

ARCHITECTURAL DIMMING PANEL - AUXILIARY WITH MAIN LUG PANEL

| LCAP44ALO, MLO/MCB

Panel can be configured for up to six LVOS-0-10-PWM modules each controlling up to four 0-10V, 4 PWM, and/or four high-voltage relay loads

Main Lug Circuit Breaker option.
Prewired from factory based on dimming panel configuration. Wide range of circuit, voltage, and breaker ratings available



Panel includes easy to wire terminal blocks for simple field wiring

Custom fitted hinged door

Adding a BACnet® enabled controller allows the entire panel to be part of a BACnet system

Space allocated for adding emergency lighting relays



Description

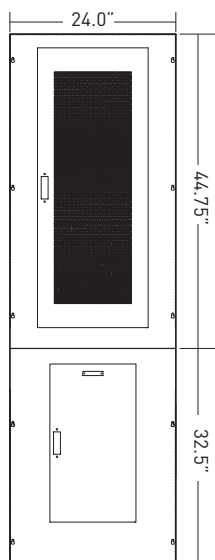
The LCAP series of lighting control panels provides pre-configured architectural dimming and integration options for a wide range of commercial market applications. The UL listed LCAP44A panel is adaptable to spaces that require 0-10V/PWM lighting loads. The dimming curve for each dimming channel can be independently customized for starting and stopping points as well as linearity. The LCAP44A is designed for expanding 0-10V lighting loads from the controller-based LCAP32M, LCAP44M, LCAP44H, or LCAP32L panels. The available system processor's networking capability then provides an ideal platform for integration with Equinox touchscreen interfaces, plug load, emergency lighting, shades, and climate control.

Operation

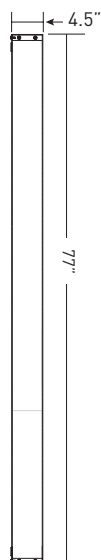
Using Legrand's powerful Design Center software tool, the controller in the LCAP32M or 44M can be easily configured with unlimited scenes and schedules. Also, using the Design Center software driver library and built-in controller RS232, RS485, and Ethernet ports, the LCAP32M or 44M can be programmed to integrate third party devices. The Equinox touchscreens and extensive line of keypads provide intuitive interfaces for controlling both lighting and integrated systems including shading, comfort, and A/V. Adding occupancy, daylight, contact sensors, as well as plug-load management, can deliver an energy code compliant solution.

Using a BACnet enabled controller provides the ability for the BMS system to have control and get feedback of lighting loads, tasks and occupancy status to be controlled by the BMS platform (Building Management System).

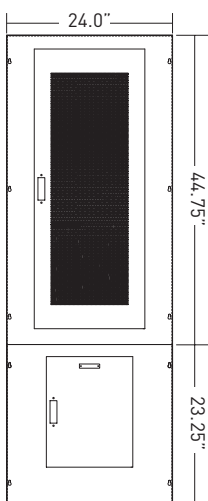
PROJECT		LOCATION/ TYPE	
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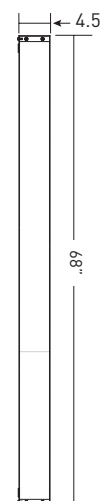
LCAP44ALO, MLO/MCB
FRONT VIEW



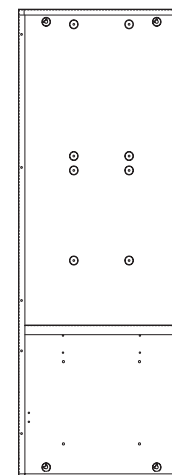
LCAP44ALO, MLO/MCB
SIDE VIEW



LCAP44ALO, MLO
FRONT VIEW



LCAP44ALO, MLO
SIDE VIEW



LCAP44ALO, MLO
BACK VIEW

Highlights

Our controllers, combined with Design Center programming software, not only offer a comprehensive architectural dimming solution, but also provide precise automation of lighting and other related systems. The ability to utilize conditional programming using if-then-or statements can provide control beyond the scope of ordinary lighting control systems. In addition, the ability of Architectural Dimming controllers to integrate with the Digital Lighting Management (DLM) system provides advanced control capabilities for the entire facility.

