humidity. If the corrugated wrapping is removed, keep the protective plastic on the legend panels until installation. This provides the last layer of protection in the absence of the corrugated wrapping. Damage resulting from improper storage is not covered by warranty.



Installation

Some steps not applicable for installation of signs furnished with external power cords

1. Place sign on the pad with long dimension of the floor flanges perpendicular to the length of the sign.
2. Mark anchor bolt locations.
3. Move the sign out of the way.
4. Drill mounting holes for anchor bolts.
5. Install isolation transformer into the base can.
 - Check technical data sheet to make sure correct wattage is used.
6. Secure cable clamp to transformer secondary lead or secondary extension cord.
7. Reposition the sign on the pad and hold at an angle.
8. Pull power cord out of sign leg and plug it into the transformer secondary lead or extension cord.
9. Rotate the sign to the upright position over the anchor holes being careful to not pinch the power cord.
10. Insert the anchor bolts and loosely clamp the floor flanges to the pad.
11. Loosen the pinch bolts in the slip flanges.
12. Tighten the anchor bolts on the floor flanges.
13. Tighten the pinch bolts in the slip flanges against the couplings.
14. Remove the protective plastic on the panels, being careful not to create foreign object debris (FOD).
15. When work is done on the circuit, verify sign operation between dusk and dawn.



Floor Flange Dimensions



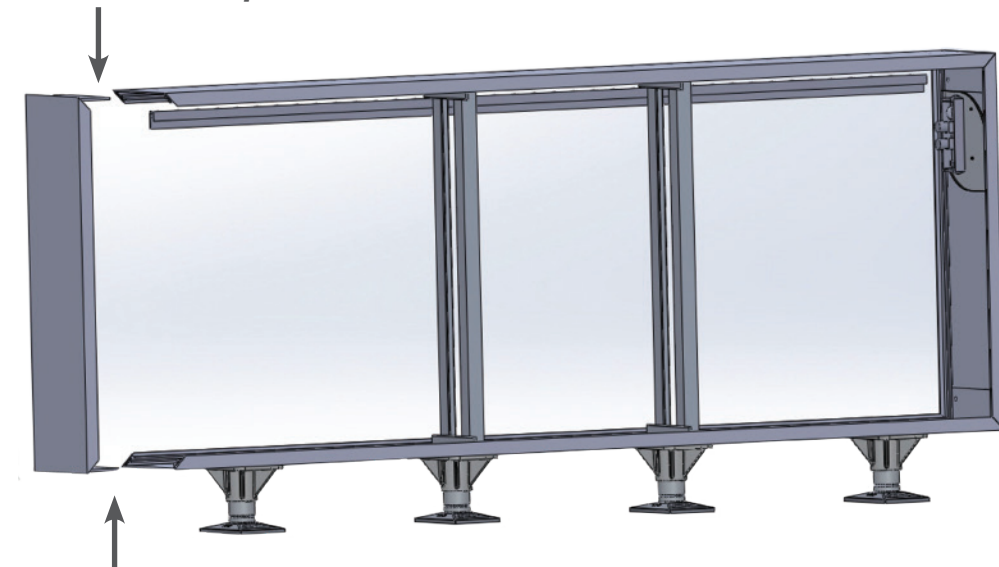
I-Lux Sign Maintenance

Airport Lighting Company signs are designed to provide years of trouble-free service. Prior to the performance of any work on the signs, power should be disconnected at the vault. We recommend an annual inspection and cleaning of the sign interior to maintain bright and even light output. Inspection of the signs should also include regular removal of any excess dirt, snow, and avian excrement from the sign exterior to maintain proper visibility of the sign legend.

I-Lux Cabinet Access

- Remove the bolts from the top and bottom surface of the side opposite the power end.
- Slide the sign side cabinet extrusion out.
- Remove a legend panel by sliding it out the open end of the sign.

***Remove the upper
bolts from the top***



***Remove the lower
bolts from the bottom***

LEDV3 LED Strip Operation

Airport Lighting Company's LEDV3 signs convert 6.6A to a low 24VDC using resilient legacy technology and provide beautifully even illumination using a single high efficiency LED strip.

