



Each of our devices are inspected and approved by Intertek a Nationally Recognized Testing Laboratory (NRTL) and equivalent to UL or CSA approval.

Intertek



Many devices use latching relays that can leave the controlled device in a "powered state" indefinitely if the controller fails. Our energy managers use fail-safe technology that leaves our devices in a powered off state and thus prevents this issue.

Our patented automatic load management system or EV energy management system (EVEMS / EMS) provides the ability to install up to an 11.5KW or 48A electric vehicle charger on an existing electrical service that would otherwise cause overloading issues. No need for an electrical panel or service upgrade. Compatible with all major EV manufacturers and charge rates.

KEY FEATURES:

- Allows a 48A EV charger (60A breaker) or any 50A/40FLA end device on a 100A panel (other options available).
- Fast and easy to install: 30-45 min.
- Small size fits in tight areas around electrical panels (8" x 6" x 4").
- Approved for general use or as an EVEMS by Intertek (ETL)
- Longest charge times due to intelligent current monitoring.
- No need to disconnect the main service wires.
- No extra breakers needed.
- Solar grid tie installation compatible.
- Real-time reading of the total power consumption of the electrical panel.
- Bi-Directional capability
- Remote shutdown override equipped

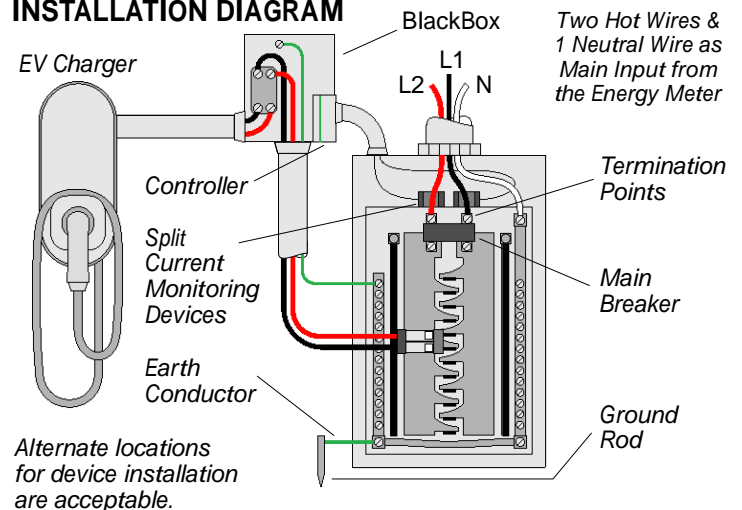
*This device does not need additional breakers to what is required to feed the 240-208VAC end device to be controlled. The service size and end device current is to be set by the installer. See installation manual. Designed and manufactured in Canada. Inspected and labeled by Intertek in Canada.

For more information email: info@blackboxelectrical.com or go to www.blackboxelectrical.com

SPECIFICATIONS

Electrical service to be monitored	Main Breaker: 60 - 200 Amp. Volts: 208, 240VAC or 120/208, 120/240VAC
Max power of device controlled	Max Current: 40 FLA / 50 Amp Continuous Resistive Volts: 208, 240VAC or 120/208, 120/240VAC
EV charger to be controlled	240-208V, Single Phase 20, 24, 30/32, 40, 48 Amp Load * <i>*20A option only on Model EVEMS240-100 for 60A service</i>
Model numbers by type:	
EVEMS240-100 and 3R	for 60-100 Amp Main Electrical Service Breaker Size
EVEMS240-200 and 3R	for 125, 150, 200 Amp Main Electrical Service Breaker Size
Voltage	240/208V or 120/240V AC single phase
Main Lug Wire Size & Torque	14 - 4 AWG (Cu only) Torque for Cu 75°C: 40-44 in-lbs (5 Nm)
Contactor	120°C, Class B
Insulation System	
Frequency	50 or 60 Hz
Operation Ambient Temp	NEMA 1: 34°F to 104°F (1°C to 40°C) NEMA 3R: -22°F to 104°F (-30°C to 40°C)
NEMA 1 Dimensions*	L: 8" x W: 6" x D: 4" – 5lbs
NEMA 3R Dimensions*	L: 8 ¼" x W: 6 ½" x D: 4 ¼" – 5.5 lbs
<i>*Dimensions and weight are approximate figures and subject to change without notice.</i>	

