



**THE DATASHEET OF
AZ755-1C-12DE**



AZ755

20 AMP MINIATURE POWER RELAY

FEATURES

- Dielectric strength 5000 Vrms
- Low cost
- Epoxy sealed version available
- 20 Amp switching — single pole contacts
- Isolation spacing greater than 8mm
- UL Class B insulation system standard, Class F available
- UL, CUR file E44211
- TÜV file R50129286



CONTACTS

Arrangement	SPST (1 Form A, 1 Form B) SPDT (1 Form C)
Ratings	Resistive load: Max. switched power: 480W or 5540VA Max. switched current: 20A Max. switched voltage: 150VDC* or 277VAC *Note: If switching voltage is greater than 30VDC, special precautions must be taken. Please contact the factory.
Rated Load UL, CUR	20A at 277VAC N.O. resistive, 50k cycles 16A at 240VAC general use, 100k cycles 12A at 277VAC N.O. resistive., 100k cycles 20A at 24VDC resistive 1HP 240VAC TV-8 125VAC N.O. (silver tin oxide only) Suffix 136 Contact 25 A at 125VAC N.O. resistive, 30k cycles 20 A at 125/250/277 VAC N.O. general use, 30k cycles 1/2 HP at 125/250 VAC TV-10 at 125VAC N.O. 10FLA, 60LRA at 250VAC N.O. 20k cycles
TÜV	16A at 30VDC, 250VAC resistive, 30k cycles* 13A at 420VAC resistive, 30k cycles * *approval for form A , C, and Class F only
Material	Silver cadmium oxide (silver tin oxide available)
Resistance	< 50 milliohms initially (24V, 1A voltage drop method)

COIL

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

GENERAL DATA

Life Expectancy	Minimum operations
Mechanical	1 x 10 ⁷
Electrical	1 x 10 ⁵ at 16A 240VAC Res.
Operate Time (typical)	15ms max at nominal coil voltage
Release Time (typical)	5ms max at nominal coil voltage (with no coil suppression)
Dielectric Strength (at sea level for 1 min.)	4000Vrms coil to contact 1000Vrms between open contacts
Insulation Resistance	1000 megohms min. at 20°C 500VDC 50% RH
Dropout	Greater than 10% of nominal coil voltage
Ambient Temperature	At nominal coil voltage
Operating	-40°C (-40°F) to 85°C (185°F)
Storage	-40°C (-40°F) to 130°C (266°F)
Vibration	0.062" 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	Approx. 18.5 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.

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RELAY ORDERING DATA

COIL SPECIFICATIONS				ORDER NUMBER*	
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance $\pm 10\%$	Form A (SPST)	Form C (SPDT)
5	3.6	9.4	47	AZ755-1A-5D	AZ755-1C-5D
6	4.3	11.4	69	AZ755-1A-6D	AZ755-1C-6D
9	6.5	17.4	155	AZ755-1A-9D	AZ755-1C-9D
12	8.6	22.8	275	AZ755-1A-12D	AZ755-1C-12D
18	13.0	27.9	620	AZ755-1A-18D	AZ755-1C-18D
24	17.3	45.7	1100	AZ755-1A-24D	AZ755-1C-24D
48	34.6	89.0	4170	AZ755-1A-48D	AZ755-1C-48D
60	43.2	115.3	7000	AZ755-1A-60D	AZ755-1C-60D
110**	79.3	170.5	22900	AZ755-1A-110D	AZ755-1C-110D