BEFORE PERFORMING MAINTENANCE ON AN AIRFIELD GUIDANCE SIGN, VERIFY THE SIGN'S CIRCUIT IS OFF AND LOCKED OUT FROM ACCIDENTAL ENERGIZATION.

I-Lux LED Board Troubleshooting

The lighting system is very simple. It is unlikely that the LED strip will fail completely at once. Over time, LEDs will fail and at the user's discretion the strip will need to be replaced.

1. If the LED strip is completely dark, check the C7-LVCV2-24 power supply for 2 green LEDs.
2. If there are 2 green LEDs, simply replace the LED strip.
3. If there are not 2 green LEDs, confirm with a True RMS meter that there is current on the power cord and that it matches the CCR output. If there is not, the isolation transformer may be the problem.
4. If there is appropriate current, de-energize the sign, disconnect the C7-LVCV2-24 from the diode bridge and, keeping the power off, test the outputs of the bridge with a meter. Using the Diode/Continuity function, put the black lead to the + and the red lead to the – on the bridge. A good reading is between 0.9VDC and 1.0VDC. If the reading is between 0.4VDC and 0.6VDC, replace the bridge.
5. If the bridge tests fine, replace the C7-LVCV2-24.

I-Lux LED Board Replacement

1. De-energize power to the sign and open the cabinet per the instructions on page 8.
2. Remove the blank panel.
3. Remove the leads of the LEDV3 LED strip from C7-LVCV2-24.
4. Unbolt the LED channel from the support posts and remove from the sign cabinet.
5. Make note of the end of the extrusion that has the leads.
6. Pull on the leads of the LED strip to begin sliding the strip out of the extrusion.
7. Once some of the strip is exposed, pull on the strip instead of the leads.
8. Remove the LEDV3 LED strip from the extrusion.
9. Install the new LEDV3 LED strip by either sliding it into one end of the extrusion or pressing it down gently but firmly into the extrusion.
10. Bolt the channel back onto the support posts.
11. Energize the sign.
12. Replace the blank panel.
13. Bolt the cabinet back together.

