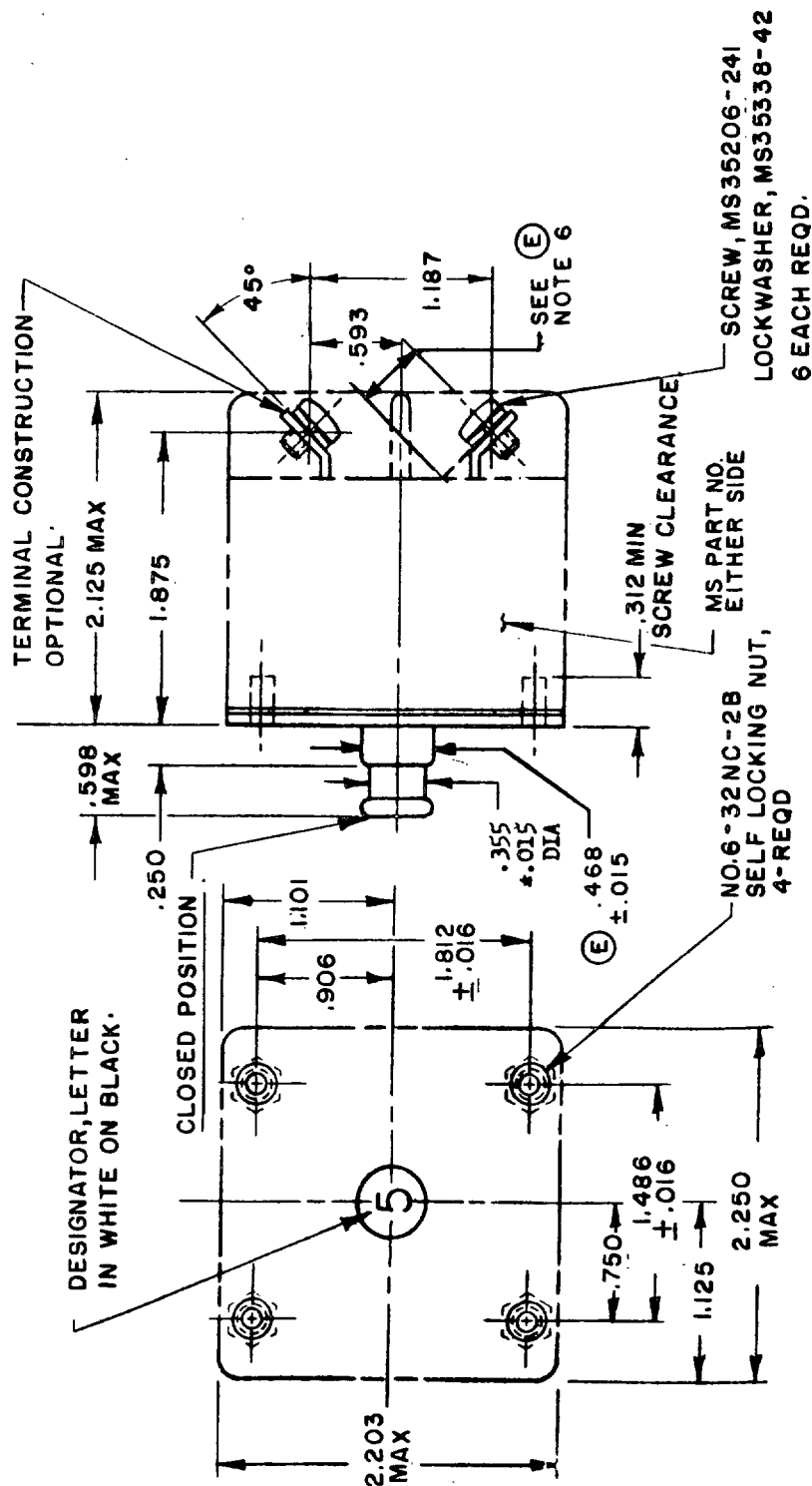


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User activities: Army  
Navy  
Air Force

