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MIL-STD-255B (MI)

8 May 1992

SUPERSEDING

MIL-STD-255A

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MILITARY STANDARD

ELECTRIC VOLTAGES
ALTERNATING AND DIRECT CURRENT



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FOREWORD

1. This military standard is approved for use by all Departments and Agencies of the Department of Defense.

2. Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to the Commander, U.S. Army Missile Command, ATTN: AMSMI-RD-SE-TD-ST, Redstone Arsenal, AL 35898-5270 by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

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1. SCOPE

1.1 Coverage. This standard covers nominal voltage ratings for alternating and direct electric current.

1.2 Application. The voltage ratings listed herein shall apply to utilization equipment and new systems.

1.2.1 Exceptions. This standard does not apply to new or replacement equipment required to operate on existing systems having voltages other than those covered by this standard and to secondary voltages of control and signal transformers supplying low voltages to such circuits. Effort should be made to utilize standard voltages on replacement items when practicable.

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3. DEFINITIONS

3.1 Nominal system voltage. Nominal system voltage is the source voltage produced by the generator or power conversion equipment.

3.2 Utilization equipment. Utilization equipment is that equipment using or consuming power directly, such as motors, lights, appliances, electronic gear, etc., but does not include power type switch gear, distribution transformers, etc. These latter types of devices are considered to be part of the power source.

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4. GENERAL REQUIREMENTS

4.1 Power systems. All new systems are to deliver power having one of the nominal system voltages listed herein.

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5. DETAIL REQUIREMENTS

5.1 Standard AC voltage ratings. The standard alternating current voltages are as follows:

5.1.1 Nominal system voltage.

120 (Single Phase)
120,240 (3 Phase - 3 Wire)
120/240 (Single Phase - 3 Wire)
120/208 (3 Phase - 4 Wire)
240/416 (3 Phase - 4 Wire)
450 (3 Phase - 3 Wire) (shipboard use)
480 (3 Phase - 3 Wire)
277/480 (3 Phase - 4 Wire)
2,400 (3 Phase)
4,160 (3 Phase)
7,200/12,470 (wye)
7,620/13,200 (wye)
13,800 (3 Phase - 3 Wire)

5.1.2 Utilization equipment nominal voltage ratings.

115 (Single Phase)
115 (3 Phase)
115/200 (3 Phase - 4 Wire) (aircraft use)
208 (3 Phase)
230 (Single Phase)
265 (Single Phase)
416 (3 Phase)
440 (3 Phase)
2,300 (3 Phase)
4,000 (3 Phase)
13,200 (3 Phase)

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5.2 Standard DC voltage ratings. The standard direct current voltages are as follows:

5.2.1 Nominal system voltage.

7 VDC
14 VDC
28 VDC
30 VDC (aircraft use)
120 VDC
240 VDC
250 VDC (submarine use)
500 VDC (submarine use)

5.2.2 Utilization equipment nominal voltage ratings.

6 VDC
12 VDC
24 VDC
28 VDC (aircraft use)
115 VDC
230 VDC
250 VDC
500 VDC

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6. NOTES

(This section contains information of a general or explanatory nature that may be helpful, but is not mandatory.)

6.1 Intended use. This standard is intended to cover nominal AC and DC voltages produced by generators or power conversion equipment and AC and DC utilization equipment that consume the power.

6.2 Subject term (key word) listing.

Converter
Generator
Motor
Transformer

6.3 Changes from previous issue. Marginal notations are not used in this revision to identify changes with respect to the extensiveness of the changes.

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I RECOMMEND A CHANGE:

1. DOCUMENT NUMBER

MIL-STD-255B (MI)

2. DOCUMENT DATE (YYMMDD)

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3. DOCUMENT TITLE

ELECTRIC VOLTAGES ALTERNATING AND DIRECT CURRENT

4. NATURE OF CHANGE (Identify paragraph number and include proposed rewrite, if possible. Attach extra sheets as needed.)

5. REASON FOR RECOMMENDATION

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