INSTALLATION DIAGRAM



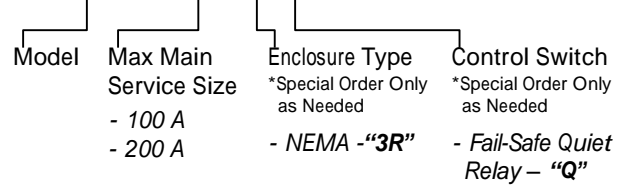


INCLUDED

- Electric Vehicle Energy Management System
- Split Core Current Monitoring Devices (CT)
- Installation Manual
- Parts Bag: Zip Ties, ALCUL Ground Connector, Wire Nut, 2 Steel Locknuts, Offset Nipple.

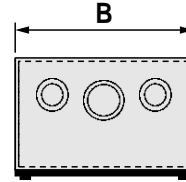
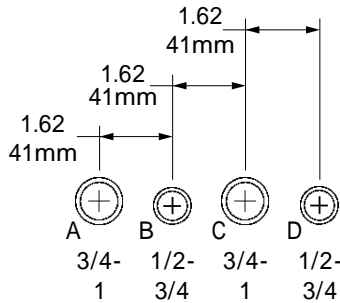
MODEL NAMING CONVENTION:

EVEMS240-XXX-XX-X

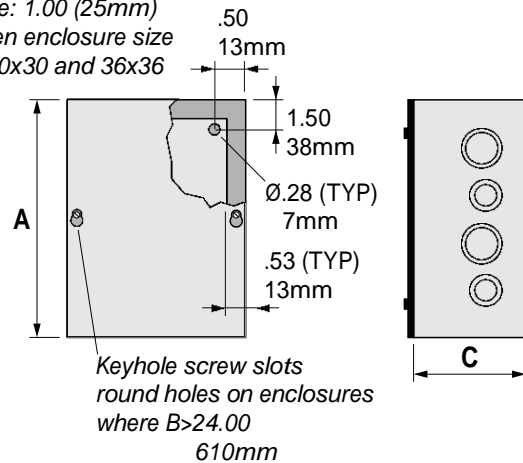


ENCLOSURE DIMENSIONS *

	Inches	mm
A	8	203.2
B	6	152.4
C	4	101.6



Note: 1.00 (25mm) when enclosure size is 30x30 and 36x36



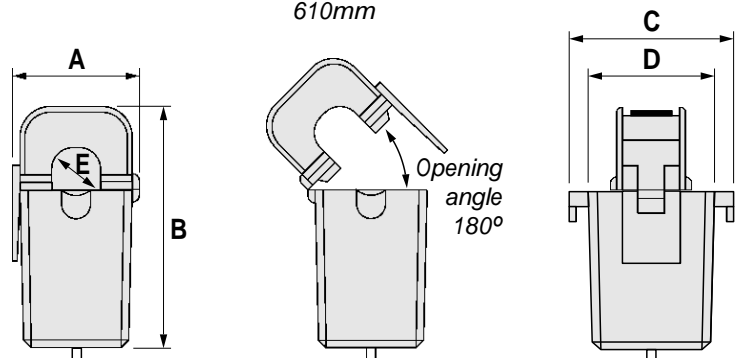
CURRENT TRANSFORMERS (CT)

