

AZSR

50 A (35 A) MINIATURE POWER RELAY

FEATURES

- 50 Amp switching (AZSR250)
- 35 Amp switching (AZSR235)
- Wide contact gap > 1.75mm
- Holding power < 100 mW (AZSR250)
- Dielectric strength 5000 Vrms
- Isolation spacing greater than 10 mm
- Reinforced insulation, EN 60730-1 (VDE 0631, part 1), EN 60335-1 (VDE 0700, part 1)
- UL, CUR pending
- VDE pending



CONTACTS

Arrangement	DPST (2 Form A)
Ratings	Resistive load: Max. switched power: 1,500 W or 12,500 VA Max. switched current: 50 A 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, CUR	48 A at 277 VAC resistive (AZSR250) 35 A at 277 VAC resistive (AZSR235)
VDE	48 A at 250 VAC resistive (AZSR250) 35 A at 250 VAC resistive (AZSR235) 50 A at 250 VAC AC7a, 30k cycles (AZSR250) 35 A at 250 VAC AC7a, 30k cycles (AZSR235)
Material	Silver tin oxide
Resistance	< 50 milliohms initially

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)	30 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 Storage	At nominal coil voltage -40°C (-40°F) to 85°C (185°F) -40°C (-40°F) to 105°C (221°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	100 grams
Packing unit in pcs	12 per carton tube / 120 per carton box

COIL

Power At Pickup Voltage (typical)	235 mW (AZSR250) 350 mW (AZSR235)
Max. Continuous Dissipation	1.9 W at 20°C (68°F) ambient
Temperature Rise (at nominal voltage)	15°C (AZSR250) 20°C (AZSR235)
Max. Temperature	130°C

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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RELAY ORDERING DATA

COIL SPECIFICATIONS					ORDER NUMBER *
Nominal Coil VDC	Must Operate VDC	Min. Holding VDC	Max. Continuous VDC	Coil Resistance Ohm $\pm 10\%$	
5	3.75	2.1	10.0	50	AZSR250-2AE-5D
9	6.75	3.8	18.0	170	AZSR250-2AE-9D
12	9.00	5.0	24.0	300	AZSR250-2AE-12D
18	13.50	7.5	36.0	675	AZSR250-2AE-18D
24	18.00	10.0	48.0	1,200	AZSR250-2AE-24D

* Substitute "AZSR235" in place of "AZSR250" for 35A version.

MECHANICAL DATA

Top view dimensions: 40.0 (width), 25.0 (depth), 49.2 (height).
 Side view dimensions: 2.0 (top flange height), 4.5 (bottom flange height).

Base view dimensions: 2.8 x 0.8 (2x) (terminal width), 6.5 x 2 (4x) (terminal height), 8.2 (terminal spacing), 14.7 (terminal height), 3.5 (terminal offset), 22.8 (terminal pitch), 10.0 (terminal offset).

Viewed toward terminals

PC BOARD LAYOUT

PC board layout dimensions: 7.0 x 2.5 (4x) (terminal width), 3.3 x 1.3 (2x) (terminal height), 14.7 (terminal height), 10.0 (terminal pitch), 22.8 (terminal pitch), 3.5 (terminal offset).

Viewed toward terminals

WIRING DIAGRAMS

2 Form A

Viewed toward terminals

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



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