Main Lug Circuit Breaker Option

The LCAP series can be configured as a feed through panel or as a main lug panel with the addition of circuit breakers below the feed through compartment. The Main Lug option is available for the LCAP32MLO/SLO, LCAP44MLO/SLO and

LCAP44ALO series panels. The circuit breaker options are based on the panel size, number and type of load, and circuit breaker rating requirements. See main lug options. Once the panel load and circuit breaker option are selected the panel is built and wired in the factory and delivered to the project ready to be installed.

Applications

The LCAP32MLO/SLO, LCAP44MLO/SLO and LCAP44ALO are designed for medium to large spaces requiring control of up to 48 separate line voltage lighting circuits. The built-in integration and networking capabilities in the LCAP32MLO and LCAP44MLO mean that spaces with shades and comfort control needs can easily be met using this panel. Adding an Equinox 41 or 73 touchscreen to the project allows the facility manager or end user to create, change, and manage scenes, schedules, and user profiles.

Features

- Modular, pre-configured dimming solution from the factory. Just connect line voltage and load wires
- Modular, pre-configured Main Lug Panel solution options
- System is expandable using other LCAP series primary or secondary panels
- Can be configured with additional emergency rated relays for emergency lighting
- When connected to the premises' LAN the panel can be remotely programmed
- Low-voltage 2 wire station bus for connecting keypads can extend up to 4,000 ft.*
- Connects to DLM systems for a whole building control solution
- Ability to integrate plug load
- DMX and DALI lighting supported with additional hardware (see DMX-DALI-GW)
- Daylight and occupancy sensors are connected to keypads or

contact input stations. No power packs needed

- Dimmers have programmable start/stop and dimming curve adjustment features to customize dimming linearity
- LCAP32MLO/SLO and LCAP44MLO/SLO can support forward phase and universal dimmers, SDM12 and UDM08 each have 65kA ratings
- Simple programming from a single software solution – Design Center
- LCAP32MLO and LCAP44MLO include controller, add up to six LCAP32SLO and LCAP44SLO panels for expansion of dimming and load control capabilities; network additional controllers for further scalability
- BACnet option available through a BACnet enabled controller
- Main Lug Panel options range from 18 to 36 circuits, 120/240V, 120/208V, 277/480V and 10kAIC to 65kAIC with main breaker options
- Panel is UL/cUL list 508 and 924 on the dimming panel and UL 67 on the circuit breaker panel

