

INCH-POUND

MIL-T-27/151B  
13 March 1991  
SUPERSEDING  
MIL-T-27/151A  
4 APRIL 1980

MILITARY SPECIFICATION SHEET  
TRANSFORMER, POWER, STEP-DOWN, TF4S03KB

ⓑ Inactive for new design after the date of this specification.

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.

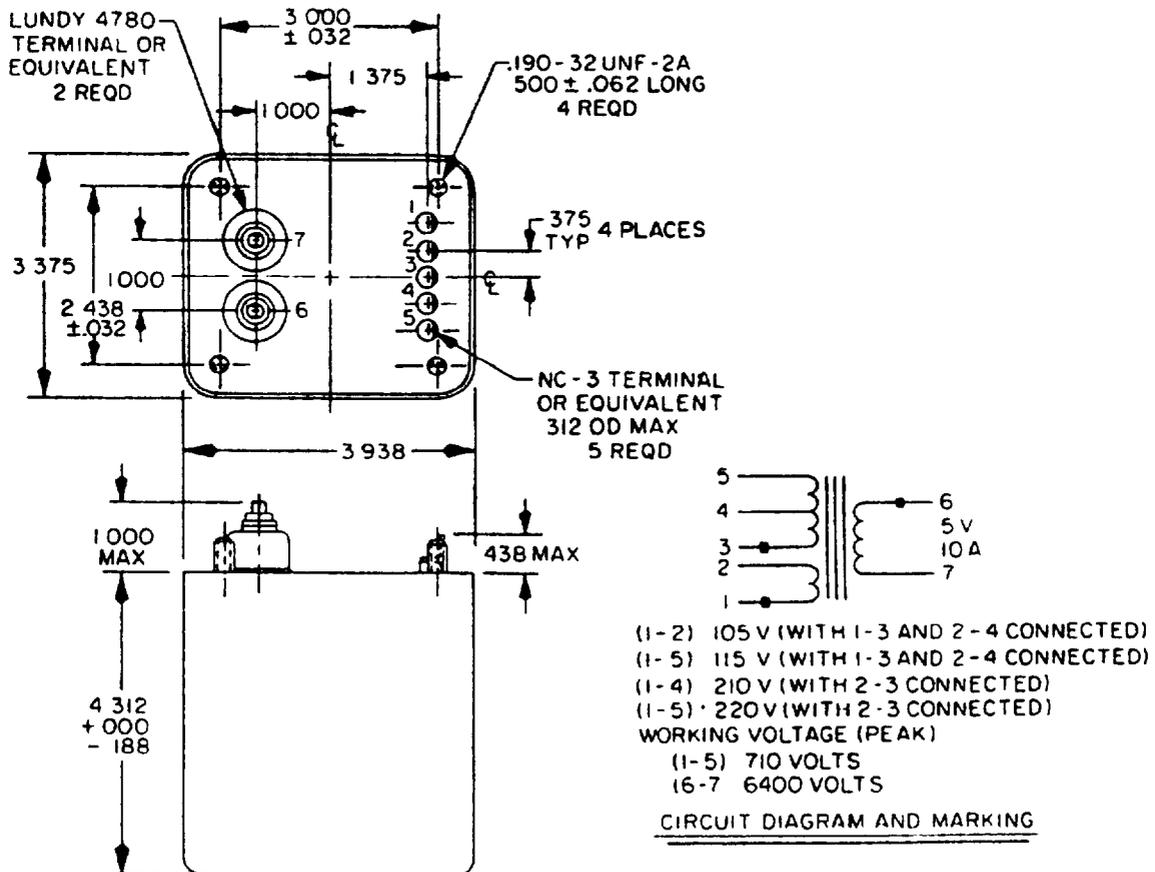


FIGURE 1 Dimensions and configurations.

ⓑ denotes changes

MIL-T-27/1518

Inches	mm	Inches	mm
.032	0.81	.500	12.70
.062	1.57	1.000	28.40
.125	3.18	1.375	34.92
.188	4.78	1.438	36.53
.190	4.83	3.000	76.20
.312	7.92	3.375	85.72
.375	9.52	3.938	100.03
.438	11.13	4.312	109.52

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  $\pm .000$ ,  $-.125$  inch and tolerance on terminal positioning dimensions is  $\pm .032$  inch.
4. Marking shall be on the side of the case.

FIGURE 1. Dimensions and configurations.

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

Electrical ratings:

Primary voltage:

- (1-2): 105 volts, 50/60 Hz (with 1-3 and 2-4 connected).
- (1-5): 115 volts, 50/60 Hz (with 1-3 and 2-4 connected).
- (1-4): 210 volts, 50/60 Hz (with 2-3 connected).
- (1-5): 220 volts, 50/60 Hz (with 2-3 connected).

Secondary voltage (6-7): 5 volts.

Secondary current (6-7): 10 amperes.

Voltampere: 50

Working voltage (peak):

- (1-5): 710 volts.
- (6-7): 6,400 volts.

Design and construction.

Dimensions and configuration. See figure 1.

Duty cycle: Continuous

Case. Metal encased.

Terminals: Solder lug:

- (1, 2, 3, 4, and 5): NC-3 or equivalent.
- (6 and 7): Lundy 4780 or equivalent.

Terminal height.

- (1, 2, 3, 4, and 5): 0.438 inch, maximum.
- (6 and 7): 1.000 inch, maximum.

Weight: 3.81 kg, maximum.

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

Terminal strength: (1, 2, 3, 4, and 5): MIL-STD-202, method 211, test condition A, 5.0 pounds. (6 and 7): MIL-STD-202, method 211, test condition E, 18 ounce-inches.

Dielectric withstanding voltage (at sea level).

- (1-2): 2,000 V rms
- (3-5): 2,000 V rms
- (6-7): 10,000 V rms.

MIL-T-27/151B

Electrical characteristics.

No load: With 105 volts, 60 Hz across (1-2), current in (1-2) shall not exceed 350 mA and the power in (1-2) shall not exceed 6 watts.

Voltage across.

(3-5). 115 volts  $\pm$ 3 percent.  
(6-7). 5.45 volts,  $\pm$ 3 percent.

Rated load: With 105 volts, 60 Hz across (1-2), the voltage across (3-5) and (6-7) shall be 115 volts  $\pm$ 3 percent and 5 volts  $\pm$ 3 percent, respectively.

DC resistance:

(1-2): 9.4 ohms, maximum.  
(3-5): 11.1 ohms, maximum.  
(6-7): 0.028 ohms, maximum.

Polarity. Additive, with terminals 2 and 3, and 5 and 6 connected.

Temperature rise: 40°C with 115 volts, rms, 60 Hz across (1-5) with (1-3) and (2-4) connected at an ambient temperature of 90°C.

ⓑ Quality assurance provisions.

Qualification inspection: Not applicable.

Quality conformance inspection: Groups A and B tests of MIL-T-27 shall be applicable.

Marking location: See figure 1.

Part number: M27/151-01.

CONCLUDING MATERIAL

Custodians  
Army - ER  
Navy - EC  
Air Force - 85

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

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

Preparing activity  
Army - ER

Agent  
DLA - ES

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