

PERFORMANCE SPECIFICATION SHEET

TRANSFORMERS, POWER, 6 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 transformers described
 herein shall consist of this specification and MIL-PRF-27.

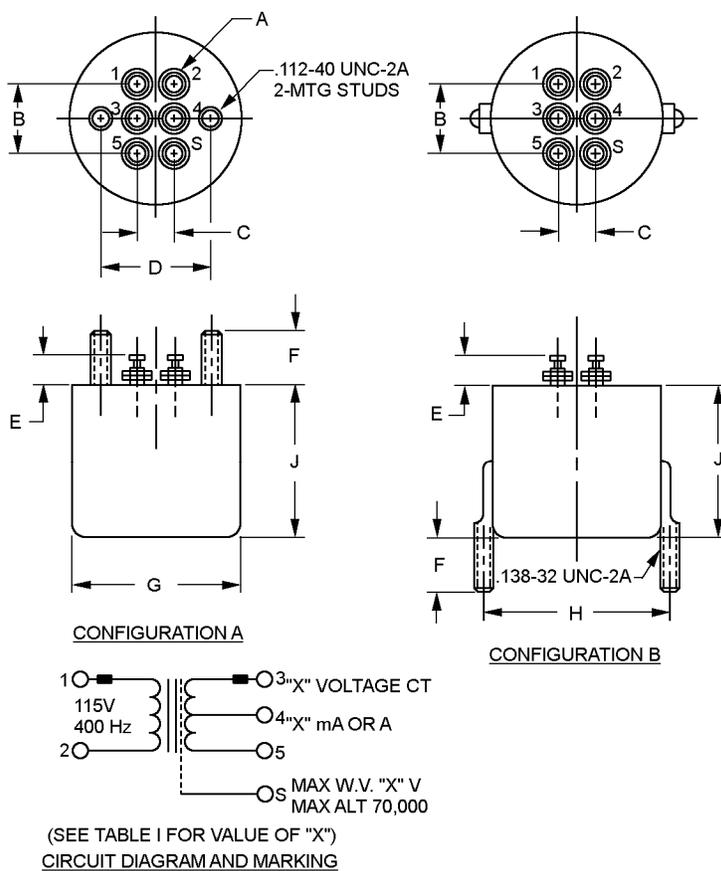


FIGURE 1. Dimensions and configuration.



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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.
5. Terminals are color coded for permanent identification in addition to terminal marking shown. Ground Terminal "S" is black.
6. Secondary electrical values shall be marked as specified in table I, as applicable.

Ltr	Dimensions	
	Inches	mm
A	.234 DIA MAX	5.94 DIA MAX
B	.500	12.70
C	.250	6.35
D	.750	19.05
E	.312 MAX	7.92 MAX
F	.344 ± 0.031	8.74 ± 0.79
G	1.000 ± 0.031	25.40 ± 0.79
H	1.125 ± 0.031	28.58 ± 0.79
J	1.062 ± 0.031	26.97 ± 0.79

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: See table I.

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

Design and construction:

Dimensions and configuration: See figure 1.

Weight: 2.3 ounces, maximum.

Duty cycle: Continuous.

Case: Metal enclosed.

Material: Steel.

Altitude: 70,000 feet, maximum.

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

Terminals: Feed thru.

Terminal height: .312 inch (7.92 mm), maximum.

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

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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.

Electrical characteristics:

No load: With 115 volts, 400 Hz across (1-2): Current in (1-2) shall not exceed 9.0 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: 80 percent minimum at rated load.

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 10 percent.

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

Temperature rise: 25°C, maximum with 115 volts, 400 Hz across (1-2) at ambient temperature of 105°C.

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

Marking location: See figure 1.

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VERIFICATION:

Extent of qualification:

Qualification testing and approval to M27/49-44 A or B, M27/51-44 A or B, M27/53-44 A or B, M27/56-44 and M27/66-27 shall be sufficient to grant qualification approval to MIL-PRF-27/48 through MIL-PRF-27/66 inclusive, all parts.

Qualification testing and approval to M27/53-44 shall be sufficient to grant qualification approval to M27/53-01 through M27/53-44.

Part or Identifying Number (PIN) example:

M
|
MIL specification item
27/53
|
Specification sheet no.
-01
|
Dash no.

TABLE I. Electrical ratings.

Dash number	Secondary voltage (3-5) (V rms) ±3%	Secondary current (3-5) (amps rms)	Working voltage (V rms max)
01 A or B	6	1.000	325
02 A or B	6.3	0.953	325
03 A or B	7	0.857	325
04 A or B	7.5	0.800	325
05 A or B	8	0.750	325
06 A or B	9	0.667	325
07 A or B	10	0.600	325
08 A or B	11	0.545	325
09 A or B	12	0.500	325
10 A or B	12.6	0.476	325
11 A or B	13	0.462	325
12 A or B	15	0.400	325
13 A or B	16	0.375	325
14 A or B	18	0.333	325
15 A or B	20	0.300	325
16 A or B	22	0.272	325
17 A or B	24	0.250	325
18 A or B	26	0.230	325
19 A or B	28	0.214	325
20 A or B	30	0.200	325
21 A or B	33	0.182	325
22 A or B	36	0.167	325
23 A or B	39	0.154	325
24 A or B	43	0.140	325
25 A or B	47	0.128	325
26 A or B	51	0.118	325
27 A or B	56	0.107	325
28 A or B	62	0.097	325
29 A or B	68	0.088	325
30 A or B	75	0.080	325
31 A or B	82	0.073	325
32 A or B	91	0.066	325
33 A or B	100	0.060	325
34 A or B	110	0.055	325
35 A or B	115	0.052	325
36 A or B	120	0.050	325
37 A or B	130	0.046	325
38 A or B	150	0.040	325
39 A or B	180	0.033	325
40 A or B	200	0.030	440
41 A or B	220	0.027	440
42 A or B	240	0.025	440
43 A or B	270	0.022	580
44 A or B	300	0.020	580

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

MIL-STD-202-204, 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 5950-2016-002)

Review activities:
Army – CR4, 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 this information above using the ASSIST Online database at <https://assist.dla.mil>.