

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 B170988793008



CONTACTS

Arrangement	SPST-N.O. (1 Form A)
Ratings (max.)	(resistive load)
switched power	43200 VA
switched current	80 A
carrying current	65 A
switched voltage	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	2.2 W
max. continuous	2.6 W
at pickup voltage	1.25 W
holding power	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	(minimum operations)
mechanical	1×10^6
electrical	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	40 ms (max.) at nominal coil voltage
Release Time	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
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
coil to contact	≥ 10.0 mm
Clearance	coil to contact
coil to contact	≥ 10.0 mm
Temperature Range	(at nominal coil voltage)
operating	-40°C (-40°F) to 85°C (185°F)
Vibration resistance	1.5 mm (0.062") DA at 10-55 Hz
Shock resistance	10 g
Enclosure	P.B.T. polyester
Terminals	Tinned copper alloy, P. C.
Soldering	max. temperature
max. temperature	270 °C (518°F)
max. time	5 seconds
Cleaning	max. solvent temp.
max. solvent temp.	80°C (176°F)
max. immersion time	30 seconds
Dimensions	
length	38.0 mm (1,496")
width	33.0 mm (1,300")
height	41.5 mm (1,634")
Weight	76 grams (approx.)
Packing unit in pcs	10 per plastic tube / 150 per carton box
Compliance	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

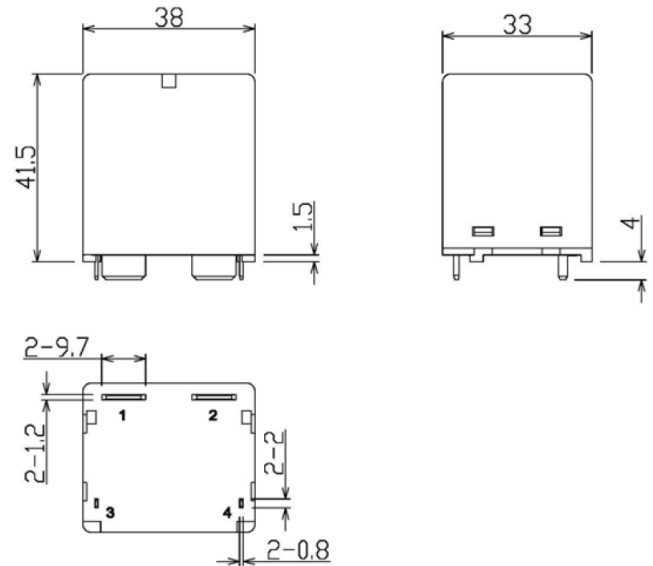
Example ordering data

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

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

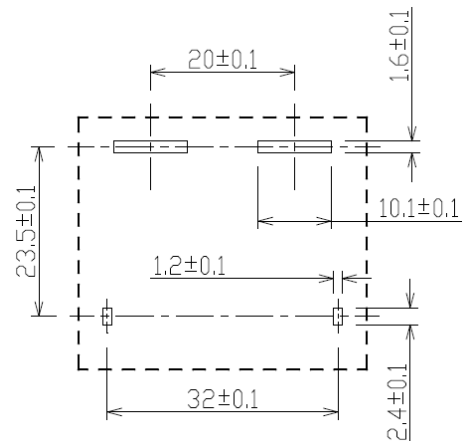
MECHANICAL DATA

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.

