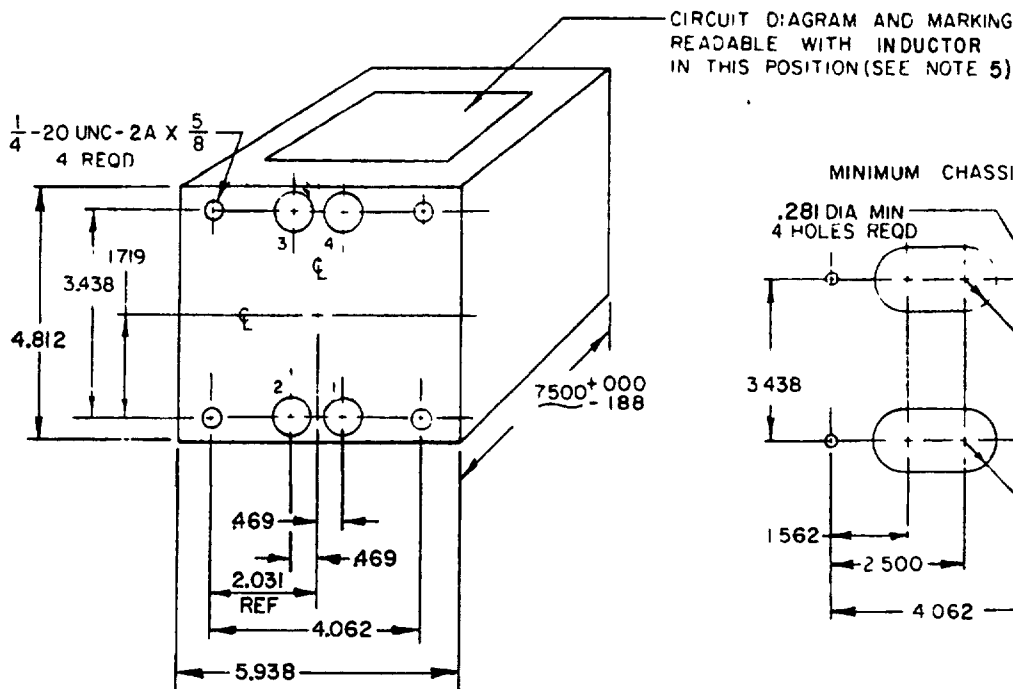


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This military standard is approved by the Department of Defense and is mandatory on all activities. Selection for all new engineering and design applications and for repetitive use shall be made from this document.

## CASE, MOUNTING, TERMINAL ARRANGEMENT AND MARKING

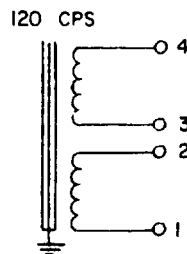
FED SUP CLASS  
5950

| INCHES | MM    | INCHES | MM     |
|--------|-------|--------|--------|
| .188   | 4.78  | 2.500  | 63.50  |
| .281   | 7.14  | 3.438  | 87.33  |
| .438   | 11.13 | 4.062  | 103.17 |
| .469   | 11.91 | 4.812  | 122.22 |
| 1.562  | 39.67 | 5.938  | 150.83 |
| 1.719  | 43.66 | 7.500  | 190.50 |
| 2.031  | 51.59 | 5/8    | 15.88  |

CIRCUIT DIAGRAM AND MARKING  
WORKING VOLTAGE 3,500 V MAX

SERIES 25 H  
1,000 V RMS  
.315 AMP DC  
150 OHMS

PARALLEL 6 25 H  
500 V RMS  
.630 AMP DC  
37 OHMS



MAX ALTITUDE 10,000 FT

THIS MILITARY STANDARD INACTIVE FOR NEW DESIGN AFTER 28 MAY 1981  
NO SUPERSEDING STANDARD

## NOTES:

1. All dimensions in inches.
2. Unless otherwise specified, tolerance on overall case dimensions is  $\pm .000$  (.00 mm),  $-.125$  (3.18 mm).
3. Tolerance on mounting dimensions is  $\pm .047$  (1.19 mm). Mounting studs are symmetrically located with respect to the centerlines of the case.
4. Tolerance on terminal positioning dimensions is  $\pm .125$  (3.18 mm). Terminals fit within minimum chassis cutout.
5. Type designation, MS part no. and manufacturer's name or code symbol to be marked on side opposite terminals.
6. Referenced document shall be of the issue in effect on date of invitations for bid.
7. For design feature purposes, this standard takes precedence over procurement document referenced herein.
8. Metric equivalents (to the nearest .01 mm) are given for general information only and are based upon 1 inch = 25.4 mm.

