

**BABRP and BABRSP Breakers—
Single- and Two-Pole**



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**Solenoid-Operated, Remote-Controlled Latching
Types BABRP, BABRSP, BRRP and CLRP**

Product Description

The BABRP and BABRSP are bolt-on branch circuit breakers designed for use in panelboards. The BRRP is a plug-on branch circuit breaker designed for use in load-centers not manufactured with breakers with a 1-inch wide format and are listed on the “Compatibility list for Classified Applications”—Pub. 26271. In addition to providing conventional branch circuit protection, they include a unique solenoid-operated mechanism that provides for efficient breaker pulse-on and pulse-off operation when used with a suitable controller like Eaton’s Pow-R-Command™ lighting control system. These breakers can also be controlled by pushbutton or a PLC unit.

Application Description

Eaton’s BABRP, BABRSP, BRRP and CLRP breakers are remotely operated molded case circuit breakers ideally suited for lighting control applications or energy management applications.

Features, Benefits and Functions

- Bolt-on line-side terminal (BABRP, BABRSP—Type BA)
- Plug-on line-side terminal (BRRP—Type BR, CLRP—Type CL)
- Cable connected load-side terminal
- Four-position control terminal
- Bi-metal assembly for thermal overload protection
- Fast-acting short-circuit protection
- Arc-chute assembly for fast-acting arc extinction
- Three-position handle: OFF, TRIP (Center), ON
- Handle permits manual switching when control power is lost
- Mechanical trip indicator
- 15 and 20A breakers SWD (switching duty) rated
- HID ratings for HID (high intensity discharge) lighting
- All models HACR rated
- Status feedback of control circuit (BABRSP)
- Series rated (BABRP, BABRSP only)
 - BRRP series rated same as BR breakers
 - BABRP, BABRSP same as BA breakers

Product Selection

QUICKLAG Type QCGFT Single-Pole Ground Fault Circuit Breaker



BABRP UL 489 and CSA 22.2 Interrupting Ratings

Number of Poles	Ampere Rating ^①	Interrupting Capacity (Symmetrical Amperes)			Catalog Number
		Vac (50/60 Hz) 120	120/240	277/480	
1	15	10,000	—	—	BABRP1015
	20	10,000	—	—	BABRP1020
	25	10,000	—	—	BABRP1025
	30	10,000	—	—	BABRP1030
2	15	—	10,000	—	BABRP2015
	20	—	10,000	—	BABRP2020
	25	—	10,000	—	BABRP2025
	30	—	10,000	—	BABRP2030

BRRP UL 489 and CSA 22.2 Interrupting Ratings

Number of Poles	Ampere Rating	Interrupting Capacity (Symmetrical Amperes)		Catalog Number
		Vac (50/60 Hz) 120	120/240	
1	15	10,000	—	BRRP115
	20	10,000	—	BRRP120
	25	10,000	—	BRRP125
	30	10,000	—	BRRP130
2	15	—	10,000	BRRP215
	20	—	10,000	BRRP220
	25	—	10,000	BRRP225
	30	—	10,000	BRRP230

BABRP and BABRSP Wire Harness

Description	Catalog Number
This 60-inch (1524.0 mm) wire pigtail provides a connection from a single BABRP's control plug to a customer's pushbutton, relay or PLC. Each box contains 12 pigtails. Wires are 22 AWG, 600V. Order in multiples of 12.	SLBKRPTL1

BABRSP UL 489 and CSA 22.2 Interrupting Ratings

Number of Poles	Ampere Rating ^①	Interrupting Capacity (Symmetrical Amperes)			Catalog Number
		Vac (50/60 Hz) 120	120/240	277/480	
1	15	10,000	—	—	BABRSP1015
	20	10,000	—	—	BABRSP1020
	25	10,000	—	—	BABRSP1025
	30	10,000	—	—	BABRSP1030
2	15	—	10,000	—	BABRSP2015
	20	—	10,000	—	BABRSP2020
	25	—	10,000	—	BABRSP2025
	30	—	10,000	—	BABRSP2030

CLRP UL 489 and CSA 22.2 Interrupting Ratings

Number of Poles	Ampere Rating	Interrupting Capacity (Symmetrical Amperes)		Catalog Number
		Vac (50/60 Hz) 120	120/240	
1	15	10,000	—	CLRP115
	20	10,000	—	CLRP120
	25	10,000	—	CLRP125
	30	10,000	—	CLRP130
2	15	—	10,000	CLRP215
	20	—	10,000	CLRP220
	25	—	10,000	CLRP225
	30	—	10,000	CLRP230

Note

^① Continuous current rating at 40°C.

Technical Data and Specifications

Solenoid Operating Data

- Power requirements: 24 Vac/dc (20.4V minimum–30V maximum)
- Controlled signal: +AC/DC 8 ms minimum with zero cross, 300 ms maximum
- AC: 1.3 cycles minimum, 18 cycles or 300 ms maximum
- DC: 8 ms minimum, 300 ms maximum
- Maximum duty cycle of 6 OPEN/CLOSE cycles per minute
- Current draw: open 1A, close 3/4A
- Blue wire: power input (see power requirements)
- Black wire: remote opening
- Red wire: remote closing
- Yellow wire: feedback status from power input, maximum 0.50A draw (BABRSP only)

Operation

- Tripping system—the BABRP, BABRSP, BRRP and CLRP circuit breakers have a permanent trip unit that contains a factory preset thermal (overload) trip element in each pole
- Operating mechanism—the BABRP, BABRSP, BRRP and CLRP circuit breakers have an over-center toggle mechanism that provides quick-make, quick-break operation. The operating mechanism is trip free. An internal cross-bar provides a common tripping of all multi-pole circuit breakers

Operating/Application Data

- Ambient temperature: 0 to 40°C
- Nominal pulse magnitude: 24 Vac/dc
- Frequency: 50/60 Hz
- Maximum breaker cycling: 6 operations per minute
- Tolerance: +10% to –15% of nominal voltage
- Humidity: 0 to 95% noncondensing

Wiring Diagrams

Control Circuit for the BABRP and BABRSP

