

## 10 AMP DPDT MINIATURE POWER RELAY

### FEATURES

- Dielectric strength 5000 Vrms
- AC and DC coils
- Isolation spacing greater than 10 mm
- Reinforced insulation, EN 60730-1 (VDE 0631, part 1), EN 60335-1 (VDE 0700, part 1)
- UL, CUR file E44211
- VDE certificate 40006031



### CONTACTS

<b>Arrangement</b>	DPDT (2 Form C) DPST (2 Form A)
<b>Ratings</b>	Resistive load:  Max. switched power: 2 X 240 W or 2500 VA Max. switched current: 2 X 10 A Max. switched voltage: 125 VDC* or 440 VAC  * Note: If switching voltage is greater than 30 VDC, special precautions must be taken. Please contact the factory.
<b>Rated Load UL, CUR</b>	10 A at 250 VAC, Resistive, 30k cycles (N.O.) [1] 10 A at 250 VAC, Resistive, 6 k cycles (N.C.) [1] 8 A at 277 VAC, Resistive, 30k cycles [1] 8 A at 277 VAC, Resistive, 75k cycles [2] 8 A at 277 VAC, Resistive, 100k cycles [3] 4 A at 347 VAC, General use, 6k cycles (N.C.) [1] 1/2 HP at 250 VAC [1] 1/4 HP at 125 VAC [1] All values at 85°C ambient
<b>VDE</b>	2 Form A - DC coil 8 A at 250 VAC, 20k cycles, 85°C [2] 8 A at 250 VAC, 30k cycles, 70°C [1] 8 A at 250 VAC, cos phi 0.4, 50k cycles, 85°C [3] 5 A at 400 VAC, 100k cycles, 85°C [3]  2 Form A - AC coil 8 A at 250 VAC, 50k cycles, 70°C [2][3]  * approved for unsealed version only  2 Form C - DC coil 8 A at 250 VAC, 20k cycles, 85°C [2] 8 A at 250 VAC, 30k cycles, 70°C [1] 8 A at 250 VAC, cos phi 0.4, 30k cycles, 85°C [3]  2 Form C - AC coil 8 A at 250 VAC, 30k cycles, 70°C [2][3]
<b>Material</b>	Silver cadmium oxide [1], silver tin oxide [2], silver nickel [3]. Gold plating available
<b>Resistance</b>	< 100 miliohms initially

### 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

<b>Life Expectancy Mechanical Electrical</b>	Minimum operations 1 x 10 <sup>7</sup> 1 x 10 <sup>5</sup> at 8 A 250 VAC Res.
<b>Operate Time (typical)</b>	7 ms at nominal coil voltage DC coils 10 ms at nominal coil voltage AC coils
<b>Release Time (typical)</b>	4 ms at nominal coil voltage (with no coil suppression)
<b>Dielectric Strength (at sea level for 1 min.)</b>	5000 Vrms coil to contact 3000 Vrms between contact sets 1000 Vrms between open contacts
<b>Insulation Resistance</b>	1000 megohms min. at 500 VDC, 20°C, 50% RH
<b>Insulation (according to DIN VDE 0110, IEC 60664-1)</b>	C250 Overvoltage category: III Pollution degree: 3 Nominal voltage: 250 VAC
<b>Dropout DC coils AC coils</b>	Greater than 10% of nominal coil voltage Greater than 15% of nominal coil voltage
<b>Ambient Temperature Operating</b>	At nominal coil voltage -40°C (-40°F) to 85°C (185°F) DC coils -40°C (-40°F) to 70°C (158°F) AC coils
<b>Vibration</b>	0.062" (1.5 mm) DA at 10–55 Hz
<b>Shock</b>	10 g
<b>Enclosure</b>	P.B.T. polyester
<b>Terminals</b>	Tinned copper alloy, P.C.
<b>Max. Solder Temp.</b>	270°C (518°F)
<b>Max. Solder Time</b>	5 seconds
<b>Max. Solvent Temp.</b>	80°C (176°F)
<b>Max. Immersion Time</b>	30 seconds
<b>Weight</b>	16 grams
<b>Packing unit in pcs</b>	50 per plastic tray / 500 per carton box

### COIL

<b>Power</b>	
<b>At Pickup Voltage (typical)</b>	200 mW (DC coil) .422 VA (AC coil)
<b>Max. Continuous Dissipation</b>	1.7 W at 20°C (68°F) ambient 1.7 VA at 20°C (68°F) ambient
<b>Temperature Rise</b>	26°C (47°F) at nominal coil voltage
<b>Temperature</b>	Max. 130°C (266°F)

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This product specification to be used only together with the application notes which can be downloaded from <http://www.ZETTLERelectronics.com/pdfs/relais/ApplicationNotes.pdf>

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# AZ743

## RELAY ORDERING DATA

COIL SPECIFICATIONS - DC COIL				ORDER NUMBER*	
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance Ohm $\pm 10\%$	2 Form A	2 Form C
5	3.5	10.2	62	AZ743-2A-5D	AZ743-2C-5D
6	4.2	12.3	90	AZ743-2A-6D	AZ743-2C-6D
9	6.3	18.3	200	AZ743-2A-9D	AZ743-2C-9D
12	8.4	24.7	360	AZ743-2A-12D	AZ743-2C-12D
24	16.8	49.4	1,440	AZ743-2A-24D	AZ743-2C-24D
48	33.6	98.0	5,760	AZ743-2A-48D	AZ743-2C-48D
60	42.0	112.9	7,500	AZ743-2A-60D	AZ743-2C-60D
110	77.0	206.9	25,200	AZ743-2A-110D	AZ743-2C-110D

COIL SPECIFICATIONS - AC COIL					ORDER NUMBER*	
Nominal Coil VAC	Must Operate VAC	Max. Continuous VAC	Nominal Current mA $\pm 10\%$	Coil Resistance Ohm $\pm 15\%$	2 Form A	2 Form C
24	18.0	31.2	31.6	350	AZ743-2A-24AF	AZ743-2C-24AF
115	86.3	149.5	6.6	8,100	AZ743-2A-115AF	AZ743-2C-115AF
230	172.5	299.0	3.2	32,500	AZ743-2A-230AF	AZ743-2C-230AF

\* "2A" or "2C" denote silver cadmium oxide contacts.

Add suffix "E" to "2A" or "2C" for silver tin oxide contacts.

Add suffix "B" to "2A" or "2C" for silver nickel contacts.

Add suffix "E" at the end of order number (DC coils) or before "F" (AC coils) for sealed version.

Add suffix "A" at the end of order number (DC coils) or before "F" (AC coils) for gold plated contacts.

## MECHANICAL DATA

**PC BOARD LAYOUT**

\* Not used on 2 Form A relay

Viewed toward terminals

**WIRING DIAGRAMS**

**2 Form C**

**2 Form A**

Viewed toward terminals

Dimensions in millimeters. Tolerance:  $\pm 0.25$  mm

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