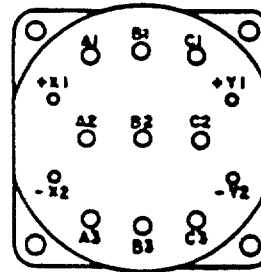
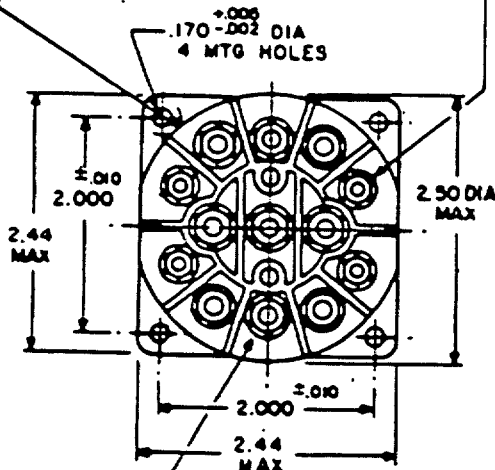
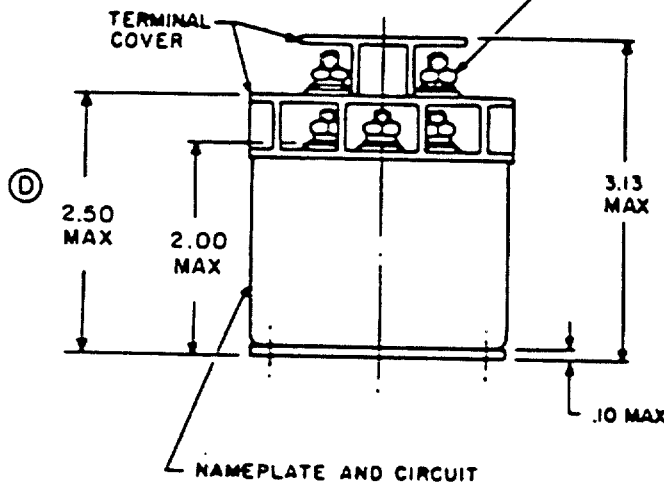


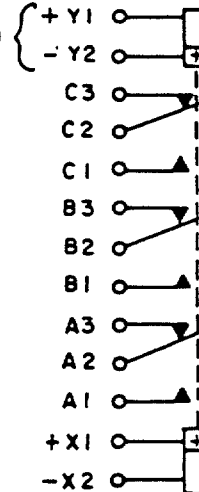
FED. SUP CLASS
5945203 R
CLEARANCECOIL TERMINALS
.138-32 UNC-2A, STUD
MS35338-41 LOCKWASHER
AN961-6T, FLATWASHER
MS35649-265T, NUT

TERMINAL LAYOUT

INCHES	MM
.002	0.05
.005	0.13
.010	0.25
.10	2.5
.170	4.32
.203	5.16
.375	9.52
.437	11.10
1.91	48.5
2.000	50.80
2.44	62.0
2.45	62.2
2.50	63.5
3.13	79.5

.375 DIA LUG SEAT
.437 MAX DIA LUGPOWER TERMINALS
.190-32 UNF-2A, STUD
MS35338-43, LOCKWASHER
AN961-10T, FLATWASHER
MS35650-305T, NUT

LAST ENERGIZED



CIRCUIT DIAGRAM

NOTES:

1. Dimensions are in inches.
2. Unless otherwise specified, tolerance is ± 0.031 (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. Relay is magnetically latched in both positions.
6. Coils are not to be energized simultaneously (unless connected series aiding).
7. Metric equivalents are given for general information only.

MS PART NUMBER	TYPE	COIL	TERMINAL TYPE	MOUNTING	MAX WEIGHT IN POUNDS 1/
MS 27749-1	I	DC	STUD	PLATE	.875
MS 27749-2	I	DC	STUD	PLATE	.875

1/ Weight includes terminal barriers.

① Denotes change

P.A. AF-85	International Interest	① TITLE RELAYS, ELECTROMAGNETIC, 60 AMPERES, 3 PDT, MAGNETIC LATCH, HERMETICALLY SEALED	MILITARY STANDARD
Other Cust			MS27749 (85)
Procurement Specification MIL-R-6106	SUPERSEDES:		PAGE 1 OF 4

Review activity: AF-99

This military standard is approved for use within the Department of the Air Force, and is available for use by all Departments and Agencies of the Department of Defense.

APPROVED 17 JAN 72 REVISED ① 19 MAR 82 ② 29 APR 85

Review activity: AF-99

This military standard is approved for use within the Department of the Air Force, and is available for use by all Departments and Agencies of the Department of Defense.