Reviewer activities: Army  
Navy  
Air Force



(E) DENOTES CHANGES

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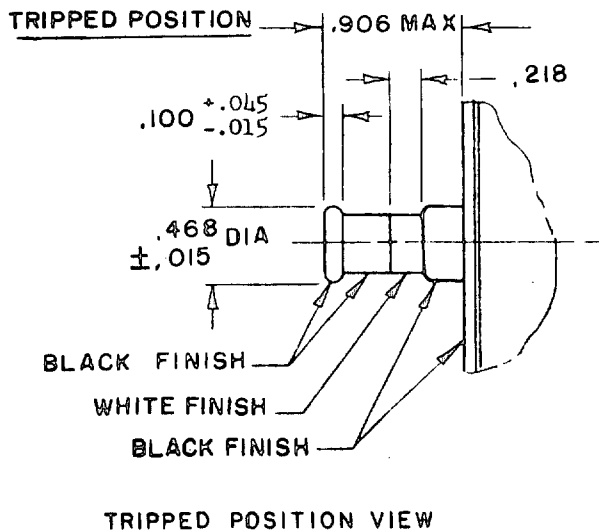
P.A. USAF - 85	International Interest	TITLE CIRCUIT BREAKER-AIRCRAFT, TRIP-FREE, PUSH-PULL, 3-PHASE, 5 THRU 60 AMP., TYPE I	MILITARY STANDARD
Other Cust NAVY - AS ARMY - ER	(SEE NOTE)		MS21984
Procurement Specification MIL-C-5809		SUPERSEDES: MS25378(AER) MS24549(ASG)	SHEET 1 OF 4

DD FORM 1 SEP 63 672

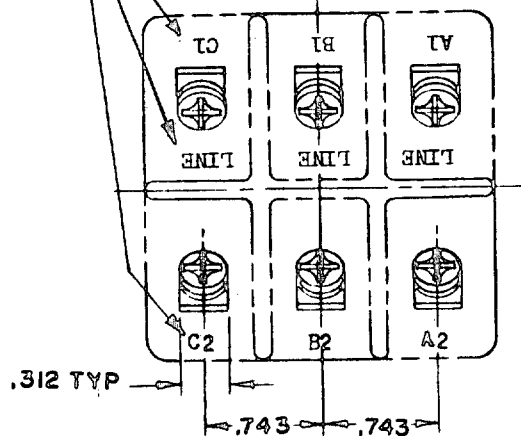
(Coordinated) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE.

5925-0148-1

APPROVED 30 JAN 61 REVISED A 7 JUN 61 B 10 JULY 68 C 27 FEB 69 D 24 JUNE 71 E 12 APR 84

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5925

IDENTIFY ALL TERMINALS AS SHOWN. LINE TERMINAL IDENTIFICATION MUST BE CLEARLY VISIBLE WITH TERMINALS INSTALLED.



## NOTES:

1. Dimensions in inches unless otherwise specified. Tolerance: Decimals  $\pm .031$ ; angles  $\pm 2^\circ$ .
2. Phantom lines indicate that contour is optional provided maximum dimensions are not exceeded.
3. Trip free requirements per paragraph 6.4.6.2 of MIL-C-5809
4. Interchangeability relationship: MS21984 parts are interchangeable with MS25378 and MS24549 parts of the same dash numbers.
5. Certain provisions of this standard are subject of international agreement ASCC 12/3. When revision or cancellation of this standard is proposed, the departmental custodians will inform their respective departmental standardization office so that appropriate action may be taken respecting the international agreement concerned.
6. .425 min. typ. clearance from CL of screw to case.

FOR DESIGN FEATURE PURPOSES, THIS STANDARD TAKES PRECEDENCE OVER PROCUREMENT DOCUMENTS REFERENCED HEREIN. REFERENCE DOCUMENTS SHALL BE OF THE ISSUE IN EFFECT ON DATE OF INVITATION FOR BID.

P.A. USAF - 85	International Interest	TITLE	MILITARY STANDARD
Other Cust NAVY - AS ARMY - ER	(SEE NOTE)	CIRCUIT BREAKER-AIRCRAFT, TRIP-FREE, PUSH-PULL, 3-PHASE, 5 THRU 60 AMP., TYPE I	MS 21984
Procurement Specification MIL-C-5809		SUPERSEDES: MS25378(AER) MS24549(ASG)	SHEET 2 OF 4

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TABLE I

Electrical and mechanical characteristics										
Dash number	Capacity amperes	Voltage drop Max	Weight Max lbs	Operating force		Endurance cycles				
				max lbs		Resistive		Inductive		Mech no load
				Pull out	Reset	AC	DC	AC	DC	
-5	5	0.3	0.5	8	15	(a)	None	(a)	None	5,000
-7 1/2	7.5	"	"	"	"	5,000	"	5,000	"	"
-10	10	"	"	"	"	"	"	"	"	"
-15	15	"	"	"	"	"	"	"	"	"
-20	20	"	"	"	"	"	"	"	"	"
-25	25	"	"	"	"	"	"	"	"	"
-30	30	"	"	"	"	"	"	"	"	"
-35	35	"	"	"	"	"	"	"	"	"
-50	50	"	"	"	"	"	"	"	"	"
-60	60	"	"	"	"	"	"	"	"	"

(a) 400 cycle 115/200 volt system, tested at 120  $\pm$  5 volts 380-420 Hz.

