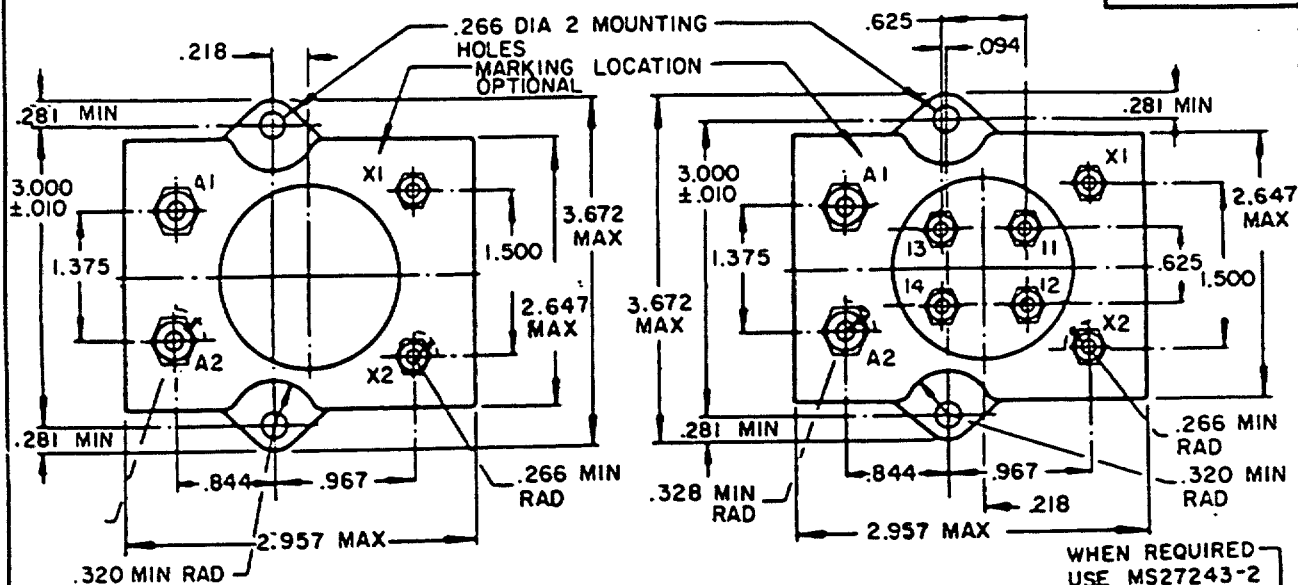
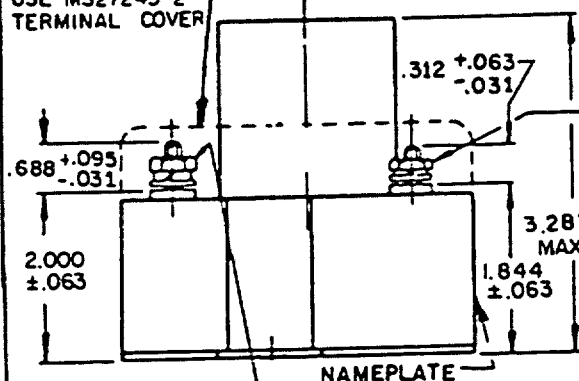


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WHEN REQUIRED
USE MS27243-2
TERMINAL COVER

