

User activities: Army
Navy
Air Force

Reviewer activities: USAF 99.11
Navy - EC

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FED. SUP CLASS
5945

REMARKS OF SECURED STUDS IS OPTIONAL BUT SUITABLE TERMINAL BEARING SURFACES SHALL BE PROVIDED

5.188 MAX

5.31 ±.093

1.500 MAX

2.000

1.903

2.625 MAX

5.188 MAX

2.625 MAX

.312 MIN CLEARANCE RADII CONTACT TERMINALS

.305

.813

1.425

.609 ±.125

1.938

.313

2.281 ±.010

1.938

.313

.718 ±.010 DIA b HOLES

1.375 ±.010

.688 ±.010

.266 MIN CLEARANCE RADII COIL TERMINALS

CIRCUIT

STUD, THREAD J38-32UNC-2A
NUT, MS35449-285T
WASHER, MS35330-98
WASHER, AMP61-6
b EACH REQUIRED

MARKING LOCATION OPTIONAL

STUD, TID .180-32UNC-2A
NUT, MS35480-808T
WASHER, MS35330-100
WASHER, AMP61-10
b EACH REQUIRED

NOTES:-

- 1) DIMENSIONS ARE IN INCHES. UNLESS OTHERWISE SPECIFIED, TOLERANCES - DECIMALS = .062
- 2) ADDITIONAL FLAT WASHER MAY BE USED FOR TERMINAL SEAT
- 3) MECHANICAL LINKAGE SHALL BE PROVIDED TO PREVENT BOTH RELAYS BEING CLOSED AT THE SAME TIME
- 4) PART NUMBERS MS25030-2 AND -3 INACTIVE FOR DESIGN AFTER 25 NOVEMBER 1957
PART NUMBERS MS25030DIA AND DIB REPLACE -2 AND -3 RESPECTIVELY
PART NUMBER MS25030 DIA CANCELED AFTER 30 DECEMBER 1966. USE MS25030 DIB
- 5) FOR DESIGN FEATURE PURPOSES THIS STANDARD TAKES PRECEDENCE OVER PROCUREMENT DOCUMENTS REFERENCED HEREIN
- 6) REFERENCED DOCUMENTS SHALL BE OF THE ISSUE IN EFFECT ON DATE OF INVITATION FOR BID

Ⓛ DENOTES CHANGE

MS PART NUMBER	TYPE	COIL TYPE	TERMINAL TYPE	MOUNTING OR MATING SOCKET	AUXILIARY CONTACTS	MAX WEIGHT IN POUNDS
MS25030-01B	II	DC	STUD	PLATE	N/A	1.7

P.A AF-85	TITLE RELAY, 50AMP, 2PDT NO TYPE II, NON-HERMETICALLY SEALED, MECHANICALLY INTERLOCKED	MILITARY STANDARD
Other Cust NAVY-AS		MS25030
Procurement Specification MIL-R-6106	SUPERSEDES:	PAGE 1 OF 3

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OPERATING CHARACTERISTICS

MS part no.	Coil	Coil Data										Time milliseconds - Max 2/									
		Nominal			Max			Max pick-up voltage 1/				Drop out voltage 1/	Hold voltage 1/	Operate	Release	Bounce					
		Volts	Freq Hz	Res +15% -10%	Volts	Amp	Normal 1	High temp test	Cont current test	Main						Aux					
										NO						NC		NO		NC	
WS25030-D1B	X1,X2 Y1,Y2	28	DC	66	29	.5	18	21	22.5	1.5	7.0	25	15	5.0	--	--	--				

MS25030-D1B	X1, X2 Y1, Y2	28	DC	66	29	.5	18	21	22.5	1.5	7.0	25	15	5.0	--	--	--	--
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RATED CONTACT LOAD (AMPERES PER POLE)

