LCR-6601S advanced intelligent load control switch

Demand Response
Residential & Commercial

LCR-6601S advanced intelligent load control switch with Silver Spring® Networks communications module

Eaton's Cooper Power series Advanced Intelligent Load Control Switch is a proven technology designed to provide a utility the power and flexibility to implement a variety of DR programs across multiple appliances on today's communication networks, all in our cost effective multi-relay design.

The Advanced Intelligent Load Control Switch provides power quality protection for improved grid reliability, precise comfort and control, delivered through our TrueCycle™ technology, and rich event logs for measurement and verification of events. The Silver Spring® Networks communications module provides standards-based connectivity for a range of smart grid-connected devices. With support for standards such as IPv6 and IEEE 802.15.4g™ – 2012, the Gen 4 module supports data rates up to 300 kbps, delivering the performance needed for today's demanding smart grid applications.

Embedding these modules into Eaton's Cooper Power series load control switches enables Direct-to-Grid™ communications, in which utilities and other network operators gain direct access to valuable grid assets, ensuring rapid response to load shed events, for example. Direct-to-Grid™ communications also enable Silver Spring® Networks network operators to benefit from the advantages of a converged network, running multiple applications on common infrastructure.

The advanced intelligent load control switch with multi-relay includes the following features:

- Remote/local configuration and programmability
- Power quality protection
- Data retrieval for measurement and verification
- Optimized air conditioner cycling with smart control and learning capabilities
- Easy and cost-effective installation design
- Multiple-relay configuration
- Event, load and relay status reporting

Powering Business Worldwide

Silver Spring® NETWORKS

Smart cycling

Eaton's Cooper Power series TrueCycle technology allows smart air conditioner cycling control for residential homes with non-standard or oversized air conditioning units.

TrueCycle adjusts to a home's hourly runtime profile — balancing demand reduction and customer comfort on a home-by-home, hour-by-hour basis.

Measurement and verification

The Load Control Switch stores and transmits historical and alarms logs containing event, load, and relay information. This information can be retrieved over Silver Spring Networks RF system.

Power quality protection

The advanced Load Control Switch can automatically shed the connected load if the supply frequency drops below a configurable threshold.

System and appliance protection

The condition of the device is continually monitored. If an abnormality is detected, the microprocessor resets, and the connected load is returned to its normal state. In addition, cold load pickup can be enabled or disabled for the connected load to minimize feeder in-rush following power outages.

Short-cycle protection is used to protect the HVAC compressor from short-cycling during a load control event.

LED indicators

A Power LED displays presence of power for the switch. A Network Status LED displays connection to the Grid. A Relay Control LED displays when the appliance is being controlled.

Over-the-air configuration and updates

Over-the-air (OTA) programming and configuration, plus individual control or control override communication, can update securely.

SPECIFICATIONS

Environment
Temperature -40 °F to 140 °F (-40 °C to 60 °C)

Relative Humidity 0 to 95% noncondensing

Housing
NEMA® 4X injection-molded, UV stabilized gray polycarbonate plastic. Rain-tight per UL916 and UL50.

Electronics
Per UL916. Transient voltage protection per ANSI/IEEE Std C37.90.1™ - 1974 standard.

Power Requirements
Voltage 120 or 240 Vac (±20%)
Frequency 60 Hz (±2%), 50 Hz (±2%)

Relay Control
2 A at 28 Vdc and 28 Vac, Form C
30 A at 240 Vac resistive and 1 HP at 120/240 Vac inductive, Form C

Relay Configuration Options
Maximum of two (2) relays. Combination of one (1) 2 A and one (1) 30 A

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