

General Purpose

Power Relays

SZR-LY Series

COIL RATINGS (DPDT)

	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. 80 %	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				
	100/110	11.7/12.9	10/11	3,750	14.54	24.6				Approx. 0.9 W to 1.1 W (60 Hz)
	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. 80%	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				

COIL RATINGS (4PDT)

	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	386	330	5	0.02	0.04	Max. 80 %	Min. 30%	110%	Approx. 1.95 W to 2.5 W (60 Hz)
	12	199	170	20	0.1	0.17				
	24	93.6	80	78	0.38	0.67				
	50	46.8	40	350	1.74	2.88				
	100/110	22.5/25.5	19/21.8	1,800	10.5	17.3				
	200/220	11.5/13.1	9.8/11.2	6,700	33.1	57.9				
DC	6	240		25	0.09	0.21	Max. 80%	Min. 10%	110%	Approx. 1.5 W
	12	120		100	0.39	0.84				
	24	69		350	1.41	2.91				
	48	30		1,600	6.39	13.6				
	100/110	15/15.9		6,900	32	63.7				

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 Cadum Oxide
Contact resistance		Max. 50 MOhm
Operate time		Max. 25 ms
Release time		Max. 25 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
		1,000 Vac 50/60 Hz for 1 minute between contacts of same polarity
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 ² (approx. 100 g)
	Malfunction durability	200 m/s ² (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		DPDT: Approximately 35 g 4PDT: Approximately 65 g

Note 1: The data shown above are of initial value

CHARACTERISTIC DATA

