

INCH-POUND

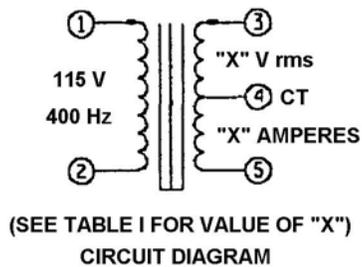
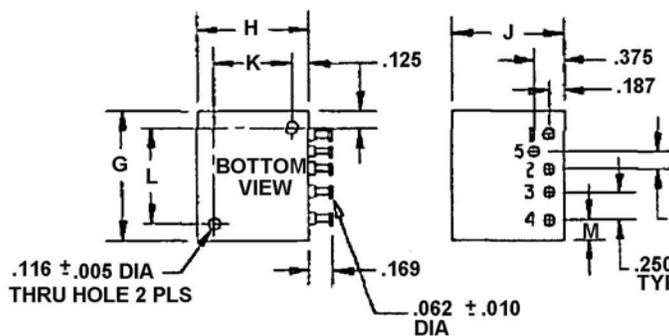
MIL-PRF-27/341E
 3 December 2010
 SUPERSEDING
 MIL-PRF-27/341D
 22 January 1992

PERFORMANCE SPECIFICATION SHEET

TRANSFORMERS, POWER, 24 VOLTAMPERES, 400 HZ

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

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



Inches	mm
.005	0.13
.010	0.25
.031	0.79
.062	1.57
.116	2.95
.125	3.18
.169	4.29
.187	4.75
.250	6.35
.375	9.53

Ltr	Dimensions	
	Inches	mm
G	1.47 ± 0.15	37.3 ± 0.38
H	1.28 ± 0.15	32.5 ± 0.38
J	1.40 ± 0.15	35.6 ± 0.38
K	1.03 ± 0.15	26.2 ± 0.38
L	1.22 ± 0.15	31.3 ± 0.38
M	.250 ± 0.031	6.35 ± 0.79

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Marking shall be on the top and sides of the case.
4. Dimensional tolerance shall be ±.031 unless otherwise specified.
5. Dimensions G and H to be measured at top of transformer.

FIGURE 1. Dimensions and configurations.

REQUIREMENTS: (When numbers in parentheses, i.e., (1-2) are used, they indicate the winding and the extreme terminals of the winding.)

Electrical ratings:

Primary voltage (1-2): 115 volts rms, 400 \pm 20 hertz.

Secondary voltage and current (3-5): See table I.

Volt-ampere: 24 voltamperes.

Working voltage (1-2): 535 volts peak.

Design and construction:

Dimensions and configuration: See figure 1.

Duty cycle. Continuous.

Case: Encapsulated.

Material: Diallyl phthalate.

Terminals: Turret type.

Height: .169 inch.

Weight: .32 pound, maximum.

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

Altitude: 70,000 feet.

Terminal strength: MIL-STD-202, method 211, test condition A, 2 pounds.

Dielectric withstanding voltage (each winding):

At sea level: 1500 volts rms.

At reduced barometric pressure: 1.25 times the peak working voltage specified.

Electrical characteristics:

Rated load: With 115 volts rms and 400 Hz in (1-2), and rated current in secondary, the voltage across (3-5) shall be as specified in table I.

DC resistance:

(1-2): 12 ohms \pm 25 percent.

(3-5): See table I.

Temperature rise: 45°C with 115 volts rms, 400 hertz across (1-2) at an ambient temperature of 85°C, full load terminals (3-5).

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

Shall not exceed 10 percent.

Polarity: Additive with terminals 2 and 3 connected.

Marking location: See figure 1.

Part or Identifying Number (PIN): M27/341-(dash number from table I).

TABLE I. Electrical ratings.

Dash number M27/341-	Secondary voltage (3-5) (V rms) ±5% (CT)	Secondary current (3-5) (amperes)	Secondary DCR (3-5) (ohms) ±25%
01	5.0	4.8	.037
02	6.3	3.8	.057
03	8.0	3.0	.091
04	10.0	2.4	.140
05	12.6	1.9	.175
06	14.0	1.7	.26
07	16.0	1.5	.38
08	18.0	1.33	.44
09	20.0	1.2	.48
10	22.0	1.09	.63
11	25.0	0.96	.73
12	28.0	0.855	1.07
13	31.0	0.772	1.5
14	35.0	0.685	1.7
15	39.0	0.615	2.4
16	43.0	0.556	2.6
17	48.0	0.500	3.6
18	55.0	0.435	3.83
19	63.0	0.380	6.0
20	70.0	0.342	6.8
21	80.0	0.300	9.6
22	90.0	0.267	13.8
23	100.0	0.240	14.4
24	110.0	0.218	19.5
25	123.0	0.195	21.9
26	138.0	0.174	30.3
27	157.0	0.152	36.1
28	175.0	0.136	49.5
29	200.0	0.120	57.0
30	220.0	0.109	79.0
31	26.0	0.923	0.71
32	115.0	0.209	20.40

VERIFICATION:

Extent of qualification:

Qualification testing and approval to M27/338-28 and M27/343-32 shall be sufficient to grant qualification approval to MIL-PRF-27/338 through MIL-PRF-27/343 inclusive, all parts.

Qualification testing and approval to M27/341-32 shall be sufficient to grant qualification approval to M27/341-01 through M27/341-32.

Changes from previous issue. The margins of this specification are marked with vertical lines to indicate where changes from the previous issue were made. 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 and relationship to the last previous issue.

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

MIL-STD-202	MIL-PRF-27/338	MIL-PRF-27/339	MIL-PRF-27/340
MIL-PRF-27/342	MIL-PRF-27/343		

Custodians:

Army - CR
Navy - EC
Air force – 85
DLA - CC

Preparing activity:

DLA - CC

Review activities:

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

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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.daps.dla.mil>.