



# ReliaGear<sup>®</sup> Lighting panelboard

CUSTOMER PRESENTATION

RLPM Branch circuit monitoring

**ENGINEERED  
TO OUTFIT**

# ReliaGear® Lighting Panelboard BCM advantages

Experience XTreme performance

## Enhanced Energy Efficiency

Collect real-time data on energy consumption to identify inefficiencies



## Revenue grade accuracy

Meet regulatory requirements with ANSI C12.20 system accuracy of 0.5%, Title 24 and ASHRAE 90.1



## Improve Operational Reliability

Continuous monitoring of circuits to reduce downtime and equipment failures



## Easy installation

Ships fully assembled reducing setup time



## Cost savings

Detailed insights on energy usage allowing for better budgeting and cost management



## Reduced footprint

Integrated Current transformers and display inside the panelboard



# Revenue Grade Branch Circuit Monitoring

## Summary

The ReliaGear® Lighting panel branch circuit monitoring combines the meters, local display, current transformers, communications and overload protection into a single module that mounts inside a UL Listed factory-assembled panel.

### Technical Specifications

- Standards: IEC 61557-12 , Title 24, ASHRAE 90.1, UL 61010 and ANSI C12.20
- Revenue grade accuracy (ANSI C12.20 0.5%)
- Measures either 42 or 84 ckt panels
- **+120A Max branch TEY/THQ breakers**
- **+Encapsulated solid core CT strips installed by the factory**
- Measurements for:
  - Voltage
  - Amperage
  - Power factor
  - Frequency
  - **+Power quality**
  - Harmonic analysis
  - And more (See brochure)
- **+Local display Captive touch screen technology**
- **+Included startup software**
- **+Ships fully assembled from factory**
- Configurable alarms
- Modbus RTU (2-wire RS485)
- **+Modbus TCP, Bacnet IP (Ethernet RJ45 10/100 Mbs).**



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# Key Applications

**Residential buildings**



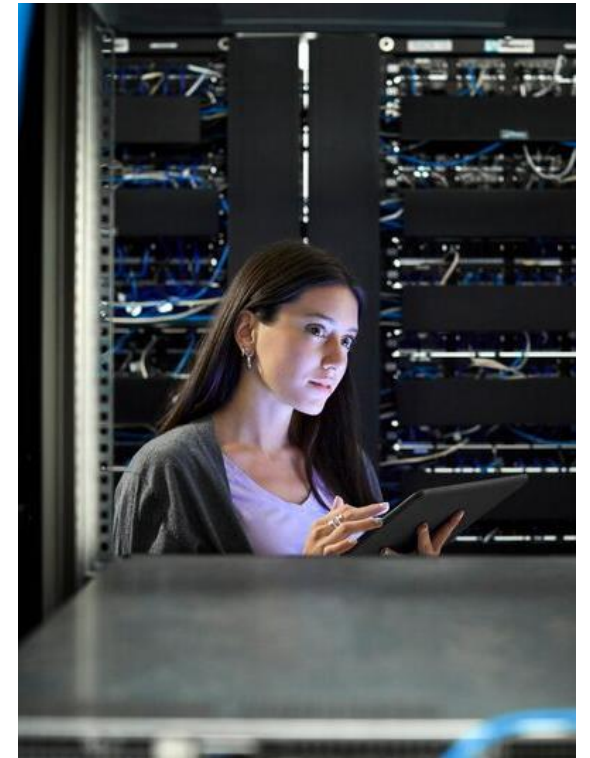
**Commercial buildings**



**Industrial complexes**



**Data Centers**





# Revenue Grade Branch Circuit Monitor

What's inside the panel?

