

# **BRANCH CIRCUIT MONITORING SYSTEM**



# DATA CENTER PANELBOARD AND BUSWAY MONITORING

Raritan's intelligent Branch Circuit Monitoring (BCM) system allows you to fully utilize your power infrastructure and manage capacity as your data center grows and changes. Whether you are retrofitting an existing facility, or planning for growth or new construction, Raritan's BCM system can help you reduce energy costs, track power usage, and prevent downtime. Easily add metering where it never existed before.

This easy-to-deploy modular system, enables real-time views of electrical capacity and power usage on branch circuits, and mains, in an electrical service entrance or a remote power panel. It sends threshold alerts for power and environmental conditions, thereby helping to prevent downtime. The data can also support energy efficiency and customer charge-back initiatives. Plus it integrates with Power IQ $^{\odot}$  DCIM Monitoring Software, and other building management system (BMS) and DCIM solutions.

#### COMPONENTS OF THE SYSTEM



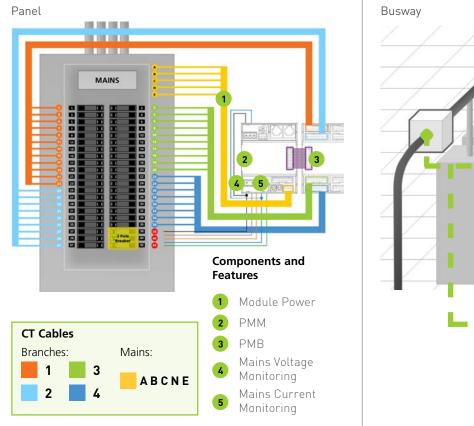
#### **FEATURES & BENEFITS**

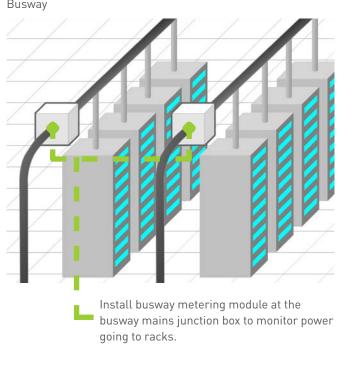
- Meters Floor PDU, RPPs, Panelboards, and Busways
- One controller supports up to 70 power meters
- Quick configuration via USB stick preloaded with panel schedule
- CTs connect to live circuits
- Auto-correct metering adjusts for CT orientation on wires
- Real-time configurator
- USB ports for configuration, Wi-Fi networking, and tablet display
- Supported by DCIM software that offers auto-discovery as a panel
- Several enclosure options
- Same firmware as Raritan rack PDUs
- Remote display using PDView app
- Collects data on: A, V, kW, kVA, power factor, and kWh
- Protocols include TCP/IP, Modbus and SNMP
- Environmental sensor support

## METER WHERE YOU NEVER COULD BEFORE

The all new BCM leverages the proven technology of Raritan's rack PDUs to monitor power upstream from IT equipment racks. Monitor power at panelboard, floor PDU, remote power panel or overhead busway, in real-time.

### **HOW IT WORKS**





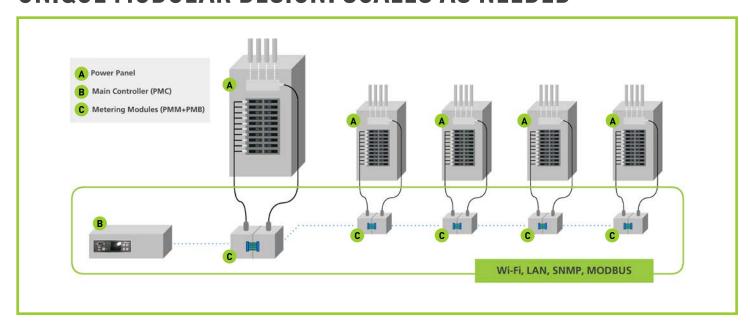
#### LOWER YOUR TOTAL COST OF OWNERSHIP

- Control up to 70 power meters with a single controller
- Protocols include TCP/IP, Modbus and SNMP
- Built-in redundancy; all modules function as long as one meter remains powered
- Accessible using Wi-Fi networking access
- Highest density branch circuit metering -- 96 branch circuits
- Easy to install, configure, and scale
- Prevents downtime and improves efficiency of power infrastructure

#### FEATURES THAT SAVE YOU THE TIME AND HASSLE

- Upload panel schedule to USB stick for circuit mapping and configuration setup (can be disabled)
- Mix and match same modules for busway and panelboard monitoring
- PDView tablet apps for easily viewing large amounts of information
- Fully supported as a panelboard in Power IQ® DCIM Monitoring Software
- Same firmware as Raritan rack PDUs

