

Connected Energy® DLC 2100 Direct Load Controller



Connected Energy® DLC 2100 is a smart grid direct load controller (DLC) enabling demand management with precision and verification. It is a single-load controller designed to manage an HVAC system (< 5 tons) via thermostat loop control. Equipped with a Verizon 3G certified radio for high-reliability two-way communications, the DLC 2100 can measure and report the actual load prior to curtailment, providing granular measurement and verification (M&V). It provides detailed metrics including voltage, current, active power and frequency on a near-real time basis.

Key Features:

- Measurement and Verification (M&V) of actual load curtailed
- Enables adaptive cycling and predictive analytics
- Two-way, near-real time communications
- Single-load controller for HVAC systems < 5 tons

Product Specifications¹

Input Power Requirements

- Power Input 240 VAC ± 20% (192-288); 60 Hz
- Power Consumption 10 Watts Maximum at 240 VAC
- Input Conductor 18 Gauge Standard UL 1015
1/2" Seal Tight Fitting
600 V, 105 °C (220 °F) Wire Insulation
- Through Current Capability 40 A
- Load Controller Relay 3 A, 24 VAC

Direct Load Controller Measurements

- 2-Wire or 3-Wire Single-Phase Measurements
- RMS Voltage Range: 192 - 288 VAC RMS
Accuracy: ±1%
- RMS Current Range: 0 - 60 A RMS
Accuracy: ±1%
- Frequency Range: 47 - 63 Hz
Accuracy: ±0.5%
- Active Power Range: 0 - 15.9 kW
Accuracy: ±2%

Environmental Specifications

- Operating Temperature -30 °C to +70 °C
- Storage Temperature -40 °C to +85 °C
- Operating Relative Humidity Up to 95% (non-condensing)

Software

- Embedded smart grid firmware providing distributed intelligence and enabling M&V capabilities

LED Indications

- Steady Red Active Load Management
- Steady Green Remote Test Function

Physical Specifications

- Dimensions (H x W x D) 8.4" x 6.4" x 2.9"
213 x 162 x 73 mm
- Weight 1.2 lbs / 0.54 kg
- Enclosure NEMA IV Rated, Raintight Operation
High-Impact Polycarbonate
Neoprene Enclosure Gasket

Certifications/Standards

- UL Listed
- FCC Certified
- Verizon Network Certified
- Surge Withstand Capability: Meets and Exceeds ANSI C37.90a

Communications

- Standard Dual-band CDMA 800/1900 MHz
Built in UDP/TCP/IP stack
- Optional Radio Mesh Networks
3rd Party Radios
- Device Status Reporting User Configurable
Upon Event/Change in State

¹ Specifications are subject to change without notice.