## Benefits

### Installer benefits

- ✓ Save valuable wall space
- ✓ Save time

### Facility manager benefits

- ✓ Save money
- ✓ Collect info

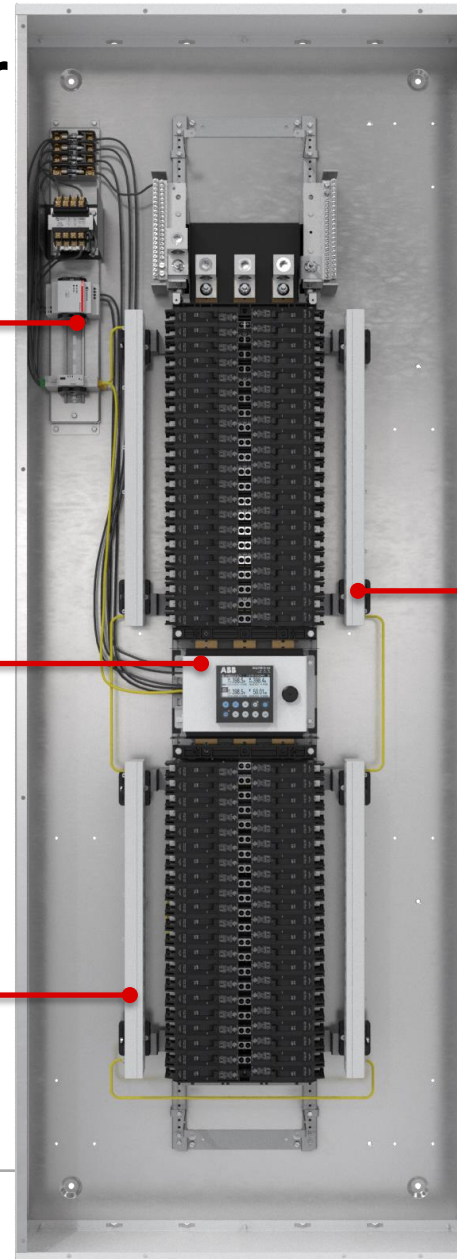
### Tenant benefits

- ✓ Visibility
- ✓ Ownership

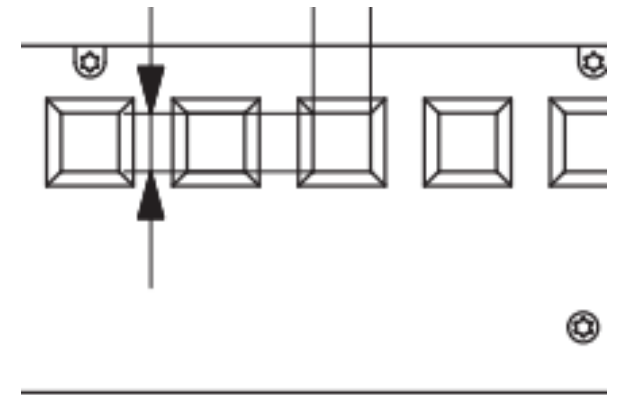
- 24VDC Power supply

- Local Display
- Ethernet Port
- Front Accessible Micro B port

- Encapsulated Current Transformer (CT) and Processor strips



**Encapsulated CT window size**  
.54 in W x .53 in. H (3/0 max wire)



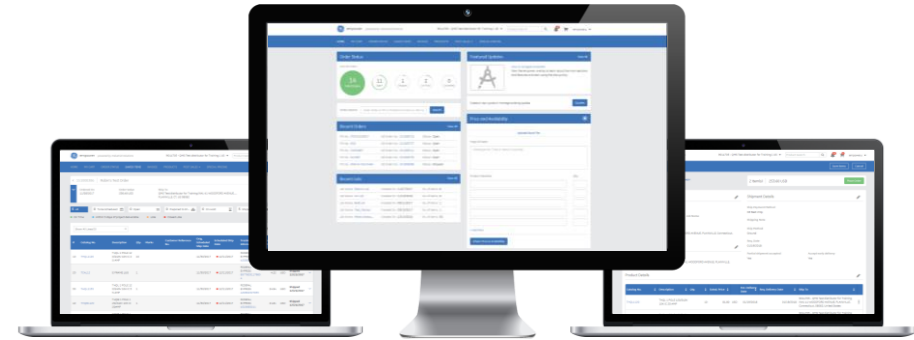
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# Easy ordering. Optimized logistics

## empower

The power to do more

Our premier digital commerce platform enables our employees, partners and customers to manage all aspects of their ABB project from quote and bid to order and delivery tracking.