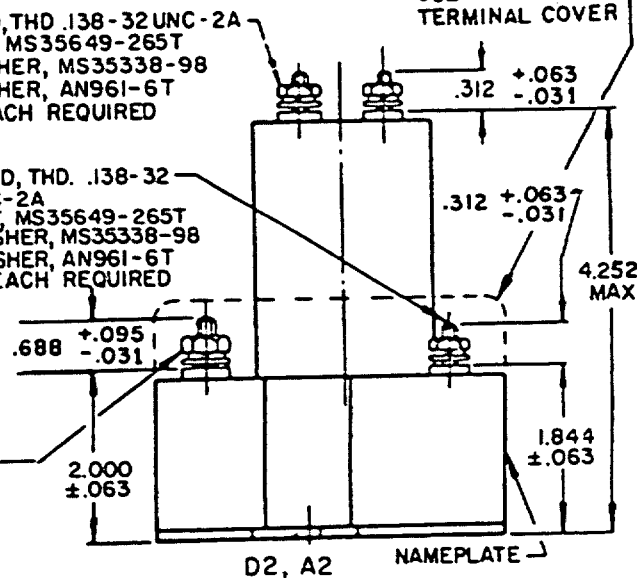


NAMEPLATE
DI, A1
STUD, THD. .250-28 UNF-2A
NUT, MS35650-3255T
WASHER, MS35338-101
WASHER, AN961-416T

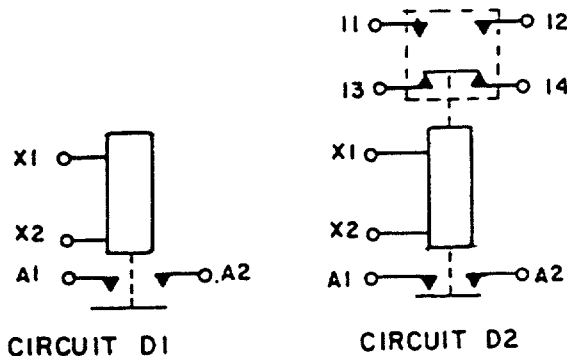
STUD, THD. .138-32 UNC-2A
NUT, MS35649-265T
WASHER, MS35338-98
WASHER, AN961-6T
2 EACH REQUIRED

STUD, THD. .138-32
UNC-2A
NUT, MS35649-265T
WASHER, MS35338-98
WASHER, AN961-6T
2 EACH REQUIRED

WHEN REQUIRED
USE MS27243-2
TERMINAL COVER



Inches	mm	Inches	mm	Inches	mm
.010	0.25	.281	7.14	1.500	38.10
.031	0.79	.312	7.92	1.844	46.84
.063	1.60	.320	8.13	2.000	50.80
.094	2.39	.328	8.33	2.467	67.23
.095	2.41	.625	15.88	2.957	75.11
.138	3.51	.688	17.48	3.000	76.20
.218	5.54	.844	21.44	3.282	83.36
.250	6.35	.967	24.56	3.672	93.27
.266	6.76	1.375	34.93	4.252	108.00



CIRCUIT D1

CIRCUIT D2

PREPARING ACTIVITY: Air Force - 85
CUSTODIANS: ARMY - NAVY - AS
AIR FORCE - 85 DLA -
Air Force - 11, 99
REVIEW: Navy - AS, EC
USER:
PROJECT NUMBER: 5945-0810-02

MILITARY SPECIFICATION SHEET
TITLE RELAYS, ELECTROMAGNETIC,
100 AMPERES, 1PST (NO),
TYPE I, HERMETICALLY SEALED

SPECIFICATION SHEET NUMBER

MS24141H 20 Feb 90

SUPERSSEDING
MS24141G 24 Sept 82

AMSC N/A FSC 5945

DISTRIBUTION STATEMENT

A: Approved for public release; distribution is unlimited.

Page 1 of 4

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NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Unless otherwise specified, tolerances are $\pm .031$.
4. This specification sheet takes precedence over documents referenced herein.
5. Referenced documents shall be of the issue in effect on date of invitation for bid.
6. Coil and auxiliary terminals may use additional flat washer for terminal seat.

TABLE I. Part numbers and characteristics. 1/

Part number MS24141-	Type	Coil	Terminal type	Mounting or mating socket	Auxiliary contacts	Maximum weight in pounds 2/
D1 D2	I	dc	Stud	Flange	None Yes	1.4 1.6

1/ A1 and A2 have been cancelled without replacement.

2/ Weights include covers and barriers.

TABLE II. Operating characteristics.

