

Panelboard solutions for disaggregation of loads

# Electrical power distribution systems meeting Title 24 requirements for power use monitoring and control



**EATON**

*Powering Business Worldwide*



## Panelboard options

Description	"K" factor
Main breaker 100 A maximum	8
Main breaker 225 A maximum	9
Main breaker 400 A maximum	22
Main breaker 600 A maximum	23
Main lug 100 A maximum	2
Main lug 225 A maximum	4
Main lug 400 A maximum	11
Main lug 600 A maximum	12
Main metering—IQ 35M	8
Main metering CTs only	3
Main metering CT provision only	3
6-circuit breaker block—240 V	4
12-circuit breaker block—240 V	7
18-circuit breaker block—240 V	10
24-circuit breaker block—240 V	13
30-circuit breaker block—240 V	16
42-circuit breaker block—240 V	22
6-circuit breaker block—480 V	4
12-circuit breaker block—480 V	7
18-circuit breaker block—480 V	10
24-circuit breaker block—480 V	13
30-circuit breaker block—480 V	16
42-circuit breaker block—480 V	22
Surge protection device—80 kA, 100 kA, 120 kA, 160 kA and 200 kA	6
Additive/subtractive CTs per block	3
Additive/subtractive CTs provision only	3

## Panelboard boxes

"K" factor maximum	Minimum box height in inches (mm)	Minimum chassis height in inches (mm)
22	36 (914.4)	25 (635.0)
28	42 (1066.8)	31 (787.4)
34	48 (1219.2)	37 (939.8)
46	60 (1524.0)	49 (1244.6)
58	72 (1828.8)	61 (1549.4)
76	90 (2286.9)	79 (2006.6)

**Notes:** PRL1a and PRL2a are 20 inches wide x 5.75 inches deep. For PRL3a, contact your local Eaton Customer Manufacturing Solution Center.



## Main features

- California Title 24, Part 6 compliant for services >50 kVA up to 250 kVA with disaggregation of electrical circuits
- Breaker blocks available in 6, 12, 18, 24, 30 and 42 circuits
- Top or bottom feed, main lug or main breaker
- Integrated main metering option reduces wall space and provides greater safety and reliability
- Additive/subtractive metering option per breaker block
- Single-phase three-wire or three-phase four-wire
- Copper bus (silver or tin plated) or aluminum bus
- 100 A maximum branch circuit breakers
  - Sub-feed breakers available
- Optional Pow-R-Command™ switching and dimming control
- UL® 67, UL 50 Listed

## Exclusive features

- No removable bus links increases safety
- No hot spots from bus link loose connections
- Minimal downtime and reduced arc flash exposure when installing metering device
- IQ 35 integrated space-saving main metering (optional)
- Eaton's breaker block modular design
- Factory provided "FUTURE METERING DEVICE SPACE" labels
- All 10 disaggregated load types possible in a single panel
- IBC/CBC seismic rated and OSHPD compliant
- Made in the USA

## Specifications

### Voltage ratings

- 208Y/120 and 240D/120 Vac with BAB and QBHW breakers
- 480Y/277 Vac with GQ and GHB breakers

