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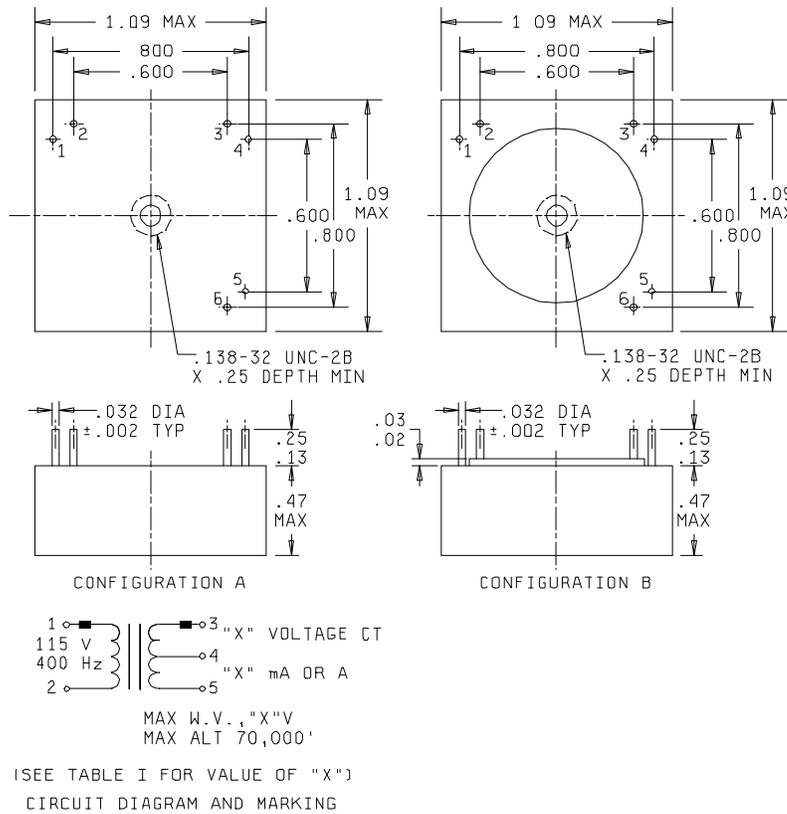
MIL-PRF-27/37B
 7 February 1984
 SUPERSEDING
 MIL-T-27/37A
 20 October 1976

PERFORMANCE SPECIFICATION SHEET

TRANSFORMERS, POWER, 1.5 VOLT AMPERES, 400 HZ,
 TF5S03ZZ400 TO TF5S03ZZ443, 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 $\pm .005$ (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: .85 ounce, 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 1.5 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: 70 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 23 percent.

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

Temperature rise: 17°C , maximum.

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

Marking location: See figure 1.

ⓑ QUALITY ASSURANCE PROVISIONS:

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

Qualification testing and approval to M27/37-44 shall be sufficient to grant qualification approval to M27/37-01 through M27/37-44.

Part number example:

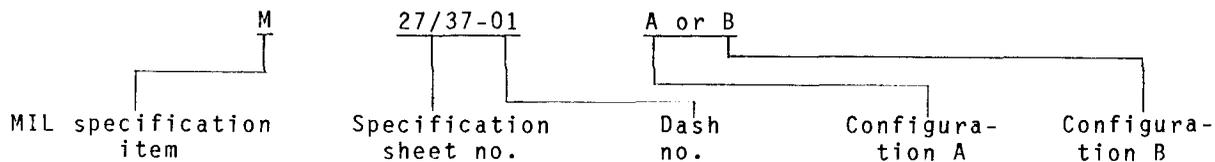


TABLE I. Electrical ratings.

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	400	6	0.250	325
02	"	401	6.3	0.238	"
03	"	402	7	0.214	"
04	"	403	7.5	0.200	"
05	"	404	8	0.188	"
06	"	405	9	0.167	"
07	"	406	10	0.150	"
08	"	407	11	0.136	"
09	"	408	12	0.125	"
10	"	409	12.6	0.119	"
11	"	410	13	0.115	"
12	"	411	15	0.100	"
13	"	412	16	0.094	"
14	"	413	18	0.083	"
15	"	414	20	0.075	"
16	"	415	22	0.068	"
17	"	416	24	0.063	"
18	"	417	26	0.058	"
19	"	418	28	0.053	"
20	"	419	30	0.050	"
21	"	420	33	0.045	"
22	"	421	36	0.042	"
23	"	422	39	0.038	"
24	"	423	43	0.035	"
25	"	424	47	0.032	"
26	"	425	51	0.029	"
27	"	426	56	0.027	"
28	"	427	62	0.024	"
29	"	428	68	0.022	"
30	"	429	75	0.020	"
31	"	430	82	0.018	"
32	"	431	91	0.016	"
33	"	432	100	0.015	"
34	"	433	110	0.014	"
35	"	434	115	0.013	"
36	"	435	120	0.0125	"
37	"	436	130	0.0115	"
38	"	437	150	0.010	"
39	"	438	180	0.0085	"
40	"	439	200	0.0075	440
41	"	440	220	0.007	440
42	"	441	240	0.006	440
43	"	442	270	0.0055	580
44	"	443	300	0.005	580

Custodians:

Army - ER
Navy - EC
Air Force - 85

Preparing activity:

Army - ER
(Project 5950-0623-3)

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