INCH-POUND
MIL-PRF-27/336D
w/AMENDMENT 2
7 July 2023
SUPERSEDING
MIL-PRF-27/336D
w/AMENDMENT 1
5 February 2018

PERFORMANCE SPECIFICATION SHEET

TRANSFORMERS, POWER, 120 VOLT-AMPERES, 400 HERTZ

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

The complete requirements for procuring the transformer described herein shall consist of this document and the latest issue of specification MIL-PRF-27.

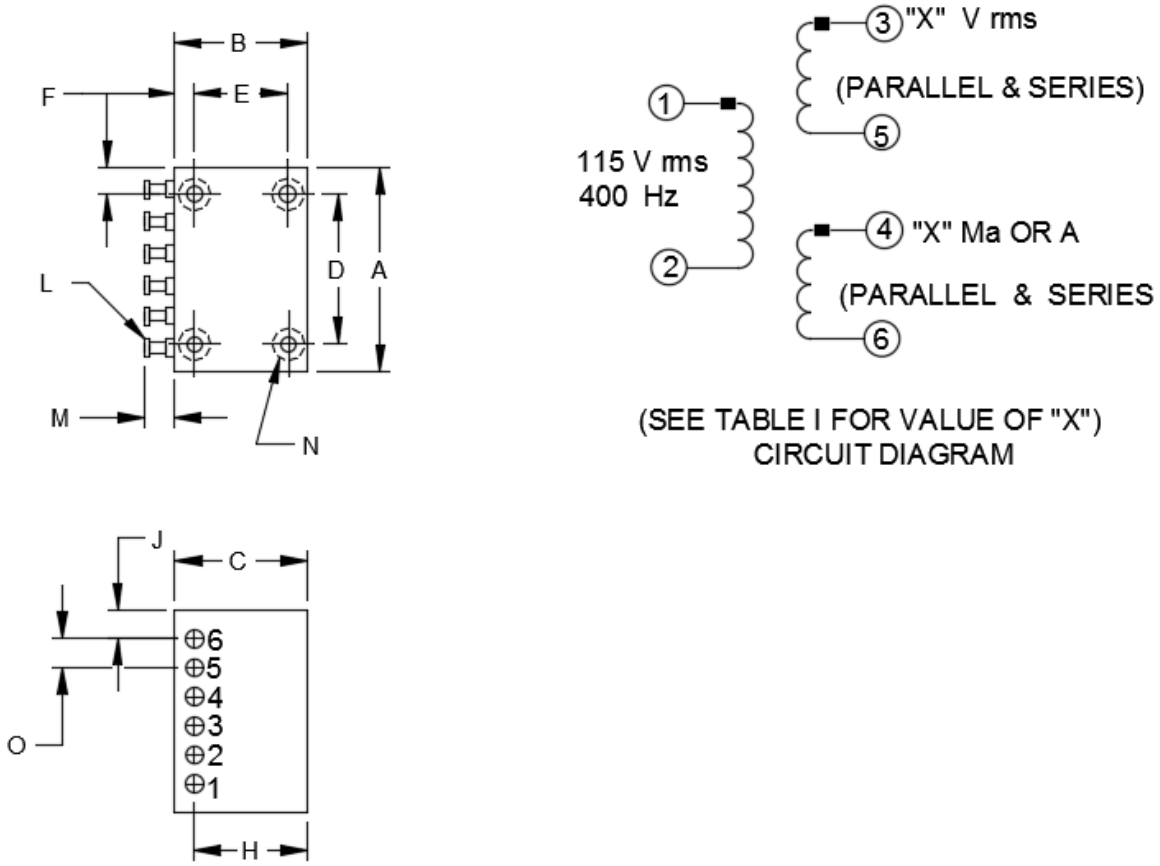

FIGURE 1. Dimensions and configurations.

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

	Inches	m
A	2.43 ±.02	61.7 ±.5
B	2.00 ±.02	50.8 ±.5
C	2.10 ±.02	53.3 ±.5
D	1.93 ±.02	49.0 ±.5
E	1.50 ±.02	38.1 ±.5
F	0.25 ±.04	6.4
H	1.90 ±.04	48.3 ±1.0
J	0.21 ±.04	5.3
K	.138-32	UNC 2B
L	.09 DIA	2.29 DIA
M	.30 Max.	7.62 Max.
N	INSERT K, 6 Full Thread 4 places	
O	.40 TYP	10.16 TYP

INSERT K, 6 Full Thread 4 places
NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Marking shall be on top and sides of the case.
4. Dimensional tolerance shall be ±.02 unless otherwise specified.
5. For serial output connect terminals 4 and 5 together. For parallel output connect pins 3 to 4 and 5 to 6.

FIGURE 1. Dimensions and configurations – Continued.

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 ±20 hertz.

Secondary voltage and current (3-6): See table I.

Volt-ampere rating: 120 volt-amperes.

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

Design and construction:

Dimensions and configuration: See figure 1.

Duty cycle. Continuous.

Case: Encapsulated.

Material: Epoxy fiberglass or diallyl phthalate.

Terminals: Turret type.

Terminal height: .170 inch, maximum.

Weight: 1.6 pounds, maximum.

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

Altitude: 70,000 feet.

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

Dielectric withstanding voltage (each winding, secondary windings connected in series):

At sea level: 1,500 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 (3-6) shall be as specified in table I, ±5 percent.

Efficiency: 90 percent minimum at rated load.

Temperature rise: 35°C with 115 volts rms, 400 hertz across (1-2) at an ambient temperature of 95°C, full load terminals (3-6).

Regulation: $$\frac{Voltage\,(no\ load) - Voltage\,(rated\ load)}{Voltage\,(rated\ load)} \quad x \quad 100$$

Shall not exceed 10 percent.

Polarity: Additive, with terminals 2 and 3, and 5 and 4 connected.

Marking location: See figure 1.

Part or Identification Number (PIN): M27/336-(dash number from table I).

TABLE I. Electrical ratings.

Dash number M27/336	Secondary voltage (3-6) (V rms)	Secondary voltage (3-6) (V rms)	Secondary current (3-6) (amperes)	Secondary current (3-6) (amperes)
	Series (CT)	Parallel	Series	Parallel
-01	10	5	12.0	24.0
-02	12.6	6.3	9.50	19.0
-03	16	8	7.50	15.0
-04	20	10	6.0	12.0
-05	24	12	5.0	10.0
-06	34	17	3.53	7.06
-07	40	20	3.0	6.0
-08	56	28	2.14	4.28
-09	88	44	1.36	2.72
-10	120	60	1.0	2.0

VERIFICATION:

Extent of qualification:

Qualification testing and approval to M27/332-10 and M27/337-10 shall be sufficient to grant qualification approval to MIL-PRF-27/332 through MIL-PRF-27/337, inclusive, all parts.

Qualification testing and approval to M27/336-10 shall be sufficient to grant qualification approval M27/336-01 through M27/336-10.

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

MIL-STD-202-211

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.

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

Review activities:
Army – AR, CR4
Navy - AS, MC, OS
Air Force - 19

Preparing activity:
DLA - CC

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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.dla.mil.