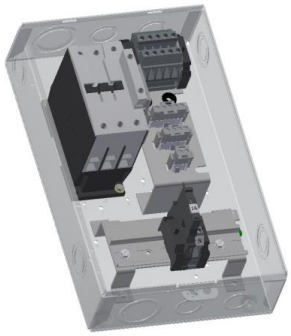
Plug and Play Kit Installation and Wiring (E4 Second Load Management unit)

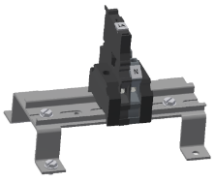
Instruction Leaflet IL410-00200E Effective Jan. 2024

General Information

This publication is for use with the Eaton enclosures Plug and Play assembly in a load management application with a focus for your home EV charging. The Eaton load management system is specifically designed manage your EV charger loading to you home panel that is at full capacity versus the need for a service upgrade.

Recharging at home has become as simple as it is convenient. Just plug in the EV and let the charger do its job, while you sleep, complete household chores, or enjoy family time. Eaton offers a simple relay base kits in combination with the Plug and Play for your load management needs. The timer base unit is design to monitor the panel load and remove a specific load from the circuit for a period of 15 min. This load management controls prevent any unwanted tripping on the main panel circuit breaker.





Second base unit

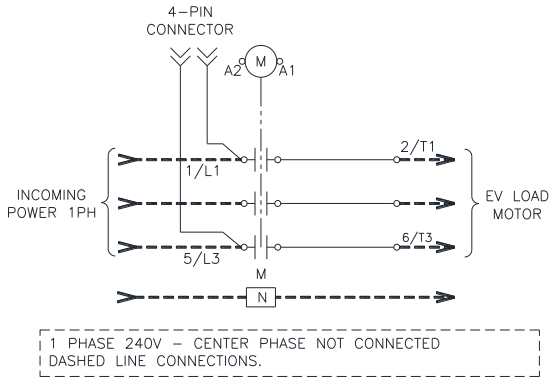
For installation of the Units: *Locate the mounting holes in the enclosure base and install the load management kit. The kit come with installation instructions, and the hardware.*

This unit is not a stand-alone unit. It is made to work in sequence with an Easy E4 load management Kit and a Plug and Play base.

Discard the IL that comes in the Plug and Play unit as this set of instruction is for its replacement.

Power Wiring Diagrams: IEC contactor

Diagram #1



Typical Control Wiring diagrams:

Enclosed contactor assemblies supplied from factory and are pre-wired as per figure A

CAUTION:

READ AND FOLLOW INSTRUCTIONS PRIOR TO WIRING OR CONNECTING POWER. THIS PRODUCT CAN BE FACTORY OR FIELD CONFIGURED FOR MULTIPLE CONTROL MODES OR CONTROL VOLTAGES. CHECK THE COVER CONTROLS AND TRANSFORMER OR THE SEPARATE SUPPLY KITS FOR PROPER VOLTAGE BEFORE APPLYING POWER.

A LICENSED/QUALIFIED ELECTRICIAN MUST COMPLETE ALL INSTRUCTIONS IN THIS MANUAL IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE (NEC), CANADIAN ELECTRICAL CODE (CEC), STATE, AND LOCAL CODES, OR OTHER APPLICABLE COUNTRY CODES. ALL APPLICABLE LOCAL ELECTRICAL CODES SUPERSEDE THESE INSTRUCTIONS.

