AZ21001

50 AMP MINIATURE POWER RELAY

FEATURES

- Quick-connect leads for contacts
- 1 Form A, B and C contacts available
- AC and DC coils available
- Class F high temperature available
- Lower cost 30A contact available
- Epoxy sealed versions 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: 1200W or 7200VA Max. switched current: 50A (Form A) Max. switched voltage: 300VAC, 110VDC
UL, CUR	NO: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. N.O.
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., Quick Connects Note: Allow suitable slack on leads when wiring, and do not subject the terminals to excessive force.
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	30 grams

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.

AMERICAN ZETTLER, INC. *www.azettler.com*

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AZ21001

RELAY ORDERING DATA

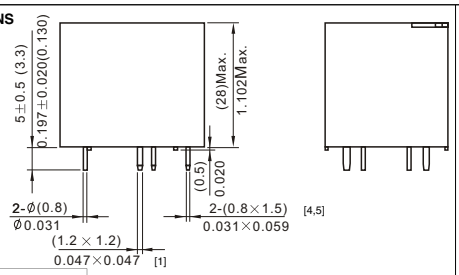
COIL SPECIFICATIONS – DC Coil						ORDER NUMBER*
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Nominal Current mA ± 10%	Coil Resistance ± 10% (30/40A)	(50A)	
3	2.25	3.9	300	10	6	AZ21001–1A–3D
5	3.75	6.5	179	28	16.7	AZ21001–1A–5D
6	4.50	7.8	150	40	24	AZ21001–1A–6D
9	6.75	11.7	100	90	54	AZ21001–1A–9D
12	9.00	15.6	75	160	96	AZ21001–1A–12D
15	10.25	19.5	60	250	150	AZ21001–1A–15D
18	13.5	23.4	50	360	216	AZ21001–1A–18D
24	18.0	31.2	38	640	384	AZ21001–1A–24D
48	36.0	62.4	19	2,560	1536	AZ21001-1A–48D
110	82.50	143	8	13,445	8067	AZ21001–1A–110D
COIL SPECIFICATIONS – AC Coil 50/60 Hz						**ORDER NUMBER***
Nominal Coil VAC	**Must Operate VAC**	**Max. Continuous VAC**	**Nominal Coil Power VA**	**Coil Resistance ±10% (30/40A only)**		
12	9	15.6	2.0	27		AZ21001–1A–12A
24	18	31.2	2.0	120		AZ21001–1A–24A
110	82.5	143	2.0	2,360		AZ21001–1A–110A
120	90	156	2.0	3,040		AZ21001–1A–120A
220	165	286	2.0	13,490		AZ21001–1A–220A
240	180	312	2.0	15,740		AZ21001–1A–240A
277	207.75	360.1	2.0	20,300		AZ21001–1A–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”, "-1BE" or “-1CE” in place of “-1A”, "-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”. Substitute “DE” or “AE” in place of “D” or “A” for epoxy sealed version.

Use AZ21011 for Pin 6 style.

MECHANICAL DATA

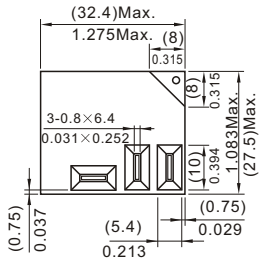
OUTLINE DIMENSIONS



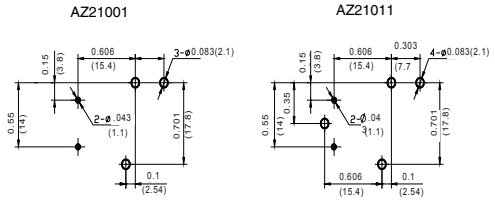
50A version Only

Terminal	Dimensions
[4,5]	2-0.031(0.8)x0.071(1.8)
[1]	0.071(1.8)x0.047(1.2)
ALL	0.130(3.3)±0.02(0.5)

TOP VIEW



BC BOARD LAYOUT

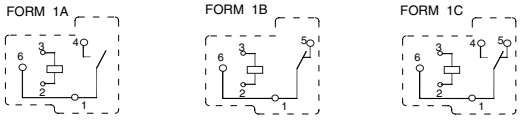


50A version Only

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

FORM 1A,1B,1C (Viewed toward terminals)

WIRING DIAGRAM



Omit pin 6 for AZ21001

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

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