TABLE II

Rupture current (amperes) requirements													
Dash number	Test designation per MIL-C-5809												
	A				B				C	D	E	F	G
	10	30	10	30	10	30	10	30					10
-5	*	*	*	*	*	*	*	*	*	*	*	*	2,500
-7 1/2	"	"	"	"	"	"	"	"	"	"	"	"	1,500
-10	"	"	"	"	"	"	"	"	"	"	"	"	2,500
-15	"	"	"	"	"	"	"	"	"	"	"	"	1,500
-20	"	"	"	"	"	"	"	"	"	"	"	"	"
-25	"	"	"	"	"	"	"	"	"	"	"	"	"
-30	"	"	"	"	"	"	"	"	"	"	"	"	"
-35	"	"	"	"	"	"	"	"	"	"	"	"	"
-50	"	"	"	"	"	"	"	"	"	"	"	"	"
-60	"	"	"	"	"	"	"	"	"	"	"	"	"

(\*) Not applicable.

## NOMINAL VOLTAGE RATING

115 volts

400 Hz line to neutral or 200 volts

400 Hz line to line.

(E)

User activities: Army  
Navy  
Air ForceReviewer activities: Army  
Navy  
Air Force

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P.A. USAF - 85	International interest	TITLE	MILITARY STANDARD
Other Cust NAVY - AS ARMY - ER	(SEE NOTE)	CIRCUIT BREAKER-AIRCRAFT, TRIP-FREE, PUSH-PULL, 3-PHASE, 5 THRU 60 AMP., TYPE I	MS21984
Procurement Specification MIL-C-5809	SUPERSEDES: MS25378(AER) MS24549(ASG)	SHEET 3 OF 4	

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

5925-0148-1

APPROVED 30 JAN 61 REVISED 'E' FOR CHANGES SEE PAGES 1, 2 &amp; 3

FED. SUP CLASS  
5925User activities: Army  
Navy  
Air ForceReviewer activities: Army  
Navy  
Air Force

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TABLE III

Detail calibration requirements - trip time in seconds																	
Dash number	+25°C						-55°C						+71°				
	Percent rated current						Percent rated current						Percent rated current				
	100	105	138	145	200	400	1,000	130	160	200	400	1,000	70	110	200	400	1,000
-5	*				10	12	.35										*
-7 1/2	"				to	to	to										"
-10	"				70	10	2.0										"
-15	"				(c)	(c)	(c)										"
-20	"				"	"	"										"
-25	"				"	"	"										"
-30	"				"	"	"										"
-35	"				"	"	"										"
-50	"				"	"	"										"
-60	"				"	"	"										"
		NO TRIP - 1 HR MAX	TRIP WITHIN - 1 HR	TRIP PHASE - 1 HR MAX	ONE PHASE - 1 HR MAX			NO TRIP - 1 HR MAX	TRIP WITHIN - 1 HR				NO TRIP - 1 HR MAX	TRIP WITHIN - 1 HR			
		(b)	(b)	(a)	(a)			(b)	(b)				(b)	(b)			

- (a) Unbalanced three phase load. (One phase at specified overload. Other phases carrying rated current.)
- (b) Balanced three phase load unless otherwise indicated.
- (c) Single phase load only. (No load other phases)
- (d) Ambient temperature tolerance  $\pm 2^\circ\text{C}$ .
- (\*) Not applicable.

TABLE IV

Environmental Performance	
Max operating altitude - FT	60,000
Operating ambient temp range	-55°C to +71°C
Vibration	MIL-STD-202, Method 204, condition A
Shock	30G MIL-STD-202, Method 213 Test J
Acceleration	10G

P.A. USAF - 85

Other Cust  
NAVY - AS  
ARMY - ERProcurement Specification  
MIL-C-5809International  
interest

(SEE NOTE)

TITLE

CIRCUIT BREAKER-AIRCRAFT, TRIP-FREE,  
PUSH-PULL, 3-PHASE, 5 THRU 60 AMP., TYPE ISUPERSEDES: MS25378(AER,  
MS24549(ASG)

MILITARY STANDARD

MS21984

SHEET 4 OF 4

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