



DOD PROJECT MANAGER MOBILE ELECTRIC POWER



PROPOSED DEPARTMENT OF DEFENSE HANDBOOK

MIL-HDBK-633F

STANDARD FAMILY OF MOBILE ELECTRIC POWER GENERATING SOURCES

GENERAL DESCRIPTION INFORMATION AND CHARACTERISTICS DATA SHEETS



PREPARED FOR PM-MEP BY



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MIL-HDBK-633F

SUPERSEDING

MIL-STD-633E

22 February 1980

(PROPOSED)

**DEPARTMENT OF DEFENSE
HANDBOOK**

**STANDARD FAMILY OF MOBILE ELECTRIC
POWER GENERATING SOURCES**

**GENERAL DESCRIPTION INFORMATION
AND
CHARACTERISTICS DATA SHEETS**



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AMSC N/A

FSC 6115

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FOREWORD

1. This Military Handbook is approved for use by all Departments and Agencies of the Department of Defense (DoD).

2. This handbook is for guidance only. This handbook cannot be cited as a requirement. If it is, the contractor does not have to comply.

3. Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: USA Communications-Electronics Command, Logistics and Readiness Center, 10115 Gridley, Suite 228, Fort Belvoir, VA 22060-5849, by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

4. Preparation of this document has been authorized by the Department of Defense Directive 4120.11, Standardization of Mobile Electric Power (MEP) Generating Sources, July 9, 1993, which assigns to the Project Manager, Mobile Electric Power the responsibility for establishing the Department of Defense (DoD) Standard Family of Mobile Electric Power Generating Sources (MEPGS). Military Handbook 633F revises the Standard Family by the deletion of most Military Standard gasoline engine-driven generator sets, the addition of the 2 kW Military Tactical Generator (MTG), the MEP-501A (DC) and the MEP-531A (AC), and the replacement of the 3 kW - 60 kW Standard Family of Diesel Engine Driven (DED) models by Tactical Quiet Generators (TQG) for future procurement. The present and proposed MEPGS and their associated trailer mounted configurations are included in Appendix A. Aircraft Ground Support Power Units MEP-360A, MEP-356A and MEP-357A are included in the Standard Family and are listed in Appendix B. Auxiliary Power Units (APU) MEP-952A and MEP-903A have been added to the Standard Family in accordance with guidance provided in SARD-ZCS Memorandum, Army Acquisition Executive Policy Memorandum #90-3, Auxiliary Power Units (APUs) and Environmental Control Units (ECUs), 13 July 1990, and are listed in Appendix C. In addition, the Power Distribution and Illumination System, Electrical (PDISE) has been included as Appendix D. Members of the old Standard Family which are still being supported in the logistics system, many of which have no immediate replacement, have been included in Appendix E.

The following are extracts from DoD Directive 4120.11:

D. POLICY

1. It is DoD policy to:

a. Establish, maintain, and provide a DoD Standard Family of MEP generating sources for maximum DoD Component Use.

b. Implement the standardization policies of DoD Instruction 5000.2 on MEP generating sources through the establishment of common military operational requirements, design and development, procurement, logistic support, and operational use by:

(1) Planning and coordinating the DoD development, engineering, and product improvement efforts. The requirements shall be satisfied to the maximum practicable extent through the use of nondevelopmental items.

(2) Ensuring the availability of standard MEP generating sources that will meet DoD-wide needs with the required electrical performance, reliability, maintainability, durability, and versatility by the most cost effective means.

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(3) Reducing diversification of MEP generating sources entering the DoD Supply system, thus minimizing logistic support without compromising mission accomplishment of the DoD Components.

(4) Standardizing, to the maximum extent practicable, the electrical output characteristics of the MEP generating sources, consistent with military systems and equipment needs under MIL-STD-1332.

2. In designing and developing end items and systems requiring electric power from MEP generating sources, the DoD Components shall consider the characteristics and suitability of the DoD Standard Family of MEP generating sources, as defined in MIL-HDBK-633.

3. When MEP generating sources are designed in, and procured as, an integral part of an end item or system, the current DoD standard MEP generating sources in MIL-HDBK-633 shall be used to the maximum extent practicable.

4. The DoD Components requiring MEP generating sources other than those available in the standard family shall so advise and obtain approval from the PM-MEP before starting procurement. The PM-MEP shall expedite action on such requests."

