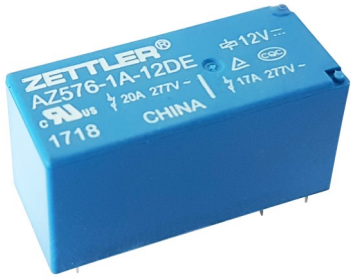
AZ576

20 AMP MINIATURE POWER RELAY

FEATURES

- 20 Amp switching capability
- Available in SPST-N.O. and SPDT versions
- Dielectric strength of 5000 V_{RMS}
- Ambient temperature up to 105°C (221°F)
- Epoxy sealed versions available
- Compact size, low seated height of 15.3 mm
- UL / CUR file E44211
- TÜV: R50333135



CONTACTS

Arrangement	SPST-N.O. (1 Form A), SPDT (1 Form C)
Ratings (max.)	(resistive load)
switched power	510 W or 5540 VA
switched current	20 A
switched voltage	30 VDC* or 277 VAC
	* Note: If switching voltage is greater than 30 VDC, special precautions must be taken. Please contact the factory.
Rated Loads	
UL	
1 Form A	20 A at 277 VAC, resistive, 85°C, 30k cycles 17 A at 277 VAC, resistive, 105°C, 100k cycles 16 A at 277 VAC, general use, 85°C, 100k cycles 17 A at 30 VDC, resistive, 105°C, 100k cycles 5 A at 120/277 VAC, pilot duty, 85°C, 30k cycles 1 HP at 120/240/480 VAC, 100k cycles 10 FLA / 60 LRA at 250 VAC, 100k cycles TV-8 at 120 VAC, 25k cycles
1 Form C	20 A at 277 VAC, resistive, 85°C, 30k cycles 17 A at 277 VAC, resistive, 105°C, 30k cycles 16 A at 277 VAC, general use, 85°C, 30k cycles 17 A at 30 VDC, resistive, 105°C, 30k cycles 5 A at 120/277 VAC, pilot duty, 85°C, 30k cycles 1 HP at 120/240/480 VAC, 100k cycles 10 FLA / 60 LRA at 250 VAC, 100k cycles
TÜV	17 A at 277 VAC, resistive, 105°C, 100k cycles * 17 A at 30 VDC, resistive, 105°C, 100k cycles *
	* Note: Versions with 15 VDC nominal coil voltage are not TÜV approved.
Contact material	$AgSnO_2$ (silver tin oxide)
Initial resistance	≤ 100 mΩ (1 A / 6 V - voltage drop method)

COIL

Nominal coil DC voltages	see coil voltage specifications table
Dropout voltage	≥ 5% of nominal coil voltage
Coil power	
nominal	400 mW
at pickup voltage	225 mW (typ.)
max. cont. dissipation	1.7 W at 20°C (68°F)
Temperature Rise	26 K (47°F) at nominal coil voltage
Max. temperature	Class F insulation - 155°C (311°F)

GENERAL DATA

Life Expectancy	(minimum operations)
mechanical	1 x 10^7
electrical	1 x 10^5 at 17 A, 277 VAC, resistive
Operate Time	15 ms (max.) at nominal coil voltage
Release Time	8 ms (max.) at nominal coil voltage, without coil suppression
Dielectric Strength	(at sea level for 1 min.) 5000 V_{RMS} coil to contact 1000 V_{RMS} between open contacts
Surge voltage	
coil to contact	10 kV (at 1.2 x 50 µs)
Insulation Resistance	1000 MΩ (min.) at 20°C, 500 VDC, 50% RH
Temperature Range	(at nominal coil voltage)
operating	-40°C (-40°F) to 105°C (221°F)
Vibration resistance	0.062" (1.5 mm) DA at 10–55 Hz
Shock resistance	10 g
Enclosure	P.B.T. polyester, UL94 V-0
Terminals	Tinned copper alloy, P. C.
Soldering	
max. temperature	270 °C (518°F)
max. time	5 seconds
Cleaning	
max. solvent temp.	80°C (176°F)
max. immersion time	30 seconds
Dimensions	
length	29.3 mm (1.154")
width	12.7 mm (0.500")
height	15.3 mm (0.602")
Weight	14 grams (approx.)
Compliance	UL 508, IEC 61810-1, IEC 60335-1 (GWT), RoHS, REACH

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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COIL VOLTAGE SPECIFICATIONS

Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Resistance Ohm ± 10%
3	2.25	4.5	22.5
5	3.75	7.5	62
6	4.5	9.0	90
9	6.75	13.5	202
12	9.0	18.0	360
15	11.25	22.5	560
18	13.5	27.0	810
22	16.5	33.0	1210
24	18.0	36.0	1440
36	27.0	54.0	3240
48	36.0	72.0	5760
60	45.0	90.0	9000
110	82.5	165.0	30250

ORDERING DATA

AZ576-□□-□□D□

Sealing option
nil: non sealed
E: sealed version

Nominal coil voltage
see coil voltage specifications table

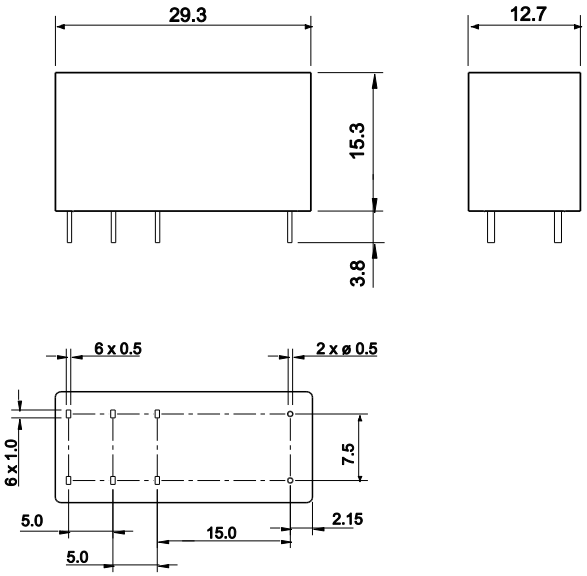
Contact arrangement
1A: 1 Form A (SPST-N.O.)
1C: 1 Form C (SPDT)

Example ordering data

AZ576-1A-9D	1 Form A, 9 VDC nominal coil voltage, non sealed
AZ576-1C-12DE	1 Form C, 12 VDC nominal coil voltage, sealed

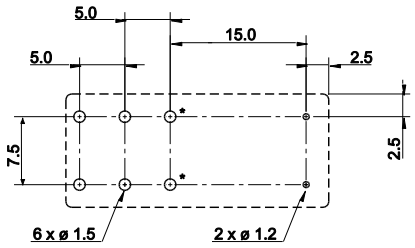
MECHANICAL DATA

Dimensions in mm. Outline tolerance: ± 0.5 mm



PC BOARD LAYOUT

Dimensions in mm. Tolerance: ± 0.1 mm
Viewed towards terminals.



* Not used on 1 Form A version

WIRING DIAGRAMS

Viewed towards terminals.