		Coil data										Time - milliseconds max				1/
Part number MS24141	Coil	Nomina		Max		Max pick-up voltage				Drop out voltage 1/	Operate 3/ 4/	Bounce				
		Volts 2/ 1/	Freq Hz	Ω Res +15% -10	Volts Amp	Normal 1/ test	High temp test	Cont current test	Hold voltage 1/ test			Main	Aux			
D1	X1,X2	28	dc	64.5	29	.50	18	21	22.5	7	1.5	25	10	2.5	----	----
D2	X1,X2	28	dc	64.5	29	.50	18	21	22.5	7	1.5	25	10	2.5	----	2.5
																2.5

1/ Over the temperature range.

2/ CAUTION: Use of any coil voltage less than nominal coil voltage will compromise the operation of the relay.

3/ With nominal coil voltage.

4/ From nominal coil voltage.

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MILITARY SPECIFICATION SHEET
RELAYS, ELECTROMAGNETIC,
100 AMPERES, 1PST (NO),
TYPE I, HERMETICALLY SEALED

SPECIFICATION SHEET NUMBER

MS24141H

SUPERSEDING
MS24141G

AMSC N/A

FSC 5945

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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/		
		Main	Aux	NC	Main	Aux	NC	Main	Aux	Aux
Resistive	50	100	5	5	100	5				
Inductive	10	100	5	5		5				
Inductive										
Motor	50	100			75					
Lamp	50	50	.75	.75	50	.75				
Transfer load 2/										
Mechanical life reduced current	100	25	1.25	1.25		1.25				
Intermediate current	50	10	Per spec		10					

1/ Absence of value indicates relay is not rated for 3 phase application.

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

PREPARING ACTIVITY: Air Force - 85
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Environmental characteristics

Temperature range -70° to +125°C
 Maximum altitude rating 80,000 ft
 Shock G-level 25 g's
 Duration 6-9 ms
 Max duration contact opening 2 ms
 Vibration - Sinusoidal (see table IV)
 Vibration - Random N/A
 High shock N/A
 Acceleration 15 g's

Electrical characteristics

Insulation resistance Initial 100 megohms
 After life or environmental tests 50 megohms
 Dielectric strength (sea level) 2-5 seconds

	Initial	115 V ac	28 V dc	After life tests
Coil to case	1,250 V rms	1,500	1,000 V rms	1,125
Aux contacts	1,250 V rms	1,500	1,000 V rms	1,125
All other points	1,250 V rms	1,500	1,000 V rms	1,125

Dielectric strength (altitude) 1 minute

	28 V dc	115 V ac
Coil to case	500 V rms	500
Aux contacts	500 V rms	500
All other points	500 V rms	500

Max contact drop initial 0.150 volt
 After life test 0.175 volt
 Overload current (NO) 800 amperes
 Rupture current (NO) 1,000 amperes
 Duty rating Continuous
 RFI specification MIL-STD-461
 (Applicable to coil circuits of ac operated relays)

TABLE IV. Vibration levels.

Part number	5-10 Hz	10-55 Hz	55-250 Hz	250-500 Hz	500-1,500 Hz
MS24141-					
D1				10 g's	7 g's
D2	.08 DA	.06 DA	10 g's	5 g's	5 g's

TABLE V. Qualification by similarity.

Part number	Loads		Dynamics 1/3/		Environmental	
	Type 1	Type 1 ERI				
MS24141-	A	B	C	D	E	F
	A	B	C	A	B	C
D1	4					
D2	4 2/			2	4	2/

- 1/ For Group C testing, each dash number shall be tested to meet vibration requirements.
 2/ Testing of relays with auxiliary contacts. Reference appendix I.
 3/ All relays must be tested. Reference MIL-R-6106, appendix I.

PREPARING ACTIVITY: Air Force - 85
 CUSTODIANS: ARMY - NAVY - AS
 AIR FORCE - 85 DLA -
 Air Force - 11, 99
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TITLE

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 RELAYS, ELECTROMAGNETIC,
 100 AMPERES, 1PST (NO),
 TYPE I, HERMETICALLY SEALED

SPECIFICATION SHEET NUMBER

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SUPERSEDING
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