

AZSR235 / AZSR250

35 A / 50 A POWER RELAY

FEATURES

- 35 Amp switching (AZSR235)
- 50 Amp switching (AZSR250)
- Contact gap > 2.05 mm (AZSR235), > 1.85 mm (AZSR250)
- Holding power <100 mW
- Dielectric strength 5000 V_{RMS}
- Isolation spacing greater than 10 mm
- Double insulation, IEC 60730-1 (VDE 0631, part 1)
- Reinforced insulation, IEC 60335-1 (VDE 0700, part 1)
- UL, CUR E44211
- VDE certificate 40033251



CONTACTS

Arrangement	SPST (1 Form A) DPST (2 Form A)
Ratings (max.) AZSR235	(resistive load) switched power 1050 W or 9695 VA switched current 35 A switched voltage 150 VDC* or 440 VAC
AZSR250	switched power 1500 W or 13850 VA switched current 50 A 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 Loads	
UL	AZSR235: 35 A at 277 VAC, resistive load AZSR250: 50 A at 277 VAC, resistive load
VDE	AZSR235: 35 A at 263 VAC, referring AC-7a, 85°C AZSR250: 50 A at 263 VAC, referring AC-7a, 85°C
Contact material	AgSnO ₂ (silver-tin-oxide)
Contact gap	
AZSR235	> 2.05 mm
AZSR250	> 1.85 mm
Initial resistance	< 50 mΩ

COIL

Nominal coil DC voltages	see coil voltage specifications table
Dropout	> 5% of nominal coil voltage
Power at pickup voltage	270 mW (typ.)
Holding power	< 100 mW
Max. continuous dissipation	2.0 W at 20°C (68°F) ambient
Temperature Rise	15 K (27°F) at nominal coil voltage
Max. temperature	155°C (311°F) class F

NOTES

1. All values at 20°C (68°F).
2. Relay may pull in with less than "Must Operate" value.
3. Provide sufficient PCB cross section as heat spreader on terminals.
4. Specifications subject to change without notice.

GENERAL DATA

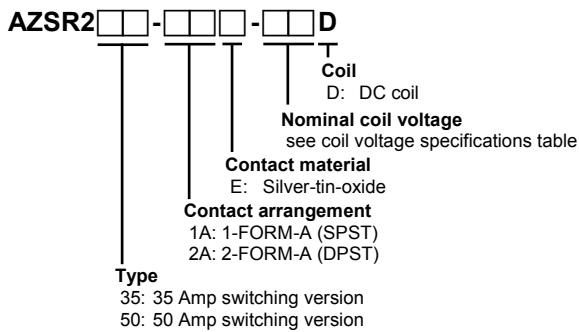
Life Expectancy	(minimum operations) mechanical 1 x 10 ⁶ electrical AZSR235: 5 x 10 ⁴ at 35 A 250 VAC resistive AZSR250: 5 x 10 ⁴ at 50 A 250 VAC resistive
Operate Time	40 ms (typ.) at nominal coil voltage
Release Time	5 ms (typ.) at nominal coil voltage, without coil suppression
Dielectric Strength	(at sea level for 1 min.) 5000 V _{RMS} coil to contact 2500 V _{RMS} between contact sets 2500 V _{RMS} between open contacts
Insulation Resistance	1000 MΩ (min.) at 20°C, 500 VDC 50% RH
Isolation spacing	> 10 mm
Insulation	C250 Overvoltage category: III Pollution degree: 3 Nominal voltage: 250 VAC (according to DIN VDE 0110, IEC 60664-1) Double insulation according to IEC 60730-1 (VDE 0631, part 1) Reinforced insulation according to IEC 60335-1 (VDE 0700, part 1)
Operating Temp. Range	-40°C (-40°F) to 85°C (185°F) ambient (at nominal coil voltage)
Vibration Shock	1.5 mm (0.062") DA at 10–55 Hz 10 g
Enclosure Terminals	PA Tinned copper alloy, P. C.
Soldering	max. temperature 270°C (518°F) max. time 5 seconds
Dimensions	length 40.0 mm (1.55") width 25.0 mm (0.98") height 49.2 mm (1.94")
Weight	105 grams
Compliance	IEC 61810-1, UL 508, RoHS, REACH
Packing unit in pcs	10 per inner carton / 100 per carton box