5. Fuel Policy

a. DoD Directive 4140.25, SUBJECT: Bulk Petroleum Management Policy, establishes DoD bulk Petroleum Management Policy. The Fuel Standardization policy is stated as "The DoD Components shall minimize the number of bulk petroleum products that must be stocked and distributed, plan to use fuels readily available worldwide, and minimize the military-unique characteristics of DoD fuels. The DoD Components shall plan, program, and budget to design and qualify new systems to use readily available mid-distillate type fuels, under procedures in DoD Instruction 5000.2."

b. This statement is normally referred to as the "DoD single fuel forward policy". It is accepted to include diesel (DL-1, DL-2) and Jet Propellant (JP-8).

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1. SCOPE

1.1 General. This handbook provides detailed information on the physical and electrical characteristics and logistical data on the DoD approved Standard Family of Mobile Electric Power Generating Sources.

1.2 Application. The handbook has been prepared for use by all Departments and Agencies of the DoD in selecting engine-driven generator sets and ancillary equipment for applications requiring mobile sources of electric power and to assist the Project Manager, Mobile Electric Power (PM-MEP) in effecting management and standardization of such sources of power within the DoD. The engine-driven generator sets listed herein are the only mobile sets authorized for procurement. DoD components with mobile electric power requirements within the range of 0.5 kW through 750 kW, whose needs cannot be satisfied by one of the listed generator sets, must obtain deviation approval from the Project Manager before taking any procurement action. Special instructions on the preparation and submittal of deviations are contained in the Logistics Joint Operating Procedures AR 700-101, AFJI 63-110, NAVFACINST 4120.12, MCO 11310.8C/DLAR 4120.7 titled Management and Standardization of Mobile Electric Power Generating Sources.

2. APPLICABLE DOCUMENTS

2.1 General. The documents listed below are not necessarily all of the documents referenced herein, but are the ones necessary to understand the information provided by this handbook.

2.2 Government documents.

2.2.1 Specifications and standards. The following specifications and standards form a part of this document to the extent referenced herein. Unless otherwise specified, the issues of these documents are those listed in the latest issue of the Defense Index of Specifications and Standards (DoDISS) and supplemented thereto.

SPECIFICATIONS

DEPARTMENT OF DEFENSE

MIL-T-704	-	Treatment and Painting of Materiel
MIL-C-22992	-	Connector, Plugs and Receptacles, Electrical, Waterproof, Quick Disconnect Heavy Duty Type, General Specification For

STANDARDS

DEPARTMENT OF DEFENSE

MIL-STD-461	-	Electromagnetic Interference
MIL-STD-705	-	Generator Sets, Engine-Driven, Methods of Tests and Instructions
MIL-STD-1332	-	Definitions of Tactical, Prime, Precise, and Utility Terminologies for Classification of the DoD Mobile Electric Generator Set Family

(Unless otherwise indicated, copies of the above specifications and standards are available from the Standardization Document Order Desk, 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5094.)

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2.2.2 Other Government publications. The following other Government publication forms a part of this document to the extent specified herein.

FM 20-31 - Electric Power Generation in the Field

(copies of the above document are available from the US Army Publications and Printing Command, ATTN: ASQZ-IM, 2461 Eisenhower Ave., Alexandria, VA 22331-0203. A valid publications account is required.)

3. DEFINITIONS

3.1 General. The following acronyms and definitions are used in this handbook.

3.2 Acronyms used in this handbook. The acronyms used in this handbook are defined as follows:

a. ABCA - American, British, Canadian, Australian (Quadripartite subset of NATO).

b. DED - Diesel Engine Driven.

c. DoD - Department of Defense.

d. DSN - Defense Switched Network (formerly AUTOVON). A military telephone system.

e. GED - Gasoline Engine Driven.

f. GS - General Support

g. GTED - Gas Turbine Engine Driven.

h. JEDMICS - Joint Engineering Data and Management Information Control System. A DoD drawing and engineering data management control system.

i. LIN - Line Item Number. A six character identifier of a generic nomenclature, where the generic nomenclature is the family name of an item or group of items whose physical traits and functional abilities are sufficiently alike to be issued to meet the same operational requirements. A LIN generally includes several National Stock Numbers.

j. NATO - North Atlantic Treaty Organization.

k. NSN - National Stock Number. A unique identifier for stocking an item.

l. OEM - On Equipment Material.

m. PICA - Primary Inventory Control Activity. See 3.21

n. PU/PP - Power Unit/Power Plant. See 3.19 and 3.20.

o. RMS - Root Mean Square.

p. SSN - Standard Study Number. A federal budget identifier for procuring an item.

q. STANAG - Standardization Agreement (of NATO).

r. QSTAG - Quadripartite Standardization Agreement (of ABCA).

