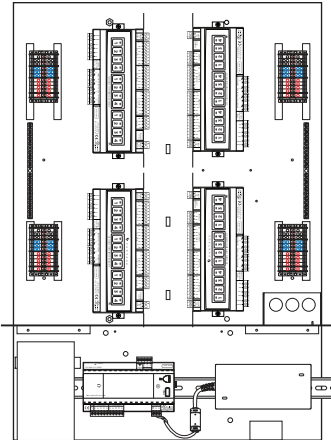


## LCAP32L • Les Numéros de Catalogue • Los Números de Catálogo:

Country of Origin: Made in China • Pays d'origine: Fabriqué en Chine • País de origen: Hecho en China



### OVERVIEW

The Wattstopper® LCAP Series Commercial Enclosures ship with pre-configured modular solutions. Load dimming and switching use Vantage™ controllers and switching products. The pre-configured designs save time in Vantage's Design Center™ software and during the installation process.

The LCAP32L panel is designed for spaces that mainly use lighting loads controlled with a 0-10V/PWM. The design may also contain high voltage forward or reverse phase dimming loads. The included IC-DIN-II-LITE processor and POE (Power Over Ethernet) network switch provide an ideal platform for Equinox touchscreens, keypads, and integration with third party systems. The LCAP32L enclosure may be connected to other LCAP enclosures and Vantage enclosures; scalable to virtually any size system.

### SOLUTION L - LCAP ENCLOSURES

Main Enclosure		Description			
LCAP32		32" Architectural Enclosure with hinged cover door			
<b>LCAP32L Panel Configurations</b> (See KIT Panel part numbers ordering key, last page)		<b>Panel Upper Section:</b> <ul style="list-style-type: none"> <li>• 1 to 2 LVOS-0-10-PWM stations</li> </ul>			
		<b>Panel Middle Section:</b> <ul style="list-style-type: none"> <li>• 1 to 2 LVOS-0-10-PWM stations</li> <li>- OR -</li> <li>• 1 or 2 Power Stations (STPSRW101/201) (STPERW101/201)</li> </ul>			
		<b>Panel Bottom Section:</b> <ul style="list-style-type: none"> <li>• 8-Port (4 standard and 4 POE) Ethernet switch/power supply</li> <li>• IC-DIN-II-LITE with power supply</li> </ul>			

Part Number Breakdown	Enclosure and Lid ONLY	Panel Type	LVOS-PWM Station Quantity	LCAP32/44/M/S Optional Modules	Module Type	Location 1 or 2
Actual PN	<b>LCAP32</b>	<b>L-</b>	<b>*</b>	<b>LCAP-OPT-</b>	<b>*</b>	<b>- *</b>
Important	See Ordering Key on page xx					

Optional Parts	Description
VA-RRU-1-120V	Emergency Shunt Relay - 120V
VA-RRU-1-277V	Emergency Shunt Relay - 277V
Additional Parts Order Separately	Description
VA-EPC-DFS-120V	Emergency Lighting Surface Mount Switch 120V
VA-EPC-DFS-277V	Emergency Lighting Surface Mount Switch 277V

## LCAP32L SPECIFICATIONS

LCAP44A	Specifications
Cabinet Dimensions, HWD	32" x 24" x 4.575" 81cm x 61cm x 11.6cm
Door Dimensions, HWD	32" x 24" x 0.75" 81cm x 61cm x 2cm
Panel Insert, HWD	29.5" x 21" x 4.5" 75cm x 53.3cm x 11.4cm
Weight - Enclosure	30 lbs / 31.61 kg
Weight - Door	15.5 lbs / 7.03 kg
Weight - Panel Insert	18.7 lbs / 8.48 kg
Number of LVOS-0-10-PWM* Stations	1, 2, 3, or 4
Num. of STPSRW101(201)/STPERW101(201)*	Up to 2 - any model
Analog, 0-10DC/LV — Max. Outputs	Up to 16
PWM, LV — Max. Outputs	Up to 16
HV Relay 120-277 VAC - Max. Outputs	Up to 16
Line Feeds (breakers) required	2 or 3 and up
Flash Memory**	via controller*
Enclosure Finish	Galvanized Steel
Door Finish	Black - Powder Coated
Cover	Vented, hinged
Wire	Copper wire, min of 80° C / 176° F insulation
Ventilation	Maintained 36" front clearance
Ambient Operating Temperature	32 - 104° F / 0 - 40° C
Ambient Operating Humidity	5 - 95% non-condensing
UL, CUL, and CE Listed	Yes