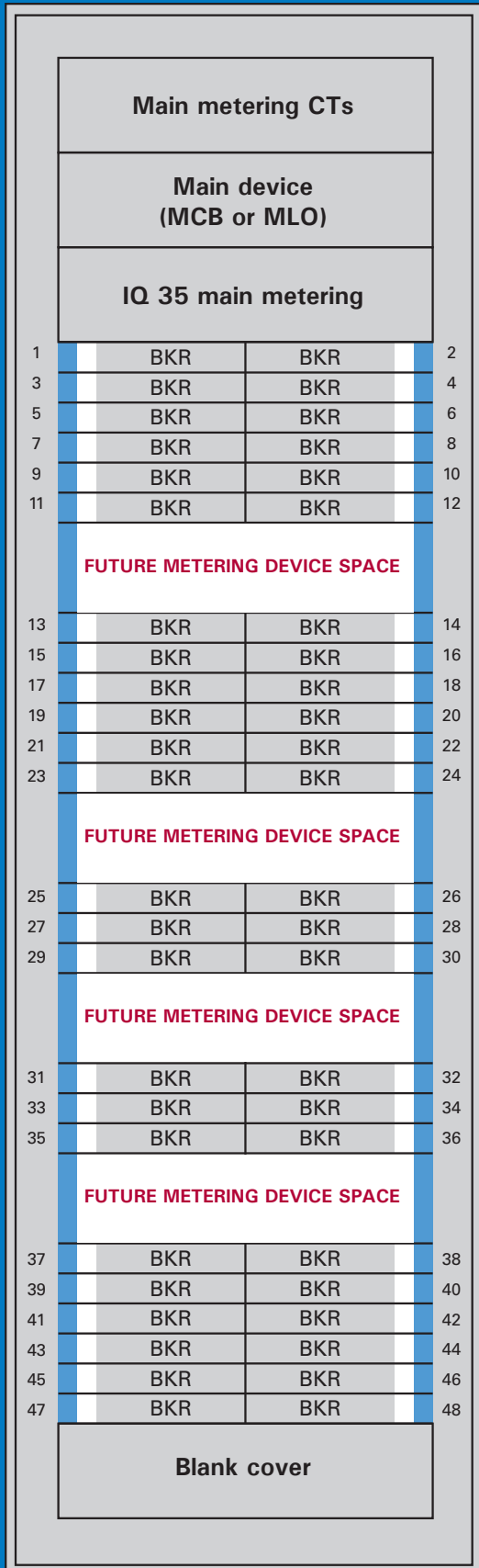
### Short circuit ratings

- Up to 200 kA series rated with upstream fuses
- 10 kA fully rated up to 240 Vac with BAB breakers
- 22 kA fully rated up to 240 Vac with QBHW breakers
- 65 kA fully rated up to 240 Vac with GHB breakers
- 14 kA fully rated up to 480Y/277 Vac with GQ and GHB breakers

### Ampere ratings

- 100, 225, 400 and 600 amperes as standard

# Load types for electrical circuit disaggregation



- Lighting including exit and egress lighting and exterior lighting
- HVAC systems and components including chillers, fans, heaters, furnaces, package units, cooling towers and circulation pumps associated with HVAC
- Domestic and service water system pumps and related systems and components
- Plug load including appliances rated less than 25 kVA
- Elevators, escalators, moving walks and transit systems
- Other individual non-HVAC loads or appliances rated 25 kVA or greater
- Industrial and commercial load centers 25 kVA or greater including theatrical lighting installations and commercial kitchens
- Renewable power source (net or total)
- Loads associated with renewable power source
- Charging stations for electric vehicles



## Title 24 disaggregation panelboard requirements

California Energy Code Table 130.5 (b) minimum requirements for separation of electrical load

Load type	Services rated 50 kVA or less	Services rated more than 50 kVA and less than or equal to 250 kVA	Services rated more than 250 kVA and less than or equal to 1000 kVA	Services rated more than 1000 kVA
Lighting including exit and egress lighting and exterior lighting	Not required	All lighting in aggregate	All lighting disaggregated by floor, type or area	All lighting disaggregated by floor, type or area
HVAC systems and components including chillers, fans, heaters, furnaces, package units, cooling towers and circulation pumps associated with HVAC	Not required	All HVAC in aggregate	All HVAC in aggregate and each HVAC load rated at least 50 kVA	All HVAC in aggregate and each HVAC load rated at least 50 kVA
Domestic and service water system pumps and related systems and components	Not required	All loads in aggregate	All loads in aggregate	All loads in aggregate
Plug load including appliances rated less than 25 kVA	Not required	All plug loads in aggregate  Groups of plug loads exceeding 25 kVA connected load in an area less than 5000 sq ft	All plug loads separated by floor, type or area  Groups of plug loads exceeding 25 kVA collected load in an area less than 5000 sq ft	All plug loads separated by floor, type or area  Groups of plug loads exceeding 25 kVA collected load in an area less than 5000 sq ft
Elevators, escalators, moving walks and transit systems	Not required	All loads in aggregate	All loads in aggregate	All loads in aggregate
Other individual non-HVAC loads or appliances rated 25 kVA or greater	Not required	All	Each	Each
Industrial and commercial load centers 25 kVA or greater including theatrical lighting installations and commercial kitchens	Not required	All	Each	Each
Renewable power source (net or total)	Each group	Each group	Each group	Each group
Loads associated with renewable power source	Not required	All loads in aggregate	All loads in aggregate	All loads in aggregate
Charging stations for electric vehicles	All loads in aggregate	All loads in aggregate	All loads in aggregate	All loads in aggregate

# Eaton Pow-R-Command intelligent panelboard



## Meets Title 24-2013 energy code

- Multi-level lighting controls
- Automatic daylight harvesting
- Occupant manual dimming
- 365-day and astronomical clocks
- Digital Switches for override control
- Demand response logic control
- Optional integrated metering
- Plug load control

To learn more, visit  
[Eaton.com/panelboard](http://Eaton.com/panelboard)



**Eaton**  
1000 Eaton Boulevard  
Cleveland, OH 44122  
United States  
[Eaton.com](http://Eaton.com)

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