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3.3 Accessory box. An accessory box is an aluminum or steel box mounted to the PU/PP trailer which contains items necessary for the set-up, operation, or maintenance of the unit. These items include: ground rods, a sledge hammer or ground rod driver/puller, technical manuals and fuel can adapters, which are referred to as ancillary equipment.

3.4 Bandwidth. Bandwidth is the distance between two lines drawn parallel to the axis of chart movement, one each passing through the center points of maximum and minimum trace excursion respectively during any steady-state electrical load condition. Bandwidth may refer to voltage, frequency or speed and is expressed as a percentage of rated voltage, frequency or speed.

3.5 Camouflage pattern. A three color pattern designed to disrupt the silhouette or outline of a piece of equipment making it difficult to distinguish the equipment from its surroundings.

3.6 Classification. See MIL-STD-1332 for classification of sets as to type, class, and mode.

3.7 Deviation Factor. The deviation factor of a voltage waveform is the ratio of the maximum difference between corresponding ordinates of the voltage waveform and of the equivalent sine wave to the maximum ordinate of the equivalent sine wave when the waves are superimposed in such a way as to make this maximum difference as small as possible.

3.8 Dip. Voltage dip is the decrease in voltage resulting from sudden application of load to a generator set. It is measured from the mean of the observed steady-state voltage band prior to the load change to the minimum voltage excursion. Voltage dip includes the effects of voltage regulation, whereas undershoot does not.

3.9 Electromagnetic Interference (EMI): MEPGS are tested to comply with MIL-STD-461 for conducted and radiated emissions and conducted and radiated susceptibility.

3.10 Failure. The inability of an item to perform within previously specified limits.

3.10.1 Relevant Failure. A relevant failure is any malfunction the operator cannot remedy by normal adjustment action using the set controls and OEM equipment and which causes or may cause any or all of the following: Inability to commence operation, cessation of operation or degradation of performance capability of the system/subsystem below designated levels, serious damage to system/subsystem by continued operation; or create serious personnel hazard.

3.10.2 Non-relevant Failures. Any failure not used to compute set/unit reliability such as:

- a. Failures which do not prevent the set/unit from meeting the specified power output requirement, e.g., a panel light burns out.
- b. Failures caused by operator error where proper procedures are documented in technical manuals, instruction plates mounted on the set/unit or both; e.g., use of improper lubricant.
- c. Secondary failures caused by failures in the powered equipment or other occurrences in the environment when integral protection is not provided against such equipment failure or occurrence, e.g., explosion or fire.
- d. Failures which may be corrected by normal operator functions, e.g., readjustment of voltage after the 4-hour long-term stability period.

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e. Failures because of characteristics of the load, e.g., waveform distortion caused by saturated inductors.

f. Failures because of design deficiencies when subsequent testing demonstrates that the design deficiency has been corrected.

g. Secondary failures caused by primary failure because of a design deficiency when subsequent testing demonstrates that the design deficiency has been corrected.

h. Failures resulting from operating items beyond requirements, e.g., if ball joints scheduled for replacement at 2500 hours are run to failure to determine mean life, failures after 2500 hours are non-relevant failures.

3.11 Harmonic. A harmonic is a component of a periodic quantity which is an integral multiple of the fundamental frequency. For example, a component of frequency which is twice the fundamental frequency is called the second harmonic. For an AC generator set, the magnitudes (in percent of fundamental component amplitude) of any harmonics present may not exceed the "individual harmonic" value specified for the set.

3.12 Hertz. Hertz (Hz) is the international unit of frequency now recognized instead of cycles per second.

3.13 Mean Time Between Failure (MTBF). For exponentially distributed failures, the Mean Time Between Failure (MTBF) is the reciprocal of the failure rate. Observed MTBF is equal to the total operating time of the equipment divided by the number of relevant failures. Observed MTBF is a point estimate.

3.13.1. Specified MTBF. That value of MTBF which describes the reliability objective of the equipment

3.13.2. Minimum Acceptable MTBF. That value of MTBF which describes the lower bound reliability objective of a reliability acceptance test of the equipment. Generally it is equal to one half of the specified MTBF but is test plan dependent.

3.13.3. Mean Time Between Operational Mission Failures (MTBOMF). That value of MTBF observed in an operational (tactical) environment as opposed to the laboratory tested value. Generally derived from user testing.