* See controller specifications for limitations

System Diagram - Auxiliary

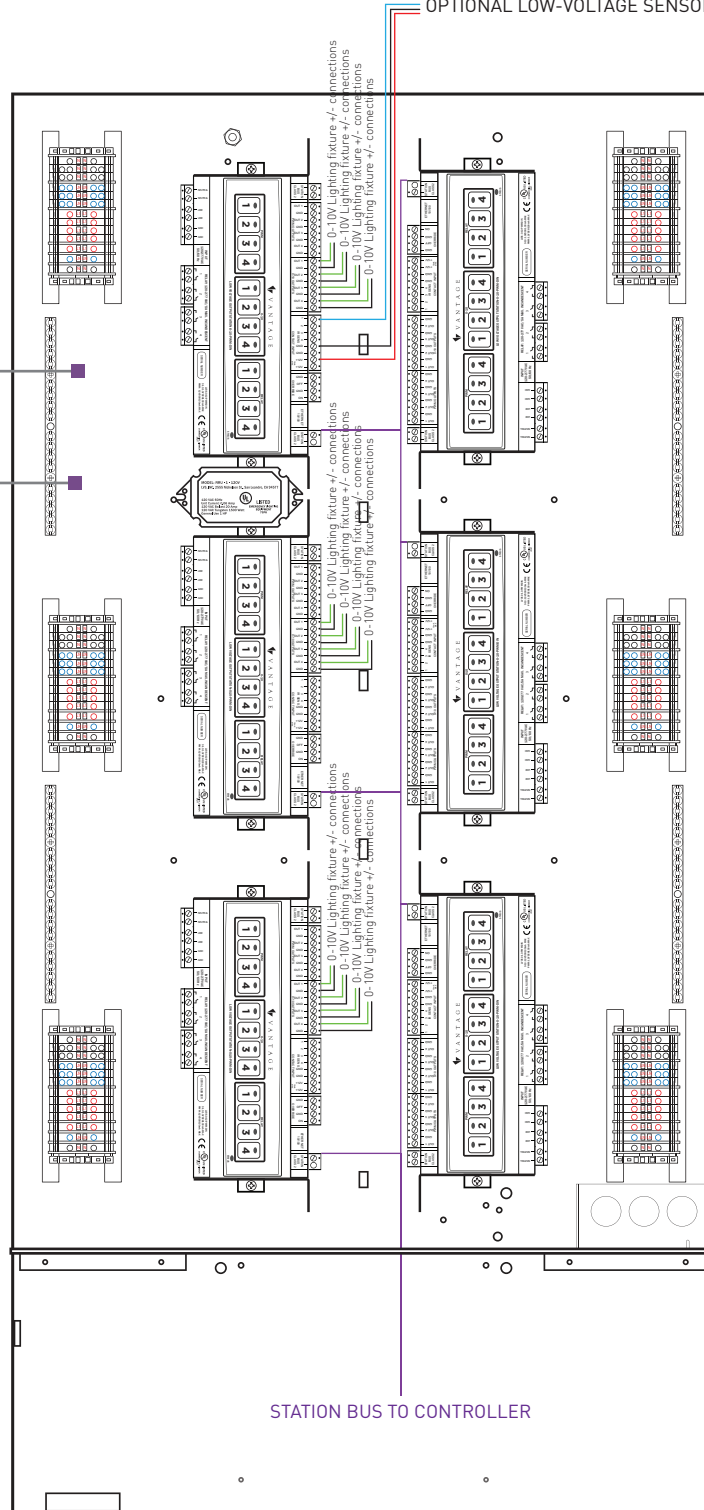
- 16/2 STATION BUS
- 0-10V LV WIRING (+/-)
- SENSOR WIRING (CAT5e/6e)
- RS232 WIRING

OPTIONAL LOW-VOLTAGE SENSORS

Use LCAP44A with six LVOS-0-10-PWM

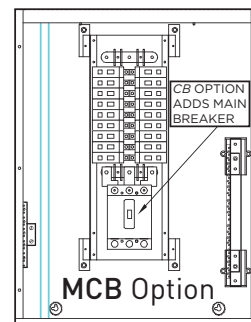
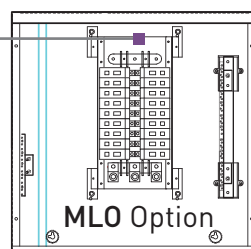
Space allocated for emergency relay (and up to 5 additional)

High-voltage barrier removed with MLO/ MCB option



STATION BUS TO CONTROLLER

Circuit Breaker Panel



Dimensions (LxWxD)

Model	LCAP44ALO, MLO	LCAP44ALO, MCB [CB 18 Breaker and MLO/MCB 36 Breaker]
Enclosure	68.0" x 24.0" x 4.575" 173cm x 61cm x 12cm	77.0" x 24.0" x 4.575" 196cm x 61cm x 12cm
Panel insert	42.0" x 21.0" x 4.175" 106.7cm x 53.3cm x 10.6cm	42.0" x 21.0" x 4.175" 106.7cm x 53.3cm x 10.6cm
Door	44.25" x 24.0" x .75" 112.4cm x 61cm x 2cm	44.25" x 24.0" x .75" 112.4cm x 61cm x 2cm

Specifications

Model	LCAP44ALO, MLO 18 Breaker	LCAP44ALO, MCB 18 Breaker	LCAP44ALO, MLO 36 Breaker	LCAP44ALO, MCB 36 Breaker
Enclosure w/doors	165-175 lbs depending on number of breakers	170-180 lbs depending on number of breakers	175-185 lbs depending on number of breakers	180-190 lbs depending on number of breakers
Panel insert	23.2 lbs. (10.52 kg)	23.2 lbs. (10.52 kg)	23.2 lbs. (10.52 kg)	23.2 lbs. (10.52 kg)

