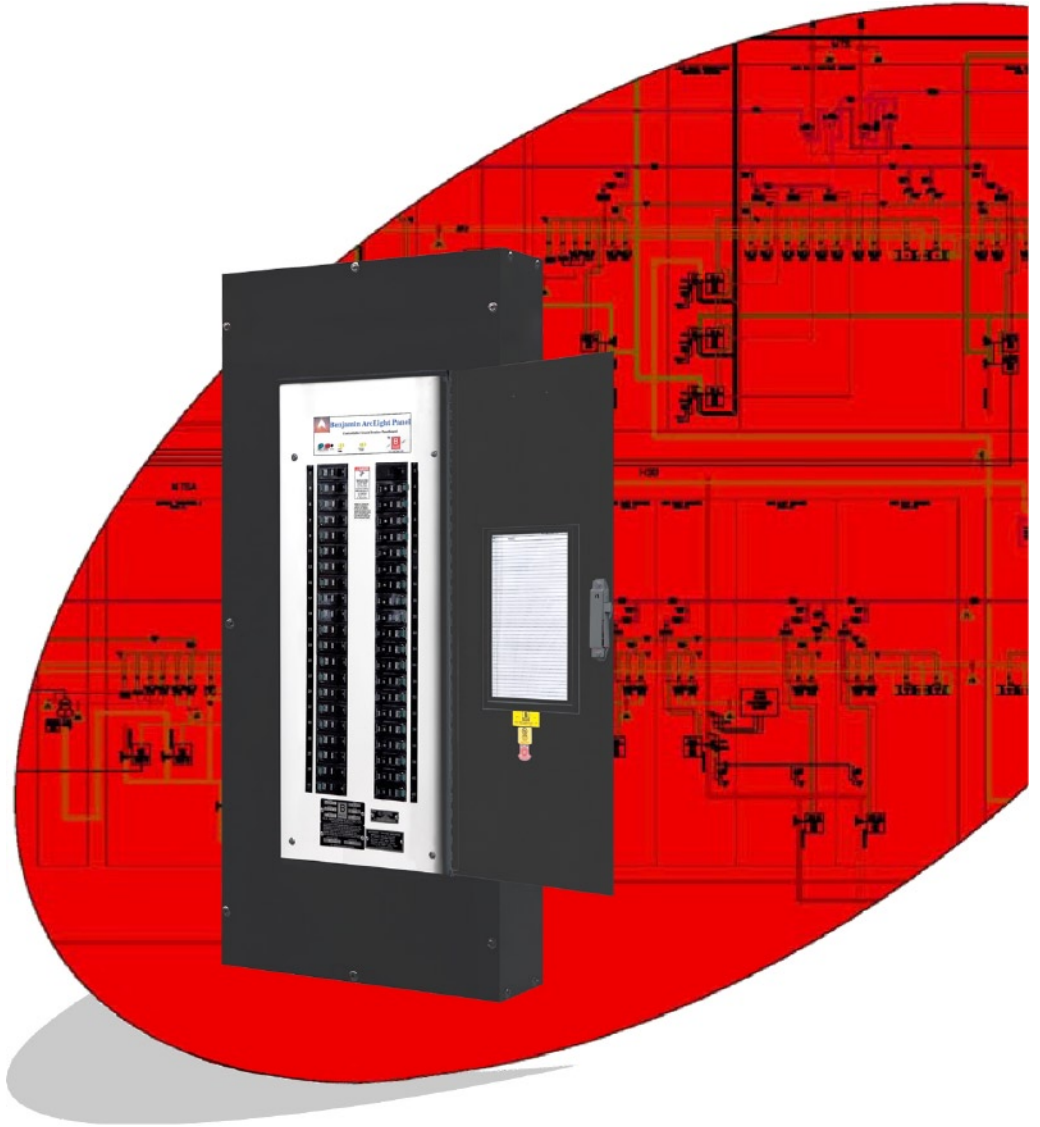


BREAKER CONTROL PANELBOARD

Remote Switching of Branch Circuits
using DMX or ACN Connectivity

CONFIGURATION GUIDE

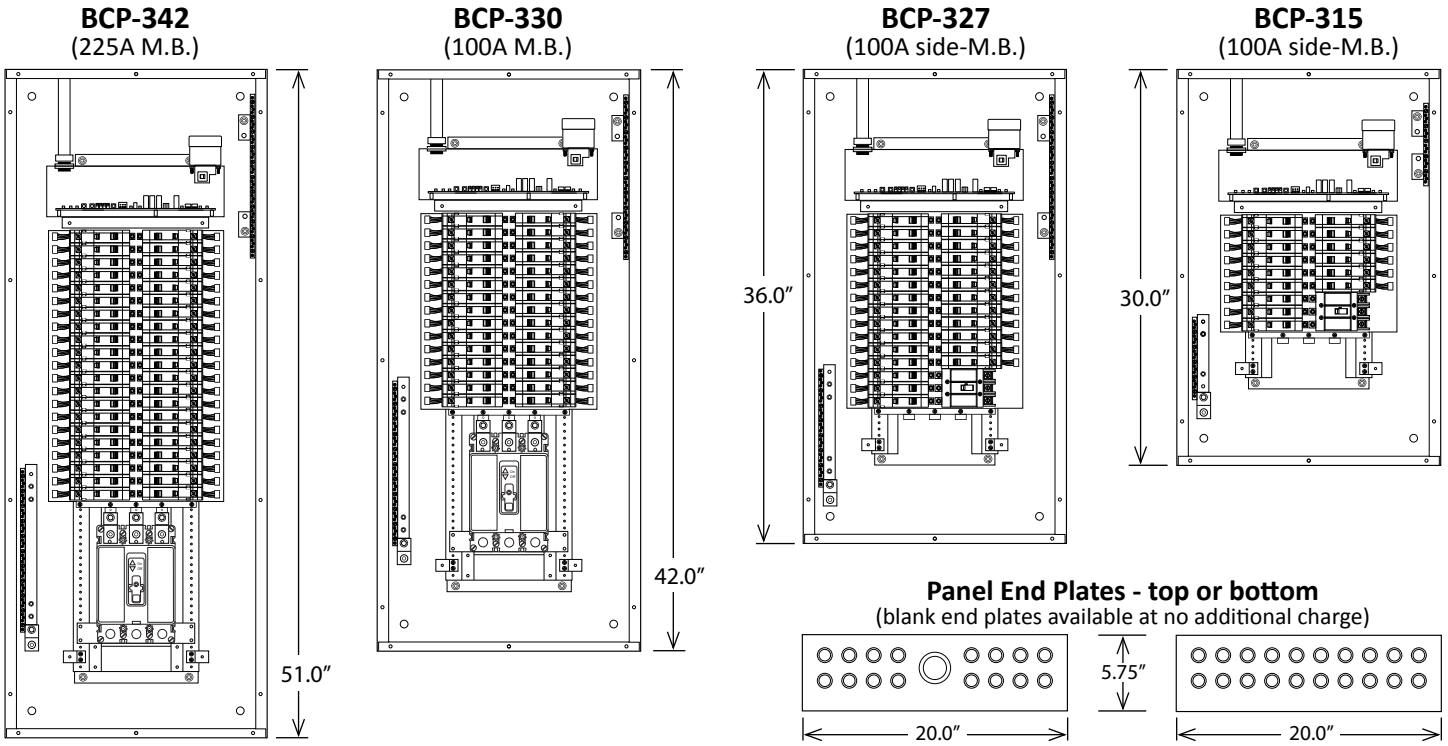


SMART POWER
by Benjamin Electric Company
Manufacturers of Smart Power Distribution for the Entertainment Industry

Benjamin BCP

All standard panels include a master controller, serial communications*, and main breaker.

To develop a complete panel assembly select a base panel configuration, add branch circuit breakers, and any options (such as circuit metering).



Base Panels

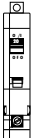
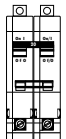
Model	Panel Description
BCP-315	Capacity up to 15 breakers (30" height), 3Ø, 4 wire, 208Y/120VAC, 65kAIC, 100A side-Main Breaker <i>optional amperages for side-Main breakers: 60A, 70A, 80A, 90A</i>
BCP-327	Capacity up to 27 breakers (36" height), 3Ø, 4 wire, 208Y/120VAC, 65kAIC, 100A side-Main Breaker <i>optional amperages for side-Main breakers: 60A, 70A, 80A, 90A</i>
BCP-330	Capacity up to 30 breakers (42" height), 3Ø, 4 wire, 208Y/120VAC, 65kAIC, 100A Main breaker <i>optional amperages for Main breakers: 60A, 70A, 80A, 90A, 125A, 150A, 175A, 200A</i>
BCP-342	Capacity up to 42 breakers (51" height), 3Ø, 4 wire, 208Y/120VAC, 65kAIC, 225A Main breaker <i>optional amperages for Main breakers: 100A, 125A, 150A, 175A, 200A</i>

- For Main Lug Only panels add suffix MLO (example: BCP-342-MLO).
- For single-phase panels substitute the first numerical digit in the part number with the number 1, i.e. BCP-142.
- When specifying a single-phase panel, (i.e. BCP-142) the voltage becomes 120/240V. For 480Y/277V rated panels, please contact us for configurations.
- Panels require an external 120V, 208V, or 240V power source for the panel electronics. Optionally, an internal circuit breaker can be used to power the electronics, relinquishing a breaker position (when ordering, specify position of 15 amp breaker).
- All panels are factory tested and ship fully assembled.
- Panel sizes are available with up to 96 controlled circuit breakers, contact us for options.


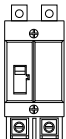
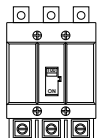
*Standard serial communications include: DMX512, RDM, Modbus/RTU, and Modbus/ASCII.

