

MILITARY SPECIFICATION SHEET

TRANSFORMER, POWER, STEP-DOWN AND STEP-UP TF4503FA

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.

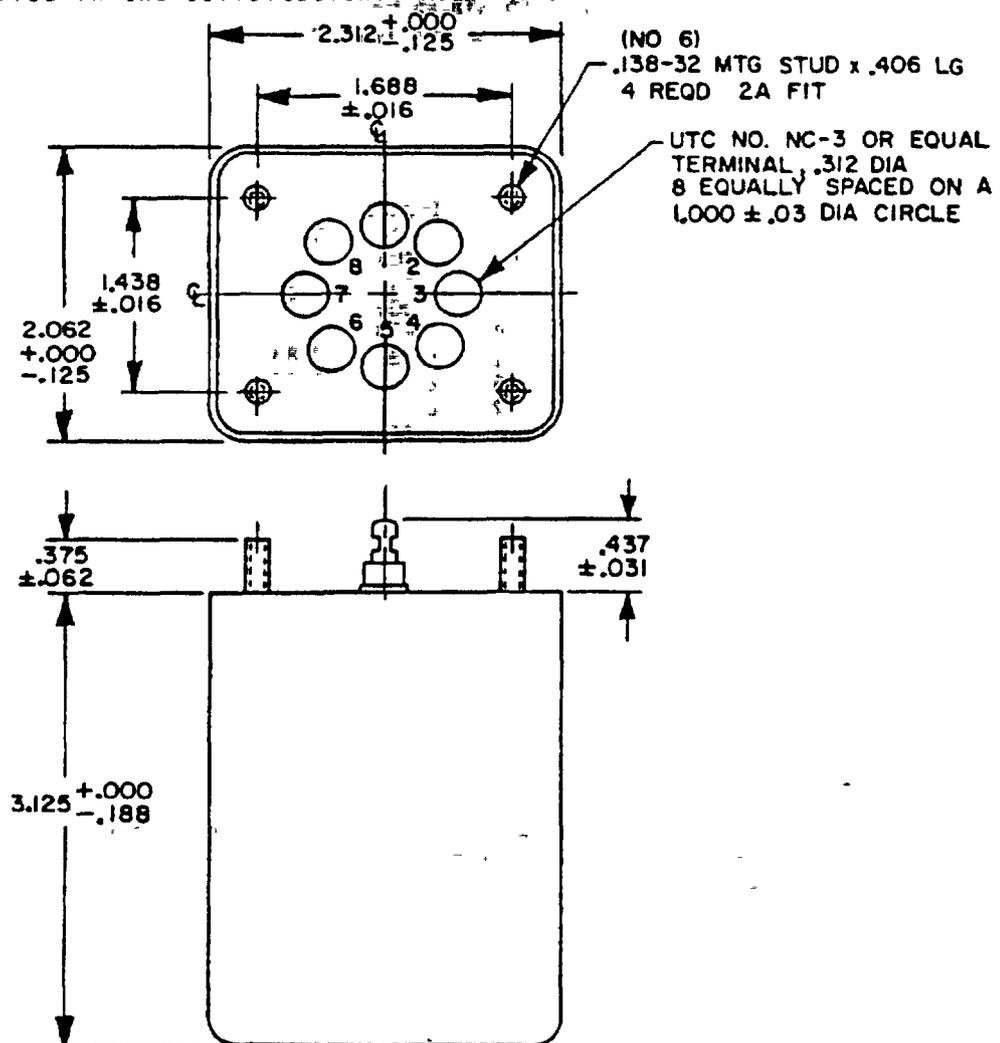
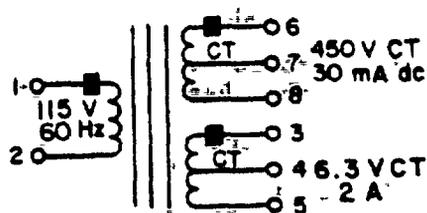


FIGURE 1. Dimensions and configuration.

Ⓟ denotes change



WV = 535 VOLTS, PK
CIRCUIT DIAGRAM AND MARKING

| Inches | mm | Inches | mm |
|--------|------|--------|-------|
| .016 | 0.41 | .375 | 9.52 |
| .03 | 0.8 | .406 | 10.31 |
| .031 | 0.79 | .437 | 11.10 |
| .062 | 1.57 | 1.000 | 25.40 |
| .125 | 3.18 | 1.438 | 36.53 |
| .138 | 3.51 | 1.688 | 42.88 |
| .188 | 4.78 | 2.062 | 52.37 |
| .312 | 7.92 | 2.312 | 58.72 |
| | | 3.125 | 79.38 |

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Tolerance on terminal position dimensions is ± 0.015 (0.38 mm)
4. Marking shall be on the side of the case.

FIGURE 1 Dimensions and configuration - Continued.

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): 115 volts, 60 hertz.

Secondary voltage:

(3-5): 6.3 volts ct, 2 amperes rms.

(6-8): 450 volts ct, 30 milliamperes dc.

Working voltage: 535 volts peak.

Volt-ampere rating: 26.1 volt-amperes.

Design and construction:

Dimensions and configuration: See figure 1.

Duty cycle: Continuous.

Case: Metal.

Material: Steel.

Terminals: Solder lug.

Terminal height: .437 inch \pm .031.

ⓑ Weight: 2.0 pounds maximum.

Operating temperature range: -55°C to $+130^{\circ}\text{C}$.

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

Dielectric withstanding voltage (at sea level). 1,500 volts rms.

Electrical characteristics:

No load: With 115 volts, 60 hertz across (1-2), current in (1-2), shall not exceed 200 milliamperes and the power in (1-2) shall not exceed 2 watts.

Voltage across (3-5): 7.27 volts \pm 3 percent; voltage across (6-8): 514 volts \pm 3 percent.

Rated load: With 115 volts, 60 hertz across (1-2), the voltage across (3-5) shall be 6.3 volts \pm 3 percent with 2 amperes load; the voltage across (6-8) shall be 450 \pm 3 percent with 30 milliamperes load.

DC resistance:

(1-2): 30 ohms maximum.

(3-5): .25 ohm maximum.

(6-8): 1,770 ohms maximum.

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

MIL-T-27/181B

Temperature rise. +40°C maximum with 115 volts, 60 hertz across (1-2) at an ambient temperature of +90°C.

Shock (specified pulse): MIL-STD-202, method 213, test condition H.

Marking location. See figure 1.

Part or Identifying Number (PIN): M27/181-01.

CONCLUDING MATERIAL

Custodians:

Army - ER
Navy - EC
Air Force - 85

Review activities:

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

User activities:

Army - ME
Navy - AS, MC
Air Force - 19

Preparing activity:
Army - ER

Agent:
DLA - ES

(Project 5950-0731-01)