Mounting	Surface
Ambient operating humidity	5-95% non-condensing
Ambient operating temperature	32-104°F (0-40°C)
Cooling	Convection

Interior Specifications - LVOS	
Auxiliary inputs	4 Dry contacts (3 and 4 may be for an IR receiver and light sensor respectively)
Override inputs	2 (On and off contacts)
Input power (universal)	120-277VAC, 50-60Hz
Power consumption	16W
LED indicators	Microprocessor status, configuration, load
Number of low-voltage outputs	4 (0-10) low-voltage outputs (0-10V @ 100mA sink or source); Output 50@ 2mA per load, typical 4 PWM low-voltage outputs; Output voltage 12V (source only); Output current 100mA per channel, 400mA total, IEC 60929 Annex E Standard
Number of high-voltage outputs	4 High-voltage relays (120-277VAC), general purpose load rating 10A, Incandescent 5A, Electronic Ballast 5A
Ethernet Bus connections	RJ45 – auto crossover detection – 10 / 100
Station Bus connections	24V / 36V Station bus
Station equivalent InFusion	0.35W on IC-24 / 0.55W on IC-36
Certifications	UL/cUL 508 and 924 on dimming panel, UL/cUL 67 on Circuit Breaker Panel
Interior capacity	Up to 6 LVOS-0-10-PWM modules, see LVOS-0-10-PWM cutsheet for more information
Processor (in LCAP32M or LCAP44M)	IC-36-II, see IC-36-II cutsheet for more information
Warranty	5 years
System compatibility	InFusion