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### eCommerce

Find, order and track products fast



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### Project Management

Manage configured items, generate bills of material and more



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### Product Configuration

Use online configurators to build any size project



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### Document Generation

Generate electronic documents with ease, from configured drawings to full proposals and submittal packages

# ReliaGear® Lighting Panelboards

## Configuring BCM in Empower: Lineup Window

### First Step:

1. Select from RQ, RL, RE/RS

Note: BCM is not available for RD Panels

Exception: Main breaker is not allowed in 84 circuit Branch circuit monitoring

Lineup Incoming Device | Feeders | Options | Layout | Drawings | Directory Card

Item #	Quantity	Marks (20 Characters Max)	Assembly Centers	Service Entrance
1	- 1 +		None	None

**Voltage**  
208Y/120V

**Service**  
3 Phase 4 Wire

**IC Rating (kAIC)**  
10

**Panel Type**  
RQ-ReliaGear THQB Branches, 240V, 800A Max  
ADS Fusible Switches/Breakers 600V 1200A Max  
RQ-ReliaGear THQB Branches, 240V, 800A Max  
RL-ReliaGear THQL Branches, 240V, 800A Max  
RE/RS-ReliaGear TEY Branches, 480V, 800A Max  
RD-ReliaGear FB Branches, 600/347V, 600A Max  
ReliaGear neXT Power Panel

**Incoming Type**  
Lugs

**Rating Type**  
 Fully  Series

**Assembly Centers**  
 Split Bus  
 Pro-Stock Compatible

**Service Entrance**  
 Type M OEM Panel  
 42 Circuits Max Per Section

**Mounting Type**  
 Surface  Flush

**Bus and Enclosure**

**Bus Material**  
Aluminum Bus Heat Rated / List Price \$

**Neutral Rating**  
100% Rated

**Lugs**

**Lug Option Type**  
None

**Lug Configuration**  
None

# ReliaGear® Lighting Panelboard

## Configuring BCM in Empower: Feeders

### Second Step:

1. Add exactly 42 or 84 circuits
2. 100A 1P max & 120A 2P/3P max

Note: Off branch sub-feed breakers do not have the ability to be monitored by the RLPM submeter.

Lineup | Incoming Device | **Feeders** | Options | Layout | Drawings | Directory Card

Display Name	Quantity	Trip Amps	Poles	Device Type	Frame	Trip Unit	Sensor	Accessories
Device: 1	42	20	1	Breaker Space	THQB / List Price \$0	-		

Kit With Breaker

**Branch Section Circuits**  **Total Circuits (Branch + S...**  **To calculate space enter branch circuits and hi...**

Requires single service disconnect per panel  CT Provisions Title 24

**Accessories**

**Aux Switch**  **Shunt Trip**  **Under Voltage Relay**  **Lighting Cont. Coil Voltage**



# ReliaGear® Lighting Panelboard

## Configuring BCM in Empower: Options

### Third Step:

1. Select appropriate Submeter based on the quantity of feeders selected

Note: BCM options cover basic features and include all communication protocols listed in the brochure

Lineup | Incoming Device | Feeders | **Options** | Layout | Drawings | Directory Card

<b>Nameplates</b> None	<b>Front/Doors</b> Standard	<b>Latch/Lock</b> Standard	<b>Box Height</b> Default
<b>Surge Protection</b> None	<b>Incoming Meter</b> None	<b>Box Width</b> Increased Width To 30"	
<b>Submetering</b> Submetering Solid RLPM BCM 42 Ckt	<input type="checkbox"/> neXT Single Section	<input type="checkbox"/> Ekip TT Trip Test Unit	<input type="checkbox"/> 24V Power Supply Module (PSM)
<input type="checkbox"/> Interior Only	<input type="checkbox"/> Meter Display	<input type="checkbox"/> Convert to Legacy Panel	<input type="checkbox"/> Lifting Bar
<input type="checkbox"/> Do Not Include Box (prev. Box Shipped)	<input type="checkbox"/> NEMA 2 Drip Hood	<input type="checkbox"/> Permanent Circuit Numbers	<input type="checkbox"/> Metal Directory Card Holder
<input type="checkbox"/> Box Painted	<input type="checkbox"/> 200A THQB Straps	<input type="checkbox"/> Same Box Size	<input type="checkbox"/> Vertical Circuit Numbering
			Starting Circuit Number: 1

