

AZSR1180

180 AMP POWER RELAY

FEATURES

- 180 Amp switching capability
- Clearance and creepage of ≥ 10 mm
- Wide contact gap of ≥ 3.6 mm
- 4 kV dielectric strength, 10 kV surge withstand voltage
- UL Class F insulation (155°C)
- UL / CUR E365652
- TÜV B0887930013

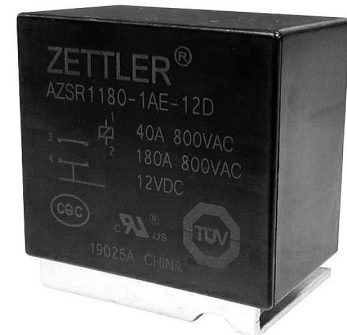


Illustration similar



CONTACTS

Arrangement	SPST-N.O. (1 Form A)
Ratings (max.) switched power switched current continuous current switched voltage	(resistive load) 165600 VA 180 A 180 A 920 VAC
Rated Loads UL/CUR/TÜV	40 A make - 180 A carry - 40 A break at 920 VAC, resistive, 85°C, 30k cycles 180 A at 920 VAC, resistive, 85°C, 50 cycles
Contact material	AgSnO ₂ - silver tin oxide
Contact gap	≥ 3.6 mm
Contact resistance initial	≤ 100 m Ω (1 A - voltage drop method)

COIL

Nominal coil DC voltages	6, 9, 12, 24, 48
Dropout voltage	$\geq 5\%$ of nominal coil voltage
Holding voltage	$\geq 40\%$ of nominal coil voltage
Coil power nominal at pickup voltage holding power	3.0 W 1.7 W 480 mW
Temperature Rise	70 K (126°F) at nominal coil voltage
Max. temperature	Class F insulation - 155°C (311°F)

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	12
9	6.7	3.6	9.9	27
12	9.0	4.8	13.2	48
24	18.0	9.6	26.4	192
48	36.0	19.2	52.8	768

Note: All values at 20°C (68°F), upright position, terminals downward.

GENERAL DATA

Life Expectancy mechanical electrical	(minimum operations) 1×10^6 see UL/CUR/TÜV ratings
Operate Time	40 ms (max.) at nominal coil voltage
Release Time	15 ms (max.) at nominal coil voltage, without coil suppression
Dielectric Strength	(at sea level for 1 min.) 4000 V _{RMS} coil to contact 2600 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	1.5 mm (0.062") DA at 10-55 Hz
Shock resistance	10 g
Enclosure protection category material group	P.B.T. polyester RT II, flux proof IIIa
Terminals	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	62.0 mm (2,441") 63.3 mm (2,492") 41.7 mm (1,642")
Weight	265 grams (approx.)
Compliance	UL 508, IEC 61810-1, RoHS, REACH

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page 1 of 2 2019-04-09

AZSR1180

ORDERING DATA

AZSR1180-1AE-□□D

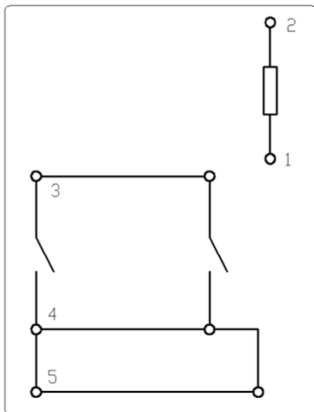
Nominal coil voltage
see coil voltage specifications table

Example ordering data

AZSR1180-1AE-12D 12 VDC nom. coil voltage

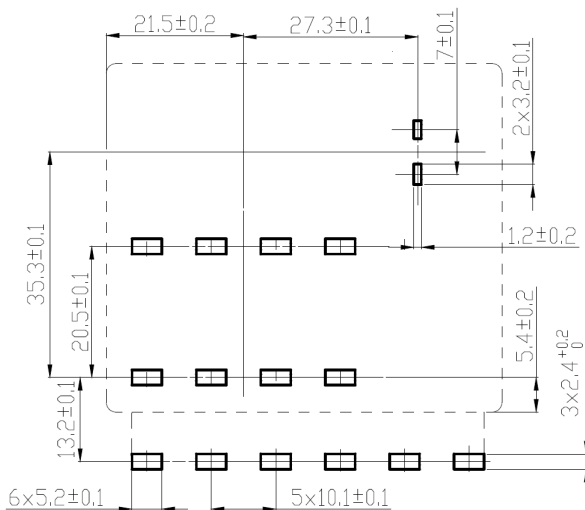
WIRING DIAGRAMS

Viewed towards terminals.



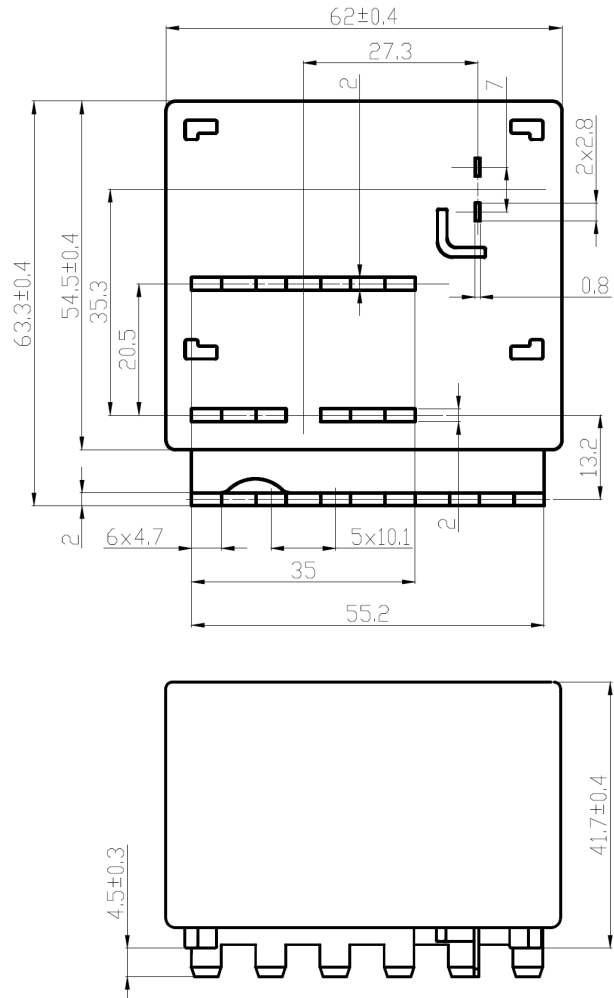
PC BOARD LAYOUT

Dimensions in mm. Viewed towards terminals.



MECHANICAL DATA

Dimensions in mm. Viewed towards terminals.



NOTES

1. Specifications subject to change without notice.
2. All values at 20°C (68°F) unless otherwise stated.
3. Relay may pull in with less than "Must Operate" value.
4. Provide sufficient PCB cross section on load terminals as heat spreader.
5. Coil suppression circuits such as diodes, etc. in parallel to the coil will lengthen the release time.

DISCLAIMER

This product specification is to be used in conjunction with the application notes which can be downloaded from www.ZETTLERelectronics.com/pdfs/relais/ApplicationNotes.pdf

The specification provides an overview of the most significant part features. Any individual applications and operating conditions are not taken into consideration. It is recommended to test the product under application conditions. Responsibility for the application remains with the customer. Proper operation and service life cannot be guaranteed if the part is operated outside the specified limits.

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page 2 of 2 2019-04-09