

PERFORMANCE SPECIFICATION SHEET

TRANSFORMERS, POWER, 100 VA TO 140 VA, 60 HERTZ

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-PRF-27.

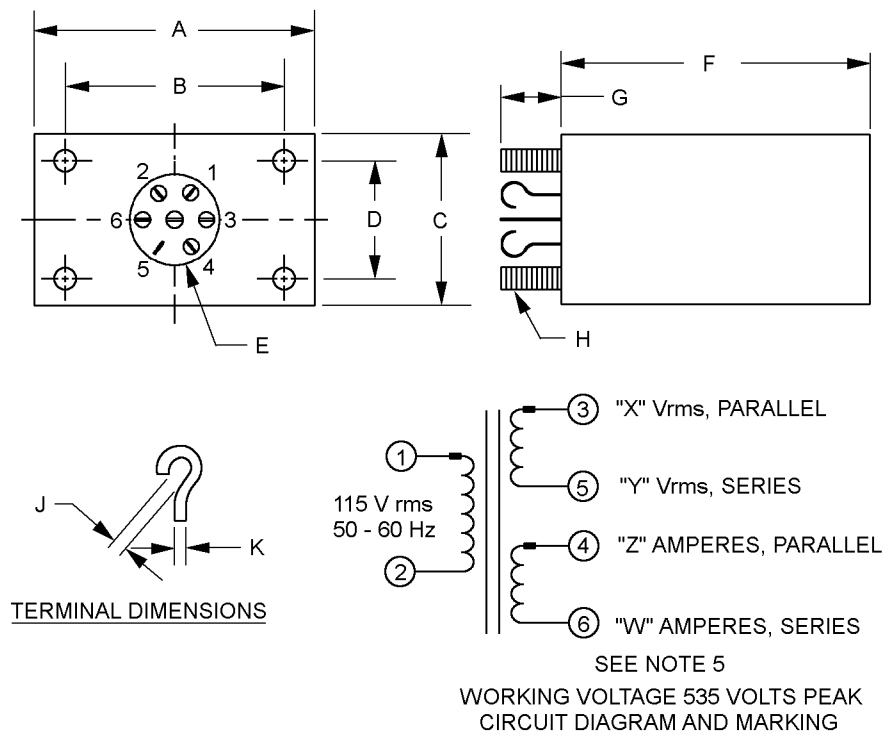


FIGURE 1. Dimensions and configurations.



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Dim	Inches	mm
A	3.562 +.000, -.125	90.48 +.000, -3.18
B	2.625 ±.016	66.68 ±0.41
C	3.062 +.000, -.125	77.77 +.000, -3.18
D	2.125 ±.016	53.98 ±0.41
E	.875 ±.063	22.23 ±1.60
F	4.875 +.000, -.188	+.000, -4.78
G	.375 ±.063	9.53 ±1.60
H	.164-32 UNC-2A x .375 ±.063 (4 PLACES)	
J	.070 ±.005	1.78 ±.013
K	.062 ±.005	1.57 ±.013

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Marking shall be on 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, except DCR.
5. For series output connect terminals 4 and 5 together. For parallel output connect pins 3 to 4 and 5 to 6.
6. The mounting surface can be painted.

FIGURE 1. Dimensions and configurations – 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 V rms, 50 to 65 hertz.

Primary dc resistance: 1.49 ohms ±25 percent.

Secondary: See table I.

Volt ampere: See table I.

Working voltage: 535 volts pk.

Design and construction:

Dimensions and configuration: See figure 1.

Duty cycle: Continuous.

Case: Metal enclosed.

Material: Steel.

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Terminals: Solderable hook terminals.

Terminal height: 0.375 ±0.063 inch.

Terminal diameter: 0.062 ±0.005 inch.

Weight: 8.2 pounds, maximum.

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

Altitude: 10,000 feet.

Terminal strength: MIL-STD-202-211, test condition A, 2.0 pounds.

Dielectric withstanding voltage (each winding, secondary winding shall be connected in parallel):

At sea level: 1,500 volts rms.

Electrical characteristics:

Rated load: With 115 volts ac and 60 Hz across (1-2), and rated current in secondary, secondary voltage shall be as specified in table I within ±3 percent.

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

Shall not exceed 10 percent.

Polarity: Additive with terminals 2 and 3 connected and 5 and 4 connected.

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

Marking location: See figure 1.

Part or Identification Number (PIN): M27/330-(dash number from table I).

TABLE I. Electrical ratings.

Dash number	Secondary voltage (series) volts rms (3-6)	Secondary current (series) amperes (3-6)	Secondary voltage (parallel) volts rms (3-5)	Secondary current (parallel) amperes (3-5)	Secondary dc resistance each winding ohms ±25%	Volt amperes
01	10.0	10.00	5.0	20.00	0.0117	100
02	12.6	10.00	6.3	20.00	0.014	126
03	16.0	8.75	8.0	17.50	0.0223	140
04	20.0	7.00	10.0	14.00	0.0335	140
05	24.0	5.80	12.0	11.60	0.0563	140
06	34.0	4.10	17.0	8.20	0.118	140
07	40.0	3.50	20.0	7.00	0.14	140
08	56.0	2.50	28.0	5.00	0.31	140
09	88.0	1.58	44.0	3.16	0.58	140
10	120.0	1.16	60.0	2.32	1.0	140

VERIFICATION:

Extent of Qualification:

Qualification testing and approval to M27/326-10 and M27/331-08 shall be sufficient to grant qualification approval to MIL-PRF-27/326 through MIL-PRF-27/331 inclusive, all parts.

Qualification testing and approval to M27/330-10 shall be sufficient to grant qualification approval M27/330-01 through M27/330-10.

Referenced documents. In addition to MIL-PRF-27, this document references the following:

MIL-STD-202-211

Amendment notations. The margins of this specification are marked with vertical lines to indicate modifications generated by this amendment. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations.

Custodians:

Army - CR
Navy - EC
Air Force - 85
DLA - CC

Preparing activity:
DLA - CC

(Project 5950-2017-029)

Review activities:

Army – AR, CR4
Navy - AS, MC, OS
Air Force - 19, 99

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at <https://assist.dla.mil>.