AZ21101

50 AMP MINIATURE POWER RELAY

FEATURES

- Up to 50 Amp switching
- Form A, B and C contacts available
- Class F temperature rating available
- Low cost 30A contact available
- UL, CUR file E44211
- TÜV Pending

CONTACTS

Arrangement	SPST (1 Form A, or B) SPDT (1 Form C)
Ratings	Resistive load: Max. switched power: 1200VA, 200VA Max. switched current: 50A (Form A) Max. switched voltage: 30VAC, 110VDC
UL, CUR	50A at 240VAC, Resistive [2] 40A at 240VAC, Resistive 30A at 277VAC, General Purpose 25A at 277VAC, Resistive, 100k cycles 20A at 240VAC; Resistive, 250k cycles 2HP at 250VAC 5A at 280VAC, Ballast NC: 35A at 240VAC, Resistive [2] 30A at 240VAC / 30VDC, Resistive 20A at 277VAC, General Purpose 1.5HP at 250VAC 5A at 280VAC, Ballast
TÜV	NO: 40A at 240VAC, 14VDC 30A at 277VAC NC: 30A at 240VAC, 14VDC 30A at 277VAC
Material	Silver cadmium oxide [1], silver tin oxide [2]
Resistance	< 50 milliohms initially (24V, 1A voltage drop method)

COIL

Power	
At Pickup Voltage (typical)	DC: 506mW (30/40A), 844mW (50A) AC: 1.4VA
Max. Continuous Dissipation	DC: 1.7W at 20°C AC: 2.7VA at 20°C
Max. Temperature	Max. 130°C (266°F) Class B Max. 155°C (311°F) Class F

GENERAL DATA

Life Expectancy **Mechanical** **Electrical**	Minimum operations 1 x 10^7 1 x 10^5 at 30A 120VAC Res.
Operate Time	15 msec max. at nominal coil voltage
Release Time	10 msec max. at nominal coil voltage (without suppression)
Dielectric Strength (at sea level for 1 min.)	1500Vrms contact to contact 2500Vrms contact to coil 4000Vrms contact to coil-Contact Factory
Insulation Resistance	1000 megohms min. at 20°C, 500VDC 50% RH
Dropout	DC: > 10% of nominal coil voltage AC: > 30% of nominal coil voltage
Ambient Temperature **Operating** **Storage**	-55°C (-67°F) to 100°C (212°F) Class B -55°C (-67°F) to 130°C (266°F) Class B -55°C (-67°F) to 125°C (257°F) Class F -55°C (-67°F) to 155°C (311°F) Class F
Vibration	0.06" DA at 10–55 Hz
Shock	20g
Enclosure	P.B.T. polyester
Terminals	Tinned copper alloy, P.C.
Max. Solder Temp.	270°C (518°F)
Max. Solder Time	5 seconds
Weight	27 grams

NOTES

1. All values at 20°C (68°F).
2. Relay may pull in with less than “Must Operate” value.
3. Other coil resistances and sensitivities available upon request. Please contact the factory.
4. Specifications subject to change without notice.

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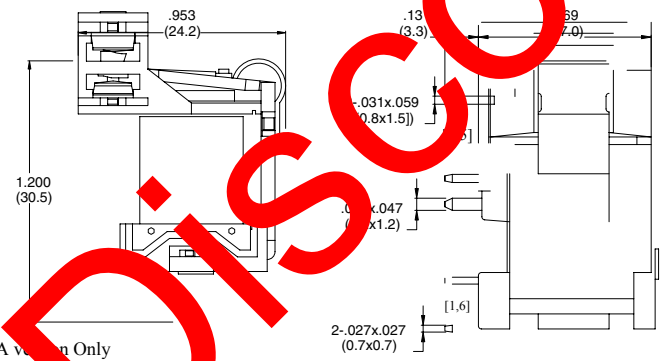
RELAY ORDERING DATA

COIL SPECIFICATIONS – DC Coil						
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Nominal Current mA ± 10%	Coil Resistance ±10% (30/40A)	(50A)	ORDER NUMBER*
3	2.25	3.9	300	10	6	AZ21101–1A–3D
5	3.75	6.5	179	28	16.7	AZ21101–1A–5D
6	4.50	7.8	150	40	24	AZ21101–1A–6D
9	6.75	11.7	100	90	54	AZ21101–1A–9D
12	9.00	15.6	75	160	96	AZ21101–1A–12D
15	10.25	19.5	60	250	150	AZ21101–1A–15D
18	13.5	23.4	50	360	216	AZ21101–1A–18D
24	18.0	31.2	38	640	384	AZ21101–1A–24D
48	36.0	62.4	19	2,560	1536	AZ21101-1A–48D
110	82.50	143	8	13,745	8,247	AZ21101–1A–110D
COIL SPECIFICATIONS – AC Coil 50/60 Hz						
Nominal Coil VAC	Must Operate VAC	Max. Continuous VAC	Nominal Coil Power VA	Coil Resistance ±10% (30/40A only)		ORDER NUMBER*
12	9	15.6	2.0	27		AZ21101–1A–12A
24	18	31.2	2.0	120		AZ21101–1A–24A
110	82.5	143	2.0	2,360		AZ21101–1A–110A
120	90	156	2.0	3,040		AZ21101–1A–120A
220	165	286	2.0	13,490		AZ21101–1A–220A
240	180	312	2.0	15,740		AZ21101–1A–240A
277	207.75	360.1	2.0	20,300		AZ21101–1A–277A

* Substitute "-1B" or "-1C" in place of "-1A" for 1 Form B or 1 Form C respectively. For silver tin oxide contacts substitute "-1AE", or "-1BE" or "-1CE" in place of "-1A", or "1B", or"-1C." For 30A version, add "H" after "-1A,-1AE, -1B ,-1BE, or "-1C,-1CE." , or for 50A version, add "T" after -1AE", "-1BE", or "-1CE." To indicate class F version, add suffix "F". Use AZ211 for Pin 6 st

MECHANICAL DATA

Outline Dimensions



50A version Only

Terminal	Dimensions
[4,5]	2-0.0 8)x0.0 .8)
[1,6]	2-0.071(1.8 .047(1.2)
ALL	0.146(3.7)±0.02(0.5)

PC Board Layout

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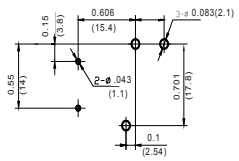

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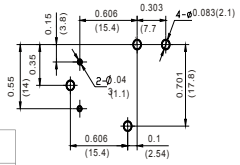
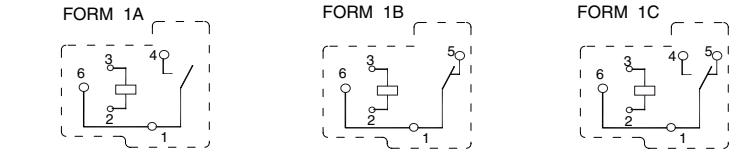


50A version Only

Terminal	Dimensions
[1,4,5]	3-ø0.098(2.5)
[1,4,5,6]	4-ø0.098(2.5)

(Viewed toward terminals)

Wiring Diagram



Omit pin 6 for AZ21101

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

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