

# RH2LB Series

## MAGNETIC LATCHING RELAYS

Provide switching of electrical loads with retention of current relay status in the event of a power failure. Typically used in HVAC, temperature control, building automation, fire alarm, security and lighting control systems.

- Magnetic latch maintains status even during power failure.
- Operation indicator displays set/reset condition.
- Well suited for memory and flip-flop circuits.
- Relay coil can be energized continuously or by pulse input.
- DPDT contacts with heavy duty ratings.
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- Relay blade terminals snap-mount into SH3B-05 socket.
- Relay with socket may be surface or DIN rail mounted.



**RH2LB  
RELAY**

**SH3B-05  
SOCKET**

**APPROVALS:** U.L. recognized; CSA certified.  
**CONTACT MATERIAL:** Silver cadmium oxide.  
**CONTACT CONFIGURATION:** DPDT.  
**CONTACT RATINGS:** See Figure A.  
**CONTACT RESISTANCE:** 50 micro-ohms or less.  
**MINIMUM SWITCHED LOAD:** 5 vdc, 100 ma.  
**MAXIMUM CONTINUOUS VOLTAGE:** 110% of rated voltage.  
**MINIMUM SET & RESET VOLTAGE:** 80% of rated voltage.  
**SET TIME:** 30 msec or less (AC); 20 msec or less (DC).  
**RESET TIME:** 30 msec or less (AC); 20 msec or less (DC).

**POWER CONSUMPTION (Nominal):**  
 Set Coil: 1.2 va (AC); 2 watts (DC).  
 Reset Coil; 0.5 va (AC); 0.9 watt (DC).  
**RESPONSE FREQUENCY:** 1800 operations per hour.  
**OPERATING TEMPERATURE:** -22° to 158°F (-30° to 70°C).  
**MOUNTING:** In SH3B-05 socket with socket surface or DIN rail mounted.  
**DIMENSIONS:** 1.1”H x 0.82”W x 1.4”D (2.7x2.1x3.5cm).  
**ACCESSORIES:** SH3B-05 mounting socket.  
 BAM-1000 DIN mounting rail.

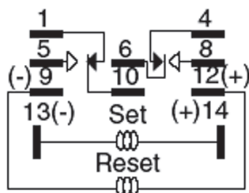
**FIGURE A. CONTACT RATINGS**

VOLTAGE	RESISTIVE		INDUCTIVE		MOTOR LOAD	
	UL	CSA	UL	CSA	UL	CSA
30 vdc	10 amps	10 amps	7.5 amps	7.5 amps	-----	-----
120 vac	10 amps	10 amps	7.5 amps	7.5 amps	1/6 HP	1/6 HP
240 vac	7.5 amps	7.5 amps	6.5 amps	5 amps	1/3 HP	1/3 HP

**FIGURE B. COIL RATINGS @ 68°F (20°C)**

RATED VOLTAGE	SET COIL			RESET COIL		
	RATED CURRENT +/-15%		COIL REISTANCE +/- 10%	RATED CURRENT +/-15%		COIL REISTANCE +/- 10%
	50 Hz	60 Hz		50 Hz	60 Hz	
24 vac	51.2 ma	50 ma	182 ohms	17.1 ma	17.1 ma	105 ohms
120 vac	10.3 ma	10 ma	4670 ohms	4.2 ma	4.2 ma	2680 ohms
24 vdc	83 ma		288 ohms	37.5 ma		640 ohms

**CIRCUIT DIAGRAM**



(shown in unlatched position)  
**BOTTOM VIEW**

- [1] Do not energize set and reset coils at the same time
- [2] Observe (+) and (-) polarities of coils.
- [3] Do not use relays in close proximity of external magnetic fields such as high current circuits.
- [4] Do not use relays in circuits where large power surges can occur.
- [5] Allow minimum of 0.123" (0.6 mm) between relays.

Model	Set and Reset Coil Voltage
RH2LB-UAC24V	24 vac
RH2LB-UAC120V	120 vac
RH2LB-UDC24V	24 vdc