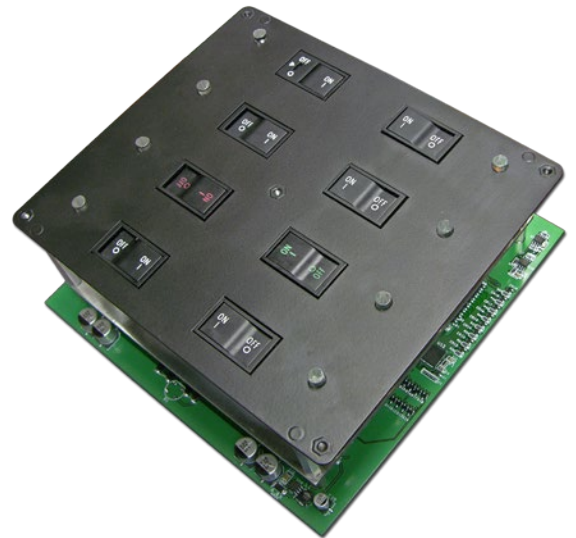


AC Power Distribution Module



Introduction

The E-Plex 389DMAC series has been designed to simplify electronic systems wiring by providing more control and monitoring of AC loads. The module can be used in single-phase 110 or 220 applications. It allows the designer to take advantage of advanced energy management capabilities such as intelligent load shedding to prevent unnecessary resetting of circuit breakers.

Built-in redundancy incorporates resettable hydraulic / magnetic circuit breakers for each channel. Local electronic override capabilities allow independent operation of the device loads.

Key Features

- 8 Relay Outputs up to 250VAC.
- 20A Max per channel, 50A per L1/L2.
- L1/L2 AC inputs can be tied together or separated.
- Independent hydraulic magnetic circuit breakers for each channel.
- Voltage feedback of circuit breaker status.
- Current / voltage / frequency monitoring of AC inputs.
- Optical isolation from low voltage systems.
- Manual override capabilities.
- LEN value 2.

Design Specifications

- Vibration: Tested to Lloyds Register Approval Vibration Test 2.
- Transient voltage suppression: EN6100-6-1.
- PCB characteristics: UL94V-0.

Electrical Specifications

Description	Specifications
Operating Voltage	120 VAC Line (L1) to Neutral
	240 VAC Line (L1) to Line (L2)
	240VAC Line (L1) to Neutral
Operating Current (per side)	0.05A to 50A

