

AZSR1160

160 AMP POWER RELAY

FEATURES

- 160 Amp switching capability
- Contact gap: 3.2 mm
- Dielectric strength 4 kV_{RMS}
- 10kV Surge
- UL class F insulation
- UL / CUR E365652
- TÜV B0887930013
- CQC 18002210952



CONTACTS

Arrangement	SPST-N.O. (1 Form A)
Ratings (max.) switched power switched current continuous current switched voltage	(resistive load) 110400 VA 160 A 160 A 690 VAC
Rated Loads UL/CUR/TÜV/CQC	160A at 690VAC, resistive, 85°C, 1k cycles 60A at 690VAC on, carry 160A, 60A 690VAC off, resistive, 85°C, 30k cycles
Contact material	AgSnO ₂ (silver tin oxide)
Contact gap	3.2 mm
Contact resistance initial typical	(load contact) ≤ 100 mΩ < 10 mΩ

COIL

Nominal coil DC voltages	6, 9, 12, 24, 48
Dropout voltage	> 5% of nominal coil voltage
Holding voltage	> 40% of nominal coil voltage
Coil power nominal holding power at pickup voltage	(at 23 °C) 3 W 480 mW 1687 mW
Temperature Rise	70 K at nom. coil voltage, 85°C
Max. temperature	Class F insulation - 155°C (311°F)

GENERAL DATA

Life Expectancy mechanical electrical	(minimum operations) 1 x 10 ⁶ see UL/CUR/TÜV/CQC ratings
Operate Time	40 ms (max.) at nominal coil voltage
Release Time	15 ms (max.) at nominal coil voltage, without coil suppression
Dielectric Strength coil to load contacts open load contacts	(at sea level for 1 min.) 4000 V _{RMS} 2000 V _{RMS}
Surge Voltage	10kV @1.2/50µs (coil to contacts)
Insulation Resistance	1000 MΩ (min.) at 23°C, 500 VDC, 50% RH
Temperature Range operating	(at nominal coil voltage) -40°C (-40°F) to 85°C (185°F)
Vibration resistance	0.062" (1.5 mm) DA at 10–55 Hz
Shock	10 g
Enclosure protection category material group flammability	P.B.T. polyester RT II, flux proof IIIa UL94 V-0
Terminals	Tinned copper alloy, P. C.
Soldering max. temperature max. time	270 °C 5 s
Dimensions length width height	63.3 mm (2.49") 62 mm (2.44") 41.7 mm (1.64")
Weight	265 grams (approx.)
Compliance	UL 508, IEC 61810-1, RoHS, REACH
Packing unit in pcs	5 per plastic tray / 50 per carton box

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AZSR1160

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 23°C (73°F), upright position, terminals downward.

ORDERING DATA

AZSR1160-1AE- D

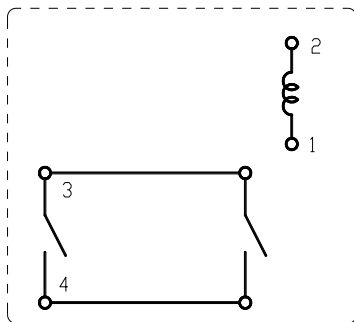
Nominal coil voltage
see coil voltage specifications table

Example ordering data

AZSR1160-1AE-12D With 12 VDC coil

WIRING DIAGRAMS

Viewed towards terminals

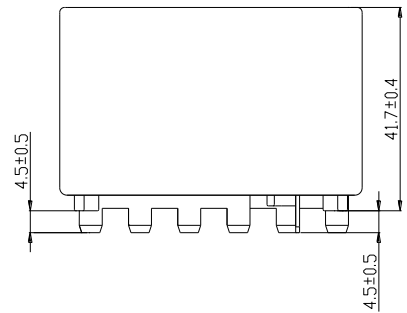
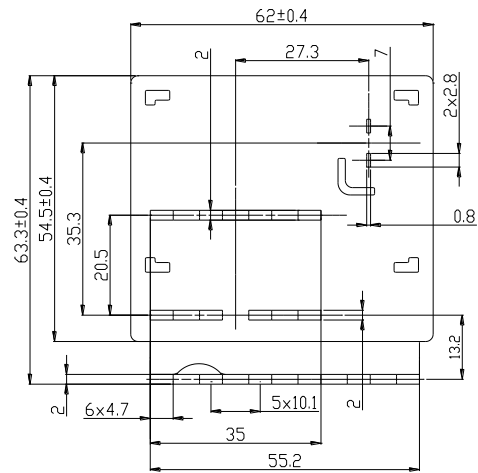


NOTES

- All values at 23°C (73°F).
- Relay may pull in with less than "Must Operate" value.
- Provide sufficient PCB cross section as heat spreader on terminals.
- Specifications subject to change without notice.

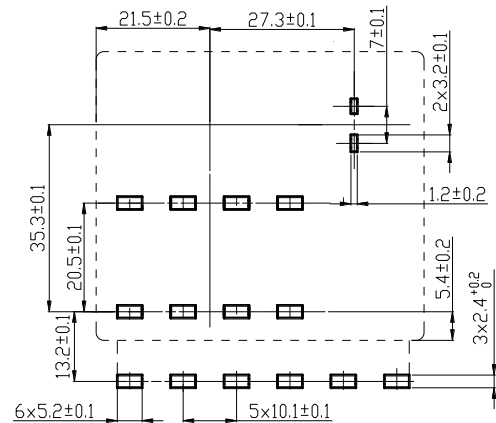
MECHANICAL DATA

Dimensions in mm. Tolerance: $\pm 0.3\text{mm}$



PC BOARD LAYOUT

Viewed towards terminals. Dimensions in mm.



AZSR1160

DISCLAIMER

This product specification is to be used in conjunction with the application notes which can be downloaded from the regional ZETTLER relay websites. 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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