① ENTIRE STANDARD REVISED

MS PART NO. MS75003-2

|                                                  |                                                |                   |
|--------------------------------------------------|------------------------------------------------|-------------------|
| PA Army-ER<br>Other Cust Navy-EC<br>AIR FORCE-85 | TITLE<br>INDUCTOR, POWER,<br>TYPE TF4RX04YY013 | MILITARY STANDARD |
| Procurement Specification<br>MIL-T-27            | SUPERSEDES                                     | MS 75003          |
|                                                  |                                                | PAGE 1 OF 2       |

DD FORM 672  
25 OCT 63

(Coordinated) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

5950-0604-3

APPROVED 9 JUNE 1958 REVISED ① 29 NOV 1960 ② 21 September 1965 ③ 28 MAY 1981 ④ 20 MAY 1982

Reviewer/user information is current as of the date of this document. For future coordination of changes to this document, draft circulation should be based on the information in the current DODISS (FSC listing) Navy AF WP, SH @ MC

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AF H 11, 85, 17 @ 19, 14 Army H EL, MU

FED SUP CLASS  
5950

### ELECTRICAL RATING

|                                     |                                        |
|-------------------------------------|----------------------------------------|
| Inductance:                         | DC resistance                          |
| (1-4) ..... 25 h min                | (1-2) ..... 70 ohms, $\pm 10\%$        |
| (1-3) and (2-4) ..... 6.25 h min    | (3-4) ..... 80 ohms, $\pm 10\%$        |
| Current:                            | Duty cycle ..... Continuous            |
| (1-4) ..... .315 amp dc             | Life expectancy ..... 10,000 hr min    |
| (1-3) and (2-4) ..... .630 amp dc   | Working voltage:                       |
| Voltage:                            | (1-4) ..... 3,500 v max                |
| (1-4) ..... 1,000 v rms             | (1-3) and (2-4) ..... 3,500 v max      |
| (1-3) and (2-4) ..... 500 v rms     | Altitude ..... 10,000 ft max           |
| Frequency ..... 120 cps, $\pm 10\%$ | Operating temperature ..... 105° C max |

Note: When numbers in parentheses, eg (1-2), are used, they indicate the winding and the extreme terminals of the winding. When the extreme terminals of both windings are used, eg (1-4), the windings are connected in series, ie, terminals 2 and 3 are connected. When the extreme terminal of one winding and the extreme terminal of another winding are used, eg (1-3) and (2-4), the windings are connected in parallel.

### PHYSICAL CHARACTERISTICS

|                                                                            |
|----------------------------------------------------------------------------|
| Case size ..... YY                                                         |
| Weight ..... 35 lb max                                                     |
| Terminals ..... Solder lug, No. 18 AWG                                     |
| Terminal height ..... 1.625 (41.28 mm) $\pm .000$<br>..... .688 (17.48 mm) |
| Shock ..... Method 1, test condition C (50 G)                              |

| TEST                                                                                                                                                                                      | ELECTRICAL PROPERTIES                                                                                                                                                      |       |       |       | LIMITS                   |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------|-------|--------------------------|
| Dielectric withstanding voltage.<br>At sea level                                                                                                                                          | Windings                                                                                                                                                                   | (1-4) | (1-3) | (2-4) | ...                      |
|                                                                                                                                                                                           | Volts rms                                                                                                                                                                  | 5,900 | 5,900 | 5,900 |                          |
| DC resistance and resistive unbalance                                                                                                                                                     | (1-2): 70 ohms<br>(3-4): 80 ohms<br>Resistive unbalance not applicable                                                                                                     |       |       |       | $\pm 10\%$<br>$\pm 10\%$ |
| Inductance and inductive unbalance                                                                                                                                                        | With 50 v, 120 cps, and .315 amp dc applied to (1-4): 25 h<br>With 50 v, 120 cps, and .630 amp dc applied to (1-3) and (2-4): 6.25 h<br>Inductive unbalance not applicable |       |       |       | Min<br>Min               |
| Polarity                                                                                                                                                                                  | Additive, with terminals 2 and 3 connected                                                                                                                                 |       |       |       | ...                      |
| Temperature rise                                                                                                                                                                          | 40° C with 1,000 v, 108 cps, and .315 amp dc applied to (1-4) at an ambient temperature of 65° C                                                                           |       |       |       | Max                      |
| QUALITY ASSURANCE PROVISIONS:<br>QUALIFICATION INSPECTION: NOT APPLICABLE FOR THIS SPECIFICATION.<br>QUALITY CONFORMANCE INSPECTION: GROUP A AND B TESTS OF MIL-T-27 SHALL BE APPLICABLE. |                                                                                                                                                                            |       |       |       |                          |

|                                       |                                       |                   |
|---------------------------------------|---------------------------------------|-------------------|
| P.A. Army-ER                          | TITLE                                 | MILITARY STANDARD |
| Other: Cust Navy-EC<br>Air Force-85   | INDUCTOR, POWER,<br>TYPE TF4RX04YY0I3 | MS 75003          |
| Procurement Specification<br>MIL-T-27 | SUPERSEDES.                           | PAGE 2 OF 2       |

APPROVED 9 JUNE 1958 REVISED (A) 29 NOV 1960 (B) SEE PG 1 FOR CHANGES (C) SEE PG 2 FOR CHANGES 20 MAY 1982