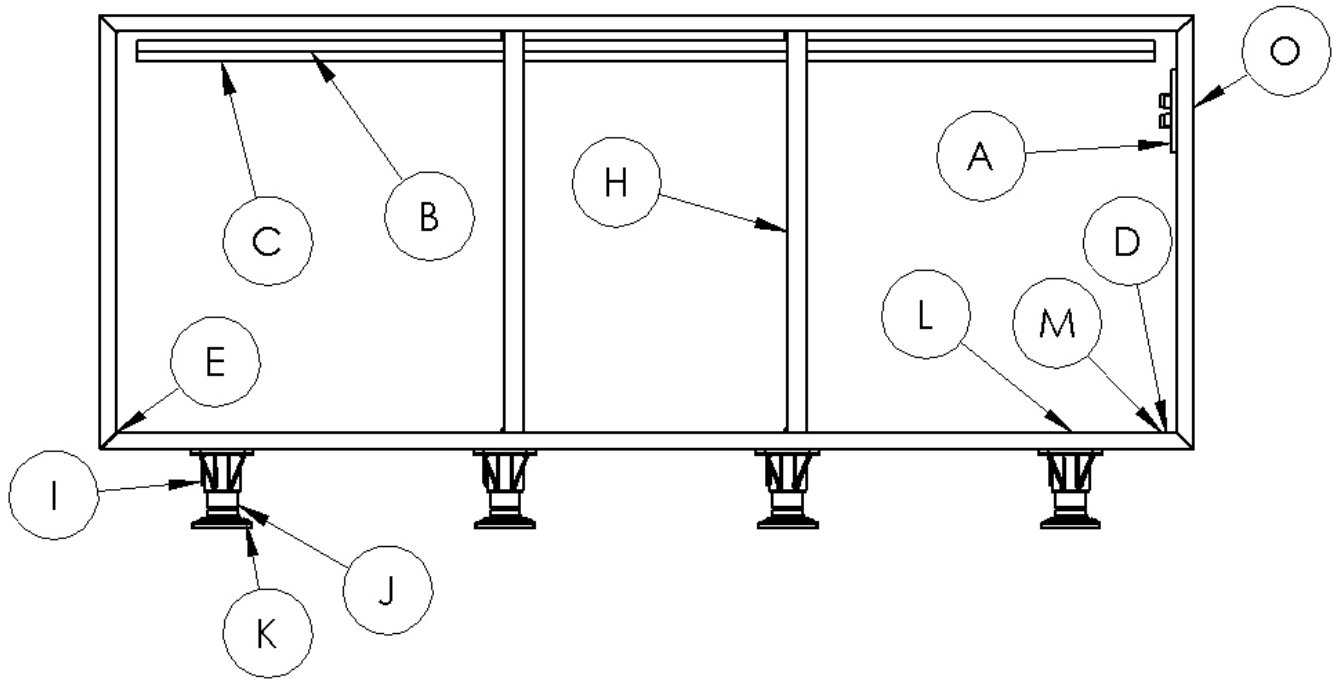


PARTS LIST



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Part # Description

A C7-LVCV2-24 Low Voltage Control V2, 24 VDC

B I7-LEDV38X.X LEDV3 LED Strip

C I6-RLSC8X.X LED Mounting Channel

D C7-GDTH Gas Discharge Tube Harness

E I6-CBT Corner Bracket

F I8-600LPXX
I8-800LPXX Legend Panel *Not pictured*

Part # Description

G I8-600BPXX
I8-800BPXX Blank Panel *Not pictured*

H I6-2SP Support Post

I C6-SF6 Slip Flange

J I6-FC3 Flangible Coupling

K C6-FF235 Floor Flange

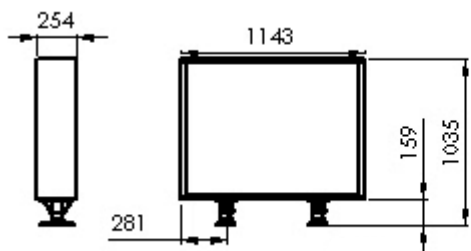
L C7-60PC Power Cord *Not pictured*

M C7-BRG Bridge Rectifier *Not pictured*

When ordering: XX = sign cabinet length (from Cat #)

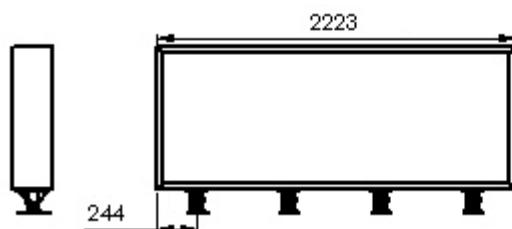


Dimensions & Electrical Characteristics



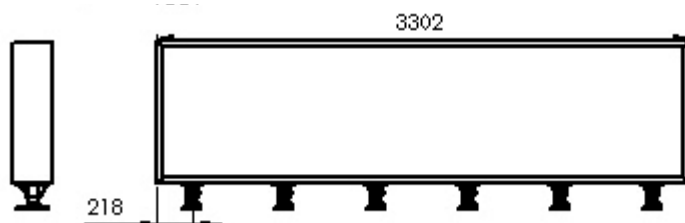
1.0

49VA 0.92PF xfmr



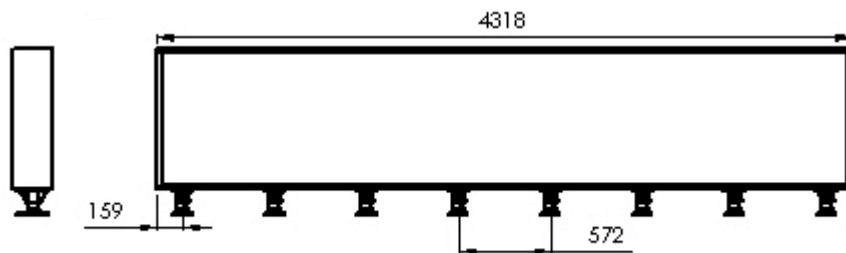
2.0

72VA 0.93PF 150W xfmr



3.0

93VA 0.90PF 300W xfmr



4.0

111VA 0.90PF 500W xfmr