Model EVEMS240-100 DIMENSIONS *

	Inches	mm
A	1.4	35.5
B	2.17	55
C	1.5	38
D	1.7	43.2
E	0.63	16

Lead length 20 feet or 6m

* All measurements approximate

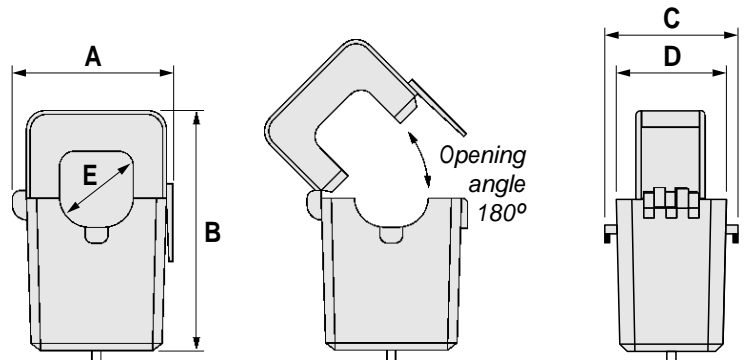


Model EVEMS240-200 DIMENSIONS *

	Inches	mm
A	2.09	53
B	2.95	75
C	1.63	41.4
D	1.35	34.2
E	0.94	24

Lead length 6 feet 7 inches or 2m

* All measurements approximate



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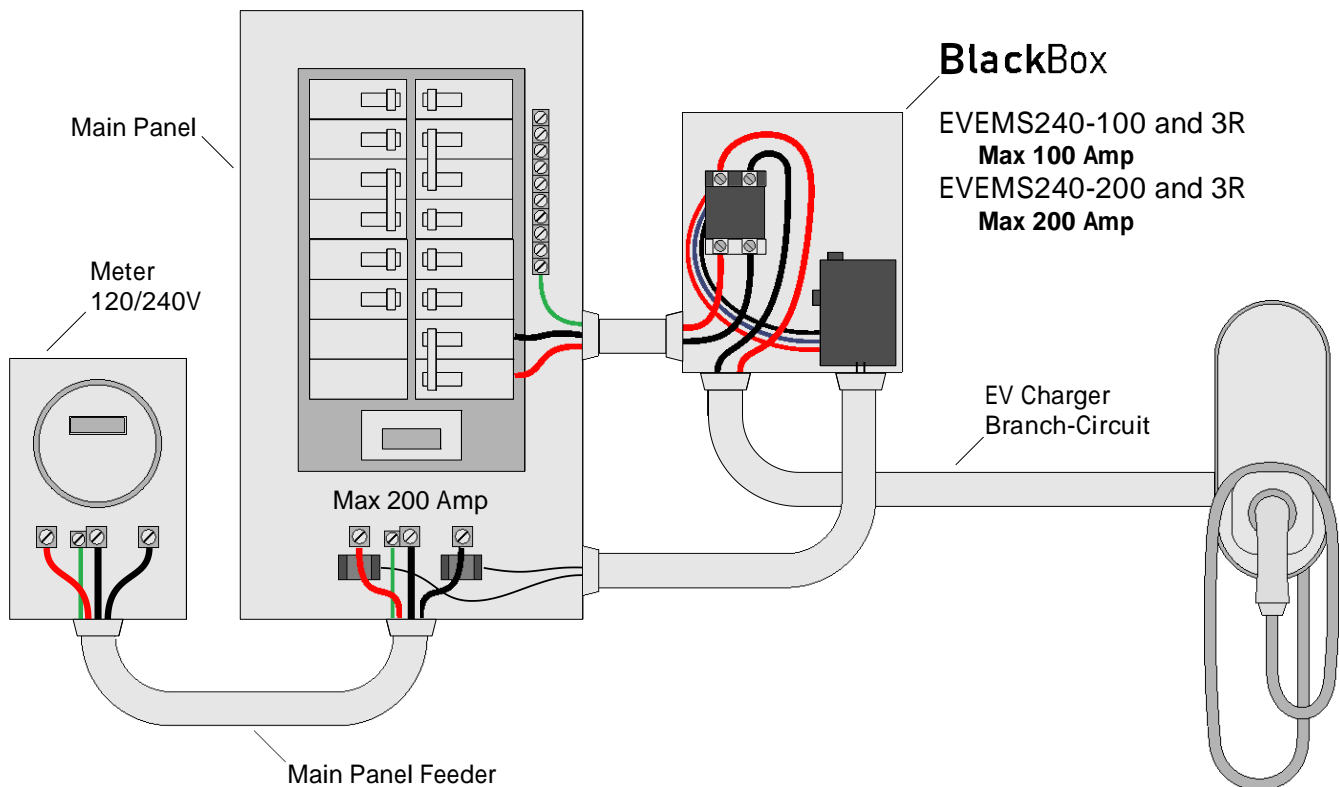


EVEMS240-100 & 3R					
Rating of or Above Device Controlled (EV Charger)	EV Charger Suggested Breaker	60A Main Breaker	70A Main Breaker	90A Main Breaker	100A Main Breaker
4.8KW - 20A	25	YES ✓	YES ✓	NO ✗	NO ✗
5.76KW - 24A	30	YES ✓	YES ✓	NO ✗	YES ✓
7.2/7.6KW - 30/32A	40	NO ✗	NO ✗	YES ✓	YES ✓
9.6KW - 40A	50	NO ✗	NO ✗	YES ✓	YES ✓
11.5KW/12KW - 48/50A	60	NO ✗	NO ✗	NO ✗	YES ✓

