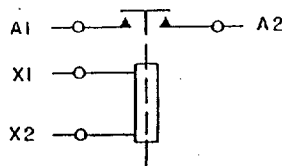
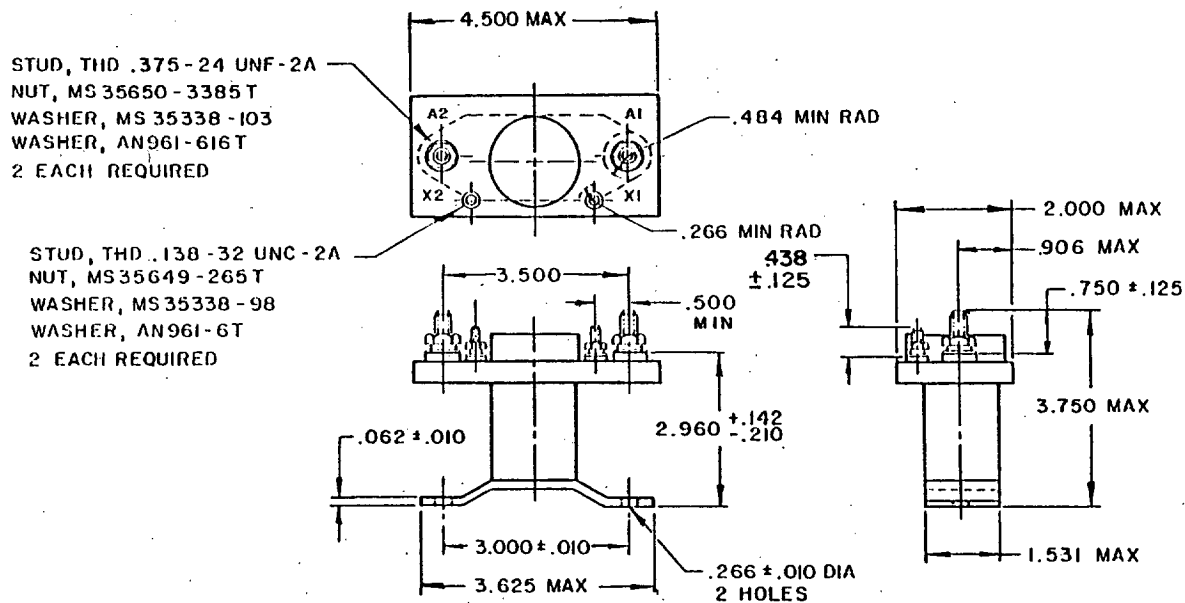


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CIRCUIT (applicable to configurations A and B)

CONFIGURATION A. Outline drawing (for details see tables I and II).

(H) Denotes Changes

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CUSTODIANS: ARMY - NAVY - AS
AIR FORCE - 85 DLA -
NAVY - AS, EC
REVIEW: AIR FORCE-II, 99
USER:
PROJECT NUMBER: 5945-0841-01

MILITARY SPECIFICATION SHEET
TITLE
RELAYS, ELECTROMAGNETIC,
200 AMPERES, 1PST (N O),
TYPE III, NON-HERMETICALLY
SEALED

SPECIFICATION SHEET NUMBER
MS24172H 25 July 1990
SUPERSEDING
MS24172G 24 Jan 1990
AMSC N/A FSC 5945

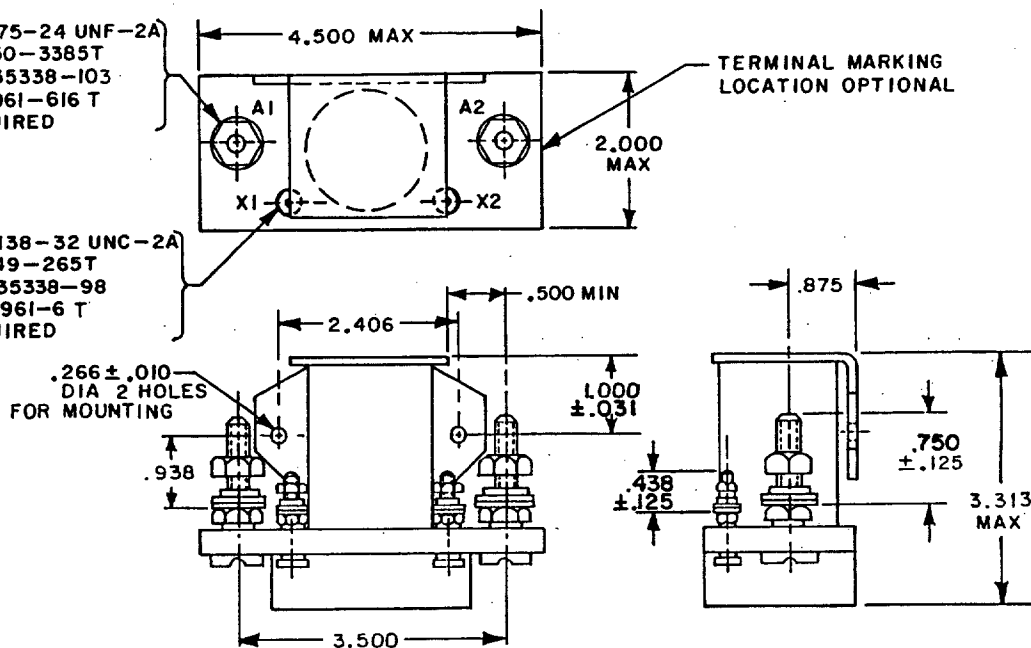
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STUD, THD .375-24 UNF-2A
NUT, MS35650-3385T
WASHER, MS35338-103
WASHER, AN961-616 T
2 EACH REQUIRED

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



CONFIGURATION B. Outline drawing (for details see tables I and II).