FED. SUP CLASS
5945

OPERATING CHARACTERISTICS

COIL DATA										TIME-MILLISECOND-MAX			
Part No. MS 27749	Nominal		Max.			Max. Pick-up Voltage			Drop Out Voltage 2/	Operate 3/	Reset 4/	Bounce	
	C	Volts	Freq Hz	Res n ±10%	Volts	Amp @ 25°C	Normal 2/	High Temp Test	Cost Current Test			Main NO NC	Aux NO NC
-1	X1X2	28	DC	200	29	.190	18	20	21	35	--	3	3
-2	Y1Y2	28	DC	200	29	.190	18	20	21	--	35	3	3

1/ Contact transfer time @ rated voltage, 1.8 milliseconds minimum.

2/ Over temperature range.

3/ With nominal coil voltage.

4/ From nominal coil voltage.

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

P.A. AF-85

Other Cust

International
Interest

TITLE

RELAYS ELECTROMAGNETIC, 60
AMPERES, 3 PDT, MAGNETIC
LATCH, HERMETICALLY SEALED

MILITARY STANDARD

MS27749 (85)

Procurement Specification

MIL-R-6106

SUPERSEDES:

PAGE 2 OF 4

This military standard is approved for use within the Department of the Air Force, and is available for use by all Departments and Agencies of the Department of Defense.

Review activity: AF-99

P.A. AF-85		International interest	TITLE RELAYS, ELECTROMAGNETIC, 60 AMPERES, 3 PST OR PDT, HERMETICALLY SEALED, PERMANENT MAGNET DRIVE		MILITARY STANDARD	
Other Cust					MS27749 (85)	
Procurement Specification MIL-R-6106		SUPERSEDES:		PAGE 3 OF 4		

TYPES OF LOAD	LIFE OPERATING CYCLES x 10 ³	28 Vac						115 Vac						115/200 Vac						3 Phase 1/			See Appropriate Notes
		Main			Aux			Main			Aux			Main			Aux						
		HO	HC	NO	HO	HC	NO	400 Hz	60 Hz		400 Hz	60 Hz		400 Hz	60 Hz		400 Hz	60 Hz					
RESISTIVE	50	50	50				60						60										
INDUCTIVE	20	20	20																				
INDUCTIVE	50						60						60										
MOTOR	50	20	20				40						40										
LAMP	50	10	10				15						15										
TRANSFER, LOAD	10						12.5/60						12.5/60							2/			
MECHANICAL LIFE REDUCED CURRENT	200	7	7				14						14										
MIN CURRENT	50	1	1				5						5										

1/ Absence of value indicates relay is not rated for 3 phase applications.
 2/ Transfer load indicates relay suitable for transfer between unsynchronized ac power supplies at rating indicated. 12.5 amps for -1. 60 amps for -2.

APPLICATION, NOTES:
 1. Examination of product, external parts shall be performed in accordance with MIL-R-6106, except the case temperature shall be limited to 150°C maximum.
 2. Strength of terminals, shall be performed in accordance with MIL-R-6106, except it shall be tested at room ambient temperature only.

FED. SUP CLASS
5945

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

FED. SUP CLASS
5945ENVIRONMENTAL 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 us
 Vibration:
 Sinusoidal:
 G-level- - - - - 10 G
 Frequency range- - - - - 70-2,000 Hz
 Nonoperate
 G-level- - - - - 15 G
 Frequency range- - - - - 20-2,000 Hz
 Acceleration - - - - - 15G

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	1500 V rms	1150 V rms
Dielectric strength (altitude)		
		50,000 Ft
		500 V rms
Coil to case		
Aux contacts		
All other points		700 V rms
Max contact drop initial		.150 volt
After life test		.175 volt

Overload current 125 A dc; 115/200 A ac;
 400 Hz 400 A
 Rupture current 150 A dc; 115/200 V ac;
 400 Hz 500 A
 Duty rating Continuous

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

P.A. AF-85

International
Interest

TITLE

RELAYS, ELECTROMAGNETIC, 60
AMPERES, 3 PDT, MAGNETIC LATCH,
HERMETICALLY SEALED

MILITARY STANDARD

Other Cust

MS27749 (85)

Procurement Specification

MIL-R-6106

SUPERSEDES:

PAGE 4 OF 4

DD FORM 672 (Limited coordinated) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE
1 MAY 73

This military standard is approved for use within the Department of the Air Force, and is available for use by all Departments and Agencies of the Department of Defense.

AF-99

Review activit