

Eaton Pow-R-Command intelligent panelboard



Eaton Pow-R-Command Intelligent Panelboard

Intelligent, compact and easily scalable architecture helps maximize savings and meet new energy code requirements.

Features and benefits

- **Meet evolving standards**
Meet the American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHRAE®) 90.1-2010 as well as the 2012 International Energy Conservation Code (IECC®) building standards for daylighting controls. Implement controllable circuit breakers to meet the ASHRAE 90.1-2010 requirement for automatic shut-off for at least 50 percent of receptacles
- **Reduce space with integrated design**
Consolidate branch circuit protection, intelligent controls for switching and dimming, and energy metering into a single enclosure to simplify design and reduce required wall space by 50 percent
- **Minimize labor**
Reduce material and labor costs by eliminating the need for additional control cabinets, external metering and related wiring with Eaton's integrated design that can also simplify installation for up to 50 percent labor savings
- **Simplify scalability**
Achieve easy and cost-effective lighting and energy management system growth with the flexible Pow-R-Command™ Master and Expansion lighting panelboards system architecture
- **Increase sustainability**
Reduce lighting energy usage by as much as 41 percent and lower heating, ventilation and air conditioning (HVAC) load requirements with the Pow-R-Command system, while contributing to U.S. Green Building Council (USGBC®) Leadership in Energy and Environmental Design (LEED®) credits
- **Enhance safety**
Prevent contact with live components. A compartment behind the Pow-R-Command controller display allows for safe access to low voltage communications and input/output (I/O) connections without removing the panelboard trim or deadfront



Powering Business Worldwide

Pow-R-Command components

Controller



Intuitive, High-Resolution Color LCD Touch Screen



Folded Display Showing Integrated Connections

The Pow-R-Command controller offers a broad range of schedule and occupant-based control capabilities, as well as dimming and daylight harvesting control. Remote communication options include Ethernet and RS-485 network communications. LCD touch screen display and Ethernet maintenance port provide simple local interface.

Features and benefits

- Simple management**
 Easily access local program, monitor and override functions directly from the Pow-R-Command backlit color LCD touch screen and user-friendly interface. Simplify local controller maintenance with an integrated maintenance Ethernet port and access to preconfigured Web pages
- Safe and easy access**
 Safely access low voltage communications and input/output (I/O) connections without removing the panelboard trim or deadfront
- Flexible communications**
 Remotely manage programming, monitoring and system override with RS-485 and Ethernet communications options
- Building integration**
 Simplify building management with BACnet®/IP industry standard communications for integrating Pow-R-Command into a building management system

Controllable circuit breakers



Solenoid-Operated Controllable Circuit Breakers

Eaton solenoid-operated circuit breakers integrate branch circuit protection and control into a single device.

Features and benefits

- Maximize energy savings**
 Control lighting and plug loads with time and space occupancy schedules to maximize energy savings
- Intelligent control**
 Achieve accurate status and override controls with integrated solenoid mechanism
- Flexibility**
 Meet the needs of nearly every building type with 15A, 20A and 30A configurations in single- and two-pole models suitable for voltage systems up to 480 Vac. Emergency and plug load controllable circuit breakers available to meet special application requirements

Digital switches



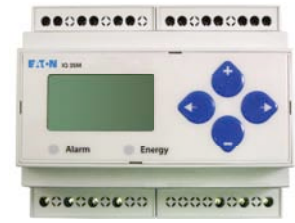
Intelligent Digital Switches for Local Load Control (optional component—can be purchased separately)

Pow-R-Command digital switches provide occupant override and dimming control. Digital switches are connected to the controller Digital Switch Network (DSN) port via a CAT-6 cable.

Features and benefits

- Reduce wiring**
 Connect up to 99 digital switches in a daisy-chain network architecture to the controller DSN port. On-board digital and analog I/O for connecting local occupancy and light level sensor inputs and lighting with analog dimming control circuitry reduces field wiring back to the controller
- Simplify management**
 View real-time feedback of controllable circuit breaker or group status with LED backlit buttons. Save configuration time with easy field addressing using two rotary switches
- Enhance aesthetics**
 Seamlessly integrate switches into existing building design schemes with two-, four- and six-button in white, black, almond and ivory colors

Integrated energy meter panelboard



Eaton IQ 35 Meter (optional component)

