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User activities: AF-99

Review activities: AF-99

COIL TERMINALS					FED. SUP CLASS 5945																		
NO. 6-32 UNF-2A, STUD MS 35338-41, LOCKWASHER AN 961-6T, FLATWASHER MS 35649-263 T, NUT																							
203 R CLEARANCE																							
.170-.203 DIA 4 MTG HOLES																							
.010 2.000 2.44 MAX 2.50 DIA MAX 2.000 .010 2.44 MAX																							
.375 DIA LUG SEAT .437 MAX DIA LUG																							
TERMINAL COVER																							
2.00 MAX 2.50 MAX 3.13 MAX .10 MAX																							
NAMEPLATE AND CIRCUIT																							
POWER TERMINALS NO. 10-32 UNF-2A, STUD MS 35338-43, LOCKWASHER AN 961-10T, FLATWASHER MS 35650-303 T, NUT																							
+Y1 -Y2 C3 C2 C1 B3 B2 B1 A3 A2 A1 +X1 -X2																							
CIRCUI T DIAGRAM -1																							
TRANSIENT SUPPRESSION DEVICE																							
+Y1 -Y2 C3 C2 C1 B3 B2 B1 A3 A2 A1 +X1 -X2																							
CIRCUI T DIAGRAM -2 (OBSERVE POLARITY)																							
NOTES:																							
1. Dimensions are in inches.																							
2. Unless otherwise specified, tolerance is $\pm .031$ (0.79 mm).																							
3. 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.																							
4. 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.																							
5. Weight includes terminal barriers.																							
6. Suppression level - the maximum induced transient voltage (back EMF) shall be 42 volts.																							
7. Metric equivalents are given for general information only.																							
<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>MS PART NUMBER</th> <th>TYPE</th> <th>COIL</th> <th>TERMINAL TYPE</th> <th>MOUNTING</th> <th>MAX WEIGHT IN POUNDS</th> </tr> </thead> <tbody> <tr> <td>MS 27750-1</td> <td>I</td> <td>DC</td> <td>STUD</td> <td>PLATE</td> <td>.969</td> </tr> <tr> <td>MS 27750-2</td> <td>I</td> <td>DC</td> <td>STUD</td> <td>PLATE</td> <td>.969</td> </tr> </tbody> </table>						MS PART NUMBER	TYPE	COIL	TERMINAL TYPE	MOUNTING	MAX WEIGHT IN POUNDS	MS 27750-1	I	DC	STUD	PLATE	.969	MS 27750-2	I	DC	STUD	PLATE	.969
MS PART NUMBER	TYPE	COIL	TERMINAL TYPE	MOUNTING	MAX WEIGHT IN POUNDS																		
MS 27750-1	I	DC	STUD	PLATE	.969																		
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(F) denotes changes																							
P.A AF-85  Other Cust		International Interest		TITLE RELAYS, ELECTROMAGNETIC, 50 AMPERES, 3 PDT-NO., CENTER OFF, HERMETICALLY SEALED																			
MIL-R-6106		SUPERSEDES:		MILITARY STANDARD <b>MS 27750 (85)</b>																			
DD FORM 1 MAY 73 672		(Limited coordinated)		PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE.																			
5945-F619		17 JAN 72		REVISED (E) 29 APR 1985 (F) 4 MAR 86																			

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P.A. AF-85	International Interest	TITLE RELAYS, ELECTROMAGNETIC, 50 AMPERES, 3 PDT-NO., CENTER OFF, HERMETICALLY SEALED	MILITARY STANDARD
Other Cust			MS27750 (85)
Procurement Specification MIL-R-6106	SUPERSEDES:		PAGE 2 OF 3

DD FORM 672 (Limited coordinated) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

# OPERATING CHARACTERISTICS (F)

COIL DATA											TIME-MILLISECONDS-MAX							
MS PART NO.	C 0 L	Nominal	Max	Max Pick-up Voltage	Drop Out	Hold 1/ voltage	High Cont		Operate 2/ voltage	Release 3/ voltage	Bounce							
							Volts Freq	Resi Ω			Volts Amp	Nominal 1/ Temp	Main	Aux				
															Hz	MIN	25 °C	1/ Test
MS27750-1	X1,X2	28	DC	150	29	.190	18	20	21	1.5	7.0	35	25	3				
	-2X1,X2	28	DC	150	29	.190	18	20	21	1.5	7.0	35	25	3				

## RATED CONTACT LOAD (AMPERES PER POLE) CASE GROUNDED

TYPE OF LOAD	LIFE OPERATING CYCLES x 10 <sup>3</sup>	28 V dc		115 V ac, 1 PHASE		115/200 V ac, 3 PHASE 4/		See Appropriate Notes
		Main	Aux	Main	Aux	Main	Aux	
		NO TYP	NO TYP	400 Hz	60 Hz	400 Hz	60 Hz	
Resistive	50	25		50		50		
Inductive	20	15						
Inductive	50			50		50		
Motor	30	15		30		30		
Lamp	50	10		15		15		
Transfer, Load	10			12.5		12.5		5/
Mechanical Life Reduced Current	200	7		14		14		
Min Current	50	1		5		5		

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

FED. SUP CLASS  
5945

APPROVED 17 JAN 72 REVISED (F) FOR CHANGES SEE PAGES 1 & 2

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ENVIRONMENTAL CHARACTERISTICS

Temperature range - - - - -55°C to +71°C  
 Max altitude rating - - - - -50,000 ft  
 Shock G-level - - - - -50 G  
   Duration - - - - -6 ms  
   Max duration contact opening - 10 μs  
 Vibration sinusoidal  
   G-level - - - - -10 G  
   Frequency range - - - - -70-2,000 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	1000 V rms   1000 V rms
Aux contacts	
All other points	1000 V rms   1150 V rms
Dielectric strength (altitude)	
50,000 Ft	
Coil to case	500 V rms
Aux contacts	
All other points	700 V rms
Max contact drop initial	150 volts
After life test	175 volts
Overload current	100 A dc; 115/200 V ac;
	400 Hz 400 A
Rupture current	125 A dc; 115/200 V ac;
	400 Hz 400 A
Duty rating	Continuous

P.A AF-85	International Interest	TITLE	MILITARY STANDARD
Other Cust		RELAYS, ELECTROMAGNETIC, 50 AMPERES, 3 PDT-NO., CENTER OFF, HERMETICALLY SEALED	MS27750 (85)
Procurement Specification		SUPERSEDES:	PAGE 3 OF 3
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