

AZSR165

65 AMP POWER RELAY

FEATURES

- Up to 80 Amp switching capability
- Wide contact gap of ≥ 3.0 mm
- Clearance and creepage of ≥ 10 mm
- 4 kV dielectric strength, 10 kV surge withstand voltage
- UL Class F insulation (155°C)
- UL / CUR E365652
- TÜV B0887930008



CONTACTS

Arrangement	SPST-N.O. (1 Form A)
Ratings (max.) switched power switched current carrying current switched voltage	(resistive load) 43200 VA 80 A 65 A 690 VAC
Rated Loads UL/TÜV	80 A at 540 VAC, resistive, 85°C, 1k cycles 10 A make - 65 A carry - 10 A break at 690 VAC, resistive, 85°C, 100k cycles 20 A make - 65 A carry - 20 A break at 690 VAC, resistive, 85°C, 30k cycles
Contact material	AgNi
Contact gap	≥ 3.0 mm
Initial resistance	≤ 10 m Ω (10 A - voltage drop method)

COIL

Nominal coil DC voltages	6, 9, 12, 24
Dropout voltage	$\geq 5\%$ of nominal coil voltage
Holding voltage	$\geq 40\%$ of nominal coil voltage
Coil power nominal max. continuous at pickup voltage holding power	2.2 W 2.6 W 1.25 W 360 mW
Temperature Rise	70 K (126°F) at nominal coil voltage
Max. temperature	Class F insulation - 155°C (311°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 on load terminals.
Recommended cross section according to IEC 61810-1:2015: 25 mm²
4. Specifications subject to change without notice.

GENERAL DATA

Life Expectancy mechanical electrical	(minimum operations) 1×10^6 3×10^5 at 10 A make/break - 65 A carry, 690 VAC, resistive 1×10^3 at 80 A, 540 VAC, resistive
Operate Time Release Time	40 ms (max.) at nominal coil voltage 10 ms (max.) at nominal coil voltage, without coil suppression
Dielectric Strength	(at sea level for 1 min.) 4000 V _{RMS} coil to contact 2000 V _{RMS} between open contacts
Surge Voltage coil to contact	10 kV (at 1.2 x 50 μ s)
Insulation Resistance	1000 M Ω (min.) at 20°C, 500 VDC, 50% RH
Creepage coil to contact	≥ 10.0 mm
Clearance coil to contact	≥ 10.0 mm
Temperature Range operating	(at nominal coil voltage) -40°C (-40°F) to 85°C (185°F)
Vibration resistance Shock resistance	1.5 mm (0.062") DA at 10-55 Hz 10 g
Enclosure Terminals	P.B.T. polyester Tinned copper alloy, P. C.
Soldering max. temperature max. time	270 °C (518°F) 5 seconds
Cleaning max. solvent temp. max. immersion time	80°C (176°F) 30 seconds
Dimensions length width height	38.0 mm (1.496") 33.0 mm (1.300") 41.5 mm (1.634")
Weight	76 grams (approx.)
Packing unit in pcs Compliance	10 per plastic tube / 150 per carton box UL 508, IEC 61810-1, RoHS, REACH

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COIL VOLTAGE SPECIFICATIONS

Nominal Coil VDC	Must Operate VDC	Min. Holding VDC	Max. Cont. VDC	Resistance Ohm $\pm 10\%$
6	4.5	2.4	6.6	16.2
9	6.75	3.6	9.9	36.8
12	9.0	4.8	13.2	65.0
24	18.0	9.6	26.4	262

ORDERING DATA

AZSR165-1A-DL

Nominal coil voltage
see coil voltage specifications table

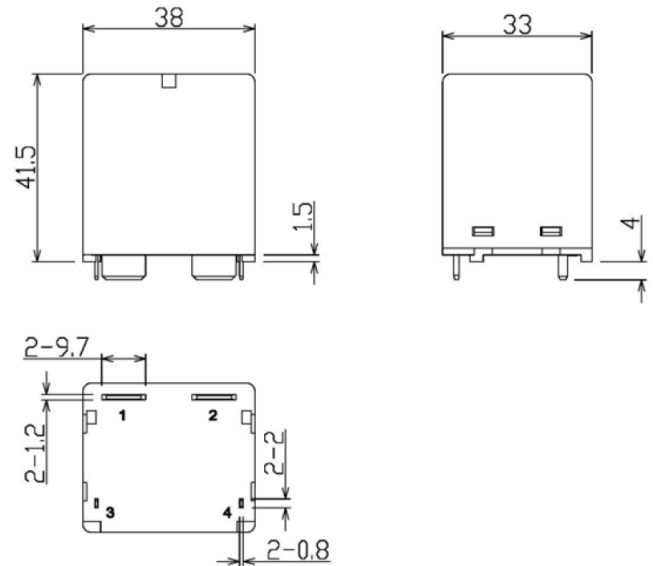
Example ordering data

AZSR165-1A-12DL Contact material: silver nickel, 12 VDC nom. coil voltage

AZSR165-1A-9DL Contact material: silver nickel, 9 VDC nom. coil voltage

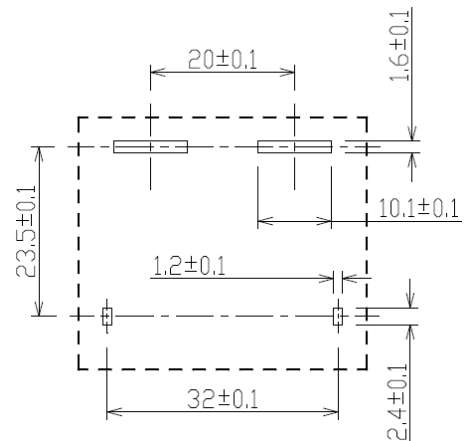
MECHANICAL DATA

Dimensions in mm. Tolerance: ± 0.5 mm unless otherwise stated



PC BOARD LAYOUT

Dimensions in mm. Tolerance: ± 0.1 mm unless otherwise stated
Viewed towards terminals.



WIRING DIAGRAMS

Viewed towards terminals.

Note: Provide sufficient PCB cross section on load terminals. Recommended cross section according to IEC 61810-1: 25 mm².