AZSR235 / AZSR250

COIL VOLTAGE SPECIFICATIONS

Nominal Coil VDC	Must Operate VDC	Minimum Holding VDC		Max. Continuous VDC	Resistance Ohm $\pm 10\%$
		1-FORM-A (SPST)	2-FORM-A (DPST)		
5	3.75	1.7	2.1	10.0	50
9	6.75	3.1	3.8	18.0	170
12	9.0	4.0	5.0	24.0	300
18	13.5	6.5	7.5	36.0	675
24	18.0	8.0	10.0	48.0	1200

ORDERING DATA

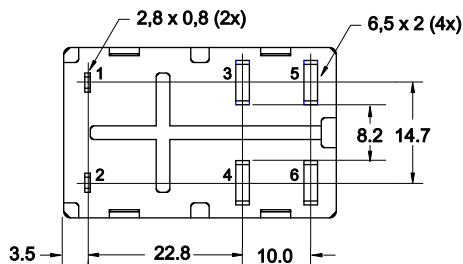
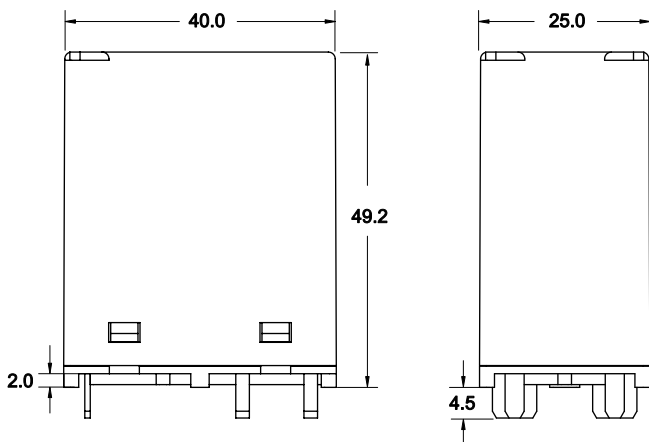


Example ordering data

- AZSR235-2AE-12D 35 Amp switching, 2 Form A (DPST), contact material: silver-tin-oxide, 12VDC nominal coil voltage
- AZSR250-2AE-24D 50 Amp switching, 2 Form A (DPST), contact material: silver-tin-oxide, 24VDC nominal coil voltage
- AZSR250-1AE-12D 50 Amp switching, 1 Form A (SPST), contact material: silver-tin-oxide, 12VDC nominal coil voltage

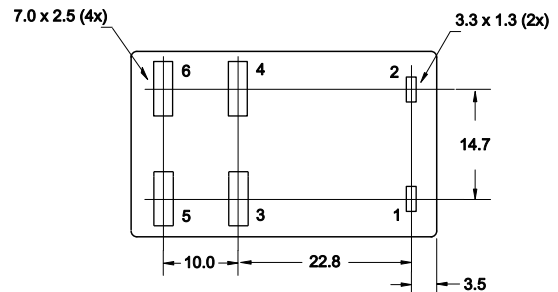
MECHANICAL DATA

Viewed towards terminals. Dimensions in mm. Tolerance: ± 0.25 mm
Note: Terminals 3 and 5 are not used on 1-Form-A (SPST) versions.



PC BOARD LAYOUT

Viewed towards terminals.
Note: Terminals 3 and 5 are not used on 1-Form-A (SPST) versions.



WIRING DIAGRAM

Viewed towards terminals.

