

PERFORMANCE SPECIFICATION SHEET

TRANSFORMERS, POWER, 15 VOLT AMPERES, 400 HZ,  
ELECTROSTATIC SHIELDED

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

The requirements for acquiring the transformer described herein shall consist of this specification sheet and MIL-PRF-27.

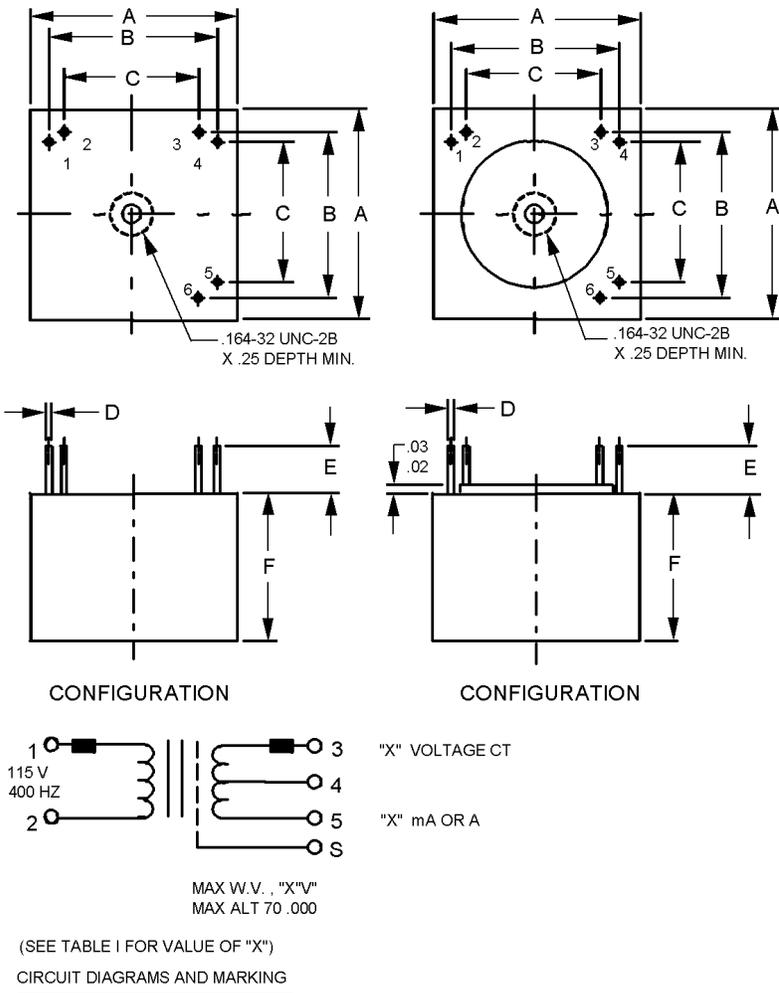


FIGURE 1. Dimensions and configurations



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Dim	Inches	mm
A	1.40 MAX	35.6 MAX
B	1.100	27.94
C	.900	22.86
D	.032 ±.002	0.81 ±.0508
E	.25	6.4
	.13	3.3
F	.97 MAX	24.6 MAX

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Tolerance on terminal position dimensions is  $\pm 0.005$  (0.13 mm).
4. Marking shall be on the side of the case.
5. A white dot shall be marked on the side opposite the terminals, over terminal 1, in addition to the terminal marking shown.
6. Secondary electrical values shall be marked as specified in table I, as applicable.

FIGURE 1. Dimensions and configurations – continued.

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

Electrical ratings: See table I.

Primary voltage (1-2): 115 volts  $\pm 10$  percent, 400 Hz  $\pm 5$  percent.

Design and construction:

Dimensions and configuration: See figure 1.

Weight: 3.4 ounces, maximum.

Duty cycle: Continuous.

Case: Plastic encapsulated.

Material: Plastic.

Altitude: 70,000 feet, maximum.

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

Terminals: Printed circuit pins - tinned brass.

Terminal strength: MIL-STD-202, method 211, test condition A, 2 pounds.

Dielectric withstanding voltage:

At sea level: 2.8 times the maximum working voltage specified in table I.