# ReliaGear® Lighting Panelboard

## Drawing details

- RLPM BCM display default location:
- Opposite end of incoming for a 42 Circuit panel
- Center of the panel for a 84 Circuit Panel
- Submetering RLPM BCM shown in options
- Configuration includes CT strips mounted inside the box so no additional CT line items are required
- Only available in 30" wide enclosure

Lineup
Incoming Device
Feeders
Options
Layout
Drawings
Directory Card

**TECHNICAL SPECIFICATIONS**

PANEL TYPE: RE PANELBOARD  
 QUANTITY: 1  
 AMPS: 600A  
 VOLTAGE: 208Y/120V  
 SYSTEM: 3P4W  
 KAIC: 10 KAIC SC FULLY RATED  
 MATERIAL: COPPER BUS  
 PLATE: NO PLATE  
 ENCLOSURE: NEMA 1 ENCLOSURE  
 MOUNTING: SURFACE  
 SECTION: 1

**MAIN DISCONNECT DEVICE**

FEED DIR: Bottom  
 TYPE: Lugs  
 AMPS/SENSOR: 600A/-  
 CATALOG NO.:  
 POLES: 3  
 LUGS: 1-lug/phase 2-cable/lug 2/0 -500 MCM

**OPTIONS INCLUDED**

QTY	DESCRIPTION
1	Submetering Solid RLPM BCM 42 Ckt
4	Copper Bus Bars Rated
1	Ground-Box bonded TGL2
1	Ground main lug TGL20
1	Neutral with 14 - 2/0 holes Increased Width To 30"

**BRANCH DEVICES**

QTY	AMPS/SENSOR/POLES	DESCRIPTION
40	70A / - / 1P	TEY170
1	50A / - / 2P	TEY250

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# Experience XTreme performance

## Takeaways

- Save on skilled labor costs while minimizing the risk of mistakes
- Maximize space
- Improve safety
- Save time with fully assembled branch circuit meter in the box
- Monitor from anywhere

**ReliaGear® Lighting Panelboards. A superior design that works harder, so you don't have to!**



# ReliaGear® Lighting panelboard

## Support Documents & Links

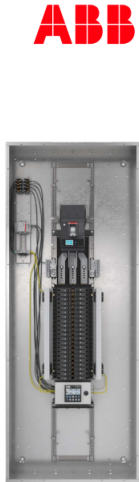
### BCM Data sheet

#### ReliaGear™ Lighting Panelboard RGLPM Branch Circuit Monitoring

The use of branch circuit monitoring provides a cost-effective integrated solution for ReliaGear panelboard power monitoring and submetering applications.

**Overview**  
With exceptional performance, the RGLPM BCM system monitors key electrical parameters of the various branch circuits and optional main/subfeed circuits of the panelboard.

This information can be transmitted via the Ethernet port to analyze usage, identify potential cost-saving measures and improve load management. Offering IEC 61557-12 and ANSI C12.20 Class 0.5 revenue-grade metering accuracy. The revenue-grade BCM meter can be used for tenant billing and cost allocation.



### Panelboard CSI Specification

SECTION 16425: LIGHTING AND APPLIANCE PANELBOARDS  
SECTION 26 24 16.01: PANELBOARDS

#### PART 1 GENERAL

##### 1.01 SECTION INCLUDES

- A. Low voltage lighting and appliance panelboards as specified and shown on the contract drawings.

##### 1.02 RELATED SECTIONS

**NOTE TO SPECIFIER: A SEPARATE SPD SPEC SHOULD BE USED WHEN SPD'S ARE APPLIED AT MULTIPLE LOCATIONS IN A CASCADED ARRANGEMENT. IF THIS IS DONE, THE DETAILED SPD SPECS COVERED UNDER THE ACCESSORIES / SECTION SHOULD BE DELETED AND RETAIN ONLY A REFERENCE TO 26 43 13. OTHERWISE, DELETE THIS REFERENCE AND THE LATER REFERENCE TO 26 43 13**

- A. [Section 26 43 13, Surge Protective Devices]

##### 1.03 REFERENCES

The panelboards and protection devices in this specification are designed and manufactured according to latest revision of the following standards (unless otherwise noted).

### Sales Presentation



### Buylog



#### BUYLOG SECTION 11 Panelboards



## [ReliaGear Lighting Panelboard Website](#)

**ABB**