

INCH-POUND

MS27715B(USAF)
 27 March 1995
 SUPERSEDING
 MS27715A(USAF)
 11 June 1975

MILITARY SPECIFICATION SHEET

RELAY, 150 AMP, 3 PST, N.O.,
 TYPE I, COIL AND CONTACTS
 INDIVIDUALLY SEALED

⑧

INACTIVE FOR NEW DESIGN
 EFFECTIVE 27 MARCH 1995.
 NO SUPERSEDING STANDARD.

This specification is approved for use by the Department of the Air Force and is available for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the product described herein shall consist of this specification sheet and the issue of the following specification listed in that issue of the Department of Defense Index of Specifications and Standards (DODISS) specified in the solicitation: MIL-R-6106.

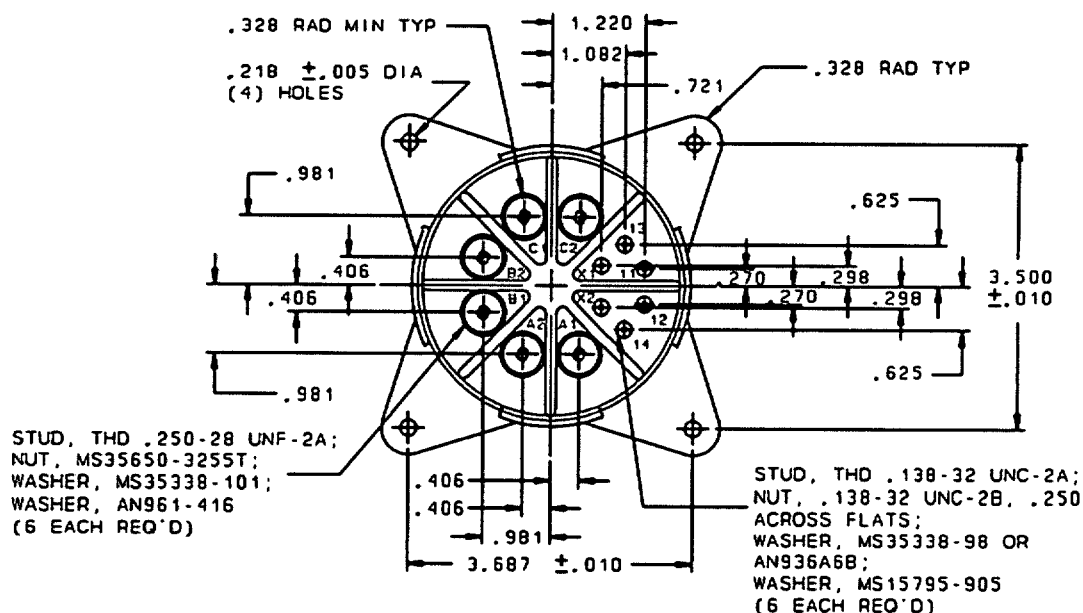
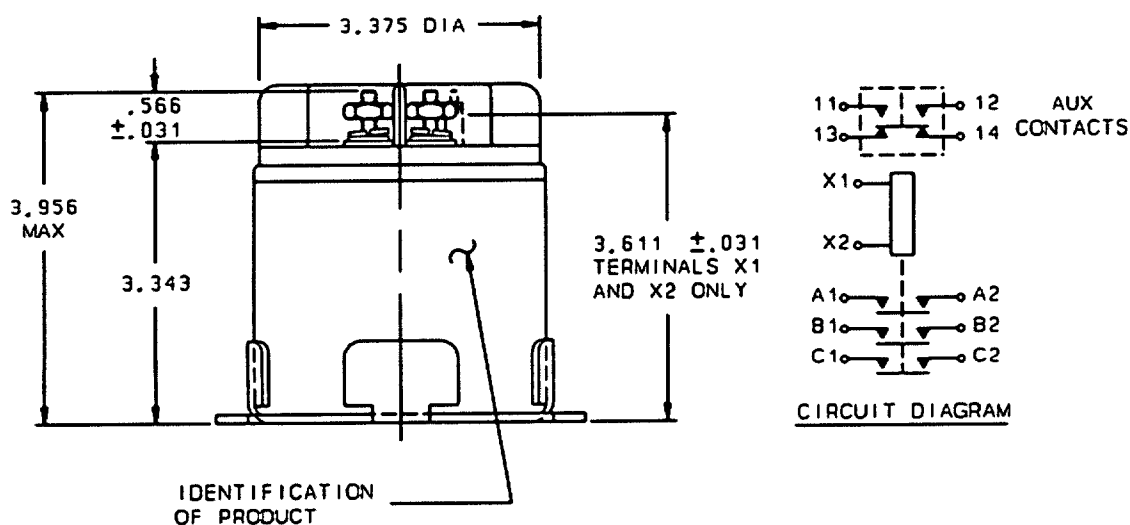


FIGURE 1. Dimensions and configuration.

