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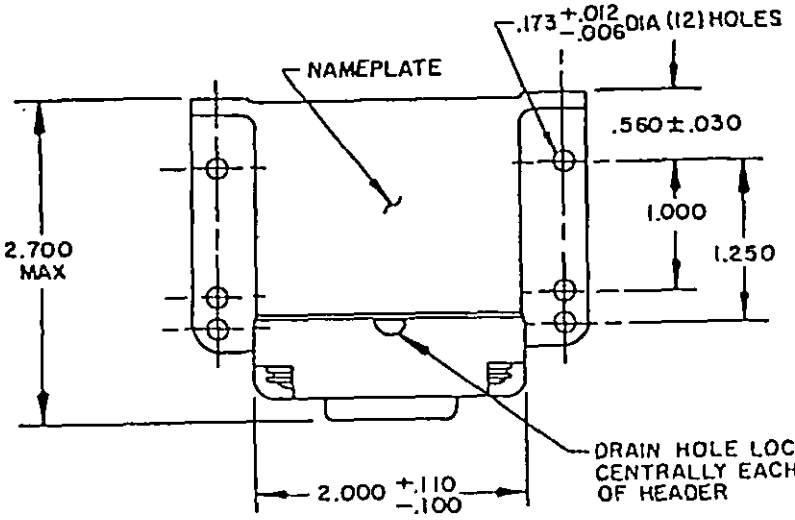

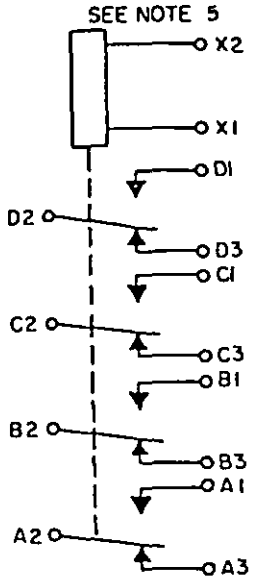

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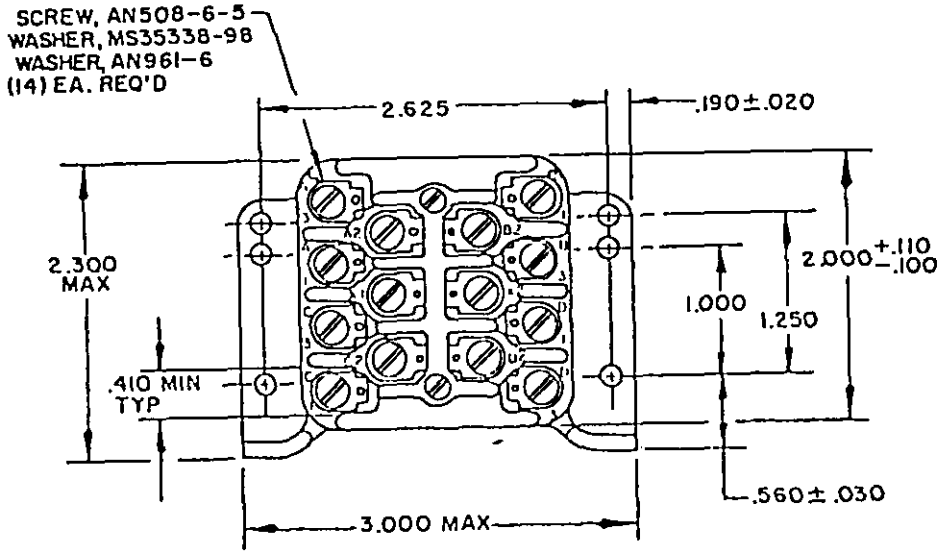

APPROVED 5 May 1959 REVISED (J) 5 JUN 87

(J) ENTIRE STANDARD REVISED

User activities: Army - Navy - Air Force -

Review activities: Army - EC Navy - Air Force - 11, 99

This military standard is approved for use by all Departments and Agencies of the Department of Defense. Selection for all new engineering and design applications and for repetitive use shall be made from this document when applicable.

P.A USAF - 85 Other Cust Navy - AS	International interest	TITLE RELAYS, ELECTROMAGNETIC, 10 AMPERES, 4 POT, TYPE I, HERMETICALLY SEALED	MILITARY STANDARD MS24568
Procurement Specification MIL-R-6106		SUPERSEDES:	PAGE 1 OF 5

DD FORM 1 MAY 73 672 (Coordinated) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE. 5945-0745-03

AMSC N/A

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

Inches	mm	Inches	mm
.006	0.15	.410	10.41
.012	0.30	.560	14.22
.020	0.51	1.000	25.40
.030	0.76	1.250	31.75
.100	2.54	2.000	50.80
.110	2.79	2.300	58.42
.173	4.39	2.685	68.20
.190	4.83	2.700	68.58
		3.000	76.20

NOTES:
1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Unless otherwise specified, tolerances are ±.010 (0.25 mm).
4. Terminal numbers need not appear on relay headers provided there is affixed to the relay a suitable legible circuit diagram that permanently and positively identifies each terminal location specified herein.
5. The use of diodes on ac relays is optional. Actual application must be shown on label (dash numbers -A1 and -A2 are inactive for new design).
6. In the event of a conflict between the text of this standard and the references cited herein, the text of this standard shall take precedence.
7. Referenced Government documents of the issue listed in that issue of the *Department of Defense Index of Specifications and Standards (DODISS)* specified in the solicitation form a part of this standard to the extent specified herein.