\*See this install sheets for important information: [Low Voltage Output Station Lighting\\_LVOS-0-10-PWM-1 Power Station Booster\\_STPSRW101-201 - STPERW101-201](#)  
[DIN Lite Controller II\\_IC-DIN-II-LITE](#) \*\*InFusion controllers have a micro-SD flash card port for backup

## EULA

In order to enhance the security of our products, Legrand ships its products with all insecure ports closed and insecure protocols disabled. You are free to configure your device as needed, but in doing so note that you may be decreasing the security of your device and any information contained in the device. As you modify the device's default settings, keep in mind how this may impact the security of the device and your network. In addition, you should use caution in connecting your device to the Internet, especially if you have altered the default security settings. If you have any questions or concerns about how your modifications of the device may affect its security, please contact the Legrand customer service team at 1-800-879-8585 / <https://www.legrand.us/support/Wattstopper.aspx>

## LCAP ENCLOSURE DESIGNS

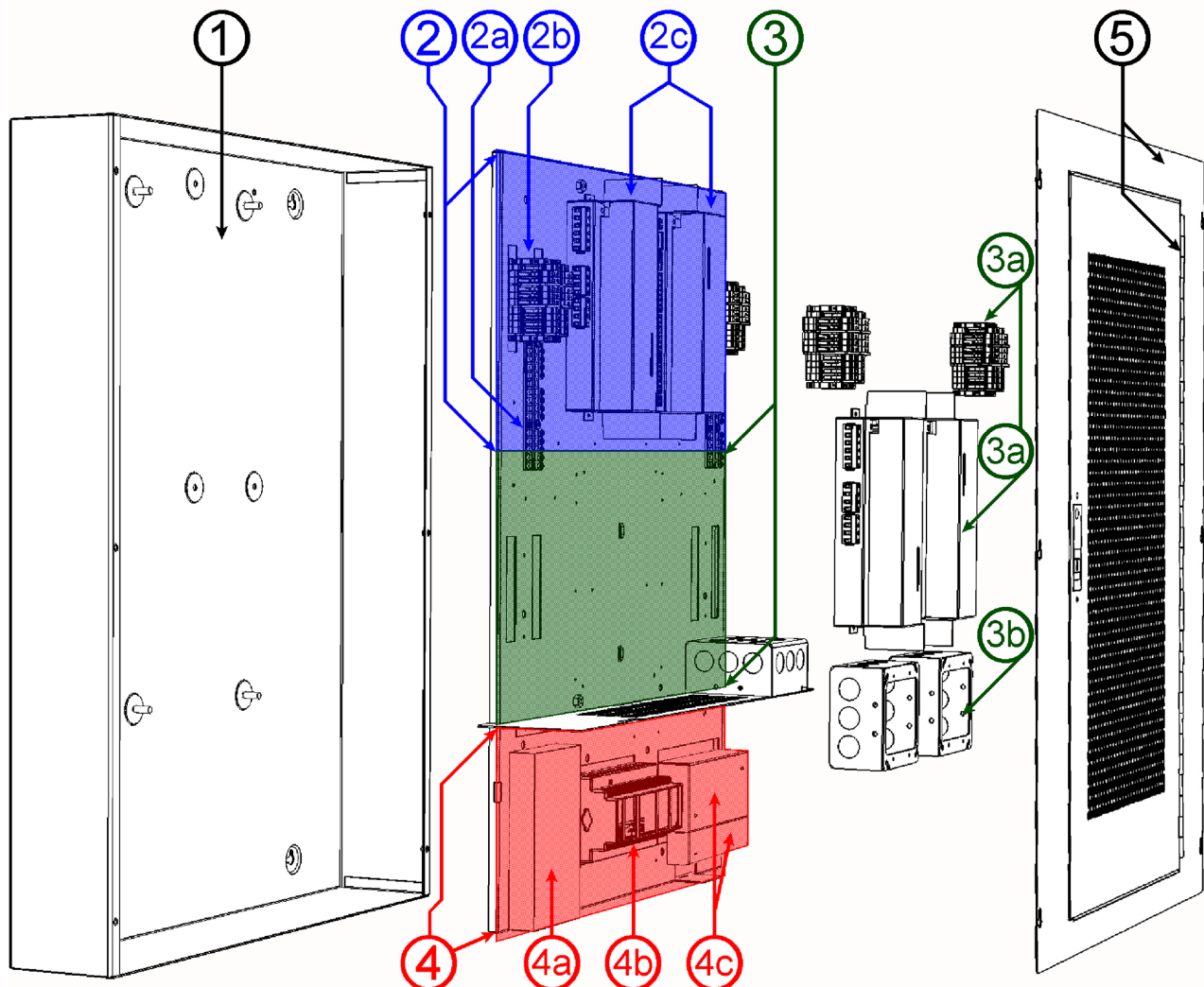
### LCAP SERIES ENCLOSURE FACTS

- Enclosures must be populated from left to right and top down
  - Blank positions cannot be left between lighting modules in Design Center setup
- Enclosures are pre-configured and wired (to the extent possible) using specific combinations of the following components. Installed switching components are dependent on the enclosure design
  - Components using high-voltage wiring
    - Mixed high-voltage wiring
  - Components using low-voltage control signal wiring
  - Components using low-voltage communication wiring
  - Components using high-voltage and low-voltage connections made inside the enclosure

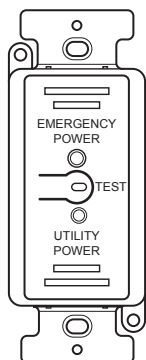
## ENCLOSURE FEATURES / PARTS

1. Enclosure can (includes door), order *LCAP32* for can only