Branch Breakers

Remote Switchable Branch Breakers

	Model	Description
	RCB-15	Bolt-on Remote Switchable Branch Breaker, Eaton type GHQ, 15 Amp, Single Pole
	RCB-20	Bolt-on Remote Switchable Branch Breaker, Eaton type GHQ, 20 Amp, Single Pole
	RCB-30	Bolt-on Remote Switchable Branch Breaker, Eaton type GHQ, 30 Amp, Single Pole
	RCB-215	Bolt-on Remote Switchable Branch Breaker, Eaton type GHQ, 15 Amp, Two Pole
	RCB-220	Bolt-on Remote Switchable Branch Breaker, Eaton type GHQ, 20 Amp, Two Pole
	RCB-230	Bolt-on Remote Switchable Branch Breaker, Eaton type GHQ, 30 Amp, Two Pole

Standard Branch Breakers

	Model	Description
	NCB-15	Bolt-on Branch Breaker, Eaton type GHB, 15 Amp, Single Pole
	NCB-20	Bolt-on Branch Breaker, Eaton type GHB, 20 Amp, Single Pole
	NCB-30	Bolt-on Branch Breaker, Eaton type GHB, 30 Amp, Single Pole
	NCB-215	Bolt-on Branch Breaker, Eaton type GHB, 15 Amp, Two Pole
	NCB-220	Bolt-on Branch Breaker, Eaton type GHB, 20 Amp, Two Pole
	NCB-230	Bolt-on Branch Breaker, Eaton type GHB, 30 Amp, Two Pole
	NCB-315	Bolt-on Branch Breaker, Eaton type GHB 15 Amp, Three Pole
	NCB-320	Bolt-on Branch Breaker, Eaton type GHB, 20 Amp, Three Pole
	NCB-330	Bolt-on Branch Breaker, Eaton type GHB, 30 Amp, Three Pole

– For higher amperages please contact us.

High Current Control (option)

Model	Description
HCC-180	Remote Contactor for panels. For loads up to 80A inductive, 105A resistive (UL Rated). Includes 1 contactor in an 12x12x8 enclosure. Requires a RCB-XX breaker for control.
HCC-280	Remote Contactor for panels. For loads up to 80A inductive, 105A resistive (UL Rated). Includes 2 contactors in an 12x12x8 enclosure. Requires 2 RCB-XX breakers for control.
HCC-380	Remote Contactor for panels. For loads up to 80A inductive, 105A resistive (UL Rated). Includes 3 contactors in an 12x12x18 enclosure. Requires 3 RCB-XX breakers for control.
HCC-480	Remote Contactor for panels. For loads up to 80A inductive, 105A resistive (UL Rated). Includes 4 contactors in an 12x12x18 enclosure. Requires 4 RCB-XX breakers for control.

– For larger loads please contact us.

Network Connectivity (option)

Model	Description
BCP-ACN	Provides ACN connectivity using standard Ethernet cabling.
BCP-NC	Provides network connectivity using Modbus TCP/IP or BACnet/IP for third party control systems. Also provides browser based access to the breaker control system and metering data.

Metering System (option)

factory assembled branch and mains metering

Model	Description
BMM-315	Current, Power, and Energy Metering for 15 branch circuits and mains (adder to BCP base panel)
BMM-327	Current, Power, and Energy Metering for 27 branch circuits and mains (adder to BCP base panel)
BMM-330	Current, Power, and Energy Metering for 30 branch circuits and mains (adder to BCP base panel)
BMM-342	Current, Power, and Energy Metering for 42 branch circuits and mains (adder to BCP base panel)

– The “BCP-NC” network option is required for Ethernet connectivity and Browser based access to the metering data.

Specifications

Voltage Ratings	120/240V 1Ø 3W	208Y/120V 3Ø 4W	480Y/277V 3Ø 4W
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AIC Ratings	65kAIC@240V Fully Rated to 100kAIC Series Rated
	14kAIC@480Y/277V Fully Rated to 65kAIC Series Rated

Branch Circuit Breaker Options	1 Pole	15A, 20A, 30A Controlled, 15A to 100A non-controlled
	2 Pole	15A, 20A, 30A Controlled, 15A to 100A non-controlled
	3 Pole	15A to 100A non-controlled

Mains Configurations	Main Lugs Only:	100A, 225A, 400A, and 600A Rated
	Main Breaker:	60 Amps to 600 Amps

Power Measurement	Mains Current Accuracy:	1% of reading from 1% to 100% of nominal rated current
	Mains Voltage Accuracy:	0.5% of reading from 90 to 600 VAC Line to Neutral
	Mains Power Data:	Voltage, Current, Watts, PF, VA, VAR, HZ, WHrs, VAHrs, VARHrs
	Branch Current Accuracy:	1% of reading from 0.15 Amps to 100 Amps
	Branch Circuit Data:	Current, Watts, PF, VA, VAR, WattHrs, VAHrs, VARHrs
	Data Update Rate:	1 second for all real-time values



SMART POWER

by Benjamin Electric Company

1615 Staunton Avenue • Los Angeles, CA 90021 • 1-888-749-7731
 web: BenjaminSmartPower.com • email: contact@BenjaminSmartPower.com