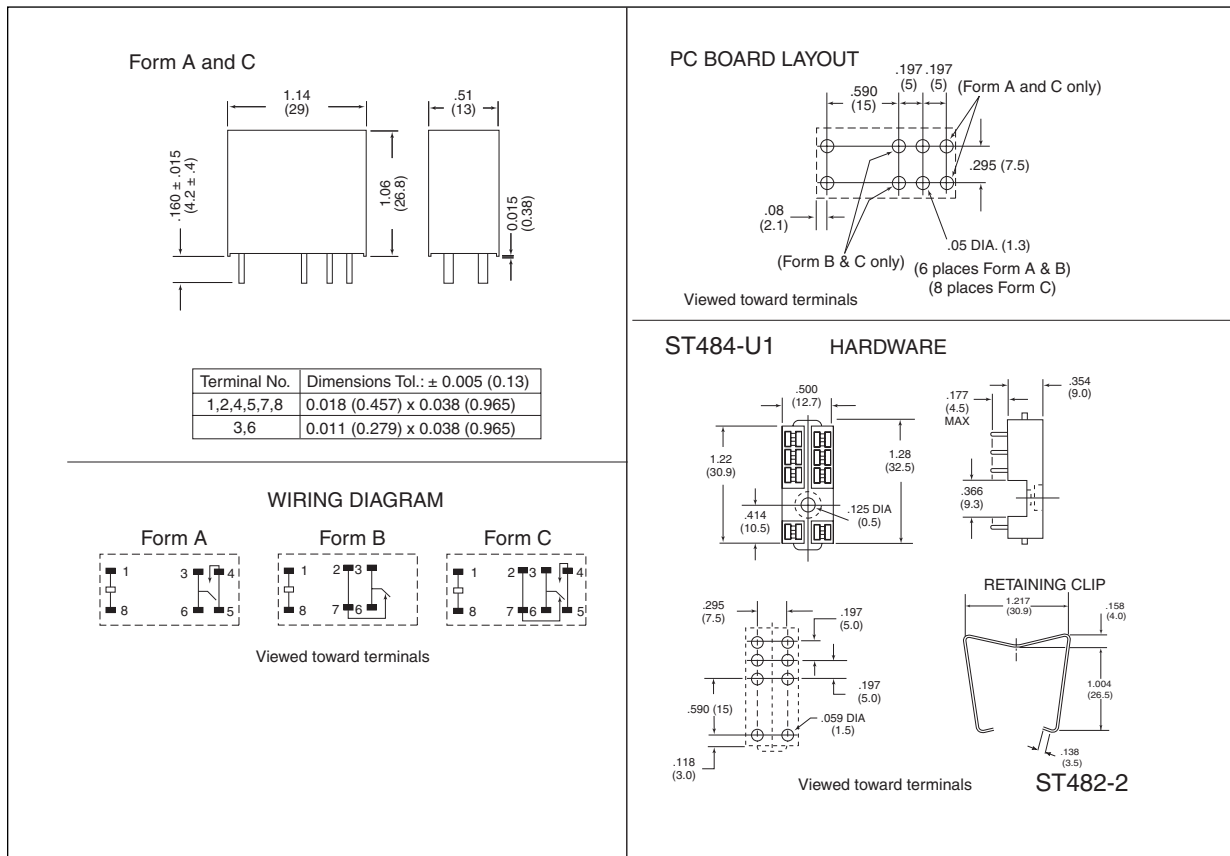
*Substitute "1B" in place of "1A" or "1C" to indicate 1 Form B contact arrangement. Add suffix "E" for epoxy sealed version, suffix "A" for AgSnO (silver tin oxide) contacts. Add suffix "F" for Class F. Add suffix "136" for silver tin oxide small contacts. When suffix "E" is specified for Epoxy Seal, refer to AZ "Relay Technical Notes" on AZ website - Product Resources. Consult factory for other PCB process conditions that may apply.

**110V coil not TÜV approved.

HARDWARE ORDERING DATA

DESCRIPTION	ORDER NUMBER	DESCRIPTION	ORDER NUMBER
Socket	ST484-U1	Retainer	ST482-2

MECHANICAL DATA



Dimensions in inches with metric equivalents in parentheses. Tolerance: $\pm .010$ "

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This specification provides an overview of the most significant part features. Any individual applications and operating conditions are not taken into consideration. It is recommended to test the product under application conditions. Responsibility for the application remains with the customer. Proper operation and service life cannot be guaranteed if the part is operated outside the specified limits.

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