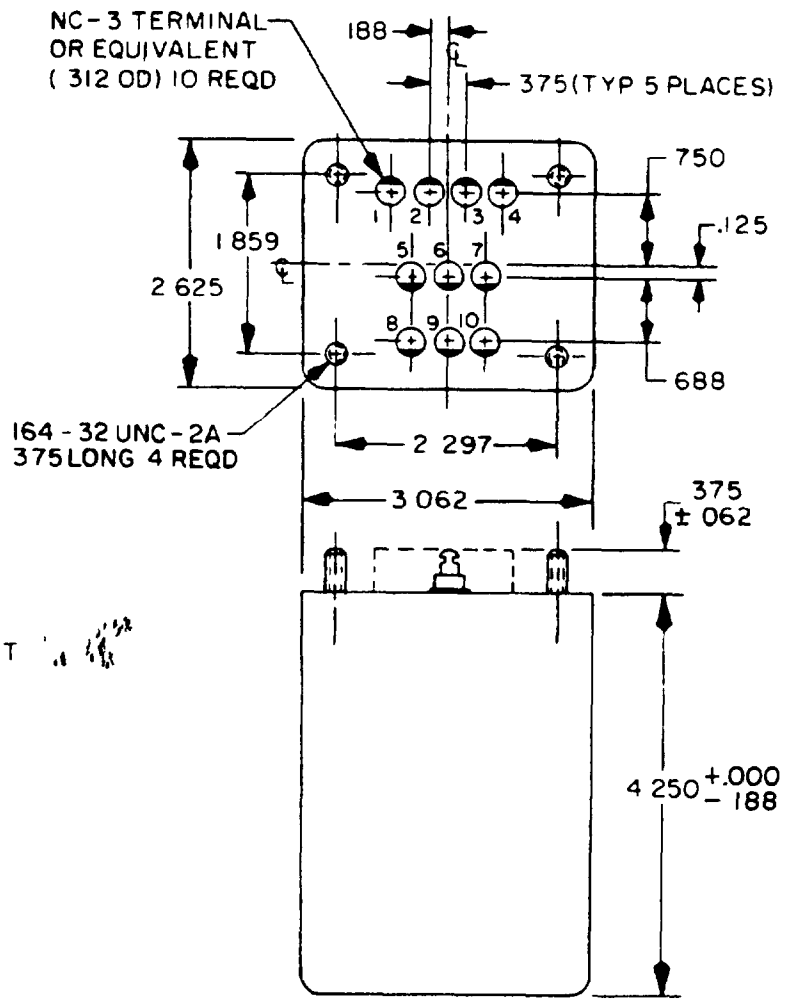
MILITARY SPECIFICATION SHEET

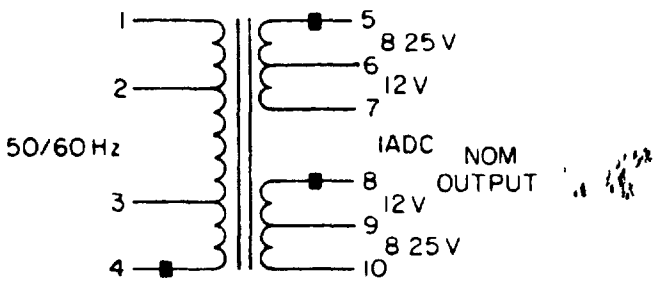
TRANSFORMER, POWER, STEP-DOWN, TF4S03HA

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

This complete requirements for acquiring the transformer described herein shall consist of this specification and the latest issue of MIL-T-27.

INCHES	MM	INCHES	MM
.016	0.41	.688	17.48
.062	1.57	.750	19.05
.125	3.18	1.859	47.22
.164	4.17	2.297	58.34
.188	4.78	2.625	66.68
.312	7.98	3.062	77.77
.375	9.52	4.250	107.95





ALTITUDE 50 kFT MAX

PRI (2-4) = 115 V → NOM OUTPUT
(1-4) = 115 V → −6% NOM OUTPUT
(1-3) = 115 V → +6% NOM OUTPUT
(2-3) = 115 V → +12% NOM OUTPUT
WORKING VOLTAGE (PEAK) = 535 V

CIRCUIT DIAGRAM AND MARKING

NOTES:
1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Unless otherwise specified, tolerance on overall case dimensions is +.000, -.125 inch.
4. Tolerance on terminal position dimensions is ±.016 inch.
5. Marking shall be on the side of the case.

FIGURE 1. Dimensions and configuration.

Ⓐ Denotes changes

FSC 5950

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

Electrical ratings are specified in table I.

TABLE I. Electrical ratings.

Dash no.	Primary voltage	Secondary voltage			
		(5-6)	(6-7)	(8-9)	(9-10)
01	(2-4)· 115 V, 50/60 Hz	8.25 V	12.0 V	12.0 V	8.25 V
	(1-4) 115 V, 50/60 Hz	7.76 V	11.28 V	11.28 V	7.76 V
	(1-3)· 115 V, 50/60 Hz	8.74 V	12.72 V	12.72 V	8.74 V
	(2-3) 115 V, 50/60 Hz	9.24 V	13.44 V	13.44 V	9.24 V

Primary current (1-4)· 0.5 ampere.

Secondary current:

(5-7): 1.0 ampere.
(8-10) 1.0 ampere.

Voltampere: 53

Working voltage (peak)· 535 volts.

Design and construction

Dimensions and configuration·- See figure 1.

Duty cycle: Continuous.

Case Metal encased.

Material· Steel.

Terminals· Solder terminal, NC-3 or equivalent.

Terminal height· 0.375 inch ±0.062 (1.57 mm).

Weight 2.04 kilogram, maximum.

Altitude 50,000 feet maximum.

Operating temperature range· -55°C to +130°C.

Terminal strength. MIL-STD-202, method 211, test condition A, 5.0 pounds.

Shock MIL-STD-202, method 213, test condition G.

Dielectric withstanding voltage·

At sea level: 1,500 volts rms.

At barometric pressure· 669 volts rms.

Electrical characteristics:

No load· With 115 volts, 60 hertz across (2-4).

Current in (2-4) 400 milliamperes, maximum.

Power in (2-4) 6 watts, maximum.

Voltage across (5-7): 24.67 volts ±5 percent.

Voltage across (8-10): 24.67 volts ±5 percent.

Rated load. With 115 volts, 60 hertz across (2-4).

Voltage across (6-7). 12.0 volts ±5 percent.

Voltage across (8-9): 12.0 volts ±5 percent.

Voltage across (9-10)· 8.25 volts ±5 percent.

Voltage across (5-6). 8.25 volts ±5 percent.

DC resistance

(1-4). 9.0 ohms, maximum.

(5-7): 0.52 ohm, maximum.

(9-10): 0.58 ohm, maximum.

Polarity: Additive with terminals 1 and 5, and 7 and 8 connected.

Temperature rise. 45°C with 115 volts rms, 60 hertz across (2-3) at an ambient temperature of 85°C.

Marking location See figure 1.

Part number M27/148-01.

Ⓐ Qualification inspection· Not applicable for this specification sheet.

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

Review activities
Army - AR
Navy - SH, OS, TD
Air Force - 11, 17, 99
DLA - ES

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

Agent.
DLA - ES

Preparing acitvity:
Army - ER

(Project 5950-0628)