2. Panel Insert (**upper section**)
  - a. Ground terminals, (notice terminals for all sections)
  - b. Wiring terminal blocks for upper section LVOS stations,  
(notice wiring blocks for all sections if populated with LVOS stations)
    - i. Internal side pre-wired (see **Wiring Block** pg. 2)
    - ii. External side wired in field (see **Wiring Block** pg. 2)
  - c. Up to (2) LVOS-0-10-PWM stations (**upper section**)
3. Panel Insert (**middle section**)
  - a. Second set of wiring blocks when populated with one or two additional LVOS-0-10-PWM stations- OR -
  - b. One or two STPSRW101(201)/STPERW101(201) power stations - optional configuration parts
4. Panel Insert (**low-voltage section**)
  - a. 8 Port Ethernet switch (4 standard and 4 PoE)
  - b. IC-DIN-II-LITE Controller
  - c. Power supplies for the controller and Ethernet switch
5. Enclosure cover with hinged/vented door allowing easy access when servicing and proper ventilation for convection cooling process

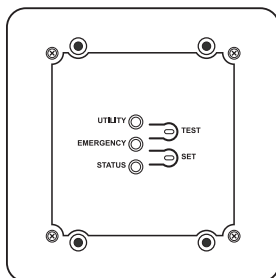
### LCAP32L PANEL BASIC CONSTRUCTION PARTS



## LCAP32L PANEL OPTIONAL CONSTRUCTION PARTS



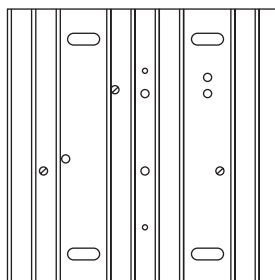
**EMR SWITCH  
AD-RRU-X-UNV**



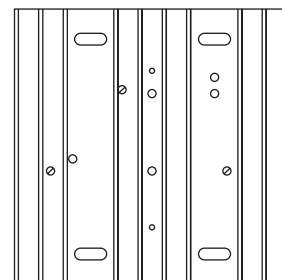
**EMR SWITCH  
AD-EPC-D-F-ATS**  
*Order Separate*

- The AD-RRU-X-UNV Switch comes pre-installed in the kit
- The AD-EPC-D-F-ATS Switch is installed on site

**NOTE:** Please see install sheets for emergency switch applications



**STANDARD DIMMING  
POWER STATION  
STPSRW101/201**



**ELECTRONIC DIMMING  
POWER STATION  
STPERW101/201**

## INSTALLATION / ENCLOSURE MOUNTING INSTRUCTIONS

Installation of LCAP products should be performed or supervised by a Wattstopper factory representative and a certified Wattstopper installer. Installation and maintenance of high-voltage devices should only be performed by qualified and licensed personnel having appropriate training and experience.