TABLE I. Dash numbers and characteristics.

Dash number MS24568-	Type	Coil	Terminal type	Mounting or mating socket	Auxiliary contacts	Max weight in pounds
D1	I	dc	Screw	Bracket	N/A	0.73
A1 1/	I	ac	Screw	Bracket	N/A	0.75
A2 1/	I	ac	Screw	Bracket	N/A	0.75

1/ Dash numbers -A1 and -A2 are inactive for new design and shall be used for support of existing equipment designs only.

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Preparing Activity
MIL-R-6106

International Interest

SUPERSEDES:

TITLE
RELAYS, ELECTROMAGNETIC, 10 AMPERES, 4 PDT, TYPE I, HERMETICALLY SEALED

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TABLE II. Operating characteristics.

MS part no. MS24568-	Coil data											Time milliseconds max					
	Coil	Nominal			Max		Max pick-up voltage			Drop-out voltage 2/	Hold voltage 2/	Operate 3/	Release 4/	Contact bounce			
		Volts 1/	Freq. Hz	Res Ω ±10%	Volts	Amperes	Normal 2/	High temp test	Cont current test					Main		Aux	
														NO	NC	NO	NC
D1	X1, X2	28	dc	92	30	0.05	18	19.5	22.5	1.5	7.0	20	20	3	5		
A1 5/	X1, X2	115	400	N/A	120	0.1	90	95	103	5.0	30	25	50	3	5		
A2 5/	X1, X2	115	50/60	N/A	120	0.1	90	95	103	10	35	95	30	3	3		

1/ CAUTION: Use of any coil voltage less than nominal coil voltage will compromise the operation of the relay.
2/ Over the temperature range.
3/ With nominal coil voltage.
4/ From nominal coil voltage.
5/ Inactive for new design.

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

Type of load	Life operating cycles X 10^3	28 V dc				115 V ac, 1 phase				115/200 V ac, 3 phase 1/				See appropriate notes
		Main		Aux		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	100	10	10			15	10			15	10			
Inductive	100													
Inductive	20	10	10			10	6			10	6			2/
Motor	100	6	6			6	4			6	4			
Lamp	100	3	3			3	2			3	2			
Transfer load														3/
Mechanical life reduced current	400	2.5	2.5			4				4				
Intmd current	Applicable per specification													

1/ Absence of value indicates relay is not rated for 3-phase applications.
2/ Life ac inductive 50,000 operations minimum at rating indicated.
3/ Transfer load indicates relay suitable for transfer between unsynchronized ac power supplies at rating indicated.

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Procurement Specification MIL-R-6106

P.A USAF - 85
Other Cust Navy - AS

International interest

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Environmental characteristics

Temperature range		-70°C to +125°C
Max altitude rating		80,000 ft
Shock G-level		50 G
Duration		11 ms
Max duration contact opening		10 µs
Vibration - sinusoidal		
Sinusoidal 3 inches	excursion	5 to 36 Hz
G-level		Frequency range
20 G		36 to 500 Hz
15 G		500 to 1,000 Hz
10 G		1,000 to 2,000 Hz
Non-operate	15 G	20 to 2,000 Hz
Acceleration	15 G	

Electrical characteristics

Insulation resistance, initial	100 megohms
After life or environmental tests	50 megohms

Dielectric strength (sea level)

	Initial	After life tests
Coil to case	1,000 V rms	1,000 V rms
Aux contacts		
All other points	2,000 V rms	1,500 V rms

Dielectric strength (altitude)

	80,000 ft
Coil to case	500 V rms
Aux contacts	
All other points	700 V rms

Max contact drop initial	0.150 volt
After life test	0.175 volt
Overload current	40 amperes dc, 60 amperes ac
Rupture current	60 amperes dc, 80 amperes ac
Duty rating	Continuous
RFI specification	MIL-STD-461

(Applicable to coil circuits of ac operated relays)

Quality conformance inspection

Performance of groups B and C tests not applicable to dash numbers -A1 and -A2.

APPROVED 5 May 1959 REVISED (J) ENTIRE STANDARD REVISED.