AZ2704

Discontinuation Notice
Silver Cadmium Oxide contacts are no longer available!

27 AMP POWER RELAY

RoHS compliant !

FEATURES

- 27 Amp switching
- ~~30 Amp AC7a approved~~
- 900 Amp short circuit current (carrying)
- PC mount
- Dielectric strength 4000 Vrms
- Standard (2.4 mm) or wide contact gap (3.0 mm) available
- UL, CUR file E44211
- TÜV certificate R50164753

CONTACTS

Arrangement	SPST (1 Form X) DPST (2 Form X)
Ratings	Resistive load: Max. switched power: 810 W or 6925 VA Max. switched current: 27 A Max. switched voltage: 300 VDC* or 400 VAC * Note:If switching voltage is greater than 30 VDC, special precautions must be taken. Please contact the factory.
Rated Load **UL**	~~30 A at 277 VAC, resistive, 30k cycles [1]~~[2] 25 A at 277 VAC, resistive, 100k cycles [2] ~~25 A at 240 VAC, resistive, 100k cycles [1]~~ ~~3 HP at 240 VAC, 6k cycles [1]~~ ~~1.5 HP at 120 VAC, 6k cycles [1]~~ ~~TV-10 at 120 VAC, 6k cycles [1]~~ ~~105 LRA / 20.5 FLA at 240 VAC, 100k cycles [1]~~ SPST (1 Form X) 10 A at 120 VAC, tungsten, 6k cycles ~~[1]~~[2] 3 HP at 240 VAC, 100k cycles [2] 1.5 HP at 120 VAC, 100k cycles [2] DPST (2 Form X) 10 A at 277 VAC, tungsten, 6k cycles [2] ~~10 A at 120 VAC, tungsten, 6k cycles [1]~~ 2 HP at 277 VAC, 75k cycles [2] 1 HP at 125 VAC, 30k cycles [2]
TÜV	27 A at 240 VAC, cos phi 0.8, 50k cycles ~~[1]~~[2] 25 A at 240 VAC, cos phi 0.4, 50k cycles ~~[1]~~[2]
Material	~~Silver cadmium oxide [1]~~, silver tin oxide [2]
Resistance	< 100 milliohm initially (24 V, 1 A voltage drop method)

COIL

Power	
At Pickup Voltage (typical)	1.08 W (DC) 1.7 VA (AC)
Max. Continuous Dissipation	3.8 W at 20°C (68°F) ambient
Temperature Rise	50°C (90°F) at nominal coil voltage
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 10^6 1 x 10^5 at rated load
Operate Time (typical)	30 ms at nominal coil voltage
Release Time (typical)	30 ms at nominal coil voltage (with no coil suppression)
Dielectric Strength (at sea level for 1 min.)	4000 Vrms coil to contact 2000 Vrms between open contacts
Insulation Resistance	1000 megohms min. at 20°C, 500 VDC, 50% RH
Dropout	> 5% of nominal coil voltage (DC) > 15% of nominal coil voltage (AC)
Ambient Temperature **Operating**	At nominal coil voltage -40°C (-40°F) to 70°C (158°F) at nominal, -40°C (-40°F) to 85°C (185°F) at 50% or less of nominal (holding voltage).
Vibration	0.062" DA at 10–55 Hz
Shock **Operating** **Non-Operating**	 10 g, 11 ms, $^1/_2$ sine (no false operation) 100 g, 11 ms, $^1/_2$ sine (no damage)
Enclosure	P.B.T. polyester
Terminals	Tinned copper alloy, PC mount
Max. Solder Temp.	270°C (518°F)
Max. Solder Time	5 seconds
Weight	120 grams
Packing unit in pcs	16 per plastic tray / 80 per carton box

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.

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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

2014-09-08

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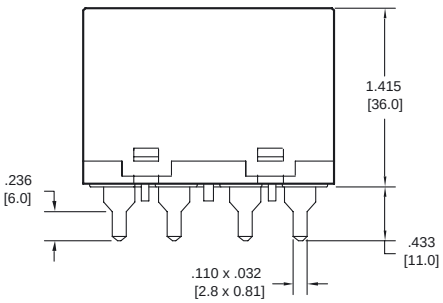
RELAY ORDERING DATA

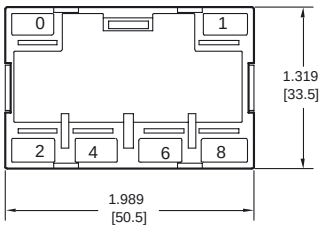
COIL SPECIFICATIONS – DC COIL				ORDER NUMBER*	
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance Ohm ± 10%	1 Form X	2 Form X
3	2.3	4.2	5	AZ2704–1A–3D	AZ2704–2A–3D
6	4.5	8.4	19	AZ2704–1A–6D	AZ2704–2A–6D
12	9.0	16.8	75	AZ2704–1A–12D	AZ2704–2A–12D
24	18.0	33.7	300	AZ2704–1A–24D	AZ2704–2A–24D
48	36.0	67.5	1,200	AZ2704–1A–48D	AZ2704–2A–48D,
100	75.0	140.5	5,200	AZ2704–1A–100D	AZ2704–2A–100D
110	82.5	154.7	6,300	AZ2704–1A–110D	AZ2704–2A–110D
200	150.0	282.4	21,000	AZ2704–1A–200D	AZ2704–2A–200D