EVEMS240-200 & 3R				
Rating of or Above Device Controlled (EV Charger)	EV Charger Suggested Breaker	125A Main Breaker	150A Main Breaker	200A Main Breaker
7.2/7.6KW - 30/32A	40	YES ✓	YES ✓	YES ✓
9.6KW - 40A	50	YES ✓	YES ✓	YES ✓
11.5KW/12KW - 48/50A	60	YES ✓	YES ✓	YES ✓

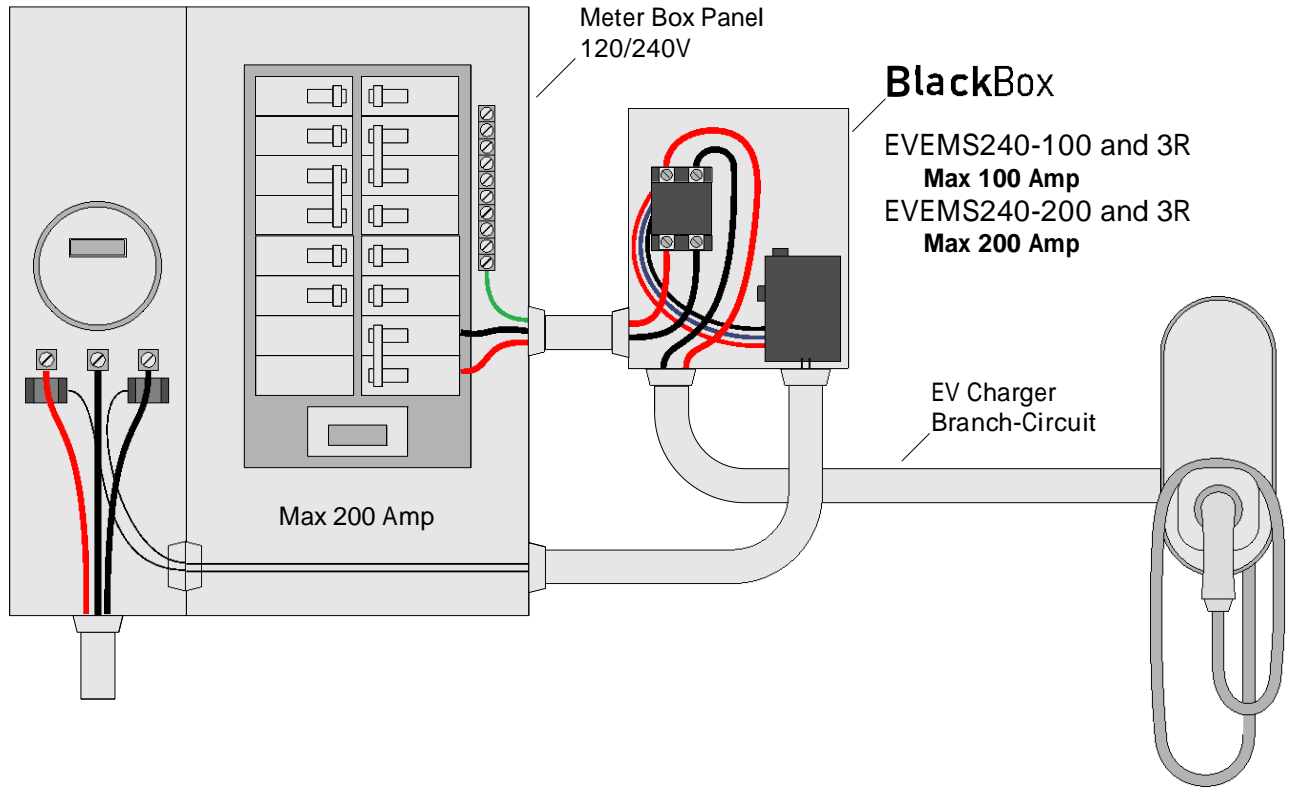
Energy Managers can be used to control general-purpose devices that can tolerate the power being shut off when necessary up to a max of 40FLA/50A, as indicated on the labeling for easy reference by inspections.

WITH MAIN PANEL





WITH METER BOX PANEL



WITH SUBPANEL