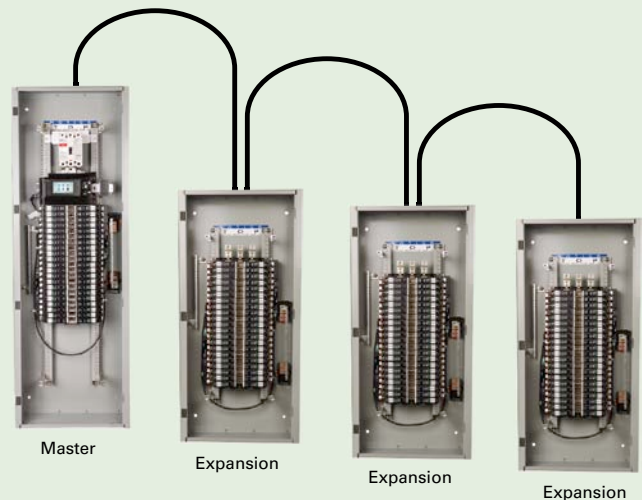
Two integrated meter configurations provide exceptional performance in a compact footprint to deliver a cost-effective energy and power monitoring solution. The Eaton IQ 35 meter is used for monitoring panelboard mains, and the branch circuit meter is used to monitor individual branch circuits.

Features and benefits

- Enhance energy management**
 Identify wasteful practices, decrease unnecessary usage and make informed load shifting and shedding decisions
- Increase productivity**
 Simplify management with a powerful and compact electronic meter that includes a backlit LCD display and the ability to communicate with the Power Xpert® Gateway for remote monitoring
- Verify energy bills**
 Monitor voltage, current, power factor, frequency, power and energy to verify energy bills and allocate energy costs accurately

Master and Expansion architectures

Meet future needs with the flexible Pow-R-Command Master and Expansion intelligent panelboard architecture. An integrated communications subnetwork provides simple system scalability, and can easily expand with integrated control and monitoring for up to 168 controllable circuit breakers.

