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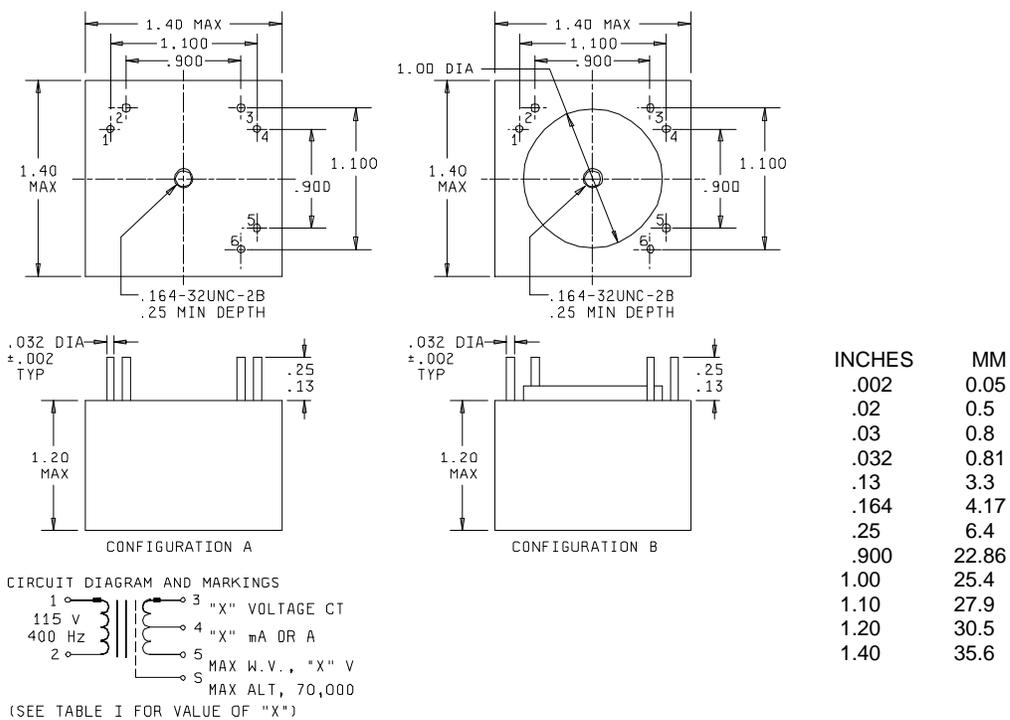
MIL-PRF-27/47B
 7 February 1984
 SUPERSEDING
 MIL-T-27/47A
 20 October 1976

PERFORMANCE SPECIFICATION SHEET

TRANSFORMERS, POWER, 25 VOLT AMPERES, 400 HZ,
 ELECTROSTATIC SHIELDED, TF5S03ZZ840 TO TF5S03ZZ883, INCLUSIVE

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

The complete requirements for acquiring the transformers described herein shall consist of this specification and the latest issue of MIL-T-27.



NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Tolerance on terminal position dimensions is ± 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 configuration.

(B) denotes changes

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: 4.4 ounces, maximum.

Duty cycle: Continuous.

Case: Plastic encapsulated.

Material: Plastic.

Altitude: 70,000 feet, maximum.

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

Terminals: Printed circuit pins - tinned brass.

Terminal strength: Method 211 of MIL-STD-202, test condition A, 2.0 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 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.

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 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.

ⓑ QUALITY ASSURANCE PROVISIONS:

Extent of qualification:

MIL-T-27/47B

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-T-27/37 through MIL-T-27/47 inclusive, all parts.

Qualification testing and approval to M27/47-44 shall be sufficient to grant qualification approval to M27/47-01 through M27/47-44.

Part number example:

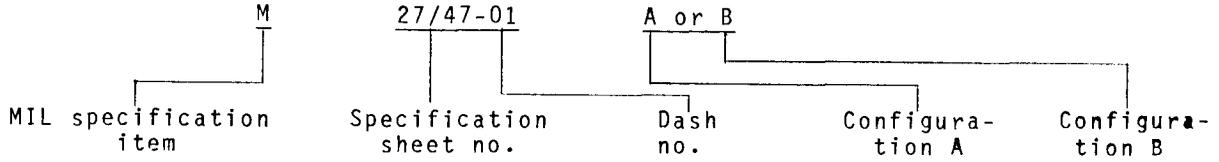


TABLE I. Electrical ratings.

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	840	6	4.167	325
02	"	841	6.3	3.968	"
03	"	842	7	3.571	"
04	"	843	7.5	3.333	"
05	"	844	8	3.125	"
06	"	845	9	2.778	"
07	"	846	10	2.500	"
08	"	847	11	2.273	"
09	"	848	12	2.083	"
10	"	849	12.6	1.984	"
11	"	850	13	1.923	"
12	"	851	15	1.667	"
13	"	852	16	1.563	"
14	"	853	18	1.389	"
15	"	854	20	1.250	"
16	"	855	22	1.136	"
17	"	856	24	1.042	"
18	"	857	26	0.962	"
19	"	858	28	0.893	"
20	"	859	30	0.833	"
21	"	860	33	0.758	"
22	"	861	36	0.694	"
23	"	862	39	0.641	"
24	"	863	43	0.581	"
25	"	864	47	0.532	"
26	"	865	51	0.490	"
27	"	866	56	0.446	"
28	"	867	62	0.403	"
29	"	868	68	0.367	"
30	"	869	75	0.333	"
31	"	870	82	0.305	"
32	"	871	91	0.275	"
33	"	872	100	0.250	"
34	"	873	110	0.227	"
35	"	874	115	0.218	"
36	"	875	120	0.208	"
37	"	876	130	0.192	"
38	"	877	150	0.166	"
39	"	878	180	0.139	"
40	"	879	200	0.125	440
41	"	880	220	0.113	440
42	"	881	240	0.104	440
43	"	882	270	0.093	580
44	"	883	300	0.083	580

Custodians:

Army - ER
Navy - EC
Air Force - 85

Review activities:

Army - MI
Navy - OS
Air Force - 11, 17, 99
DLA - ES

User activities:

Army - ME
Navy - MC, AS
Air Force - 19

Agent:

DLA - ES

Preparing activity:

Army - ER

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