Inches	mm	Inches	mm	Inches	mm
.010	0.25	.484	12.30	2.000	50.80
.062	1.57	.500	12.70	2.406	61.11
.125	3.18	.750	19.06	3.960	75.18
.138	3.51	.813	20.66	3.000	76.20
.142	3.61	.875	22.22	3.313	84.15
.210	5.33	.906	23.01	3.500	88.90
.266	6.76	.938	23.83	3.750	95.26
.375	9.52	1.000	25.40	4.500	114.30
.438	11.13	1.531	38.89		

NOTES:

1. Dimensions are in inches.
2. Terminal cover not required.
3. Additional flat washer may be used for terminal seat.
4. Part number MS24172-D1 replaces part no. MS24172-1.
5. This specification sheet takes precedence over documents referenced herein.
6. Referenced documents shall be of the issue in effect on date of invitation for bid.
7. Metric equivalents are given for general information only.
8. Unless otherwise specified, tolerances are $\pm .062$ (1.57 mm).
9. Terminal temperature rise under continuous current conditions, 95°C. Intermediate current to be conducted at 71°C.
10. Shape of relay optional within envelope dimensions.

PREPARING ACTIVITY: AF-85
CUSTODIANS: ARMY - NAVY-AS
AIR FORCE-85 DLA-
NAVY-AS, EC
REVIEW: AF-11,99
USER:
PROJECT NUMBER: 5945-0841-01

MILITARY SPECIFICATION SHEET
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RELAYS, ELECTROMAGNETIC,
200 AMPERES, 1PST (N O),
TYPE III, NON-HERMETICALLY
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MS24172H
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MS24172G 24 Jan 1990
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TABLE I. Dash numbers and characteristics.

Dash number MS24172-	Type	Coil	Terminal type	Mounting or mating socket	Max weight in pounds
D1 1/	III	dc	Stud	Bracket - bottom	1.33
D2 2/	III	dc	Stud	Bracket - side	1.33

1/ For Government logistics support MS24172-D1 shall be used in lieu of AN3371-2.

2/ For Government logistics support MS24172-D2 shall be used in lieu of AN3371-1.

TABLE II. Operating characteristics.

MS part no.	Coil data							Time (milliseconds - maximum)								
	Coil	Nominal		Max		Max pick-up voltage		Hold volt- age 2/ <u> </u>	Drop out voltage 2/ <u> </u>	Operate 3/ <u> </u>	Release 4/ <u> </u>	Bounce				
		Volts 1/ <u> </u>	Freq Hz	Resn minimum 25 C +15% -10%	Volts	Amperes	Normal 2/ <u> </u>					High temp test	Cont current test	Main		Aux
														NO	NC	
MS24172																
D1	X1, X2	28	dc	10	4.5	7.5	11.5	---	3.0	.5	25	18	5.0			
D2	X1, X2	28	dc	10	4.5	7.5	11.5	---	3.0	.5	25	18	5.0			

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.

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 AIR FORCE- 85 DLA-
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 MILITARY SPECIFICATION SHEET
 RELAYS, ELECTROMAGNETIC,
 200 AMPERES, 1PST (N O),
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SPECIFICATION SHEET NUMBER
 MS24172H
 SUPERSEDING
 MS24172G 24 Jan 1990
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(H) 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	50	200												
Inductive	10	100												
Inductive														
Motor	50	200												
Lamp														
Transfer load														2/
Mechanical life reduced current	100	50												
Intermediate current														

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.

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PREPARING ACTIVITY: AF-85
CUSTODIANS: ARMY - NAVY - AS
AIR FORCE - 85 DLA -
REVIEW: AF-11,99
USER: NAVY AS, EC
PROJECT NUMBER: 5945-D841-01
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RELAYS, ELECTROMAGNETIC,
200 AMPERES, 1PST (N O),
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CUSTODIANS: ARMY- NAVY- AS
AIR FORCE- 85 DLA-
REVIEW: AF-11,99
USER: NAVY-AS, EC
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200 AMPERES, 1PST (N O),
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ENVIRONMENTAL CHARACTERISTICS

Temperature range -55°C to +71°C
Maximum altitude rating 50,000 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 10 g's

TABLE IV. Vibration levels.

5-10 Hz	10-55 Hz	55-250 Hz	250-500 Hz	500-1,500 Hz
.08 DA	.06 DA	2 g's	2 g's	

Qualification by similarity (see table V)

TABLE V. Qualification by similarity.

Part number MS24172-	Loads			Dynamics 1/			Environmental		
	Type 1	Type 1 ER							
	A B C	D E F	A	B	C	A	B	C	
D1	4			2			4		
D2	4			2			4		

1/ For Group C testing, each dash number shall be tested to meet vibration requirements.

ELECTRICAL CHARACTERISTICS

Insulation resistance initial
After life or environmental tests
Dielectric strength (sea level)

Initial After life tests

	28 V dc	115 V ac	28 V dc	115 V ac
Coil to case	1,250 V rms	N/A	1,000 V rms	N/A
Aux contacts	1,250 V rms	N/A	1,000 V rms	N/A
All other points	1,250 V rms	N/A	1,000 V rms	N/A

Dielectric strength (altitude) 1 minute

	28 V dc	115 V ac
Coil to case	500 V rms	N/A
Aux contacts	500 V rms	N/A
All other points	700 V rms	N/A

Max contact drop initial
After life test
Overload current
Rupture current
Duty rating
RFI spec
(Applicable to coil circuits of ac operated relays)

0.150 volt
0.175 volt
(NO) 1,600 amperes
(NO) 2,000 amperes
Intermittant
MIL-STD-461