

PERFORMANCE SPECIFICATION SHEET

TRANSFORMERS, POWER, 25 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 transformer described herein shall consist of this specification sheet and MIL-PRF-27.

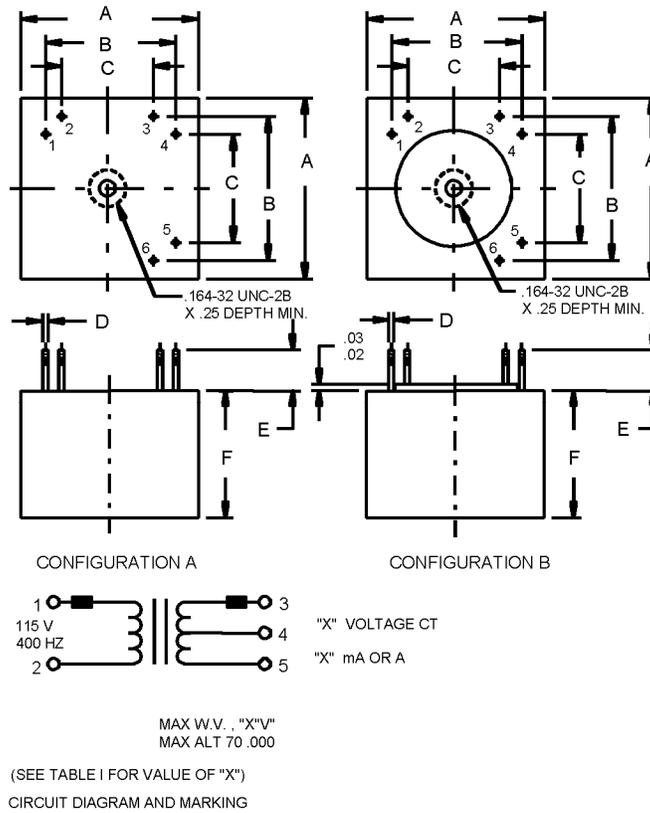


FIGURE 1. Dimensions and configurations



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LTR	Inches	mm
A	1.40 Max	35.56 Max
B	1.100	27.94
C	.900	22.86
D	.032 DIA ±.002 TYP	0.8128 DIA ±.0508
E	.13 to .25	3.302 to 6.35
F	1.20 Max	30.48 Max

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Tolerance on terminal position dimensions is ±.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 ±10 percent, 400 Hz ±5 percent.

Design and construction:

Dimensions and configuration: See figure 1.

Weight: 4.4 ounces, maximum.

Duty cycle: Continuous.

Case: Plastic encapsulated.

Material: Plastic.

Altitude: 70,000 feet, maximum.

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

Electrical characteristics:

No load: With 115 volts rms, 400 Hz across (1-2): Current in (1-2) shall not exceed 25 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: 88 percent minimum at rated load.

Polarity: Additive with terminals 2 and 3 connected.

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

shall not exceed 7 percent.

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

Temperature rise: 45°C, maximum.

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

Marking location: See figure 1.

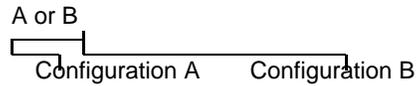
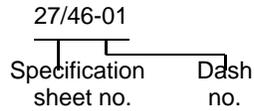
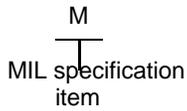
VERIFICATION

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 M27/46-44 shall be sufficient to grant qualification approval to M27/46-01 through M27/46-44.

Part or Identifying Number (PIN), example:



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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	796	6	4.167	325
02 A or B	797	6.3	3.968	325
03 A or B	798	7	3.571	325
04 A or B	799	7.5	3.333	325
05 A or B	800	8	3.125	325
06 A or B	801	9	2.778	325
07 A or B	802	10	2.500	325
08 A or B	803	11	2.273	325
09 A or B	804	12	2.083	325
10 A or B	805	12.6	1.984	325
11 A or B	806	13	1.923	325
12 A or B	807	15	1.667	325
13 A or B	808	16	1.563	325
14 A or B	809	18	1.389	325
15 A or B	810	20	1.250	325
16 A or B	811	22	1.136	325
17 A or B	812	24	1.042	325
18 A or B	813	26	0.962	325
19 A or B	814	28	0.893	325
20 A or B	815	30	0.833	325
21 A or B	816	33	0.758	325
22 A or B	817	36	0.694	325
23 A or B	818	39	0.641	325
24 A or B	819	43	0.581	325
25 A or B	820	47	0.532	325
26 A or B	821	51	0.490	325
27 A or B	822	56	0.446	325
28 A or B	823	62	0.403	325
29 A or B	824	68	0.367	325
30 A or B	825	75	0.333	325
31 A or B	826	82	0.305	325
32 A or B	827	91	0.275	325
33 A or B	828	100	0.250	325
34 A or B	829	110	0.227	325
35 A or B	830	115	0.218	325
36 A or B	831	120	0.208	325
37 A or B	832	130	0.192	325
38 A or B	833	150	0.166	325
39 A or B	834	180	0.139	325
40 A or B	835	200	0.125	440
41 A or B	836	220	0.113	440
42 A or B	837	240	0.104	440
43 A or B	838	270	0.093	580
44 A or B	839	300	0.083	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-27/45	MIL-PRF-27/47	MIL-STD-202	

Custodians:

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

Preparing activity:
DLA - CC

(Project 5950-2015-011)

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