- Do not mount enclosures in attics, garages, or crawlspaces, unless room is properly conditioned to conform to ambient room temperature and humidity requirements
- Mount enclosure a minimum of 18" from ceiling or floor
- National Electrical Code requires a minimum frontal clearance of 36" for the enclosure
- Use screws provide for mounting

**CAUTION: TURN BREAKERS OFF AND CHECK THAT NO POWER IS ON WHEN WORKING IN THE ENCLOSURE OR WORKING ON LIGHTING FIXTURES CONNECTED TO THE LOADS, ETC. DO NOT ALLOW TRIMMED WIRE CUTTINGS TO FALL INTO ENCLOSURE COMPONENTS AS THEY MAY CAUSE DAMAGE WHEN POWER IS RESTORED. DAMAGE FROM THIS TYPE OF SHORT WILL VOID THE WARRANTY.**



## GENERAL WIRING

Drill proper size holes in can for running wires in and out of the enclosure. Separate high and low-voltage wire run channels. All wire runs in and out of the enclosure should be secured using 2-screw connectors or equivalent as shown at the right. Proper conduit or equivalent wire channels should be used according to local codes and regulations.



### Breaker Feeds to Controllers:

The Controller's power supply should be wired to a dedicated circuit breaker. When multiple enclosures containing controllers are in close proximity to one another they may share the same breaker. Do not share the same breaker with controllers and enclosure loads.

### Station Bus Wire Specification

Vantage wire, part #VDA-0143-BOX or VPLENUM-CABLE – 2C, 16AWG / 1.31mm<sup>2</sup>, twisted, non-shielded, <30pF per foot. Separate a minimum of 12" / 30.5cm from other parallel communication and/or high-voltage runs.

### Controller to Controller Wiring

**NOTE:** IC-DIN-II-LITE controllers use Ethernet connections for Controller to Controller communication. Please see the DIN\_Lite Controller II\_IC-DIN-II-LITE for additional information.

- Do not mix any LCAP series enclosures containing controllers with any generation one IC controllers.

### Station Bus Wiring

WireLink stations connect to the Station Bus screw terminals on the controller. Use station bus wire, (above). Maximum total station bus wire = 1,000 feet with no station more than 500 feet from enclosure (typically the second half of the station bus loops back to enclosure with only one end connected). Station Bus should be separated a minimum of 12" from other parallel communication and/or high-voltage runs.

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## GENERAL WIRING *(continued)*

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### Main & Secondary Enclosure to Secondary Enclosure Wiring

IC-DIN-II-LITE controllers do not support secondary enclosures. They may only connect to other enclosures with generation two controllers.

#### RS-232 (2 Ports)

The IC-DIN-II-LITE controller has two RS-232 ports. Use these ports to connect any device that uses RS-232 communication. Only connect one RS-232 device at a time to an RS-232 port.

Communication protocol parameter settings:

- Standard baud rates 1200 – 115.2K
- 7-8 Data Bits
- Even, Odd, Forced or No Parity
- 200ft. maximum wiring distance

*Default protocol for RS-232 communication is:*

- Baud: 19200
- Parity: None
- Total bits: 8
- Stop bits: 1

#### RS-485 Connections

The IC-DIN-II-LITE controller has one RS-485 port. The RS-485 port is half-duplex, meaning that it can transmit and receive, but not at the same time. Maximum wiring distance for RS-485 ports is 200ft.

#### Possible Ground Loop Issues

All RS-232/RS-485 connections between third party equipment and RS-232/RS-485 connections may produce a ground loop. Most often, the connected RS-232/RS-485 device is not using the same power source or is far away from the Vantage enclosure resulting in a possible ground loop that may produce a data noise condition. If this condition is suspected, Vantage recommends a third party RS-232/RS-485 Opto (optical) Isolation Module. Opto Isolation provides a communications link and is an important consideration if a system uses different power sources, has noisy signals or must operate at different ground potentials.

