AZ733W

DPST MINIATURE POWER RELAY



FEATURES

- Dielectric strength 5000 Vrms
- 1.5 mm contact gap
- Epoxy sealed version available
- 12 Amp switching — double pole contacts
- Isolation spacing greater than 8 mm
- UL, CUR file E44211
- TÜV certificate R50129285

CONTACTS

Arrangement	DPST (2 Form A)
Ratings (max.)	(resistive load)
switched power	300 W or 3324 VA
switched current	12 A
switched voltage	250 VDC* or 400 VAC
	* Note: If switching voltage is greater than 30 VDC, special precautions must be taken. Please contact the factory.
Rated Loads	
UL	10 A at 250 VAC, 100k cycles [1] 12 A at 277 VAC resistive, 70°C, 80k cycles [3] 1/3 HP at 125 VAC [3] 3/4 HP at 250 VAC [3] TV-3 at 125 VAC, 25k cycles [1]
TÜV	12 A at 250 VAC resistive, 70°C, 10k cycles [2][3] 10 A at 250 VAC resistive, 70°C, 30k cycles [1][2][3] 10 A at 30 VDC, 70°C, 10k cycles [1]
Contact materials	AgCdO (silver cadmium oxide) [1] AgNi (silver nickel) [2] $AgSnO_2$ (silver tin oxide) [3] gold plating available
Initial resistance	< 50 mΩ

COIL

Nominal coil DC voltages	3, 5, 6, 9, 12, 18, 24, 48, 60
Power at pickup voltage	450 mW (typ.)
Max. continuous dissipation	2.0 W at 20°C (68°F) ambient
Max. temperature	130°C (266°F)
Temperature Rise	40 K (72°F) at nominal coil voltage
Dropout	> 10% of nominal coil voltage

NOTES

1. All values at 20°C (68°F).
2. Relay may pull in with less than “Must Operate” value.
3. Specifications subject to change without notice.

GENERAL DATA

Life Expectancy	(minimum operations)
Mechanical	5×10^5
Electrical	1×10^5 at 10 A 250 VAC resistive
Operate Time	10 ms (typ.) at nominal coil voltage
Release Time	4 ms (typ.) at nominal coil voltage, without coil suppression
Dielectric Strength	(at sea level for 1 min.) 5000 V_{RMS} coil to contact 2500 V_{RMS} between open contacts 3000 V_{RMS} between contact sets
Insulation Resistance	1000 MΩ (min.) at 20°C, 500 VDC, 50% RH
Isolation Spacing	> 8 mm
Temperature Range	at nominal coil voltage
Operating	-40°C (-40°F) to 70°C (158°F)
Vibration	0.062" (1.5 mm) DA at 10–55 Hz
Shock	10 g
Enclosure	P.B.T. polyester
Terminals	Tinned copper alloy, P. C.
Soldering	
Max. Temperature	270°C (518°F)
Max. Time	5 seconds
Cleaning	
Max. Solvent Temp.	80°C (176°F)
Max. Immersion Time	30 seconds
Weight	18 grams
Packing unit in pcs	50 per plastic tray / 500 per carton box

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AZ733W

ORDERING DATA

AZ733W-2A□-□□D□□

Plating option
nil: no plating
A: gold plated

Sealing option
nil: non sealed
E: sealed version

Coil type
D: DC coil

Nominal coil voltage
see coil specifications

Contact material
nil: silver cadmium oxide
B: silver nickel
E: silver tin oxide

Contact arrangement
2A: 2-FORM-A (DPST)

Example ordering data

AZ733W-2AE-9D silver tin oxide, 9 VDC nominal coil voltage, non sealed

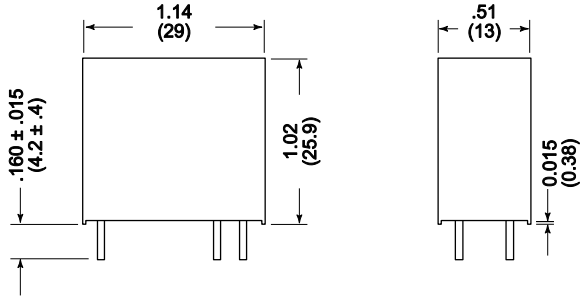
AZ733W-2AB-12DA silver nickel, 12 VDC nominal coil voltage, gold plated

COIL SPECIFICATIONS

Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Resistance Ohm ± 10%
3	2.25	4.7	11.3
5	3.8	7.9	31
6	4.5	9.5	45
9	6.8	14.2	101
12	9.0	18.9	180
18	13.5	28.4	405
24	18.0	37.9	720
48	36.0	75.9	2880
60	45.0	94.8	4500

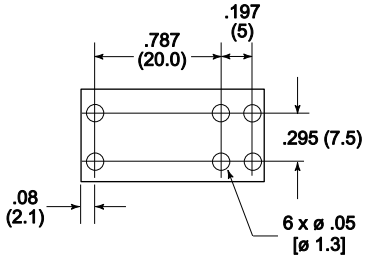
MECHANICAL DATA

Dimensions in inches with metric equivalents in parentheses. Tolerance: ± .010"



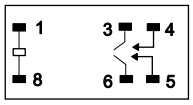
Terminal No.	Dimensions, Tol.: ± 0.005 (0.13)
1, 4, 5, 8	0.018 (0.457) x 0.038 (0.965)
3, 6	0.011 (0.279) x 0.038 (0.965)

