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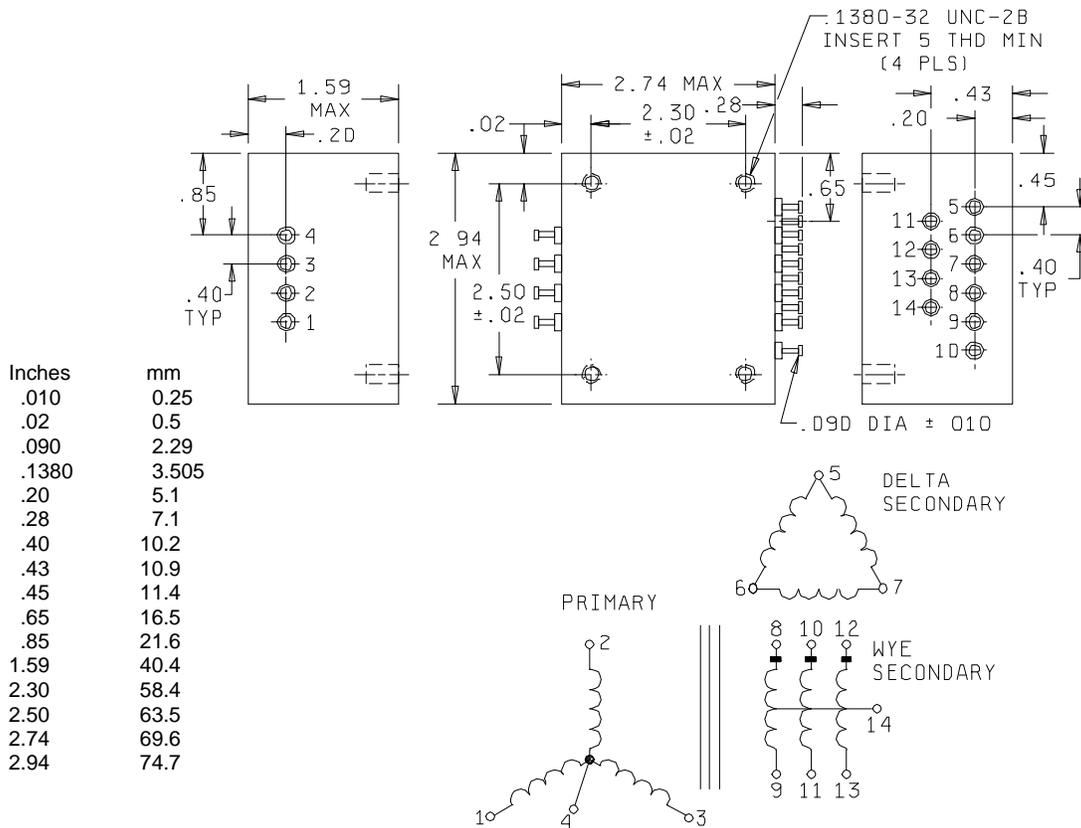
MIL-PRF-27/364  
4 December 1986

PERFORMANCE SPECIFICATION SHEET

TRANSFORMER, POWER, 107 VOLTAMPERES,  
3-PHASE, TYPE TF5S03YY

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

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



NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Marking shall be in the sides of the case. Terminal identification shall be as shown on the figure.
4. Electrical values shall be marked as specified in table I.
5. For series output connect terminals 4 and 5 together. For parallel output connect pins 3 to 4 and 5 to 6.

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 at 400 ±20 Hz:

Wye connected:

(1-4): 115 V ac.

(2-4): 115 V ac.

(3-4): 115 V ac.

Secondary voltage: See table I.

Secondary current: See table I.

Working voltage: 535 volts peak maximum.

Design and construction:

Dimensions and configuration: See figure 1.

Duty cycle: Continuous.

Case: Epoxy fiberglass.

Terminals: Solderable turret-type.

Height: 0.28 ±.040 inch (7.11 ±1.02 mm).

Diameter: .090 ±.010 inch (2.29 ±0.25 mm).

Weight: 1.6 pounds maximum.

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

Altitude: 70,000 feet maximum.

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

Dielectric withstanding voltage:

At atmospheric pressure (each winding): 1,500 V rms.

At barometric pressure (each winding): 670 V rms.

Electrical characteristics:

Rated load: With rated voltage across the primary at 400 Hz, the secondary voltages and currents shall be as specified in table I.

Regulation: Shall not exceed 10 percent when computed as follows:

$$\frac{\text{Voltage (no load)} - \text{Voltage (rated load)}}{\text{Voltage (rated load)}} \times 100$$

TABLE I. Electrical rating - secondary.

Dash no.	Delta secondary (L-L)			Wye secondary (L-C)					
				Terminals 8, 10, 12 to center tap (14)			Terminals 9, 11, 13 to center tap (14)		
	Voltage (V rms)	Load current (A rms)	DC resistance (ohms)	Voltage (V rms)	Load current (A rms)	DC resistance (ohms)	Voltage (V rms)	Load current (A rms)	DC resistance (ohms)
01	22 ±2.0	1.0	.38 ±25%	19 ±1.0	.578	.50 ±25%	19 ±1.0	.144	.83 ±25%

## DC resistance:

## Primary:

(1-4): 3.25 ohms ±25 percent.

(2-4): 3.25 ohms ±25 percent.

(3-4): 3.25 ohms ±25 percent.

Secondary: See table I.

Temperature rise: With rated voltage across the primary at 400 Hz, secondary voltages and currents as specified in table I, and a maximum ambient temperature of +80°C, the temperature rise shall not exceed +50°C.

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

Marking location: See figure 1.

Part number: M27/364-01.

## Custodians:

Army - ER  
Navy - EC  
Air Force - 85

## Review activities:

Army - MI  
Navy - OS  
Air Force - 11, 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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