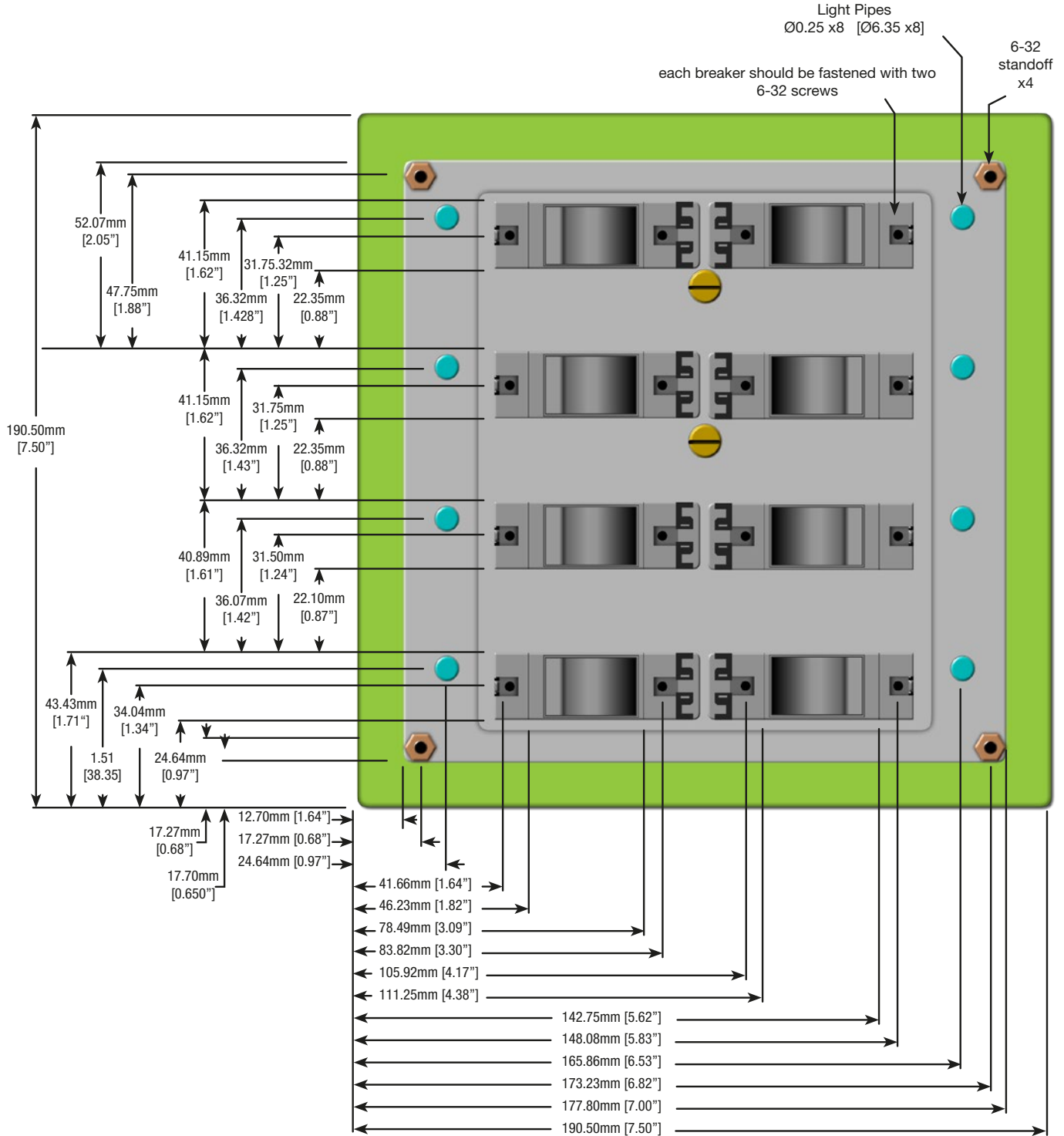
Physical Specifications

Description	Specifications
Faceplate	Stainless steel, flat black powder coated
Alignment Plate	Stainless steel
Actuators	Polycarbonate UL 94 V-0
Standoffs	Stainless steel
Operating Temperature	-20°C to 60°C
Storage Temperature	-40°C to 85°C
Operating Humidity	5% to 75% (non-condensing)
Weight (with faceplate & actuators)	4.2 lb (1.9 kg)

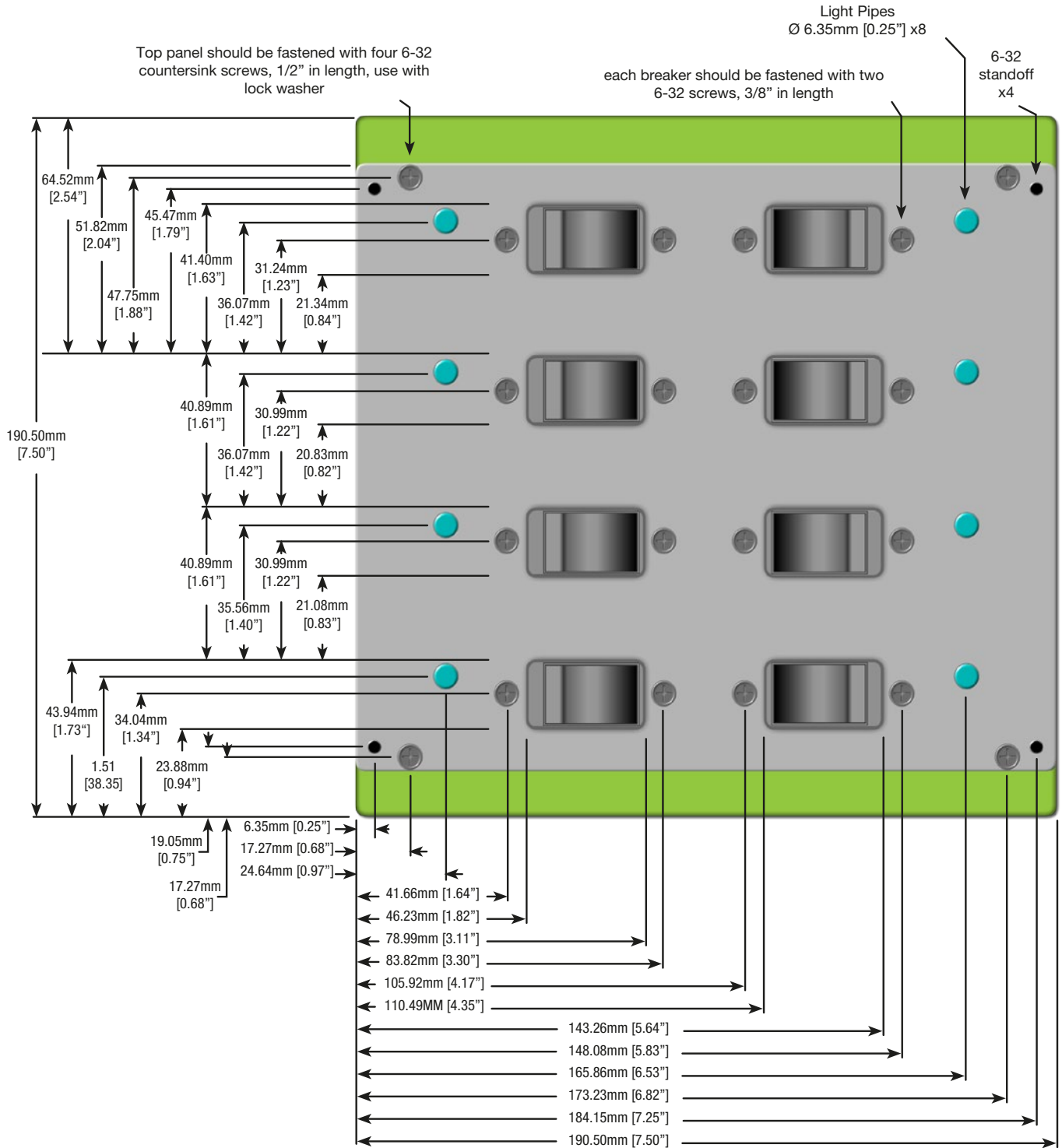
Circuit Breaker Ordering Specifications (circuit breakers ordered separately)