## UNIQUE MODULAR DESIGN: SCALES AS NEEDED



## DESIGNED FOR SIMPLE INSTALLATION AND CONFIGURATION

- Split core current transformers (CTs) attach to existing branch circuits and mains
- The CTs can be installed in either direction; metering system auto-corrects
- Several mounting options including: subfloor, wall mount, IT rack, and DIN rail
- The wiring harness allows you to install the CTs without a lot of excess wires
- Simplified and clean wire installation using multiconductor cable fed into panel to attach CTs
- Auto correct metering adjusts for CT orientation on wires, prevents mistakes
- CTs connect to live circuits without downtime or damage to CT
- Labeled CT wiring to eliminate errors
- Keyed locking connectors for error proof and reliable connection
- Real-time configurator displays current and phase allowing you to confirm correct installation
- Quick configuration via USB stick preloaded with panel schedule

## ADVANCED METERING AND MONITORING

- Power data readily available with Power IQ®
  Software or other building management systems
- Data is remotely accessible via web; or locally on a high-res color display or tablet
- Provides data center and facilities managers with real-time and historical views of electrical capacity and power usage
- Mix and match same modules for busway and panelboard monitoring
- Measures kWh with +/- 0.5% billing grade accuracy
- Collected data can be used to reduce downtime and drive efficiency initiatives



Labeled CT cable connectors ease panel position mapping.

Simple management via Power IQ® Monitoring Software.



Locking connectors for errorproof and reliable connections.



Enclosures	Description	
BCM2-9610	96 Channel Branch Circuit Meter Enclosure - Supports 208V 3Phase power metering with L21-20P input. Monitor 3Phase Mains lines, Neutral and Ground and up to 96 branch circuits. Metering accuracy to 0.5%. Includes intelligent controller for remote access.	
BCM2-9610Y	96 Channel Branch Circuit Meter Enclosure - Supports up to 415V 3Phase power metering with 16A Terminal input. Monitor 3Phase Mains lines, Neutral and Ground and up to 96 branch circuits. Metering accuracy to 0.5%. Includes intelligent controller for remote access.	
BCM2-9610-G0	96 Channel Branch Circuit Meter Enclosure - Supports 208V 3Phase power metering with L21-20P input. Monitor 3Phase Mains lines, Neutral and Ground and to 96 branch circuits. Metering accuracy to 0.5%. No intelligent controller for remote access.	
BCM2-9610Y-G0	96 Channel Branch Circuit Meter Enclosure - Supports up to 415V 3Phase power metering with 16A Terminal input. Monitor 3Phase Mains lines, Neutral and Ground and up to 96 branch circuits. Metering accuracy to 0.5%. No intelligent controller for remote access.	

Current Transformers	Description
BCM2-250A-CT-3PK	3x 250A/0.5%/333mV/24"/610mm lead
BCM2-1A-CT	1x 1A/0.5%/333mV/24"/610mm lead
BCM2-60A-CT-12PK	12x 60A/0.5%/333mV/24"/610mm lead
Controllers	Description
PMC-1000	Power Meter Controller - wall mount
PMC-1001	Power Meter Controller - 19" rack mount
Cables	Description
BCM2-BCTcable-3M-1	Branch Circuit cable for 12x CTs, 10ft (3m)
BCM2-BCTcable-3M-2	Branch Circuit cable for 12x CTs, 10ft (3m)
BCM2-BCTcable-3M-3	Branch Circuit cable for 12x CTs, 10ft (3m)
BCM2-BCTcable-3M-4	Branch Circuit cable for 12x CTs, 10ft (3m)

Meter Measurement Accuracy				
Active Power & Energy	0.5%: IEC 62053 Class .5, EN 50470-3 Class C			
Reactive Power & Energy	2%			
RMS Voltage & Current	0.2%			
Frequency	0.1%			
Sample Rate	64x 50 or 60 Hz (phase locked)			
Measurement Update Rate	3 secs: IEC 61000-4-30 Class S			
Conformance				
Safety	UL/EN 61010-1			
EMC/EMI	EN61326-1, FCC Part 15 Class A			
Voltage Measurement Inputs				
Input Range*	90-277V LN, 156-480V LL			
Measurement Category	CAT III, Pollution Level 2			
Frequency	50/60 Hz			
Current Measurement Inputs				
CT Type	Voltage Output = 333 mV at rated current			
CT Rated Current	1-1200A			
Environmental				
Operating Temperature	0°-60°C (32°-140°F)			
Operating Humidity	0°-60°C (32°-140°F)			
Operating Elevation	0-3000m			
Power Requirements				
Voltage	90-240V			
Current	0.2A			

## Visit www.raritan.com/ap/bcm

