RR2KP Series Latch Relays

Self-maintained Latch Relays DPDT — 10A contact capacity

The RR2KP series latch relays have a self-holding function using permanent magnets in the magnetic circuit. Applying a voltage on the set (or reset) coil operates the armature and retains the contacts in that position until the opposite coil is energized, hence the latch relays are ideal for memory and flip-flop circuit applications.

- Enhanced self-holding functions, and vibration and shock resistance.
- The self-holding mechanism is not subject to wear unlike mechanical latch relays.
- Recognized by UL and certified by CSA.

Types

Terminal Style	Type	Type No.	Coil Voltage Code ∗
Pin Terminal	Basic	RR2KP-U∗	AC6, AC12, AC24, AC50, AC100, AC110, AC115, AC120, AC200, AC220, AC230, AC240 DC6, DC12, DC24, DC48, DC110
	With Check Button	RR2KP-UC∗	

Ordering Information

When ordering, specify the Type No. and coil voltage code.

(Example) **RR2KP-U** **AC110**

Type No. — Coil Voltage Code

Coil Ratings

Rated Voltage (V)		Rated Current (mA) ±15% at 20°C		Coil Resistance (Ω) ±10% at 20°C	Operation Characteristics (against rated values at 20°C)	
		50Hz	60Hz		Maximum Continuous Applied Voltage	Set and Reset Voltage
AC (50/60Hz)	6	467	429	3.5	110%	80% maximum
	12	200	184	23.8		
	24	100	92	95		
	50	48	44	400		
	100	24	22	1,600		
	110	23	21	1,900		
	115	23	21	2,200		
	120	24	22	2,200		
	200	12	11	6,400		
	220	10.9	10	7,740		
	230	11.1	10.2	9,190		
	240	11.5	10.6	9,190		
DC	6	240		25	110%	80% maximum
	12	120		100		
	24	60		400		
	48	30		1,600		
	110	13.8		7,960		

Contact Ratings

Maximum Contact Capacity						
Switching Voltage	Continuous Current	Allowable Contact Power		Rated Load		
		Resistive Load	Inductive Load	Voltage	Res. Load	Ind. Load
250V AC 125V DC	10A	1650 VA AC 300W DC	1100 VA AC 225W DC	110V AC	10A	7.5A
				220V AC	7.5A	5A
				30V DC	10A	7.5A
				100V DC	0.5A	0.3A

Note: Inductive load for rated load — cos ø = 0.3, L/R = 7 ms

• UL Ratings

Voltage	Resistive	General Use	Motor Load
240V AC	10A	7A	1/3 HP
120V AC	10A	7.5A	1/4 HP
30V DC	10A	7A	—

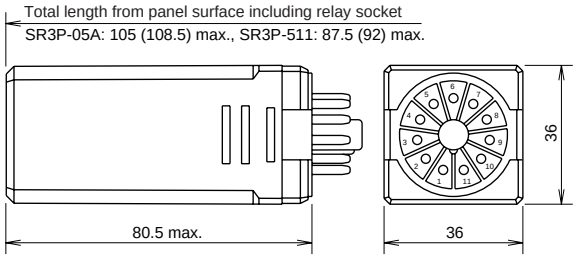
• CSA Ratings

Voltage	Resistive	General Use	Motor Load
240V AC	10A	7A	1/3 HP
120V AC	10A	7.5A	1/4 HP
100V DC	Å|	0.5A	—
30V DC	10A	7.5A	—

Specifications

Contact Material	Silver
Contact Resistance	30 mΩ maximum (initial value)
Operate Time	25 ms maximum (at the rated voltage)
Power Consumption (approx.)	AC: 2.4 VA (50 Hz), 2.2 VA (60 Hz) DC: 1.5W
Insulation Resistance	100 MΩ minimum (500V DC megger)
Dielectric Strength	Between live and dead parts: 1,500V AC, 1 minute Between contact and coil: 1,500V AC, 1 minute Between contacts of different poles: 1,500V AC, 1 minute Between contacts of the same pole: 1,000V AC, 1 minute
Operating Frequency	Electrical: 1800 operations/h maximum Mechanical: 18,000 operations/h maximum
Temperature Rise	Coil: 85°C maximum, Contact: 65°C maximum
Vibration Resistance	0 to 60 m/s^2 (maximum frequency: 55 Hz), Frequency: 5 to 55 Hz, Amplitude: 0.5 mm
Shock Resistance	100 m/s^{2}minimum
Mechanical Life	5,000,000 operations minimum
Electrical Life	500,000 operations minimum (110V AC, 10A)
Operating Temperature	–5 to +40°C (no freezing)
Operating Humidity	45 to 85% RH (no condensation)
Weight (approx.)	170g

Dimensions



Dimensions in the ( ) include a hold-down spring.

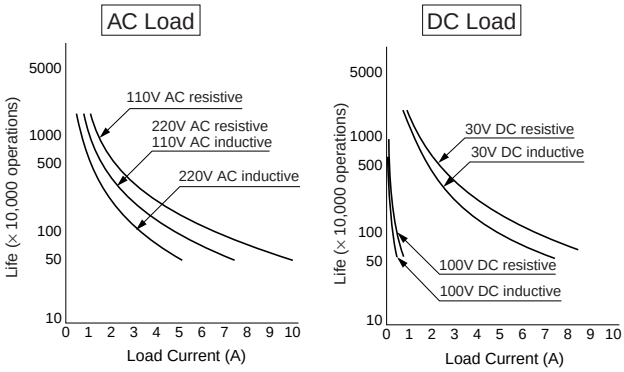
All dimensions in mm.

● Applicable Socket and Hold-down Spring

Socket			Hold-down Spring
Mounting Style		Type No.	
DIN Rail Mount Socket		SR3P-05A SR3P-05C SR3P-06A	SR3P-06F3
Panel Mount Socket	w/Solder Terminals	SR3P-511	SR3P-511F3
	w/Wire Wrap Terminals	SR3P-70	

Characteristics (Reference Data)

● Electrical Life Curve



Internal Connection (Bottom View)