

# Remote Controlled Emergency Circuit Breaker



The GHQRSPEL circuit breakers contains both a solenoid operated remote switching circuit and a manually operated thermal-magnetic circuit breaker. This Emergency Lighting Circuit Breaker complies with the 2008 National Electric Code; Section 700.12(F) for Sources of Power utilized in emergency lighting applications.

## Features, Functions and Benefits:

- **Left Pole:** Integral solenoid controlled contacts in series with thermal-magnetic circuit breaker pole.
- **Right Pole:** Standard thermal magnetic circuit breaker pole.
- Both Poles tied to same phase.
- Bolt-on line-side terminal.
- Cable connected load-side terminal.
- Status switch. Remote status and breaker status available from internal auxiliary switches.
- Bi-metal assembly for thermal overload protection.
- Fast acting short circuit protection.
- Arc-runner and arc-chute assembly for fast acting arc extinction.
- Three-position breaker handle: OFF, TRIP (Center), ON.
- Visual indication of the remotely operated contact's position (open, closed or trip).
- Remote override handle permits manual switching when control power is lost.
- 15 and 20 ampere breakers SWD, and HID rated.

## Operating Data:

Mechanism manually operated by external handle allowing ON, OFF and RESET operation. Handle assumes a center TRIP position after performing protective response.

### Solenoid

- Power requirements: 24 Vac/dc (20.4 V minimum – 30 V maximum).
- Controlled signal: +ac/dc 12 ms minimum with zero cross, 300 ms maximum.
- ac: 1.3 cycles minimum, 18 cycles or 300 ms maximum.
- dc: 12 ms minimum, 300 ms maximum.
- Maximum duty cycle of 6 OPEN/ CLOSE cycles per minute.

- Current draw: open 1 ampere, close 3/4 ampere.
- Blue wire: power input.
- Black wire: remote opening.
- Red wire: remote closing.
- Yellow wire: feedback status from power input, maximum 0.50 ampere draw.

### Application

- Ambient temperature: 0 to 40°C.
- Frequency: 48 – 62 Hz.
- Humidity: 0 to 95% noncondensing.

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**Product Specifications:**

GHQRSPEL circuit breakers incorporate many of the same robust features as other GHQRSPEL breakers including:

- Handle Rating: 20A (both switched and unswitched circuits).
- Maximum Voltage Rating: 277Vac.
- Interrupting Ratings: 65kA at 240Vac, 14kA at 277Vac.

- Maximum Series Connected Ratings: 200KA at 240Vac and 100kA at 277V.
- Overcurrent protection - UL listed 489.
- UL listed Switch Duty Rated (SWD) and High Intensity Discharge (HID) ratings.
- Lug wire size: (1) #12-8Al, #14-8Cu per circuit, 75°C conductors.

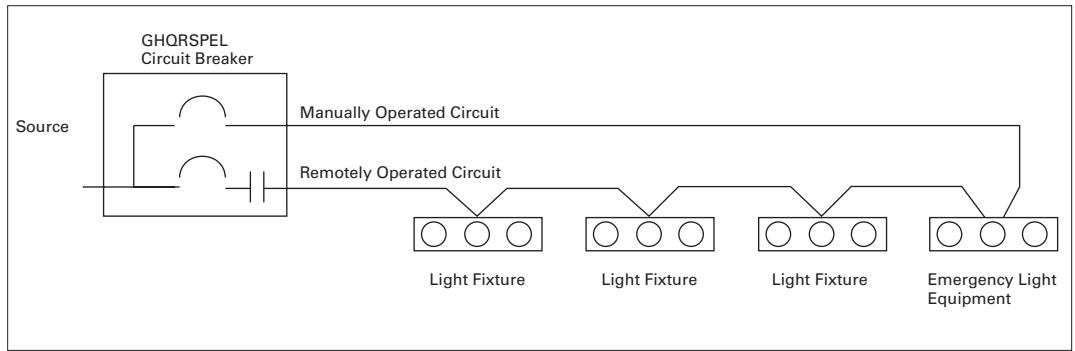
**Product Selection**

CATALOG NUMBER	AMPS
GHQRSPEL2015	15
GHQRSPEL2020	20

**Diagram 1:**

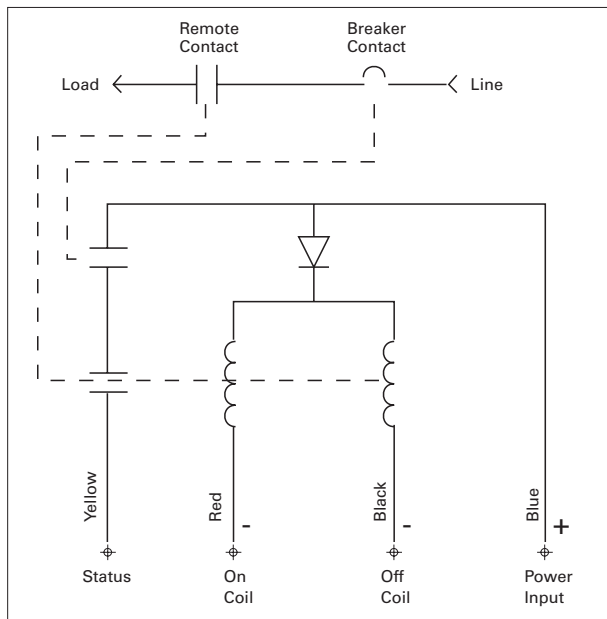
The need for relay is eliminated with extra box, wiring, and selecting a properly rated component.

- Circuit breaker mounts into panelboard.
- Switched and unswitched conductors are connected directly to the breaker load side lug.



**Diagram 2:**

Typical circuit breaker schematic for GHQRSPEL.



**Eaton Corporation**  
 Electrical Sector  
 1111 Superior Ave.  
 Cleveland, OH 44114  
 United States  
 877-ETN-CARE (877-386-2273)  
 Eaton.com

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