3.14 Mobile Electric Power Generating Sources (MEPGS). All mobile, electric power generating sources, 750-kilowatt (kW) and smaller, which are skid mounted, wheel mounted, or man-portable that are complete equipment assemblages or part of an assemblage, and that are capable of independently producing electric power when operating on diesel, gasoline, or other fuel from integral or remotely located fuel sources. Included are follow-on power sources; e.g., fuel cells and thermo-electric devices. (Fuel cells and thermoelectric devices less than 0.5-kW rating and electrochemical batteries are not included.)

3.15 Observed Steady-State Band. The observed steady-state band is the actual bandwidth determined by test of the voltage, frequency or speed. The observed steady-state band is differentiated from the prescribed steady-state band in that the prescribed steady-state band is the maximum bandwidth permitted by the specification.

3.16 Overshoot. Overshoot is the surge increase in speed, frequency or voltage above the mean of the observed steady-state band resulting from a sudden decrease in electrical load on a generator set. Overshoot is specified as a percentage of the rated speed, frequency or voltage.

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3.17 Paralleling. The electrical connection of two or more electrical power generating sources in order to meet a power demand greater than that supplied by any single unit.

3.18 Phase Balance Voltage. Phase balance voltage is the difference in percent of voltage between the phases of a poly-phase generator set when the set is operating at rated voltage, rated frequency, and no load.

3.19 Power Plant (PP). A trailer mounted generator set configuration consisting of two generator sets, one or two trailers, a switch box and usually an accessory box (with hammer, ground rods, and puller) and a fire extinguisher on each trailer. Details provided in Characteristics Sheet.

3.20 Power Unit (PU). A trailer mounted generator set configuration consisting of one generator set, one trailer and usually an accessory box (with hammer, ground rods, and puller) and a fire extinguisher. Details provided in Characteristics Sheet.

3.21 Primary Inventory Control Activity (PICA). The activity within DoD designated as responsible for the functions of procurement, cataloging, depot maintenance, and disposal on an item basis.

3.22 Rated load. The condition resulting when a generator set is operating at rated frequency, rated voltage, rated current, and rated power factor as specified on the generator name plate. It is normally stated as a given kilowatt value at a given power factor.

3.23 Reconnectable. A reconnectable generator set has provisions for reconnecting the generator phase windings from single phase to three phase and from low voltage to high voltage depending on the size and type of generator set.

3.24 Recovery Time. Recovery time is the elapsed time from the time the frequency trace leaves the prescribed steady-state band until the trace returns to and remains within the prescribed steady-state band as a result of a load change. The same definition applies to voltage and frequency recovery time.

3.25 Regulation. Frequency regulation is the maximum difference between the no-load value of frequency, and the value at any load up to and including rated load. This difference is expressed as percentage of the rated frequency. The voltage regulation is expressed similarly except that the Root Mean Square (RMS) value of voltage is used.

3.26 Ripple Voltage. Ripple voltage is the alternating component in the output voltage of a DC generator.

3.27 Rise. Voltage rise is the surge in voltage resulting from sudden removal of load from a generator set. It is measured from the mean of the observed steady-state voltage band prior to the load change to maximum voltage excursion. Voltage rise includes the effects of voltage regulation, whereas overshoot does not.

3.28 Stability. Frequency stability describes the tendency of the frequency to remain at a constant value. Generally, the instantaneous value of frequency is not constant but varies randomly above and below a mean value. Stability may be described as either short-term or long term depending upon the length of time that the frequency is observed. Another term, bandwidth, describes the limits of these variations. Voltage stability is described similarly.

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3.29 Steady-State. Steady-state is the operating condition, at constant load, after transients have settled out.

3.30 Type Classified for Army Use. Type Classification (TC) is a process by which the Army identifies the degree of acceptability of a material item for Army use. The TC is the Army's implementation of the DoD requirement that an item is "approved for service use" before expending procurement funds. The types of classification categories are: Limited Procurement (LP), Standard (STD), Generic (G), Contingency (CON) and Obsolete (O).

3.31 Undershoot. Undershoot is the surge decrease in speed, frequency, or voltage below the mean of the observed steady-state band resulting from a sudden increase in electrical load on a generator set. Undershoot is specified as a percentage of the rated speed, frequency, or voltage.

3.32 Voltage Modulation: The peak value of a voltage waveform may vary with time. Voltage modulation is the difference in the absolute value of the peak voltage readings stated as a percentage of average absolute peak voltage (RMS voltage x $\sqrt{2}$).

