

PERFORMANCE SPECIFICATION SHEET  
TRANSFORMERS, POWER, STEP DOWN, 3-PHASE

Inactive for New Design  
after 23 May 1997

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 MIL-PRF-27.

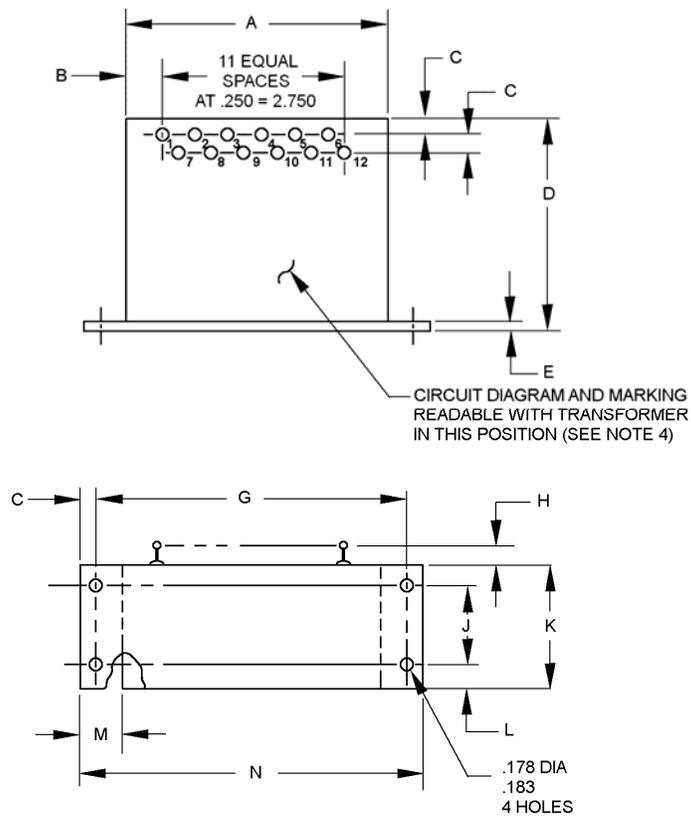


FIGURE 1. Dimensions and configurations



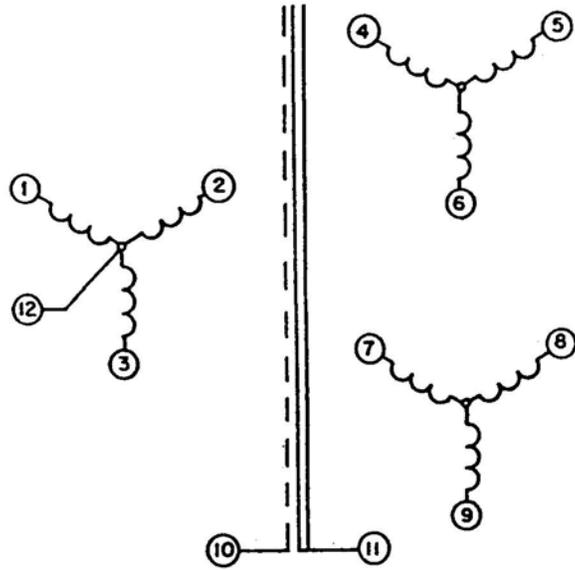
MIL-PRF-27/25C  
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LTR	Dimensions	
	Inches	Millimeters
A	3.875 Max	98.43 Max
B	.562	14.27
C	.250	6.35
D	3.00 Max	76.2 Max
E	.125	3.18
G	4.625 ±.015	117.48 ±.38
H	.313 Max	7.95 Max
J	1.125 ±.015	28.58 ±.38
K	1.750 Max	44.45 Max
L	.313	7.95
M	.625	15.88
N	5.125	130.18

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Unless otherwise specified, tolerance is ±.030 (0.76 mm) for two place decimals.
4. Marking: Type designation, military part number, manufacturers name or code symbol, circuit diagram, rated voltage and frequency of primary, rated voltages and currents of secondaries, working voltage and date code to be marked in the space specified on figure 1.

FIGURE 1. Dimensions and configurations - Continued.



CIRCUIT DIAGRAM

FIGURE 1. Dimensions and configurations - Continued.

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REQUIREMENTS:

Electrical ratings:

Primary voltage 1, 2, 3, and 12 neutral, 115 volts rms line neutral, 3 phase, 400 Hz  $\pm$ 20 Hz.

Secondary voltage:

(4-5) (5-6) (6-4): 42 volts rms, 0.9 amperes, line to line, wye connected.  
(7-8) (8-9) (9-7): 42 volts rms, 0.9 amperes, line to line, wye connected.

Working voltage: 175 volts maximum.

Design, configuration, and physical dimensions: See figure 1.

Duty cycle: Continuous.

Case:

Material: Metal, hermetically sealed.

Terminals: Twelve solderable turret type capable of accepting a minimum of two number 18 AWG wires.

Height: .312 inch maximum.

Weight: 3 pounds maximum.

Dielectric withstanding voltage (at sea level): MIL-STD-202-301; test voltage 500 volts rms.

Electrical characteristics:

No load: With 115 volts, 400 Hz  $\pm$ 20 Hz across terminals (12-1), (12-2), (12-3). Current 0.1 ampere maximum per phase; voltage across (4-5), (5-6), (6-4), (7-8), (8-9), (9-7) shall be 42 volts rms  $\pm$ 1 percent, respectively.

Rated load: With 115 volts, 400 Hz across (1-12), (2-12), (3-12), voltage across (4-5), (5-6), (6-4), (7-8), (8-9), (9-7) shall be 42 volts rms +1 percent, -3 percent at 0.9 amperes per secondary leg.

Regulation: The output voltage of secondary windings (4-5), (5-6), (6-4), (7-8), (8-9), (9-7) shall not vary more than  $\pm$ 3 percent with load reduced from 0.90 amperes to 0.10 amperes.

Electrostatic shielding: Electrically and mechanically connected to terminal 10.

Temperature rise: Not more than 65°C when operated at 0.90 amperes per secondary leg.

Ambient temperature: -28°C to +65°C.

Quality assurance provisions:

Retention of qualification: Not applicable for this specification sheet.

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

Marking location: See figure 1.

Part or Identifying Number (PIN): M27/25-1.

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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.

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

MIL-STD-202-301

Custodians:

Army - CR  
Navy - EC  
Air force – 85  
DLA – CC

Preparing activity:

DLA - CC

(Project: 5950-2015-025)

Review activities:

Army – AR, MI  
Navy – AS, MC, SH  
Air Force – 19

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 this information above using the ASSIST Online database at <https://assist.dla.mil>.