

AZSR235/250

50A (35A)

MINIATURE POWER RELAY

FEATURES

- 50 Amp switching (AZSR250)
- 35 Amp switching (AZSR235)
- Wide contact gap > 1.85mm (AZSR250)
- Wide contact gap > 2.05mm (AZSR235)
- Holding power <100mW
- Dielectric strength 5000Vrms
- Isolation spacing greater than 10mm
- Reinforced insulation, EN 60730-1 (VDE 0631, part 1), EN 60335-1 (VDE 0700, part 1)
- UL, CUR file E44211
- VDE certificate 40033251

RoHS compliant !



CONTACTS

Arrangement	SPST (1 Form A) DPST (2 Form A)
Ratings	Resistive load: AZSR235 Max. switched power: 1050W or 9695VA Max. switched current: 35A Max. switched voltage: 150 VDC* or 440 VAC AZSR250 Max. switched power: 1500W or 13850VA Max. switched current: 50A Max. switched voltage: 150 VDC* or 440 VAC * Note: If switching voltage is greater than 30 VDC, special precautions must be taken. Please contact the factory.
Rated Load UL	AZSR235 35A at 277 VAC, resistive AZSR250 50A at 277 VAC, resistive
VDE	AZSR235 35A at 263 VAC, test referring to AC-7a, 85°C AZSR250 50A at 263 VAC, test referring to AC-7a, 85°C
Material	Silver tin oxide
Resistance	< 50 milliohms initially

COIL

Power At Pickup Voltage (typical)	270 mW (AZSR250)
Max. Continuous Dissipation	2.0 W at 20°C (68°F) ambient
Temperature Rise	15°C (27°F) at nominal coil voltage
Temperature	Max. 155°C (311°F) Class F

GENERAL DATA

Life Expectancy Mechanical Electrical	Minimum operations 1 x 10 ⁶ 5 x 10 ⁴ at 35 A 250 VAC Res. (AZSR235) 5 x 10 ⁴ at 50 A 250 VAC Res. (AZSR250)
Operate Time (typical)	40 ms at nominal coil voltage
Release Time (typical)	5 ms at nominal coil voltage (with no coil suppression)
Dielectric Strength (at sea level for 1 min.)	5000 Vrms coil to contact 2500 Vrms between contact sets 2500 Vrms between open contacts
Insulation Resistance	1000 megohms min. at 20°C 500 VDC 50% RH
Insulation (according to DIN VDE 0110, IEC 60664-1)	C250 Overvoltage category: III Pollution degree: 3 Nominal voltage: 250 VAC
Dropout	Greater than 5% of nominal coil voltage
Ambient Temperature Operating	At nominal coil voltage -40°C (-40°F) to 85°C (185°F)
Vibration	0.062" (1.5 mm) DA at 10–55 Hz
Shock	10 g
Enclosure	P.B.T. polyester
Terminals	Tinned copper alloy, P.C.
Max. Solder Temp.	270°C (518°F)
Max. Solder Time	5 seconds
Weight	105 grams
Packing unit in pcs	10 per inner carton / 100 per carton box

NOTES

1. All values at 20°C (68°F).
2. Relay may pull in with less than "Must Operate" value.
3. Specifications subject to change without notice.

AMERICAN ZETTLER, INC. www.azettler.com

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AZSR235/250

RELAY ORDERING DATA

COIL SPECIFICATIONS - SPST (1 FORM A)					ORDER NUMBER	
Nominal Coil VDC	Must Operate VDC	Min. Holding VDC	Max. Continuous VDC	Coil Resistance Ohm $\pm 10\%$	AZSR235-1A (35A)	AZSR250-1A (50A)
5	3.75	1.7	10.0	50	AZSR235-1AE-5D	AZSR250-1AE-5D
9	6.75	3.1	18.0	170	AZSR235-1AE-9D	AZSR250-1AE-9D
12	9.00	4.0	24.0	300	AZSR235-1AE-12D	AZSR250-1AE-12D
18	13.50	6.5	36.0	675	AZSR235-1AE-18D	AZSR250-1AE-18D
24	18.00	8.0	48.0	1200	AZSR235-1AE-24D	AZSR250-1AE-24D

COIL SPECIFICATIONS - DPST (2 FORM A)					ORDER NUMBER	
Nominal Coil VDC	Must Operate VDC	Min. Holding VDC	Max. Continuous VDC	Coil Resistance Ohm $\pm 10\%$	AZSR235-2A (35 A)	AZSR250-2A (50 A)
5	3.75	2.1	10.0	50	AZSR235-2AE-5D	AZSR250-2AE-5D
9	6.75	3.8	18.0	170	AZSR235-2AE-9D	AZSR250-2AE-9D
12	9.00	5.0	24.0	300	AZSR235-2AE-12D	AZSR250-2AE-12D
18	13.50	7.5	36.0	675	AZSR235-2AE-18D	AZSR250-2AE-18D
24	18.00	10.0	48.0	1200	AZSR235-2AE-24D	AZSR250-2AE-24D

MECHANICAL DATA

Top view dimensions: 40.0 (width), 25.0 (depth), 49.2 (height), 2.0 (terminal offset).

Side view dimensions: 4.5 (terminal height).

PC BOARD LAYOUT

Dimensions: 7.0 x 2.5 (4x), 3.3 x 1.3 (2x), 14.7, 10.0, 22.8, 3.5.

*not used on 1 Form A version

Viewed toward terminals

Dimensions: 2.8 x 0.8 (2x), 6.5 x 2 (4x), 8.2, 14.7, 3.5, 22.8, 10.0.

*not used on 1 Form A version

Viewed toward terminals

WIRING DIAGRAM

Terminals: 1, 2, 3, 4, 5, 6.

*not used on 1 Form A version

Viewed toward terminals

Dimensions in mm. Tolerance: $\pm .25$ mm

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