Part Number	Current Rating	Vent Location
MCB-AP-1P-NA-M-05-R	5A	Right vent
MCB-AP-1P-NA-M-10-R	10A	Right vent
MCB-AP-1P-NA-M-15-R	15A	Right vent
MCB-AP-1P-NA-M-20-R	20A	Right vent
MCB-AP-1P-NA-M-05-L	5A	Left vent
MCB-AP-1P-NA-M-10-L	10A	Left vent
MCB-AP-1P-NA-M-15-L	15A	Left vent
MCB-AP-1P-NA-M-20-L	20A	Left vent

Dimensional Specifications (without supplied faceplate)



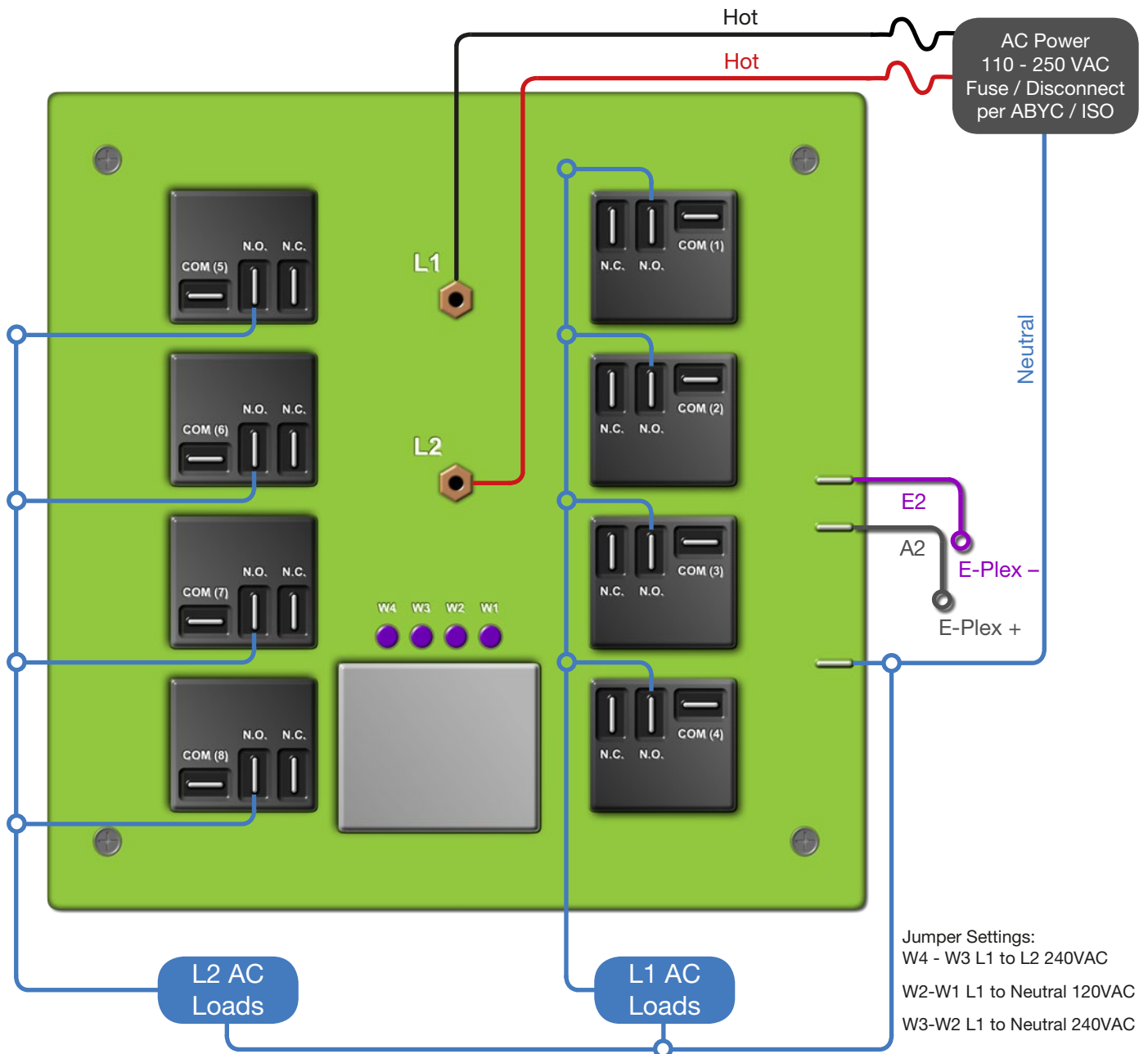
Dimensional Specifications (with supplied faceplate)



