



240/415V 277/480V

Power Series



GENERAL INFORMATION

The Unison Elaho Relay Panel is a control-oriented power center built with today and tomorrow's lighting loads in mind. It supports up to 24-relays with integral branch breakers, power-usage reporting and sophisticated control inputs. With built-in station, sensor, DMX and TimeClock controls and Ethernet connectivity, plus optional 0-10V dimming, DALI output and contact inputs, the Elaho Relay Panel integration opportunities are limitless.

APPLICATIONS

- Theaters
- Schools
- Houses of worship
- Conference centers
- Retail shops and restaurants

FEATURES

- Main Feed relay panel with support for 277/480V or 240/415V three-phase four-wire plus ground
- 24-position relay panel with support for one-pole relays
- 30-position breaker subpanel with support for one-pole breakers
- Elaho, sACN, DMX-512, TimeClock, or stand-alone control
- Built-in power supply for up to 6 Elaho stations/sensors and 5 output products
- Built-in network interface provides:
 - Advanced control of relays over streaming ACN (sACN)
 - Measured energy usage reporting per branch circuit
 - Web UI for configuration
- Local control with Astronomical timeclock and manual override per circuit
- UL 924 LISTED emergency control bypass contact input
- UL and cUL LISTED

ORDERING INFORMATION

Standard Relay Units

MODEL	DESCRIPTION
ERPA-24R1-24B1	Relay Panel with 24 single-pole relays, 24 single-pole breakers; 277/480V* three-phase four-wire plus ground main-lug input

Note: For non-standard model numbering see page 5

*Also rated for use at 240/415V

Breaker options

7123K1007	Main Breaker; 277/480V; 150A; 14kA SCCR
7123K1008	Main Breaker; 277/480V; 200A; 14kA SCCR
7123K1009	Main Breaker; 277/480V; 200A; 65kA SCCR

Door Options

ERPA-FMD	Flush-mount door for 277V Elaho Relay Panel
ERPA-SMD	Surface-mount door for 277V Elaho Relay Panel

Accessories

ERP-NET	Network Option Card
ERP-LVD	0-10V Dimming Control Option
ERP-DALI	DALI-Control Option
ERP-CI	Contact-Input Option
ERP-RTO	Ride-Thru Option
ERP-VB	Voltage-Barrier Kit

Power Requirements

Bus Power:	One unit of output power
Auxiliary Power:	Not required

Built-in Power Supply

Bus Power:	Provides 6U of control power and an additional 5U of Output Power*
Auxiliary Power:	Provides 40mA

*Note: Built in power supply can be disabled when used with external 16U Power Supply or when multiple relay panels are used in a single system

Presets

Supports 64 Presets

SPECIFICATIONS

APPROVALS AND CERTIFICATIONS

- UL 508 LISTED
- UL 67 LISTED
- UL 924 LISTED
- Complies with ANSI E1.11 DMX512-A standard
- Complies with ANSI E1.31 streaming ACN standard

USER INTERFACE

- Graphical display with LED backlight
- Button interface with:
 - 0-9 number buttons
 - Up, down, back and enter navigation buttons
 - "Light bulb" test button for local activation of preset, sequence and set level overrides
- USB interface for upload of setup and software updates
- Onboard Web UI for simple configuration and management

MECHANICAL

- Enclosure constructed of 16-gauge steel finished in black, fine-textured, scratch-resistant powder coat paint
- Door options available for surface- or recess-mount applications.
 - Flush-mount door extends 1in. beyond all panel edges to hide wall cutout
- Removable outer panel includes integral locking door to limit access to electronics, breakers and local relay overrides
- Full front access with no side clearance required
- Removable covers for access to Class 1 and Class 2 wiring

ELECTRICAL

- Main feed power input supports 277/480V or 240/415V
- Separate wiring chambers for Class 1 and Class 2 terminations
- Max input current: 200A
- Main circuit breaker support: 100A, 150A and 200A
- Short circuit rating: 10,000-65,000 amps symmetrical (See chart at right)
- 20A branch circuit breakers standard; 80% rated
- Inrush-pulse tolerance: 8-10.5 times rated current for half-cycle at 60Hz

CONTROL ELECTRONICS

- Relay modes: Normal (priority/HTP), latch-lock or last-action
- Configurable DMX on/off threshold
- Status feedback for breaker state, relay state, current draw per circuit, phase voltage and energy usage per circuit
- Built-in Elaho control supports:
 - Up to eight spaces with 16 presets per space
 - 16 zones per space
 - One 16-step sequence per space
 - UL924 LISTED emergency control bypass
 - Time-of-day and astronomical timeclock with flick-warn and holiday overrides
- Configurable data-loss behavior supports:
 - Play preset
 - Hold last look
 - Wait and fade

ENVIRONMENTAL

- Thermal: 0-40°C; 32-104°F operating temperature
 - 16A circuit (20A breaker) - 39.28 BTU/hr
- Humidity; 5-95% non-condensing

SPECIFICATIONS

RELAY RATINGS

- 20A Ballast (HID)
- 16A Electronic Ballast
- 20A Tungsten
- 14A Motor Load
- Isolation: 4000V RMS
- State: Latching
- Life:
 - 100,000 cycles at full resistive load
 - 30,000 cycles motor, inductive, or tungsten
- Current-reporting accuracy: +/- 5% of connected load

