

# General Purpose

## Power Relays

*SZR-MY Series*

### CONTACT RATINGS

Type	DPDT		4PDT	
Load	Resistive Load (p.f. = 1)	Inductive load (p.f. = 0.4, L/R = 7 ms)	Resistive Load (p.f. = 1)	Inductive load (p.f. = 0.4, L/R = 7 ms)
<b>Ratings</b>				
<b>Rated load</b>	220 Vac, 5A 24 Vdc, 5A	220 Vac, 2A 24 Vdc, 2A	220 Vac, 3A 24 Vdc, 3A	220 Vac, 0.8 A 24 Vdc, 1.5 A
<b>Carry current</b>	5A		3A	
<b>Max. operating voltage</b>	250 Vac, 125 Vdc		250 Vac, 125 Vdc	
<b>Max. operating current</b>	5 A		3 A	
<b>Max. switching capacity</b>	1,100 VA, 120 W	440 VA, 48 W	660 VA, 72 W	176 VA, 16 W
<b>Min. permissible load</b>	1 mA, 5 Vdc		1 mA, 1 Vdc	

### COIL RATINGS

	Rated Voltage (V)	Rated Current (mA)		Coil resistance (Ω)	Coil Inductance (H)		Pick-up Voltage (V)	Dropout Voltage (V)	Maximum Voltage (V)	Power Consumption (W)			
		50 Hz	60 Hz		Armature OFF	Armature ON							
AC	6	214.1	183	12.2	0.04	0.08	Max. 75 %	Min. 30%	110%	Approx. 1.0 W to 1.2 W (60 Hz)			
	12	106.5	91	46	0.17	0.33							
	24	53.8	46	180	0.69	1.3							
	50	25.7	22	788	3.22	5.66				Max. 75%	Min. 10%	110%	Approx. 0.9 W to 1.1 W (60 Hz)
	100/110	11.7/12.9	10/11	3,750	14.54	24.6							
	110/120	9.9/10.8	8.4/9.2	4,430	19.2	32.1							
	200/220	6.2/6.8	5.3/5.8	12,950	54.75	94.07							
220/240	4.8/5.3	4.2/4.6	18,790	83.5	136.4								
DC	6	150		40	0.17	0.33	Max. 75%	Min. 10%	110%	Approx. 0.9 W			
	12	75		160	0.73	1.37							
	24	36.9		650	3.2	5.72							
	48	18.5		2,600	10.6	21.0							
	100/110	9.1/10		11,000	45.6	86.2							

Note 1: The rated current and coil resistance are measured at a coil temperature of 23 °C [73.4 °F] with tolerances of +15%, -20% for AC rated current and ± 15% for DC coil resistance.

Note 2: The rated current of N1 and X1 types is 4 mA higher than the value in the table above.

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### SPECIFICATIONS

Contact material		Silver
Contact resistance		Max. 50 MOhm
Operate time		Max. 20 ms
Release time		Max. 20 ms
Operating frequency	Mechanical	18,000 operations per hour
	Electrical	1,800 operations per hour
Insulation resistance		Min. 100 Mw at 500 Vdc
Dielectric withstand voltage		1,800 Vac 50 Hz/60 Hz for one minute between non-continuous current carrying terminals and between coil thermals and contact terminals
Vibration resistance	Mechanical durability	10 Hz to 55 Hz at double amplitude of 1.0 mm
	Malfunction durability	10 Hz to 55 Hz at double amplitude of 1.0 mm
Shock resistance	Mechanical durability	1,000 m/s <sup>2</sup> (approx. 100 g)
	Malfunction durability	200 m/s <sup>2</sup> (approx. 20 g)
Service life	Mechanical	AC: Min. 50 million operations (at operating frequency of 18,000 operations/hour) DC: Min. 100 million operations (at operating frequency of 18,000 operations/hour)
	Electrical	DPDT: Min. 500,000 operations (at operating frequency of 1,800 operations/hour) 4PDT: Min. 200,000 operations (at operating frequency of 1,800 operations/hour)
Weight		Approximately 35 g

Note 1: The data shown above are of initial value

### CHARACTERISTIC DATA