CASE GROUNDED

TYPE OF LOAD	LIFE OPERATING CYCLES X 10 ³	28 VDC				115 VAC, 1 PHASE				115/200 VAC, 3PHASE 3/				See Appropriate Notes
		Main		Aux		Main		Aux		Main		Aux		
		NO	NC	NO	NC	400 Hz	60 Hz	400 Hz	60 Hz	400Hz	60 Hz	400Hz	60 Hz	
RESISTIVE	50	50	-	-	-	50	-	-	-	-	-	-	-	
INDUCTIVE	10	50	-	-	-	-	-	-	-	-	-	-	-	
INDUCTIVE														
MOTOR	50	50	-	-	-	35	-	-	-	-	-	-	-	
LAMP														
TRANSFER, LOAD														4/
MECHANICAL LIFE REDUCED CURRENT	100	12.5	-	-	-	12.5	-	-	-	-	-	-	-	
MIN CURRENT	50	5	-	-	-	-	-	-	-	-	-	-	-	

ENVIRONMENTAL CHARACTERISTICS

TEMPERATURE RANGE -55 TO +71 °C
 MAX ALTITUDE RATING 50,000 FT
 SHOCK G-LEVEL 25 G
 DURATION 6-9 MS
 MAX DURATION CONTACT OPENING 2 MS
 VIBRATION - SINUSOIDAL (SEE CHART BELOW)
 G-LEVEL G
 FREQUENCY RANGE Hz
 VIBRATION-RANDOM
 APPLICABLE SPEC N/A
 POWER SPECTRAL DENSITY N/A
 RMS G MIN
 FREQUENCY RANGE N/A
 CURVE
 HIGH SHOCK N/A
 ACCELERATION 10 G

ELECTRICAL CHARACTERISTICS

MIN. INSULATION RESISTANCE, INITIAL 100 MEGOHMS
 AFTER LIFE OR ENVIRONMENTAL TESTS 50 MEGOHMS
 DIELECTRIC STRENGTH (SEA LEVEL) 2-5 SECONDS

	Initial	After Life Tests		
	28 VDC	115 VAC	28V	115V
COIL TO CASE	1250	N/A	1000	N/A
AUX CONTACTS	1250	N/A	1000	N/A
ALL OTHER POINTS	1250	1500	1000	1125

 DIELECTRIC STRENGTH (ALTITUDE) 1 MINUTE

	28 VDC	115 VAC
COIL TO CASE	500	N/A
AUX CONTACTS	500	N/A
ALL OTHER POINTS	500	500

 MAX CONTACT DROP INITIAL 150 VOLTS
 AFTER LIFE TEST 175 VOLTS
 OVERLOAD CURRENT (I.N.O.) 400 AMPS
 RUPTURE CURRENT (I.N.O.) 500 AMPS
 DUTY RATING CONTINUOUS
 RFI SPEC
 (APPLICABLE TO COIL CIRCUITS OF AC OPERATED RELAYS)

NOTES, APPLICATION

- 1/ Over temperature range.
- 2/ With nominal coil voltage.
- 3/ Absence of value indicates relay is not rated for 3 phase applications.
- 4/ Transfer load indicates relay suitable for transfer between unsynchronized AC power supplies at rating indicated.

DASH NO.	VIBRATION LEVEL				
	5-10 Hz	10-55 Hz	55-250 Hz	250-500 Hz	500-1500 Hz
D1B	.08 DA	.06 DA	2 G's	2 G's	

P.A AF-85

Other: Cust

NAVY-AS

TITLE

RELAY, 50 AMP, 2PDT NO TYPE II, NON-HERMETICALLY SEALED,
MECHANICALLY INTERLOCKED

MILITARY STANDARD

MS25030

Procurement Specification

MIL-R-6106

SUPERSEDES:

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DD FORM 672 (Coordinated) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE.

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① Qualification By Similarity.

Part Number	Loads						Dynamics 1/			Environmental		
	Type I			Type I ER			A	X	Y	A	B	C
	A	B	C	D	E	F						
MS25030-D 1B	4						2			4		

1/ All units must be tested, reference amendment 1, appendix 1, MIL-R-6106, construction, internal.

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Other Cust NAVY-AS	RELAY, 50 AMP, 2PDT NO TYPE II, NON-HERMETICALLY SEALED, MECHANICALLY INTERLOCKED	MS25030
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