

NOTE: The document identifier and heading have been changed on this page to reflect that this is a performance specification. There are no other changes to this document. The document identifier on subsequent pages has not been changed, but will be changed the next time this document is revised.

INCH-POUND

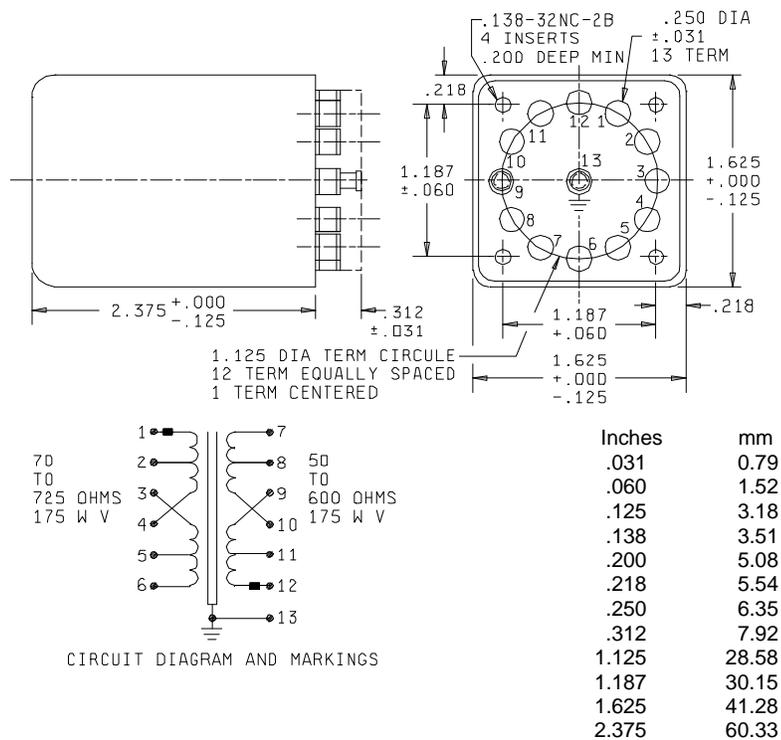
MIL-PRF-27/30B
5 April 1990
SUPERSEDING
MIL-T-27/30A
13 August 1987

PERFORMANCE SPECIFICATION SHEET

TRANSFORMER, AUDIO FREQUENCY, TF4R21AJ316

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

The requirements for acquiring the product described herein shall consist of this specification sheet and the issue of the following specification listed in that issue of the Department of Defense Index of Specifications and Standards (DODISS) specified in the solicitation: MIL-T-27.



NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Marking shall be on the side of the case.

FIGURE 1. Dimensions and configurations.

(A) denotes changes

MIL-T-27/30B

REQUIREMENTS:

Electrical rating:

Source impedance: 70 to 725 Ω .

Load impedance: 50 to 600 Ω .

Primary power level: +7 dB maximum (6.0 mW reference level).

Working voltage: 175 V.

Design and construction:

Dimensions and configuration: See figure 1.

Duty cycle: Continuous.

Case:

Material: Metal.

Terminals: Solder, turret type.

Weight: 10.6 ounces, maximum.

Altitude:

Operating: 10,000 feet, maximum.

Nonoperating: 25,000 feet, maximum.

Operating temperature range: -55°C to +105°C.

Maximum operating temperature: +105°C (ambient plus temperature rise).

Temperature rise: +20°C.

Terminal strength: Method 211 of MIL-STD-202, test condition A, 5 pounds.

Dielectric withstanding voltage: Method 301 of MIL-STD-202, test voltage, 500 V rms.

Insulation resistance: Method 302 of MIL-STD-202, test voltage, 500 V dc.

Electrical characteristics:

Primary (terminals 1, 2, 3, 4, 5, and 6):

Impedance: See table I.

Direct current: Zero.

Inductance: 12 H minimum, 5 V, 60 Hz (terminals 1-6, connect 3 to 4).

Secondary (terminals 7, 8, 9, 10, 11, and 12):

Impedance: See table II.

Direct current: Zero.

Frequency response:

2 dB: 10 Hz to 20 kHz.

6 dB: 50 kHz.

Polarity: Terminals 1 and 12 shall be the same polarity.

Marking location: See figure 1.

Part number: M27/30-01.

TABLE I. Primary impedance at 2000 Hz.

Primary impedance	Connect to terminal	Join to terminal
<u>Ohms ±5%</u>		
70	2 and 4	2 to 3 and 4 to 5
165 or 180	1 and 4	1 to 3 and 4 to 6
280 or 325	2 and 5	3 to 4
425	1 and 5	3 to 4
625 or 725	1 and 6	3 to 4

TABLE II. Secondary impedance.

Secondary impedance	Connect to terminal	Join to terminal
<u>Ohms</u>		
50	8 and 10	8 to 9 and 10 to 11
125 or 150	7 and 10	7 to 9 and 10 to 12
200 or 250	8 and 11	9 to 10
333	7 and 11	9 to 10
500 or 600	7 and 12	9 to 10

CONCLUDING MATERIAL

Custodian:
Army - ER
Navy - EC
Air Force - 85

Review activities:
Army - MI
Navy - OS, SH
Air Force - 11, 17, 80
DLA - ES

User activities:
Army - AR, ME
Navy - AS, MC
Air Force - 19

Preparing activity:
Army - ER

Agent:
DLA - ES

(Project 5950-0747)