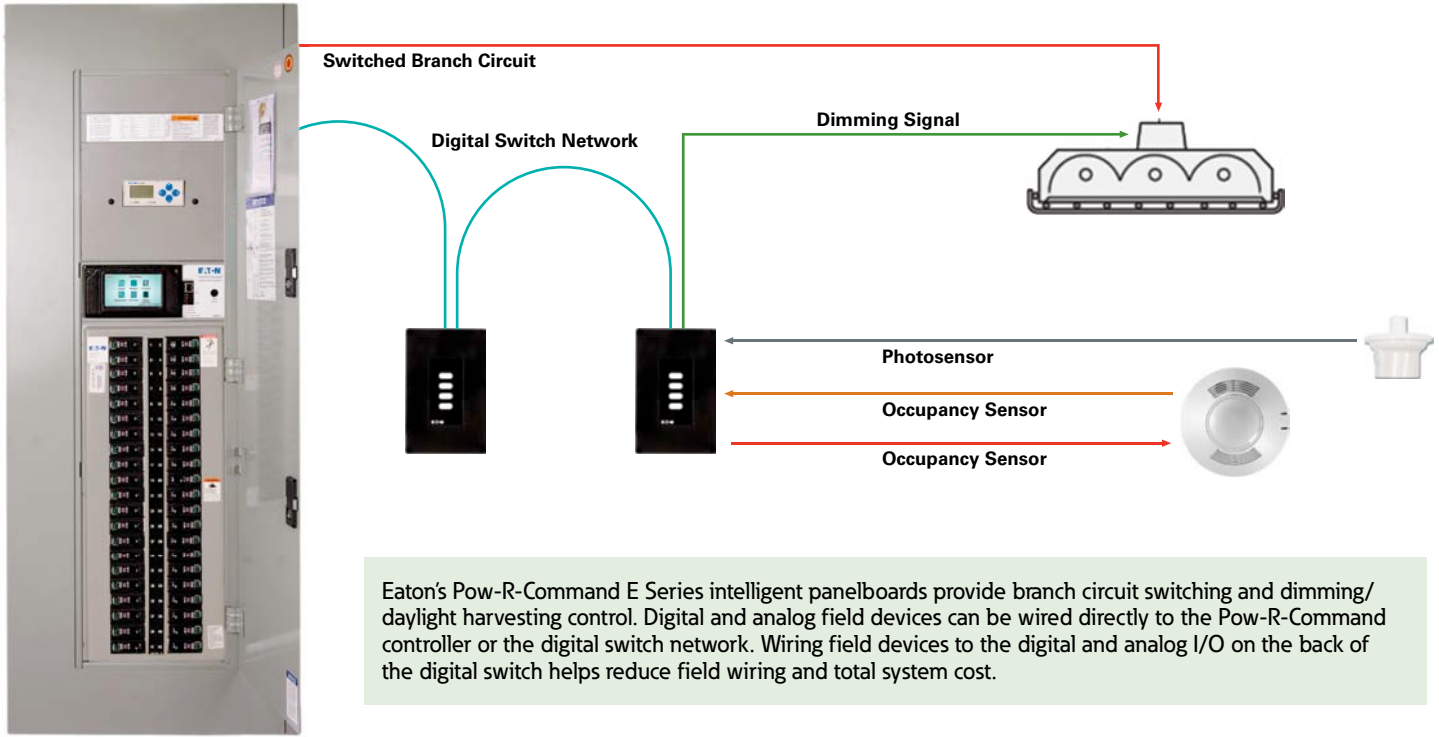


Pow-R-Command Master and Expansion Subnetwork

PRC-E controller features

| Controller | PRC25 (MTM) | PRC750E | PRC1000E | PRC1500E | PRC2000E |
|----------------------------------------------------------------------------------------------|-------------|----------------|----------------|----------------|----------------|
| Inputs | | | | | |
| Dry contact inputs | 6 | 16 | 8 | 8 | 8 |
| Universal (dry contact or analog 0–10 Vdc) | | | 8 | 8 | 8 |
| Switch Override Controller (SOC) compatible | | | 60 | 60 | 60 |
| Outputs | | | | | |
| Analog (0–10 Vdc) | | | 8 | 8 | 8 |
| Maximum number of dimming ballasts/drivers per analog output | | | 40 | 40 | 40 |
| Power supply for external devices (100 mA) | | | 12 Vdc/30 Vac | 12 Vdc/30 Vac | 12 Vdc/30 Vac |
| Maximum number of breaker control bus | | 8 | 8 | 8 | 8 |
| Maximum number of controllable breakers | 60 | 168 | 168 | 168 | 168 |
| Control Logic | | | | | |
| Maximum number of logic control groups | 6 | 16 | 100 | 100 | 100 |
| 365-day time clock | | ■ | ■ | ■ | ■ |
| Astronomical time clock with sunrise and sunset offsets | | ■ | ■ | ■ | ■ |
| Schedules | | 250 | 250 | 250 | 250 |
| On/Off per schedule per day | | 250 | 250 | 250 | 250 |
| Holidays | | 30 | 30 | 30 | 30 |
| Automatic daylight saving time | | ■ | ■ | ■ | ■ |
| Blink notice | | ■ | ■ | ■ | ■ |
| Override time for switch inputs (min./max.) | | 1 min to 10 hr | 1 min to 10 hr | 1 min to 10 hr | 1 min to 10 hr |
| Dimming and daylight harvesting | | | ■ | ■ | ■ |
| Configurable source logic using software (OR, AND, XOR, XNOR, NAND, LAST EVENT) ¹ | | | ■ | ■ | ■ |
| Communications | | | | | |
| Expansion Panelboard SLAN | | ■ | ■ | ■ | ■ |
| Digital Switch Network (DSN) | | | ■ | ■ | ■ |
| Pow-R-Command peer-to-peer RS-485 | | | ■ | ■ | ■ |
| Maximum controllers per RS-485 network | | | 120 | 120 | 120 |
| Pow-R-Command peer-to-peer Ethernet | | | | ■ | ■ |
| Remote access to preconfigured Web pages using Ethernet network connection (TCP/IP server) | | | | | ■ |
| BACnet/IP | | | | ■ | ■ |
| Front Panelboard Programming | | | | | |
| Front maintenance port (Ethernet) | | ■ | ■ | ■ | ■ |
| 4.3-inch backlit color LCD touch screen | | ■ | ■ | ■ | ■ |
| Access to preconfigured Web pages via maintenance port (TCP/IP) | | ■ | ■ | ■ | ■ |
| Software | | ■ | ■ | ■ | ■ |
| Password protection | | ■ | ■ | ■ | ■ |
| Memory | | | | | |
| RAM memory for programs and configuration (MB) | | 128 | 128 | 128 | 128 |
| Flash memory for kernel, programs and file system (MB) | | 256 | 256 | 256 | 256 |
| SD card for logs and programming database (GB) | | 4 | 4 | 4 | 4 |
| USB port for firmware upgrades and so on | | ■ | ■ | ■ | ■ |
| On-board capacitor to power clock chip during power outage (days) | | 10 | 10 | 10 | 10 |
| Standards | | | | | |
| UL® 916 energy management equipment | ■ | ■ | ■ | ■ | ■ |
| California Title 24 | ■ | ■ | ■ | ■ | ■ |
| UL 67 panelboards | ■ | ■ | ■ | ■ | ■ |
| CSA® C22.2 #29 panelboards | ■ | ■ | ■ | ■ | ■ |
| UL 489 circuit breakers | ■ | ■ | ■ | ■ | ■ |

¹ Requires software.



Learn more at
Eaton.com/lightingcontrol

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