AZ755

20 AMP MINIATURE POWER RELAY

FEATURES

- Dielectric strength 5000 Vrms
- Low cost
- Epoxy sealed version available
- UL, CUR file E44211
- TÜV certificate R50129286

CONTACTS

Arrangement	SPDT (1 Form C) SPST (1 Form A, 1 Form B)
Ratings	Resistive load: Max. switched power: 480 W or 5540 VA Max. switched current: 20 A Max. switched voltage: 150 VDC* or 420 VAC * Note: If switching voltage is greater than 30 VDC, special precautions must be taken. Please contact the factory.
Rated Load **UL, CUR**	20 A at 125 VAC, general use, 50k cycles [1] 16 A at 240 VAC, general use, 100k cycles [1][2] 20 A at 24 VDC, resistive, 50k cycles [2] 20 A at 24 VDC, resistive, 20k cycles [1] 16 A at 24 VDC, resistive, 50k cycles [1][2] 1 HP (8 FLA) at 240 VAC, 100k cycles [1][2] 1 Form A 20 A at 277 VAC, resistive, 50k cycles [2] 20 A at 277 VAC, resistive, 20k cycles [1] 16 A at 277 VAC, resistive, 50k cycles [1] 12 A at 277 VAC, resistive, 100k cycles [1][2] 12 A at 24 VDC, resistive, 100k cycles [1][2] 10 FLA / 60 LRA, 250 VAC, 30k cycles [2] TV-8 at 125 VAC, 85°C 1 Form B 12 A at 24 VDC, resistive, 50 k cycles [2] 1Form C 16 A at 277 VAC, resistive, 50 k cycles (N.O.) [2] 16 A at 277 VAC, resistive, 6 k cycles (N.C.) [2] All values at 85°C ambient
TÜV	1 Form A 16 A at 250 VAC, resistive, 70°C, 30k cycles [1][2] 13 A at 420 VAC, resistive, 70°C, 30k cycles [1] 16 A at 30 VDC, resistive, 70°C, 30k cycles [1][2]
Material	Silver cadmium oxide [1], silver tin oxide [2]
Resistance	< 50 milliohms initially (24 V, 1 A voltage drop method)

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 **Mechanical** **Electrical**	Minimum operations 5 x 10^6 5 x 10^4 at 16 A 250 VAC Res. 2 x 10^4 at 20 A 277 VAC Res.
Operate Time (typical)	8 ms at nominal coil voltage
Release Time (typical)	5 ms at nominal coil voltage (with no coil suppression)
Dielectric Strength **(at sea level for 1 min.)**	5000 Vrms coil to contact 1000 Vrms between open contacts
Insulation Resistance	1000 megohms min. at 20°C 500 VDC 50% RH
Dropout	Greater than 10% of nominal coil voltage
Ambient Temperature **Operating** **Storage**	At nominal coil voltage -40°C (-40°F) to 85°C (185°F) -40°C (-40°F) to 105°C (221°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.
Max. Solder Temp.	270°C (518°F)
Max. Solder Time	5 seconds
Max. Solvent Temp.	80°C (176°F)
Max. Immersion Time	30 Seconds
Weight	18.5 grams
Packing unit in pcs	50 per plastic tray / 500 per carton box

COIL

Power	
At Pickup Voltage (typical)	270 mW
Max. Continuous Dissipation	1.9 W at 20°C (68°F) ambient
Temperature Rise (at nominal voltage)	34°C (61°F) at nominal coil voltage
Temperature	Max. 130°C (266°F) Class B Max. 155°C (311°F) Class F

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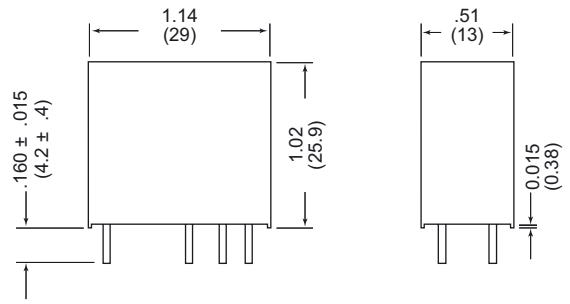
RELAY ORDERING DATA

COIL SPECIFICATIONS				ORDER NUMBER*	
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance Ohm	Form A (SPST)	Form C (SPDT)
5	3.6	9.4	47 ±10%	AZ755–1A–5D	AZ755–1C–5D
6	4.3	11.4	69 ±10%	AZ755–1A–6D	AZ755–1C–6D
9	6.5	17.4	155 ±10%	AZ755–1A–9D	AZ755–1C–9D
12	8.6	22.8	275 ±10%	AZ755–1A–12D	AZ755–1C–12D
18	13.0	27.9	620 ±10%	AZ755–1A–18D	AZ755–1C–18D
24	17.3	45.7	1,100 ±15%	AZ755–1A–24D	AZ755–1C–24D
48	34.6	89.0	4,400 ±15%	AZ755–1A–48D	AZ755–1C–48D
60	43.2	115.3	6,880 ±15%	AZ755–1A–60D	AZ755–1C–60D
110 **	73.9	170.5	22,900 ±15%	AZ755–1A–110D	AZ755–1C–110D

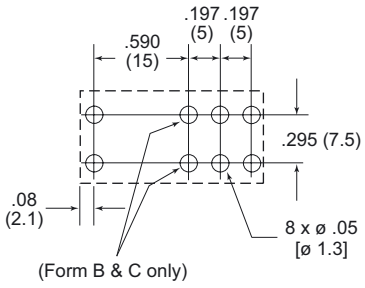
* "1A" or "1C" denote silver cadmium contacts.
Substitute "1B" in place of "1A" or "1C" for 1 Form B relay.
Add suffix "E" at the end of order number for sealed version.
Add suffix "A" at the end of order number for silver tin oxide contacts.
Add suffix "F at the end of order number for Class F.
** 110 VDC coil is not TÜV approved.

MECHANICAL DATA



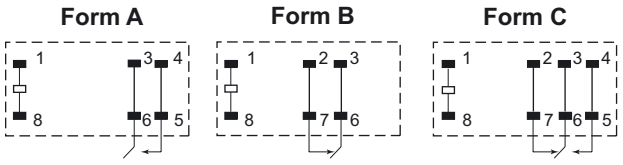
Terminal No.	Dimensions Tol.: ± 0.005 (0.13)
1,2,4,5,7,8	0.018 (0.457) x 0.038 (0.965)
3,6	0.011 (0.279) x 0.038 (0.965)

PC BOARD LAYOUT



Viewed toward terminals

WIRING DIAGRAMS



Viewed toward terminals

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

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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