

AZSR235/250

50 A (35 A) 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 <100 mW
- 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 file E44211
- VDE certificate 40033251

RoHS compliant !



CONTACTS

Arrangement	SPST (1 Form A) DPST (2 Form A)
Ratings	Resistive load: AZSR235 Max. switched power: 1050 W or 9695 VA Max. switched current: 35 A Max. switched voltage: 150 VDC* or 440 VAC AZSR250 Max. switched power: 1500 W or 13850 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	AZSR235 35 A at 277 VAC, resistive AZSR250 50 A at 277 VAC, resistive
VDE	AZSR235 35 A at 263 VAC, test referring to AC-7a, 85°C AZSR250 50 A 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	PA
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.

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This product specification to be used only together with the application notes which can be downloaded from <http://www.ZETTLERelectronics.com/pdfs/relais/ApplicationNotes.pdf>

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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 (35 A)	AZSR250-1A (50 A)
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

Dimensions: 40.0, 25.0, 49.2, 2.0, 4.5

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

*not used on 1 Form A version

Viewed toward terminals

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

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