#### Auxiliary Power

The IC-DIN-II-LITE controller has a 12VDC, 250ma auxiliary power connection. The 12VDC connection is typically used for one RFE1000 RadioLink Enabler.

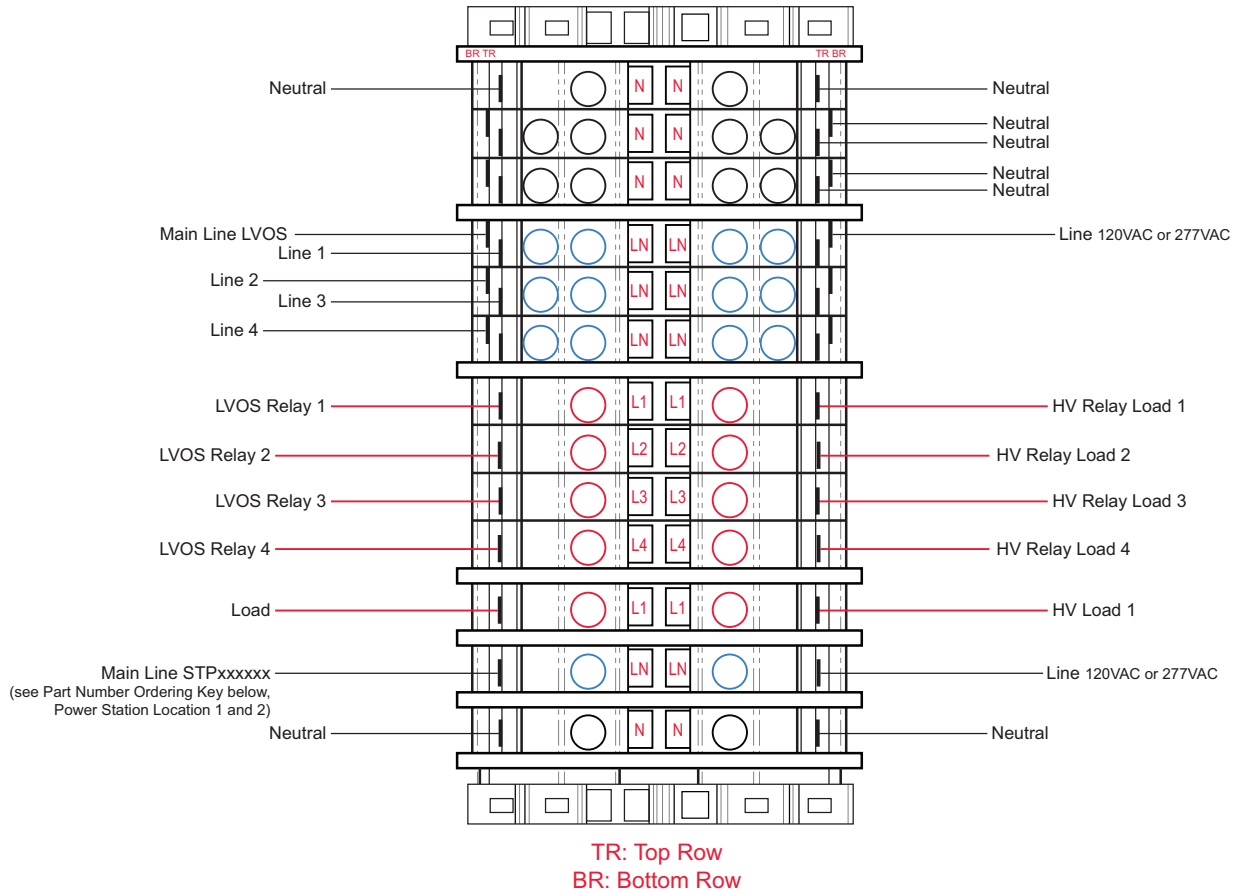
**NOTE:** Do not connect more than one auxiliary device at a time to this power source. If additional powered devices are needed they must be separately powered with an external, isolated type (usually no ground prong), power transformer.

#### Neutrals

Run a separate NEUTRAL for each load connected to dimming devices. Failure to do this may cause loads, sharing the same neutral, to flicker slightly while ramping or dimming a load. The potential for flickering occurs with all dimming systems due to the changing load level coupling to the fixed load through the neutral.

