

# 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

<b>Arrangement</b>	DPST (2 Form A)
<b>Ratings (max.)</b> switched power switched current continuous current switched voltage	(resistive load) 7500 W 12.5 A 12.5 A 600 VDC
<b>Rated Loads</b>  <b>CSA</b>	1A at 500VDC, Res., 40k cycles, 90°C  12.5A at 600VDC, Res., 6k cycles, 90°C
<b>Contact material</b>	AgSnO <sub>2</sub> (silver tin oxide)
<b>Contact gap</b>	1.8 mm
<b>Contact resistance</b> initial	(load contact) ≤ 100 mΩ

### COIL

<b>Nominal coil DC voltages</b>	5, 9, 12, 24, 48
<b>Dropout voltage</b>	> 5% of nominal coil voltage
<b>Holding voltage</b>	> 40% of nominal coil voltage
<b>Coil power</b> nominal holding power at pickup voltage	(at 23 °C) 1.4 W 224 mW 786 mW
<b>Temperature Rise</b>	65 °C Max. at nom. coil voltage, 12.5A, 90°C
<b>Max. temperature</b>	Class F insulation - 155°C (311°F)

### GENERAL DATA

<b>Life Expectancy</b> mechanical electrical	(minimum operations) 1 x 10 <sup>5</sup> see CSA ratings
<b>Operate Time</b>	30 ms (max.) at nominal coil voltage
<b>Release Time</b>	10 ms (max.) at nominal coil voltage without coil suppression
<b>Dielectric Strength</b> coil to load contacts open load contacts contacts sets	(at sea level for 1 min.) 4000 V <sub>RMS</sub> 2000 V <sub>RMS</sub> 2000 V <sub>RMS</sub>
<b>Surge Voltage</b>	6kV @1.2/50µs (coil to contacts)
<b>Insulation Resistance</b>	1000 MΩ (min.) at 23°C, 500 VDC, 50% RH
<b>Temperature Range</b> operating	(at nominal coil voltage) -40°C (-40°F) to 90°C (194°F)
<b>Vibration resistance</b>	0.062" (1.5 mm) DA at 10–55 Hz
<b>Shock</b>	10 g
<b>Enclosure</b> protection category material group flammability	P.B.T. polyester RT II, flux proof IIIa UL94 V-0
<b>Terminals</b>	Tinned copper alloy, P. C.
<b>Soldering</b> max. temperature max. time	270 °C 5 s
<b>Dimensions</b> length width height	33.9 mm (1.33") 30.6 mm (1.20") 16.0 mm (0.63")
<b>Weight</b>	30 grams (approx.)
<b>Compliance</b>	CSA C22.2, UL 508, RoHS, REACH
<b>Packing unit in pcs</b>	13 per Tube / 260 per carton box

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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.

## ORDERING DATA

AZDC6-2AE-D

Nominal coil voltage  
see coil voltage specifications table

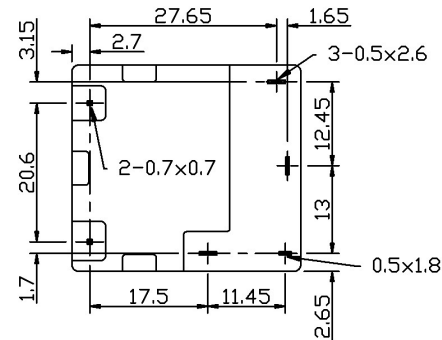
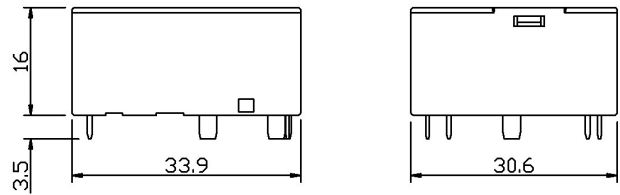
### Example ordering data

AZDC6-2AE-12D

With 12 VDC coil

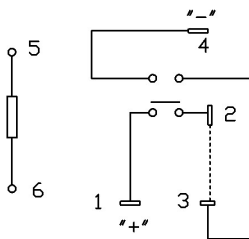
## MECHANICAL DATA

Dimensions in mm. Tolerance:  $\pm$ 0.5mm



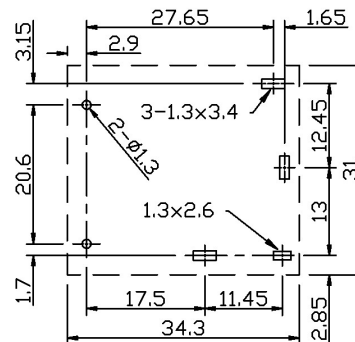
## WIRING DIAGRAMS

Viewed towards terminals



## PC BOARD LAYOUT

Viewed towards terminals. Dimensions in mm.

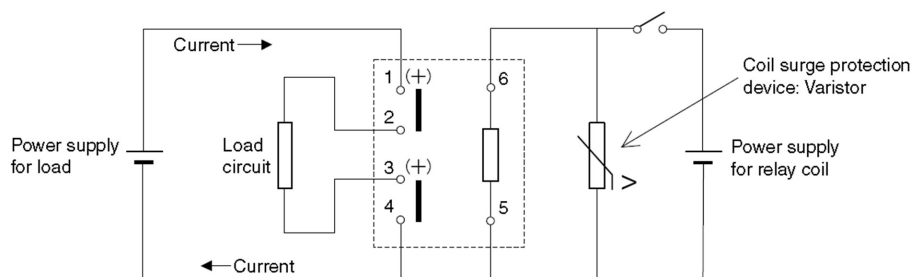


## NOTES

- 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.

## RECOMMENDED CIRCUIT

Each 1 form A contact connected in series (Bottom view)



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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.

## ZETTLER GROUP

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## SITES FOR ZETTLER RELAYS

### NORTH AMERICA

American Zettler, Inc.  
[www.azettler.com](http://www.azettler.com)  
[sales@azettler.com](mailto:sales@azettler.com)

### EUROPE

Zettler Electronics, GmbH  
[www.zettlerelectronics.com](http://www.zettlerelectronics.com)  
[office@zettlerelectronics.com](mailto:office@zettlerelectronics.com)

Zettler Electronics, Poland  
[www.zettlerelectronics.pl](http://www.zettlerelectronics.pl)  
[office@zettlerelectronics.pl](mailto:office@zettlerelectronics.pl)

### CHINA

Zettler Group, China  
[www.zettlercn.com](http://www.zettlercn.com)  
[relay@zettlercn.com](mailto:relay@zettlercn.com)

### ASIA PACIFIC

Zettler Electronics (HK) Ltd.  
[www.zettlerhk.com](http://www.zettlerhk.com)  
[sales@zettlerhk.com](mailto:sales@zettlerhk.com)



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