At reduced barometric pressure: 1.25 times the maximum working voltage specified in table I.

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Electrical characteristics:

No load: With 115 volts rms, 400 Hz across (1-2): Current in (1-2) shall not exceed 16 mA rms.

Rated load: With 115 volts, 400 Hz across (1-2) and a resistive load with current as specified in table I in (3-5), the voltage across (3-5) shall be as specified in table I.

Efficiency: 87 percent minimum at rated load.

Electrostatic shielding: The voltage ratio shall be a minimum of 5 to 1 at 20 kHz.

Polarity: Additive with terminals 2 and 3 connected.

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

shall not exceed 8 percent.

Phase shift: 1.0 electrical degree between primary and secondary voltage at rated load, maximum.

Temperature rise: 32°C, maximum.

Vibration: MIL-STD-202, method 204, test condition D.

Marking location: See figure 1.

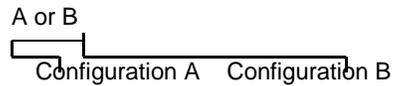
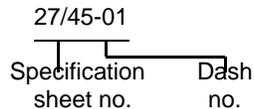
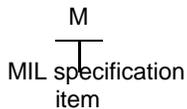
VERIFICATION

Extent of qualification

Qualification testing and approval to M27/37-44 A or B, M27/42-44 A or B, and M27/46-44 A or B shall be sufficient to grant qualification approval to MIL-PRF-27/37 through MIL-PRF-27/47 inclusive, all parts.

Qualification testing and approval to M27/45-44 shall be sufficient to grant qualification approval to M27/45-01 through M27/45-44.

Part or Identification Number (PIN): M27/45-01 A or B.



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TABLE I. Electrical ratings.

Dash No.	Type designation	Secondary voltage (3-5) (V rms) $\pm 3\%$	Secondary current (3-5) (amps rms)	Working voltage (V rms) (MAX)
01 A or B	752	6	2.667	325
02 A or B	753	6.3	2.540	325
03 A or B	754	7	2.286	325
04 A or B	755	7.5	2.133	325
05 A or B	756	8	2.000	325
06 A or B	757	9	1.778	325
07 A or B	758	10	1.600	325
08 A or B	759	11	1.455	325
09 A or B	760	12	1.333	325
10 A or B	761	12.6	1.270	325
11 A or B	762	13	1.231	325
12 A or B	763	15	1.067	325
13 A or B	764	16	1.000	325
14 A or B	765	18	0.889	325
15 A or B	766	20	0.800	325
16 A or B	767	22	0.727	325
17 A or B	768	24	0.667	325
18 A or B	769	26	0.615	325
19 A or B	770	28	0.571	325
20 A or B	771	30	0.533	325
21 A or B	772	33	0.485	325
22 A or B	773	36	0.444	325
23 A or B	774	39	0.410	325
24 A or B	775	43	0.372	325
25 A or B	776	47	0.340	325
26 A or B	777	51	0.314	325
27 A or B	778	56	0.286	325
28 A or B	779	62	0.258	325
29 A or B	780	68	0.236	325
30 A or B	781	75	0.213	325
31 A or B	782	82	0.195	325
32 A or B	783	91	0.176	325
33 A or B	784	100	0.160	325
34 A or B	785	110	0.145	325
35 A or B	786	115	0.139	325
36 A or B	787	120	0.133	325
37 A or B	788	130	0.123	325
38 A or B	789	150	0.106	325
39 A or B	790	180	0.089	325
40 A or B	791	200	0.080	440
41 A or B	792	220	0.073	440
42 A or B	793	240	0.067	440
43 A or B	794	270	0.059	580
44 A or B	795	300	0.053	580

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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-PRF-27/37	MIL-PRF-27/38	MIL-PRF-27/39	MIL-PRF-27/40
MIL-PRF-27/41	MIL-PRF-27/42	MIL-PRF-27/43	MIL-PRF-27/44
MIL-PRF-27/46	MIL-PRF-27/47	MIL-STD-202	

Custodians:

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

Preparing activity:

DLA - CC

(Project 5950-2015-014)

Review activities:

Army - MI  
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>.