PC BOARD LAYOUT



Viewed towards terminals

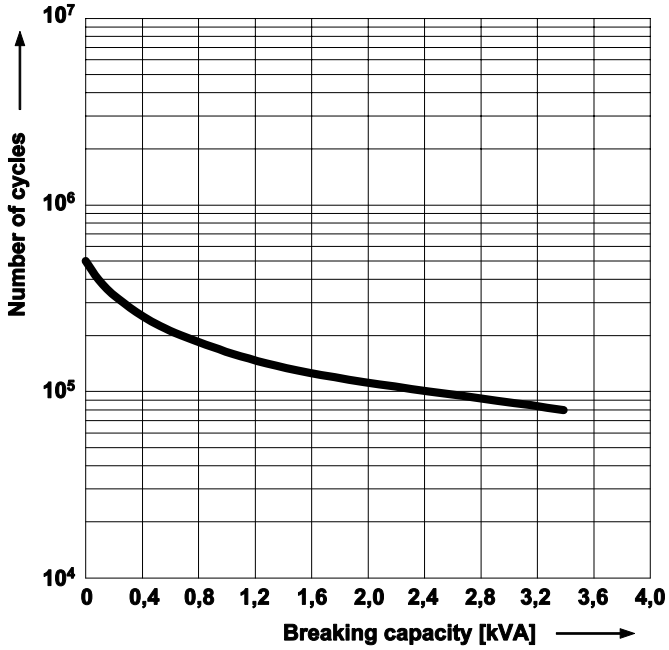
WIRING DIAGRAM



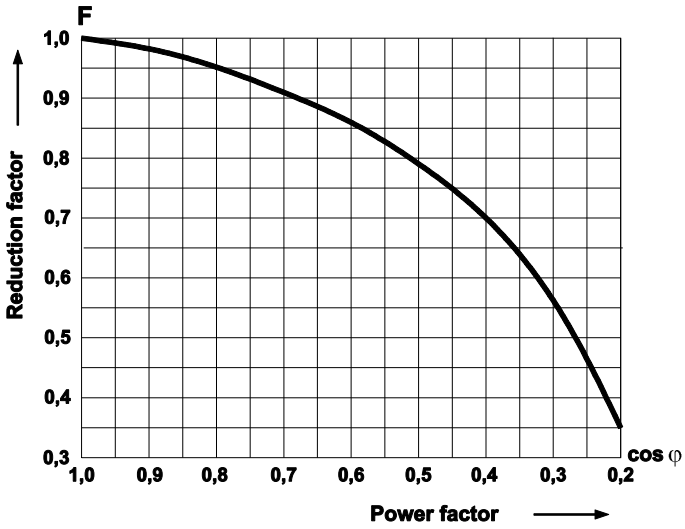
Viewed towards terminals

ELECTRICAL CHARACTERISTICS

Electrical life at 250 VAC, resistive load

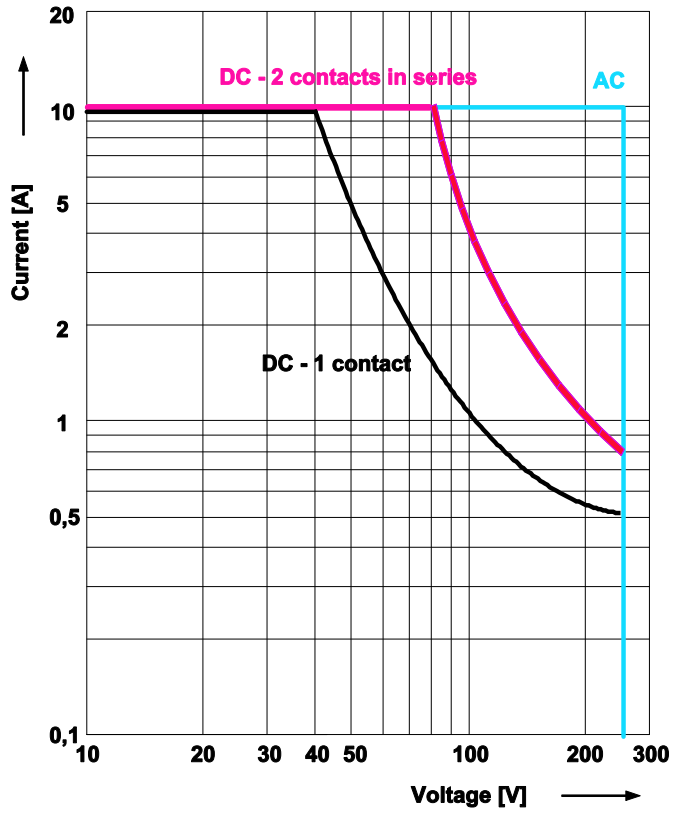


Electrical life reduction factor at inductive AC load



$N_{\cos\varphi} = N \times F$

Max. AC/DC resistive load breaking capacity



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AZ2501P1-1A-12DW XMC0-903.FD AZ822-2C-48DSE BV202S24005 BV382S18032 AZ2100-1C-5DE AZ2151-1A-6DEF AZ9871-2C-12DET AZ429-V05-1HUS AZ8222-2C-12DSSE AZ9375-1A-12DEF AZ983-1A-12DER BV202S06005 AZ2151-1C-18D AZ6991-1CE-24DEA AZ850-4.5 AZ9321-1C-24DEF AZ832P2-2C-12DE AZ943-1CH-9DE AZ2101-1C-24D AZ732-560-4 AZ8-1CH-24DSE AZ940-1AB-24DS BV382S09032 XMC0-753.ED AZ2100-1C-12DEF AZ2150-1A-15DEF AZ2280-1C-24AF AZ763-1C-12DE AZ941-1C-24DE