⑧ denotes changes

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Inches	mm	Inches	mm
.005	0.13	.721	18.31
.010	0.25	.981	24.92
.031	0.79	1.082	27.48
.218	5.54	1.220	30.99
.270	6.86	3.343	84.91
.298	7.57	3.375	85.73
.328	8.33	3.500	88.90
.406	10.31	3.611	91.72
.566	14.38	3.687	93.65
.625	15.88	3.956	100.48

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Unless otherwise specified, tolerance is ±.015 (0.38 mm).
4. For design feature purposes, this specification takes precedence over procurement documents referenced herein.
5. Referenced documents shall be of the issue in effect on date of invitation for bid.

FIGURE 1. Dimensions and configuration - Continued.

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REQUIREMENTS:

Dimensions and configuration: See figure 1.

Dash numbers and general characteristics: See table I.

Contact data:

Load ratings: See table II.

Maximum contact drop, initial: At 100 A: .150 V; at 150 A: .225 V.

After life test: At 100 A: .175 V; at 150 A: .260 V.

Overload current (NO): 800 amperes.

Rupture current (NO): 1000 amperes.

Coil data: See table III.

Duty rating: Continuous.

RFI specification: MIL-STD-461 (applicable to coil circuits of ac operated relays).

Electrical data:

Minimum insulation resistance:

Initial: 100 megohms.

After life or environmental test: 50 megohms.

Dielectric strength:

Sea level, 2-5 seconds:

	Initial	After life tests
Coil	1250	1000
Contacts (Main)	2000	1500
Contacts (Auxiliary)	1500	1125
Altitude, 1 minute (80,000 feet):		
Coil		500
Contacts (Main and auxiliary)		700

Environmental characteristics:

Temperature range: -70°C to +125°C.

Maximum altitude rating: 80,000 feet.

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Shock, g-level: 50 g's.

Duration: 6-9 ms.

Maximum duration contact opening: 2 ms.

Vibration, sinusoidal:

G level: 10 g's.

Frequency range: 5 - 1500 Hz.

Acceleration, centrifugal: 15 g's.

Terminal strength (high temperature pull and torque test): Not applicable.

Part or Identifying Number (PIN): MS27715- (plus applicable dash number from table I).

- ⑧ **Quality assurance provisions: Groups B and C testing are not required. In the event of a change in the design or construction of the part, the manufacturer shall notify the qualifying activity and shall impose additional testing requirements as necessary.**
- ⑧ **The Qualified Products List (QPL) associated with this inactive for new design specification will be maintained until acquisition of the product is no longer required, whereupon the specification and the QPL will be canceled.**

TABLE I. Dash numbers and general characteristics.

PIN	Coil type	Terminal type	Auxiliary contacts	Maximum weight (pounds)
MS27715-1	dc	Lug	Yes	3.0
MS27715-2	ac	Lug	Yes	3.0

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TABLE II. Rated contact load (amperes per pole) (case grounded).

Type of load	Life operating cycles $\times 10^3$	28 V dc				115 V ac, 1 phase				115/200 V ac 3 phase 1/ Main		240/416 V ac 3 phase 1/ Main		See appropriate notes
		Main		Aux		Main		Aux						
		NO	NC	NO	NC	400 Hz	60 Hz	400 Hz	60 Hz	400 Hz	60 Hz	400 Hz	60 Hz	
Resistive	50	150		10	10	150	100	10		150	100			
Inductive	50													
Inductive	10	100		10	10	100		10		100				
Motor	50	100		5	5	100		5		100				
Lamp				3	3			3						
Transfer load														2/
Mechanical life reduced current	200	25		2.5	2.5									
Intermediate current (B)	50	10		0.10	0.10	10		0.10		10				

1/ 115/200 V ac, 240/416 V ac for 60 Hz ratings. Absence of value indicates that the relay may not be suitable for 3 phase applications.

2/ Transfer load indicates that the relay is suitable for transfer between unsynchronized ac power supplies at the rating indicated.

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TABLE III. Operating characteristics.

PIN	Coil data						Time milliseconds maximum				
	Coil	Rated		Maximum		Max. pick-up voltage 1/	2/	3/	4/	Bounce	
		Volts 1/	Freq. (Hz)	Res. (Ω)	Volts	A				Main	Aux
MS27715-1	X	28	DC	---	29	.6	21	1.5	.040	.015	.002
MS27715-2	X	115	400	---	124	.2	90	10.0	.040	.050	.002

1/ CAUTION: The use of any coil voltage less than the rated coil voltage will compromise the operation of the relay.

2/ Over the temperature range.

3/ With rated coil voltage.

4/ From rated coil voltage.

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CONCLUDING MATERIAL

Preparing activity:
Air Force -85

Agent:
DLA - ES

(Project 5945-F768)