

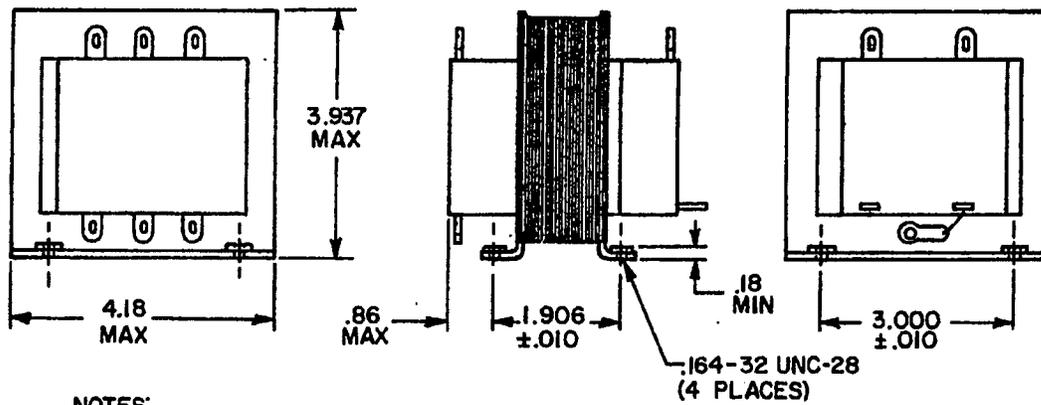
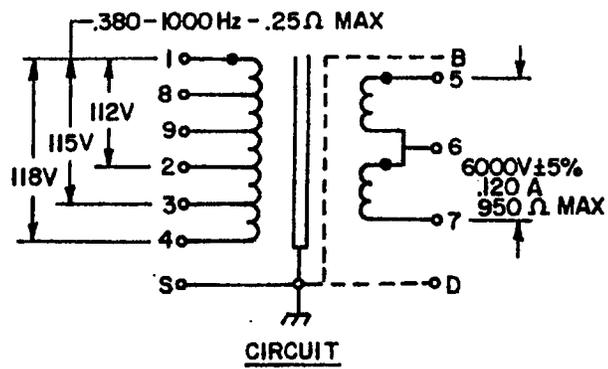
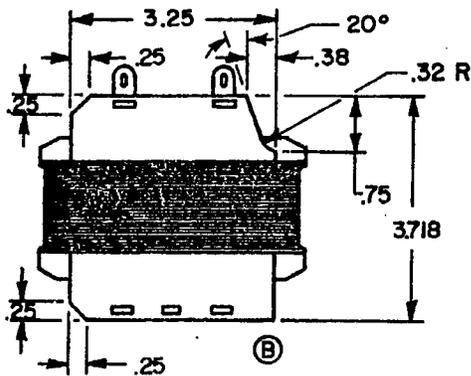
MIL-T-83720/8B(USAF)
 29 March 1983
 SUPERSEDING
 MIL-T-83720/8A(USAF)
 19 December 1975

MILITARY SPECIFICATION SHEET

TRANSFORMER, POWER STEP-UP

This specification is approved for use by all Departments and Agencies of the Department of Defense.

The complete requirements for procuring the transformers described herein shall consist of this document and the latest issue of Specification MIL-T-83720.



- NOTES:
 1. DIMENSIONS ARE IN INCHES.
 2. IDENTIFY TERMINALS.

ⓑ DENOTES CHANGE

MIL-T-83720/8B(USAF)

REQUIREMENTS:

Mechanical and environmental requirements:

| | |
|--------------------------------|---|
| Dimensions and configuration: | See Figure. |
| Vibration: | Test Condition C, Method 204A. |
| Altitude: | Max, 10,000 feet. |
| Maximum operating temperature: | 180°C. |
| Ambient temperature range: | -50°C to 100°C. |
| Temperature rise: | 75°C, maximum at rated KVA. |
| Weight: | 6.5 pounds, nominal. |
| Terminals: | Flat solder type to accommodate 3 leads of #18 AWG stranded wire. |
| Life: | 10,000 hours. |

Electrical ratings:

| | |
|--|---|
| No load current (1-3): | 1.0 amp maximum at 115 VAC, 400 Hz at input to (1-3). |
| Working voltage: | 3,000 VAC rms. |
| Electrostatic shield (grounded to core): | Minimum voltage ratio 20:1 at 20K Hz. |
| Polarity: | Dot on schematic indicates positive sense. |
| Ratings: | 540 primary VA for maximum temperature rise of 75°C. |
| Duty: | Continuous. |

Primary:

| | |
|--------------------------------|------------------|
| Reference input voltage: | 115 VAC rms. |
| Operational frequencies: | 380-1000 Hz. |
| Tolerance primary taps (4): | 1%. |
| DC resistance (winding) (1-3): | .25 ohm maximum. |
| Turns ratios: | See Table 1. |

Other electrical ratings:

| | |
|----------------------------------|--|
| Secondary voltages: | 6,000 VAC rms, center tapped \pm 3%. |
| Dielectric withstanding voltage: | 3,000 VAC rms. |
| Induced voltage: | Apply 230 VAC rms, 800 Hz to (1-3). |
| Corona: | Per MIL-T-83720. |

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TABLE I. Turns ratios.

| WINDING | MAX | MIN |
|-----------|------|------|
| N5-6:N1-3 | 27.6 | 26.4 |
| N5-6:N6-7 | 1.02 | .98 |
| N1-4:N1-3 | 1.05 | 1.01 |
| N1-4:N1-2 | 1.07 | 1.03 |
| N1-4:N1-8 | 21.4 | 20.6 |
| N1-4:N1-9 | 14.3 | 13.7 |

NOTE: When numbers are used in parentheses, e.g., (1-2), they indicate the winding and the extreme terminals of the winding.

Part Number: M83720/8-01.

Custodian:
Air Force - 85

Review Activities:
Air Force - 11, 84, 80

Preparing Activity:
Air Force - 85
(Project 5950-F201-1)