

AZDC6

12.5 AMP MINIATURE POWER RELAY

FEATURES

- 12.5 Amp 600VDC switching
- Compact Size: 33.9x30.6x16mm
- cCSAus : 70204935

Application:

- PV power generation systems
- Battery charge and discharge
- Inverter control, DC load control etc.



CONTACTS

Arrangement	SPST (2 Form A in series)
Ratings (max.) switched power switched current continuous current switched voltage	(resistive load) 7500 W 12.5 A 12.5 A 600 VDC
Rated Loads CSA	1A at 500VDC, Res., 40k cycles, 90°C 12.5A at 600VDC, Res., 6k cycles, 90°C *2 Form A in series in the test
Contact material	AgSnO ₂ (silver tin oxide)
Contact gap	3.6mm (2 Form A in series)
Contact resistance initial	(load contact) ≤ 100 mΩ (at 6V, 1A, voltage drop method)

GENERAL DATA

Life Expectancy mechanical electrical	(minimum operations) 1 x 10 ⁶ see CSA ratings
Operate Time	30 ms (max.) at nominal coil voltage
Release Time	10 ms (max.) at nominal coil voltage without coil suppression
Dielectric Strength coil to load contacts open load contacts contacts sets	(at sea level for 1 min.) 4000 V _{RMS} 2000 V _{RMS} 2000 V _{RMS}
Surge Voltage	6kV @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 90°C (194°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	33.9 mm (1.33") 30.6 mm (1.20") 16.0 mm (0.63")
Weight	30 grams (approx.)
Compliance	CSA C22.2, UL 508, RoHS, REACH
Packing unit in pcs	13 per Tube / 260 per carton box

COIL

Nominal coil DC voltages	5, 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) 1.4 W 224 mW 786 mW
Temperature Rise	65 °C Max. at nom. coil voltage, 12.5A, 90°C
Max. temperature	Class F insulation - 155°C (311°F)

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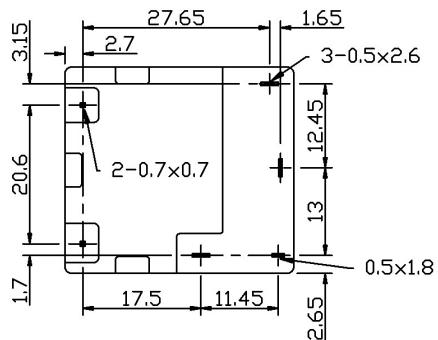
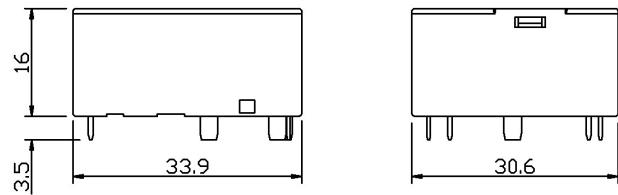
COIL VOLTAGE SPECIFICATIONS

Nominal Coil VDC	Must Operate VDC	Min. Holding VDC	Max. Cont. VDC	Resistance Ohm $\pm 10\%$
5	3.75	2	5	18
9	6.75	3.6	9	58
12	9	4.8	12	103
24	18	9.6	24	410
48	36	19.2	48	1650

Note: All values at 23°C (73°F), upright position, terminals downward.

MECHANICAL DATA

Dimensions in mm. Tolerance: $\pm 0.5\text{mm}$



ORDERING DATA

AZDC6-2AE- D

Nominal coil voltage
see coil voltage specifications table

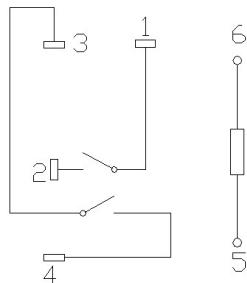
Example ordering data

AZDC6-2AE-12D

With 12 VDC coil

WIRING DIAGRAMS

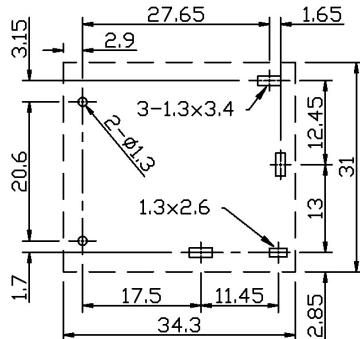
Viewed towards terminals



*2 & 3 contacted in series, see recommended circuit.

PC BOARD LAYOUT

Viewed towards terminals. Dimensions in mm.

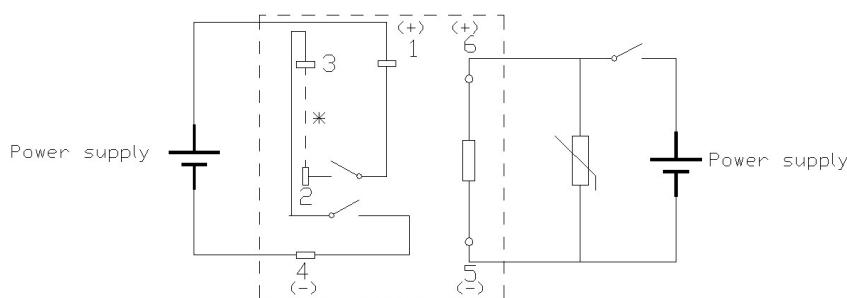


NOTES

1. All values at 23°C (73°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.

RECOMMENDED CIRCUIT

Each 1 form A contact connected in series (Viewed towards terminals)



*2 & 3 connected in series
*Positive: 6 (coil), 1(load)
*Negative: 5(coil), 4(load)

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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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SITES FOR ZETTLER RELAYS

NORTH AMERICA

American Zettler, Inc.
www.azettler.com
sales@azettler.com

EUROPE

Zettler Electronics, GmbH
www.zettlerelectronics.com
office@zettlerelectronics.com

Zettler Electronics, Poland
www.zettlerelectronics.pl
office@zettlerelectronics.pl

CHINA

Zettler Group, China
www.zettlercn.com
relay@zettlercn.com

ASIA PACIFIC

Zettler Electronics (HK) Ltd.
www.zettlerhk.com
sales@zettlerhk.com