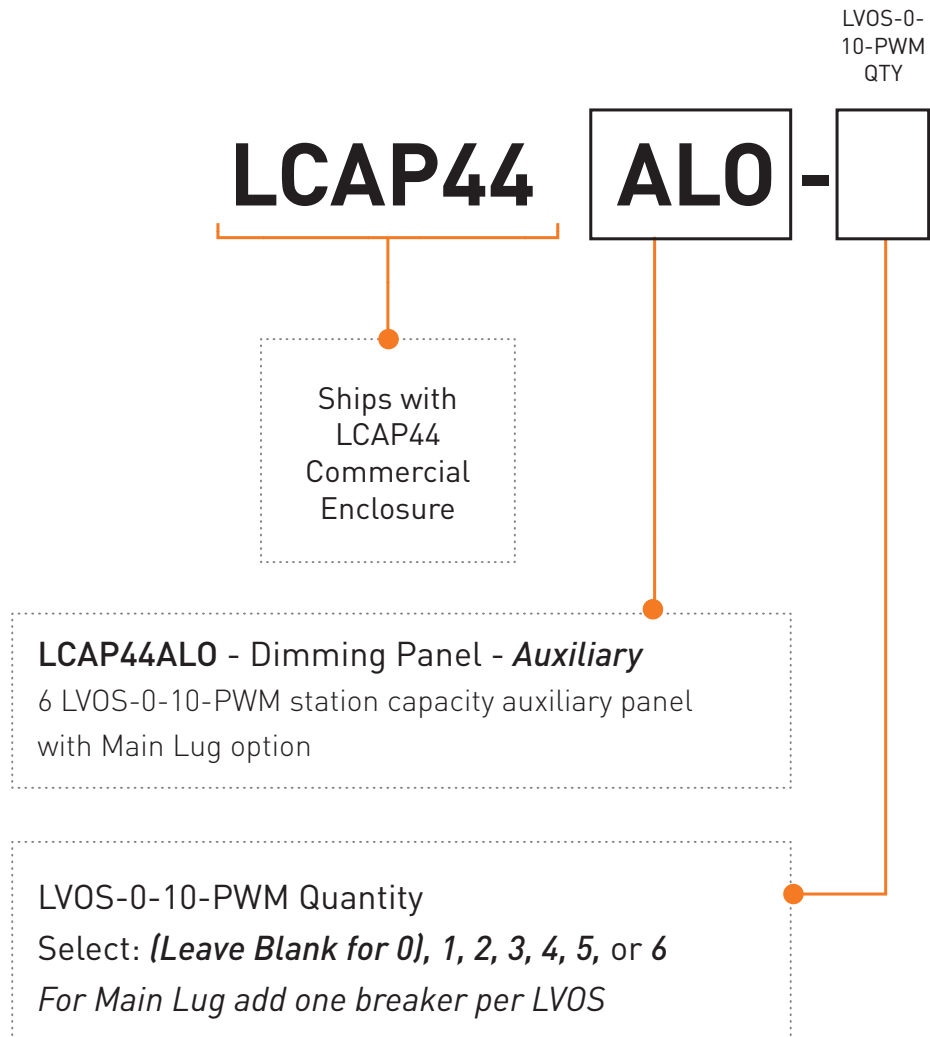
Main Lug Panel Options Matrix

CONFIGURATION FOR LCAP44			ADDER - Branch Breakers Each, 1-Pole, 20A				
SIZE	HEIGHT	BASE PANEL CONFIGURATION	10kAIC	14kAIC	22kAIC	35kAIC	65kAIC
18 Circuits 100A Bussing	68"	240V- MLO (Single Phase)	BAB		QHB		GHB
		208V - MLO	BAB		QHB		GHB
		480V - MLO		GHB			
	77"	240V - MCB (Single Phase) (up to 100A, 65kAIC)					BAB*
		208V - MCB (up to 100A, 65kAIC)					BAB*
		480V - MCB (up to 100A, 35kAIC)				GHB*	
		480V - MCB (up to 100A, 65kAIC)					GHB*
36 Circuits 225A Bussing	77"	240V- MLO (Single Phase)	BAB		QBH		GHB
		208V - MLO	BAB		QBH		GHB
		480V - MLO		GHB			
	68"	240V - MCB (Single Phase) (up to 225A, 65kAIC)					BAB*
		208V - MCB (up to 225A, 65kAIC)					BAB*
		480V - MCB (up to 100A, 35kAIC)				GHB*	
		480V - MCB (110A - 225A, 35kAIC)				GHB*	
		480V - MCB (up to 100A, 65kAIC)					GHB*
		480V - MCB (100A - 225A, 65kAIC)					GHB*