COIL SPECIFICATIONS – AC COIL				ORDER NUMBER*	
Nominal Coil VAC	Must Operate VAC	Max. Continuous VAC	Coil Current mA ± 10%	1 Form X	2 Form X
6	4.8	6.6	319	AZ2704–1A–6A	AZ2704–2A–6A
12	9.6	13.2	160	AZ2704–1A–12A	AZ2704–2A–12A
24	19.2	26.4	80	AZ2704–1A–24A	AZ2704–2A–24A
48	38.4	52.8	40	AZ2704–1A–48A	AZ2704–2A–48A
120	96.0	132.0	23	AZ2704–1A–120A	AZ2704–2A–120A
220	176.0	242.0	10	AZ2704–1A–220A	AZ2704–2A–220A
240	192.0	264.0	9	AZ2704–1A–240A	AZ2704–2A–240A

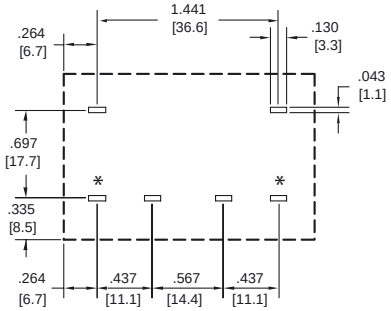
* For silver tin oxide add suffix “T”. For wide contact gap add “W”. For Class F add suffix “F”.

MECHANICAL DATA



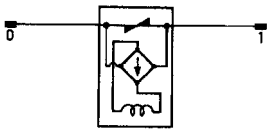


PCB LAYOUT

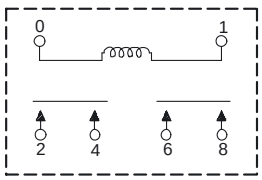


* Not used on 1 FORM X

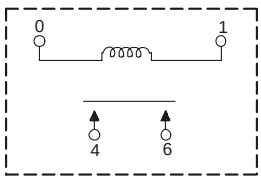
AC-operating COIL



WIRING DIAGRAMS



2 FORM X



1 FORM X

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

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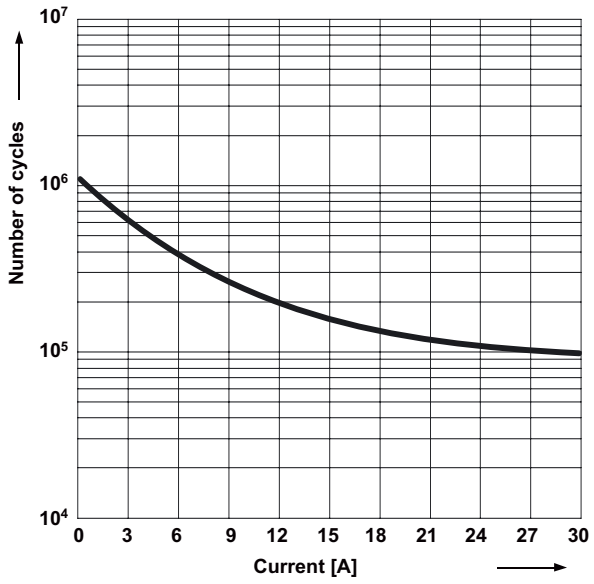
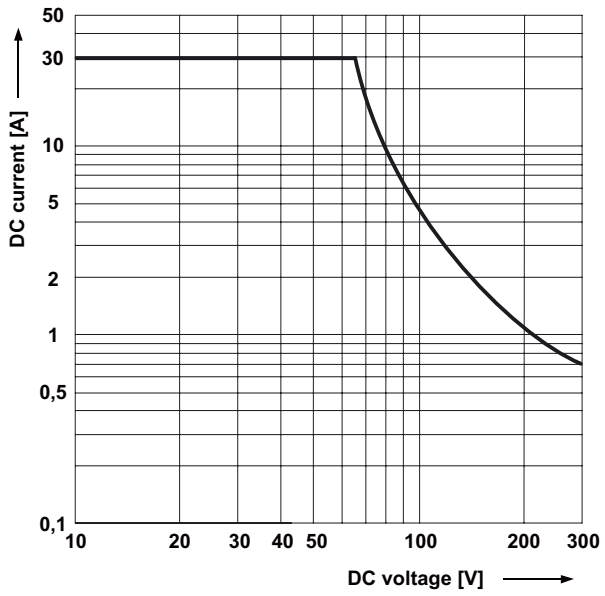
Electrical life at 250 VAC, resistive load



Max. DC resistive load breaking capacity



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