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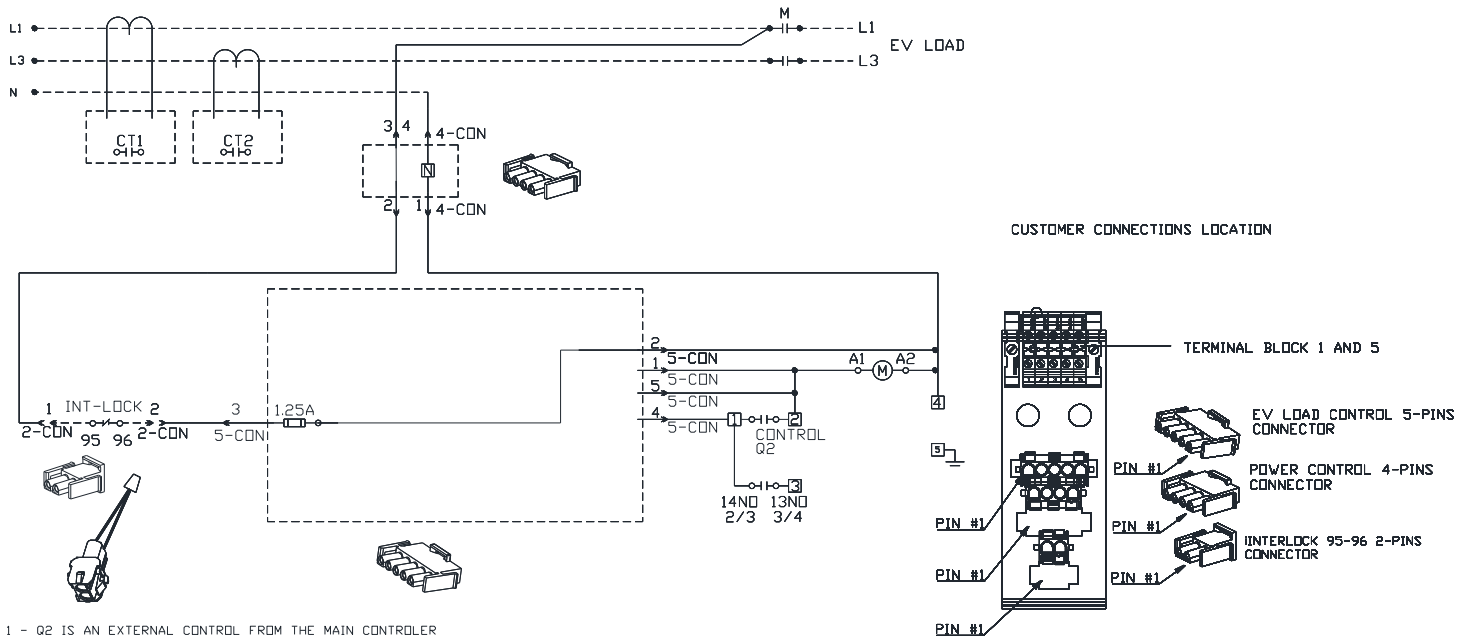
Wiring Instructions:

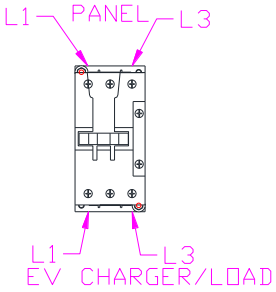
Figure A



Panel circuit breaker

Install the panel circuit breaker and run the line power to L1 and L3 of the Plug and Play unit. Label the circuit breaker.

Power/Load connections and panel mounting.



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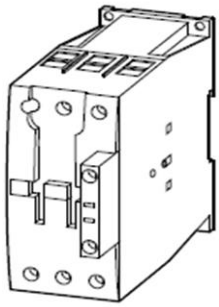
Application specific ratings for the Plug and Play load management system.

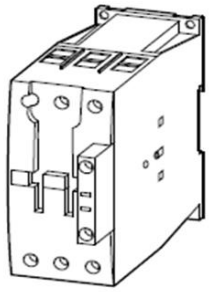
Level 2 chargers (L2) operate at 208-240 V (1-ph) and output anywhere from 3 kW to 19.2 kW of AC power. All Level 2 chargers use 240V but charging speed will differ based on a charger's amperage, or electrical current. Your need for speed will vary based on your EV's range, your commute and driving style: a car with less range, a long commute or always driving at top speed may mean you could benefit from a faster charge at home. Most EVs can take in about 32 amps, adding around 25 miles of Range Per Hour of charging, so a 32-amp charging station is a good choice for many vehicles. You may also want to increase your speed or get ready for your next vehicle with a faster 50-amp charger that can add about 37 miles of range in an hour.



Contactor Size (Amps)	UL General Purpose Ampsre Rating single Phase		
	Circuit Breaker	Charger Amperage	Unit Max Amps
50 (per CSA files & non-combination ass'y	20	16	50
	30	24	
	40	32	
	50	40	
	60	48	
	70/80	50	

Termination Torque specifications

Frame Size D



Contactor Line and Load Terminal	
AWG (Use 75 Deg C. CU)	Torque in lb/NM
14 -2	29 (3.16)