



DEFENSE LOGISTICS AGENCY
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June 15, 2021

MEMORANDUM FOR MILITARY/INDUSTRY DISTRIBUTION

SUBJECT: Initial Draft of MIL-PRF-27/235E Amendment 1;
Project Number 5950-2021-016.

The proposed initial draft is being amended to update review activities/custodians and online ASSIST web link per MIL-STD-961. Also, add "Inactive for New Design" on first page of document.

The initial draft for the subject documents, dated 15 July 2021, is now available for viewing and downloading from the DLA Land and Maritime-VA Web site:

<https://landandmaritime.dla.mil/Programs/MilSpec/DocSearch.aspx>

Concurrence or comments are required at this Center within 30 days from the date of this letter. Late comments will be held for the next coordination of the document. Any further coordination concerning these documents will be circulated only to firms and organizations that furnish comments or reply that they have an interest. Comments from military departments must be identified as either "Essential" or "Suggested". Essential comments must be justified with supporting data. Military review activities should forward comments to their custodians of this office, as applicable, in sufficient time to allow for consolidating the department reply

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/ SIGNATURE ON FILE /

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NOTE: This draft dated 10 May 2021, prepared by DLA-CC has not been Approved and is subject to modification.
DO NOT USE FOR ACQUISITION PURPOSES.

INCH-POUND

MIL-PRF-27/235E
W/AMENDMENT 1
DRAFT
SUPERSEDING
MIL-T-27/235E
17 June 2005

PERFORMANCE SPECIFICATION SHEET

TRANSFORMERS, POWER, ISOLATION, SHIELDED

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

Inactive for new design after 16 September 1999

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

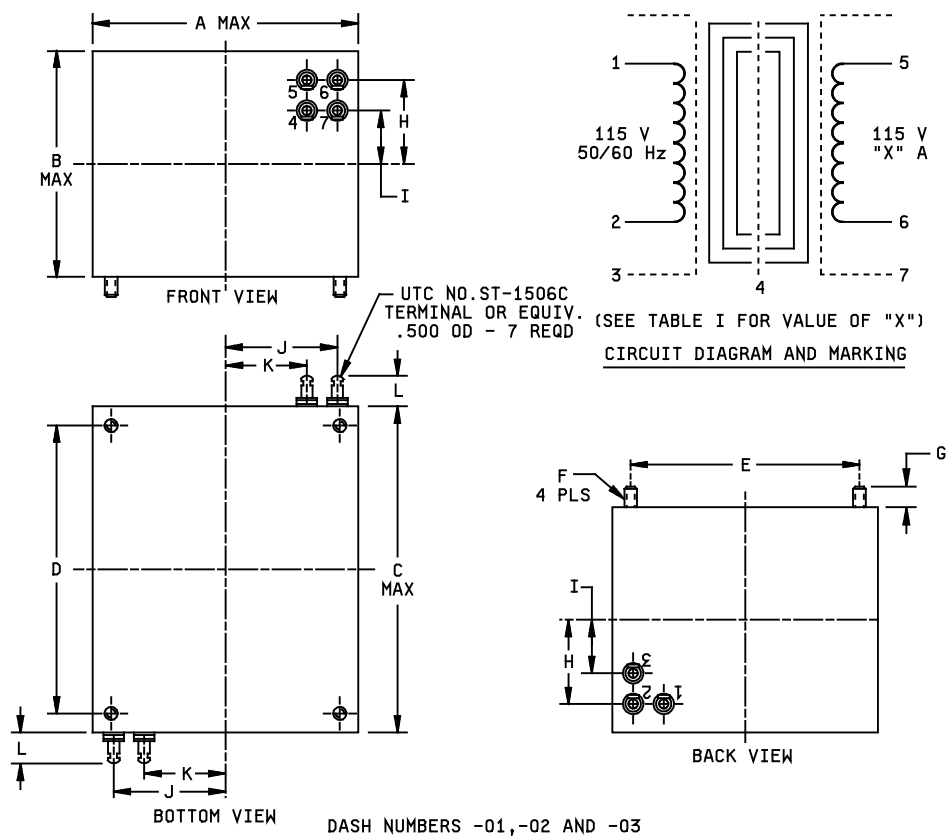


FIGURE 1. Dimensions and configurations.

AMSC N/A

FSC 5950



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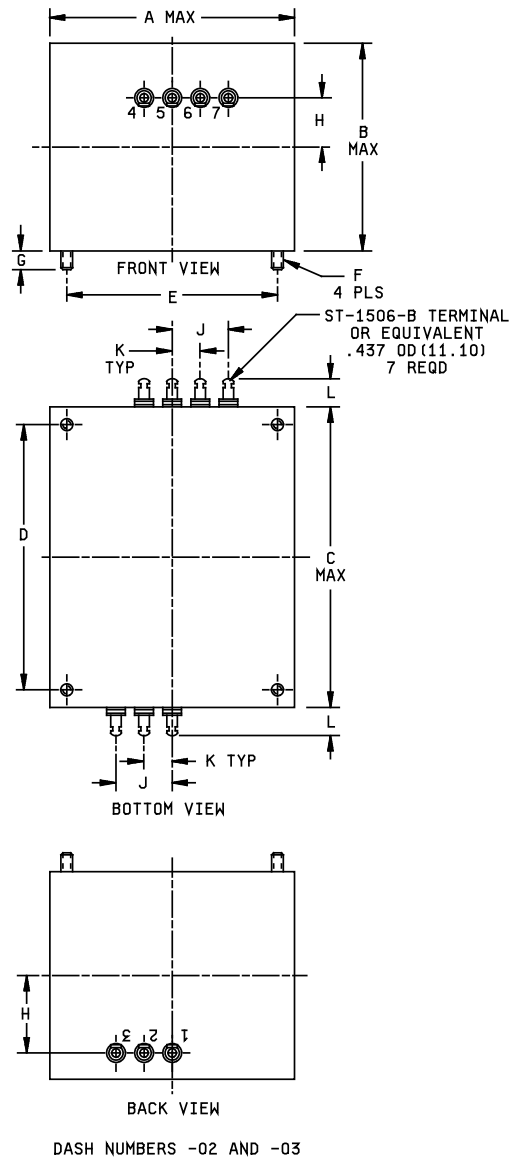