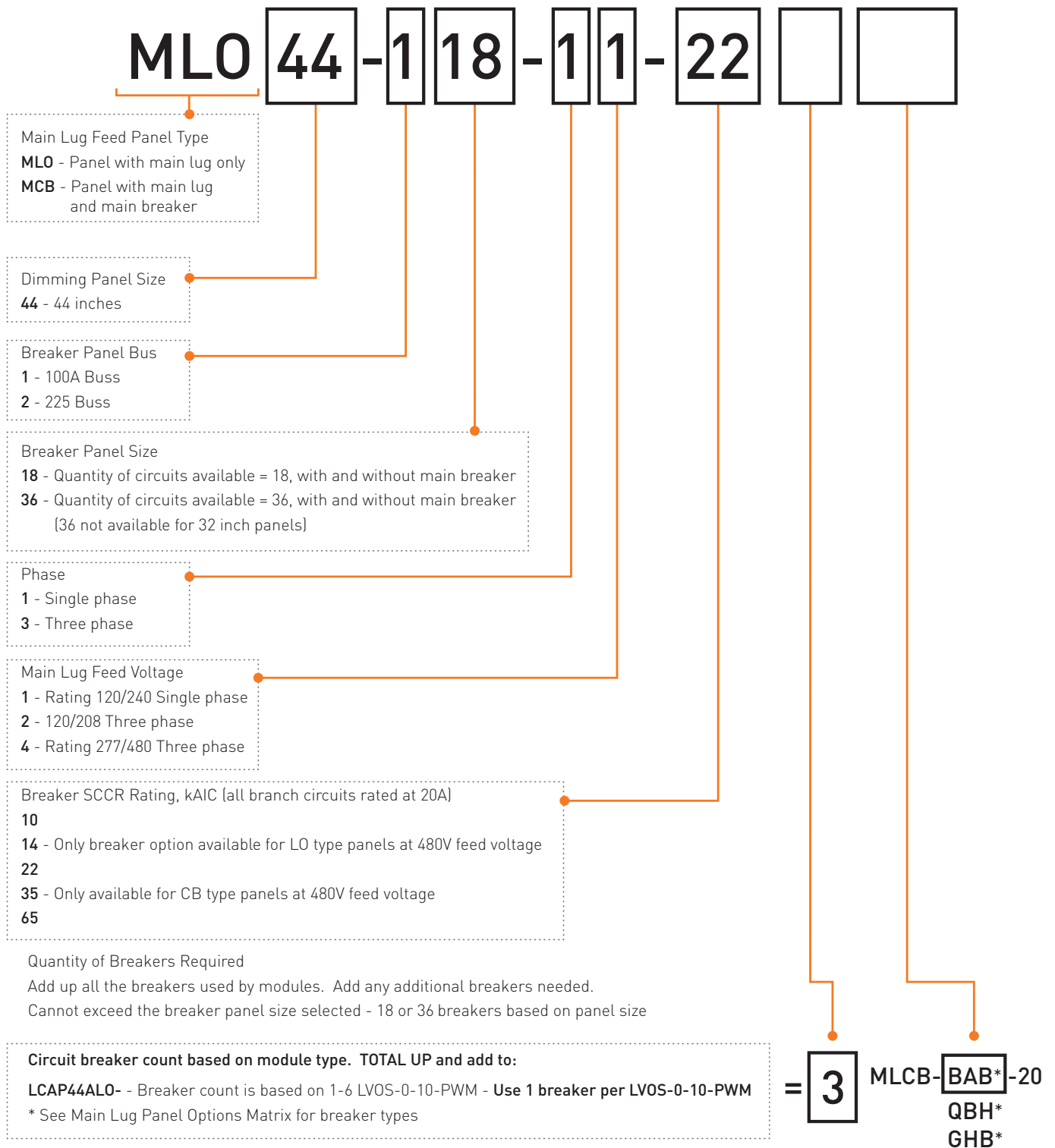
* Breaker series rating when a main breaker option is selected

	BREAKER RATING LEGEND (Single Phase)	
MLO = Main Lug Option	Type BAB	10kAIC
MCB = Main Lug with Main Circuit Breaker	Type QBH	22kAIC
	Type GHB	65kAIC

Ordering Key for LCAP44ALO



Ordering Key for MLO/MCB



Ordering Information

Catalog #	Description	Voltage	Zones
<input type="checkbox"/> LCAP44ALO with MLO44xxxxx panel	Architectural Dimming Panel - Main Controller with Main Lug	120/240,120/208, 277/480 VAC	Up to 48 Zones - See ordering key for breaker information
<input type="checkbox"/> LCAP44ALO with MCB44xxxxx panel	Architectural Dimming Panel - Main Controller with Main Breaker	120/240,120/208, 277/480 VAC	Up to 48 Zones - See ordering key for breaker information
<input type="checkbox"/> MLCB-BAB-20-GFI	GFI Breaker option for Main Lug Panels with Main Breaker	20A - 10kAIC	Shipped as a separate breaker - not installed in panel
<input type="checkbox"/> MLCB-QBH-20-GFI	GFI Breaker option for Main Lug Panels with Main Breaker	20A - 22kAIC	Shipped as a separate breaker - not installed in panel
<input type="checkbox"/> MLCB-GHB-20-GFI	GFI Breaker option for Main Lug Panels with Main Breaker	20A - 65kAIC	Shipped as a separate breaker - not installed in panel
<input type="checkbox"/> VA-RRU-1-120V	Emergency Shunt Relay	120V	
<input type="checkbox"/> VA-RRU-1-277V	Emergency Shunt Relay	277V	
<input type="checkbox"/> VA-EPC-DFS-120V	Emergency Lighting Surface Mount Switch	120V	
<input type="checkbox"/> VA-EPC-DFS-277V	Emergency Lighting Surface Mount Switch	277V	
<input type="checkbox"/> COM-HV-BARRIER	High-Voltage Barrier		