## WIRE BLOCK TERMINAL CLOSE UP

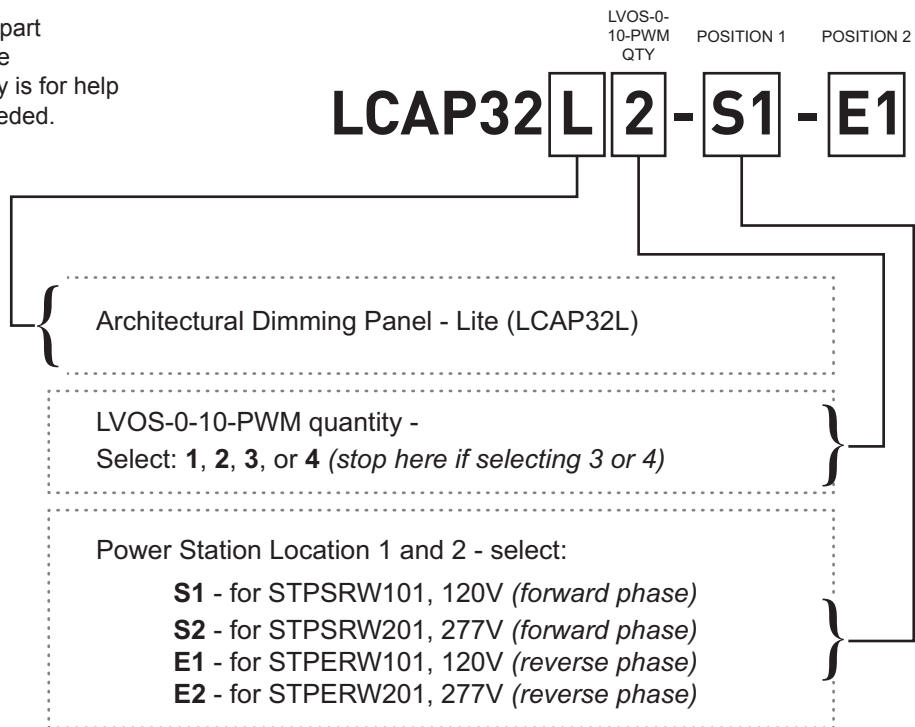
Internal Side Terminated in the Panel by Wattstopper



External Side Terminated in the Field by Electrician

## PART NUMBER ORDERING KEY

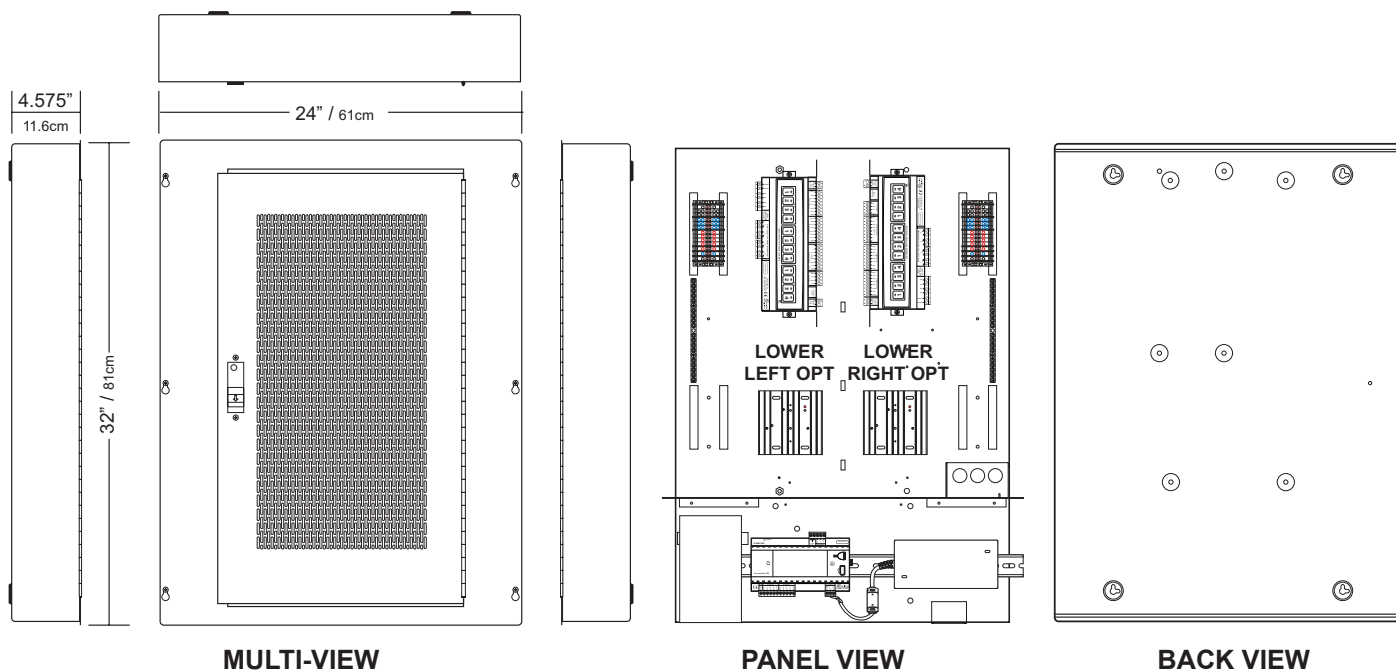
Design Center will generate part numbers automatically as the enclosures are built. This key is for help creating manual orders if needed.