FIGURE 1. Dimensions and configurations. - Continued.

Dash no.	A Max	B Max	C Max	D	E	F	G	H	I	J	K	L
01	6.531 (165.89)	5.531 (140.49)	8.000 (203.20)	7.062 (179.37)	5.625 (142.88)	.3125-18 UNC-2A	.812 (20.62)	2.062 (52.37)	1.312 (33.32)	2.750 (69.85)	2.00 (50.80)	.750 (19.05)
02	4.032 (102.41)	3.032 (77.01)	4.032 (102.41)	3.375 (85.72)	3.375 (85.72)	10-32 UNF-2A	.500 (12.70)	.875 (22.22)	---	1.500 (38.10)	.750 (19.05)	.5625 (14.288)
03	5.344 (135.74)	3.500 (88.90)	5.000 (127.00)	4.312 (109.52)	4.625 (117.48)	10-32 UNF-2A	.500 (12.70)	.875 (22.22)	---	2.000 (50.80)	1.000 (25.40)	.5625 (14.288)
04	5.531 (140.49)	4.531 (115.09)	5.531 (140.49)	4.812 (122.22)	4.812 (122.22)	10-32 UNF-2A	.500 (12.70)	1.625 (41.28)	1.25 (31.8)	2.3125 (58.738)	1.750 (44.45)	.531 (13.49)
05	7.500 (190.50)	7.500 (190.50)	9.000 (228.60)	8.000 (203.20)	6.500 (165.10)	.3125-18 UNC-2A	.937 (23.80)	3.000 (76.20)	2.25 (57.2)	3.25 (82.6)	2.50 (63.5)	.750 (19.05)

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NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Metric equivalents are in parentheses.
4. Unless otherwise specified, tolerance on all dimensions shall be ± 0.031 (0.79 mm).
5. Marking shall be on top of case.
6. Secondary current and the working voltage as specified in table I shall be marked as applicable.

FIGURE 1. Dimensions and configuration - Continued.

TABLE I. Electrical characteristics.

Dash number <u>1/</u>	Weight (lbs. max)	Secondary current (amperes)	Working voltage		Primary power (VA)	No load		DC resistance		No load secondary volts (5-6)
			Primary (volts)	Secondary (volts)		Primary current (mA)	Primary power (watts)	Primary ±25% (ohms)	Secondary ±25% (ohms)	
01	35	3.5	175	175	400	400	10	.35	.38	129
02	5.5	.435	175	175	50	150	2.5	11	13	131.5
03	13	1.04	175	175	120	300	5	2.1	3	127.8
04	15.5	1.4	175	175	160	300	5.5	1.5	1.65	128
05	60	8.7	175	175	1000	1000	13.5	.116	.155	123

1/ Qualification testing and approval to M27/235-01 shall be sufficient to grant qualification approval to M27/235-02 through M27/235-05, inclusive.

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

Electrical ratings:

Primary (1-2): 115 volts rms, 50/60 hertz, see table I.

Secondary (5-6): 115 volts rms, see table I.

Working voltage (peak): See table I.

Design and construction:

Dimensions and configuration: See figure 1.

Duty cycle: Continuous.

Case: Metal encased.

Material: Brass.

Mounting cover: Cold rolled steel.

Terminals: Brass, solder, lug, insulated, United Transformer Company P/N ST-1506, or equivalent.

Height: See table I.

Weight: See table I.

Operating temperature range: -55°C to +105°C.

Dielectric withstanding voltage (at sea level): 500 volts rms.

Electrical characteristics:

No load: With 115 volts rms, 60 hertz across (1-2), current in (1-2) shall not exceed "X" milliamperes and the power in (1-2) shall not exceed "Y" watts.

Voltage across (5-6): 115 volts rms ± 3 percent. See table I for "X" and "Y" values.

Rated load: With 115 volts, 60 hertz across (1-2), the voltage across (5-6) shall be 115 volts ± 3 percent.

Polarity: Additive with terminals 2 and 6 connected.

Electrostatic shielding: Voltage ratio > 100:1 at 20 kilohertz.

DC resistance: See table I.

Temperature rise: 40°C with 115 volts rms, 60 hertz across (1-2) at an ambient temperature of 65°C.

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Quality assurance provisions:

Qualification inspection: Not applicable.

Quality conformance inspection: Groups A and B test of MIL-PRF-27 shall be applicable.

Marking location: See figure 1.

Part or Identification Number (PIN): M27/235-(dash number from table I).

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.

MIL-PRF-27

Custodians:

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

Preparing activity:
DLA - CC

(Project 5950-2021-016)

Review activities:

Army - AR, MI
Navy - AS, MC, OS, SH
Air Force - 19

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>.