Mounting Specifications

Note: Some applications will require a customer supplied enclosure to protect the wiring harness and connections. Enclosure shall be at least 8" wide by 7" tall and have a depth no less than 4". CAD files or templates can be provided for the mounting hole pattern of the face of the enclosure. Ideally a hinged enclosure would be used with the actual unit affixed to the door allowing for easy access to the wiring connections on the reverse side of the module. The type of enclosure used will affect the IP rating of the module. For ignition-proof requirements additional dust covers would be needed.

Typical Wiring Diagram (Rear View)



Typical Wiring Instructions

1. All relay connections are 1/4" female spade lug terminals.
2. AC Neutral connection is 1/4" female spade lug terminals.
3. E-Plex positive and negative connections are 1/4" female spade lug terminals.
4. AC L1 and L2 are attached to the provided nickel-plated brass M8 studs.

Wiring Specifications

Pin #	Pin Description	Operating Voltage	Operating Current
L1	Main L1 Power Source +	110 to 250 VAC	0.05 to 50 A
L2	Main L2 Power Source +	110 to 250 VAC	0.05 to 50 A
N.O. 1	Normally Open 1, AC Load +	0 to 250 VAC	0 to 20 A
N.O. 2	Normally Open 2, AC Load +	0 to 250 VAC	0 to 20 A
N.O. 3	Normally Open 3, AC Load +	0 to 250 VAC	0 to 20 A
N.O. 4	Normally Open 4, AC Load +	0 to 250 VAC	0 to 20 A
N.O. 5	Normally Open 5, AC Load +	0 to 250 VAC	0 to 20 A
N.O. 6	Normally Open 6, AC Load +	0 to 250 VAC	0 to 20 A
N.O. 7	Normally Open 7, AC Load +	0 to 250 VAC	0 to 20 A
N.O. 8	Normally Open 8, AC Load +	0 to 250 VAC	0 to 20 A
E-Plex +	E-Plex Data Bus +	7 to 32 VDC	10 mA
E-Plex -	E-Plex Data Bus -	0 VDC	10 mA
Neutral	AC Neutral Reference	0VAC	50 to 600 mA

Ordering Codes

Use the options table below to specify your 389DMAC characteristics. Front plate and mounting hardware is included, order breakers separately.

Part Number	Configuration	Typical use
EP-AC-KIT-DMAC-389-01	L1 to Neutral (120VAC)	US single phase systems
EP-AC-KIT-DMAC-389-02	L1 to L2 (240VAC)	US split phase systems
EP-AC-KIT-DMAC-389-03	L1 to Neutral (240VAC)	EURO single phase systems



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