## KIT PART NUMBERS AND CONTENTS

Part Number	Incl/Opt	Equipment
LCAP32L-1-KIT	Included	(1) LCAP32L Panel, (1) IC-DIN-II-LITE powered, (1) LVOS-0-10-PWM-P-1 with (1) pre-wired block, (1) COM-POE-SWITCH Ethernet switch
	Optional	(1) or (2) STPSRW101 120V / STPSRW201 277V and/or STPERW101 120V / STPERW201 277V power stations, and (1) VA-RRU-1-120V or VA-RRU-1-277V
LCAP32L-2-KIT	Included	(1) LCAP32L panel, (1) IC-DIN-II-LITE powered, (2) LVOS-0-10-PWM-P-1 with (2) pre-wired blocks, (1) COM-POE-SWITCH Ethernet switch
	Optional	(1) or (2) STPSRW101 120V / STPSRW201 277V and/or STPERW101 120V / STPERW201 277V power stations, and up to (2) VA-RRU-1-120V or VA-RRU-1-277V
LCAP32L-3-KIT	Included	(1) LCAP32L panel, (1) IC-DIN-II-LITE powered, (3) LVOS-0-10-PWM-P-1 with (3) pre-wired blocks, (1) COM-POE-SWITCH Ethernet switch
	Optional	Up to (3) VA-RRU-1-120V or VA-RRU-1-277V
LCAP32L-4-KIT	Included	(1) LCAP32L panel, (1) IC-DIN-II-LITE powered, (4) LVOS-0-10-PWM-P-1 with (4) pre-wired blocks, (1) COM-POE-SWITCH Ethernet switch
	Optional	Up to (4) VA-RRU-1-120V or VA-RRU-1-277V

## LCAP32L ENCLOSURE MULTI-VIEW



### WARRANTY INFORMATION

Wattstopper warrants its products to be free of defects in materials and workmanship for a period of five (5) years. There are no obligations or liabilities on the part of Wattstopper for consequential damages arising out of, or in connection with, the use or performance of this product or other indirect damages with respect to loss of property, revenue or profit, or cost of removal, installation or reinstallation.

### INFORMATIONS RELATIVES À LA GARANTIE

Wattstopper garantit que ses produits sont exempts de défauts de matériaux et de fabrication pour une période de cinq (5) ans. Wattstopper ne peut être tenu responsable de tout dommage consécutif causé par ou lié à l'utilisation ou à la performance de ce produit ou tout autre dommage indirect lié à la perte de propriété, de revenus, ou de profits, ou aux coûts d'enlèvement, d'installation ou de réinstallation.

### INFORMACIÓN DE LA GARANTÍA

Wattstopper garantiza que sus productos están libres de defectos en materiales y mano de obra por un período de cinco (5) años. No existen obligaciones ni responsabilidades por parte de Wattstopper por daños consecuentes que se deriven o estén relacionados con el uso o el rendimiento de este producto u otros daños indirectos con respecto a la pérdida de propiedad, renta o ganancias, o al costo de extracción, instalación o reinstalación.