SHORT-CIRCUIT CURRENT RATING AND LUG SIZING

OPERATING VOLTAGE	MCB OPTION	SCCR RATING	INPUT LUG WIRE SIZE
277/480V	150A,200A	14kA	4AWG-350kcmil
	200A	65kA	
All	Main Lug only	10kA	4AWG-300kcmil
Relay	NA	NA	6-14AWG
GND/Neutral	NA	NA	6-14AWG

Note: Main feed lugs accept copper or aluminum wire; load terminals accept copper wire only

ACCESSORIES

0-10 Dimming Option

- 24 outputs of 0-10V sink dimming control rated for 400mA per output

Contact Input Option

- 24 dry contact inputs for direct control of relays

DALI Control Option

- 24 control loops of broadcast DALI control
- Each loop supports up to 64 ballasts
- External DALI power supply required

Ride Thru Option

- Short-term power backup of control electronics
- Automatically engages when power is lost
- Recharges during normal power operation

Tamper-proof Hardware Kit

- Special screw heads prevent access to panel interior

ELAHO FAMILY PRODUCTS

Bus Power Supplies

MODEL	DESCRIPTION
E-SPS	6U Room Station Power Supply, Knockout Mount
E-SPS-DIN	16U DIN rail Station Power Supply with 24V Aux
E-SPM	16U DRd Station Power Module
E-SPM-A	16U DRd Station Power Module with 24V Aux
E-SPM-RM	16U Rack-Mount Station Power Module Aux
E-SPM-RM-A	16U Rack-Mount Station Power Module 24V Aux
E-SPM-WM	16U Wall-Mount Station Power Module
E-SPM-WM-A	16U Wall-Mount Station Power Module 24V Aux
E-APS	24V Aux Power Supply, Knockout Mount

ElahoTouch

MODEL	DESCRIPTION
ETS	ElahoTouch Controller

Elaho Stations

MODEL	DESCRIPTION
E1001	Inspire One Button Station
E1002	Inspire Two Button Station
E1004	Inspire Four Button Station
E1006	Inspire Six Button Station
E1008	Inspire Eight Button Station
E1104	Inspire Four Button with Fader Station
EPS05	Preset Station - 5 Button
EPS10	Preset Station - 10 Button
EPSLO	Lockout Station
E-ATC	TimeClock

Elaho Responsive Controls

MODEL	DESCRIPTION
ELS	Light Sensor
EOCC	Ceiling-Mount PIR Occupancy Sensor
EVAC	Ceiling-Mount PIR Vacancy Sensor
E-DOC-C	Ceiling-Mount Dual Tech Occupancy Sensor
E-DVAC-C	Ceiling-Mount Dual Tech Vacancy Sensor
E-DOC-W	Wall-Mount Dual Tech Occupancy Sensor
E-DVAC-W	Wall-Mount Dual Tech Vacancy Sensor
E-DOC-SM1	Switch-Mount Dual Tech Sensor - One Button
E-DOC-SM2	Switch-Mount Dual Tech Sensor - Two Button

Elaho Interfaces

MODEL	DESCRIPTION
EACC	ElahoAccess Interface
EEB	Expansion Bridge
EDMXC	DMX Scene Controller
EEL	Elaho-Echoflex Interface
ECII	Contact Input Interface
ECOI	Contact Output Interface
EDRI	Demand Response Interface
EBI	BACnet Interface

Zone Controllers

MODEL	DESCRIPTION
ERC-G2	One Zone Relay Controller
EDRC-G2	Two Zone Relay Controller
ELD-G2	One Zone 0-10V Controller
EDLD-G2	Two Zone 0-10V Controller
ESSC-G2	One Zone SmartSpace Controller
EDSSC-G2	Two Zone SmartSpace Controller
ELVD-G2	600-Watt Phase Adaptive Dimmer
ELVD-277-G2	600-Watt Phase Adaptive Dimmer- 277V

Room Controllers

MODEL	DESCRIPTION
ERMCT4-G2	Four Zone Room Controller
ERMCT4-G2	Four Zone Room Controller with TimeClock
ERMCT8-G2	Eight Zone Room Controller
ERMCT8-G2	Eight Zone Room Controller with TimeClock

Panel Products

MODEL	DESCRIPTION
ERP	Elaho Relay Panel Mains Feed
ERP-FT	Elaho Relay Panel Feed Through

ORDERING INFORMATION

Non-Standard Model Numbering

MODEL	1-POLE RELAY	1-POLE BREAKER
ERPA	#R1	-#B1
Default	0	1
Min Number	0	1
Max Number	24	29

EXAMPLE:

ERPA-12R1-12B1

277/480V Three-phase three-wire plus ground; twelve 20A single-pole; twelve 20A single-pole breakers

PHYSICAL

Relay Panel Dimensions

MODEL	HEIGHT		WIDTH		DEPTH	
	inches	mm	inches	mm	inches	mm
ERPA	67.50	1,418	20	508	6.08	155

*Note: Depth is 6.08 in. with door attached

Relay Panel Weights

MODEL	WEIGHT		SHIPPING WEIGHT	
	lbs	kgs	lbs	kgs
ERPA no relays or breakers	97	44.0	107	48.5
ERPA w/ relays & breakers	130	59.0	145	65.8

