

INCH-POUND

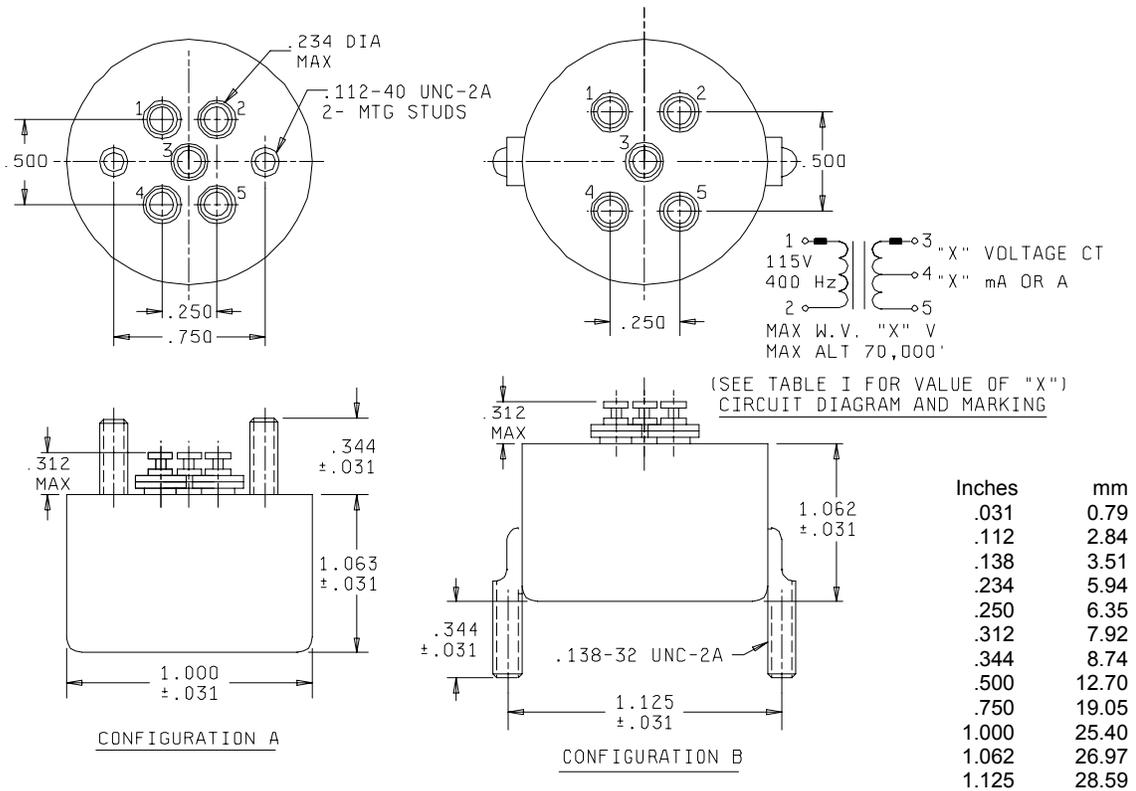
MIL-PRF-27/54D
 2 June 2003
 SUPERSEDING
 MIL-PRF-27/54C
 7 February 1984

PERFORMANCE SPECIFICATION SHEET

TRANSFORMERS, POWER, 9.0 VOLT AMPERES, 400 HZ

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

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



NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Tolerance on terminal position dimensions is ±.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.
6. Secondary electrical values shall be marked as specified in table I, as applicable.

FIGURE 1. Dimensions and configuration.

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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 \pm 10 percent, 400 Hz \pm 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°C maximum.

Terminals: Feed through.

Terminal height: .312 inch, maximum.

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

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: 83 percent minimum at rated load.

Polarity: Additive with terminals 2 and 3 connected.

Regulation: $\frac{Voltage (no load) - Voltage (rated load)}{Voltage (rated load)} \times 100$ shall not exceed 100 percent.

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

Temperature rise: 30°C, maximum with 115 volts, 400 Hz across (1-2) at an ambient temperature of 100°C.

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

Marking location: See figure 1.

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QUALITY ASSURANCE PROVISIONS:

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 M27/54-44 shall be sufficient to grant qualification approval to M27/54-01 through M27/54-44.

Part or Identifying Number (PIN) example:

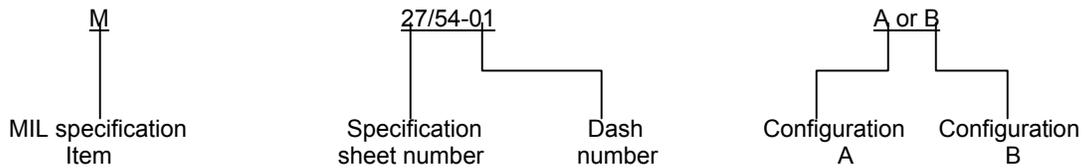


TABLE I. Electrical ratings.

Dash number	Secondary voltage (3-5) (V rms) $\pm 3\%$	Secondary current (3-5) (amps rms)	Working voltage (V rms max)
01 A or B	6	1.500	325
02 A or B	6.3	1.430	325
03 A or B	7	1.286	325
04 A or B	7.5	1.200	325
05 A or B	8	1.125	325
06 A or B	9	1.000	325
07 A or B	10	0.900	325
08 A or B	11	0.818	325
09 A or B	12	0.750	325
10 A or B	12.6	0.715	325
11 A or B	13	0.692	325
12 A or B	15	0.600	325
13 A or B	16	0.563	325
14 A or B	18	0.500	325
15 A or B	20	0.450	325
16 A or B	22	0.409	325
17 A or B	24	0.375	325
18 A or B	26	0.346	325
19 A or B	28	0.321	325
20 A or B	30	0.300	325
21 A or B	33	0.273	325
22 A or B	36	0.250	325
23 A or B	39	0.231	325
24 A or B	43	0.209	325
25 A or B	47	0.191	325
26 A or B	51	0.176	325
27 A or B	56	0.161	325
28 A or B	62	0.145	325
29 A or B	68	0.132	325
30 A or B	75	0.120	325

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TABLE I. Electrical ratings - Continued.

Dash number	Secondary voltage (3-5) (V rms) $\pm 3\%$	Secondary current (3-5) (amps rms)	Working Voltage (V rms max)
31 A or B	82	0.110	325
32 A or B	91	0.099	325
33 A or B	100	0.090	325
34 A or B	110	0.082	325
35 A or B	115	0.078	325
36 A or B	120	0.075	325
37 A or B	130	0.069	325
38 A or B	150	0.060	325
39 A or B	180	0.050	325
40 A or B	200	0.045	440
41 A or B	220	0.041	440
42 A or B	240	0.038	440
43 A or B	270	0.033	580
44 A or B	300	0.030	580

Custodians:

Army – CR
 Navy – EC
 Air Force – 11

Preparing activity:

DLA – CC

(Project 5950-1096)

Review activities:

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