4. GENERAL REQUIREMENTS

4.1 Safety.

4.1.1 Grounding. Electrical power generating and distribution systems must be properly grounded to prevent hazards to operators and using personnel. Techniques for grounding power generating systems are included in FM 20-31, Electric Power Generation in the Field. A three-piece sectional ground rod is available in the DoD supply system that can be used to obtain an adequate ground under most soil conditions.

4.1.2 Fire Protection. Adequate fire protection must be provided in the area in which the generator set will be used. Fire extinguisher, NSN: 4210-00-270-4512, is recommended.

4.1.3 Noise Protection. Adequate hearing protection must be utilized in the vicinity of most operating generator sets. Prolonged exposure to the high intensity noise produced by some operating generator sets can cause permanent hearing damage or complete loss of hearing. Operation of the TQG and other quiet generators does not require hearing protection as long as the acoustic covers are not opened or removed.

4.2 Delivered condition. Details of delivered condition, operating supplies, optional equipment, and accessories are contained in the applicable Appendix. Trailer mounted configurations are delivered with more accessories including the fire extinguisher and an additional set of ground rods.

4.2.1 Camouflage Patterns. Most items covered by this handbook are delivered with either a three color (green, brown, black) camouflage pattern or painted desert sand, as required. Some exceptions exist and some items may be painted a solid green while other items may be painted flight line yellow.

4.2.2 Chemical Agent Resistant Coating (CARC). Chemical Agent Resistant Coating (CARC), applied in accordance with MIL-T-704, is the finish now required for all Army equipment. CARC, a polyurethane finish, is designed to be resistant to Nuclear, Biological, and Chemical (NBC) agents and allow easy clean up and decontamination. In addition, CARC will not be affected by the chemical agent decontamination chemicals which would remove most other paints.

4.2.3 Skid sets.

a. Safety Items. Production generator sets may or may not be delivered with fire extinguishers, ground rods or ground rod slide hammer/puller. Units

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may obtain a 5 pound carbon dioxide fire extinguisher (NSN 4210-00-270-4512), 3-foot-sections of ground rod (NSN 5975-00-878-3791) and a ground rod slide hammer/puller (NSN 5120-01-013-1676).

b. Batteries. All 5 kW through 750 kW generator sets (except the 10 kW TQG) are furnished with dry charged batteries less electrolyte. Electrolyte is identified as NSN 6810-00-249-9354 (1 gallon containers) or NSN 6810-00-893-8138 (15 gallon containers). The 10 kW TQG is supplied with two 12V alkaline batteries.

c. Auxiliary Fuel Line. A 25 foot auxiliary fuel line is furnished with the 5 kW through 200 kW diesel engine driven generator sets. Fuel lines for the other sets may be ordered or fabricated on site in accordance with drawing 69-668, titled, Auxiliary Fuel Line, available in the DoD automated drawing system (JEDMICS) or from USA CECOM, ATTN: AMSEL-LC-IEW-D-PG, 10115 Gridley Road, Suite 228, Fort Belvoir, VA 22060-5849.

d. Ether starting aid. The 15 kW through 200 kW diesel engine driven generator sets are equipped with an internal ether starting aid for temperatures below 40 °F. Ether bottles may be obtained as NSN 2910-00-209-4997.

e. Paralleling cables. Class 1 (precise) sets are supplied with a paralleling cable for interconnection of the voltage regulators and governor systems of the sets to be paralleled. The 15 through 750 kW generator sets are designed for parallel operation as well as single set operation. Additional details on parallel operation are contained in the generator set manuals.

f. Power output terminals. Power output terminals consist of split-lug terminals with captive nuts. A series of standard power output receptacles (MIL-C-22992) are available through the supply system. The Power Distribution and Illumination System, Electrical (PDISE) interfaces to the power output terminals via a pigtail connection. The old 15-200 kW DED generator sets have two (2) panels that can use for mounting the standard receptacles needed by the user. In addition, the US Army Missile Command (MICOM) has cognizance for a series of missile system receptacles for the 15 kW through 60 kW DED generator sets.

4.2.4 Trailer mounted sets. The trailer mounted sets (Power Units and Power Plants) are delivered with one or more fire extinguishers, ground rods, ground rod driver/puller, and 8 pound hammer. Details have been included in the appropriate APPENDICES.

5. DETAILED REQUIREMENTS.

5.1 Characteristics Data Sheets. Detailed data on DoD standard family engine generator sets and associated items are contained in the Characteristics Data Sheets of APPENDICES A through E.

5.1.1 Item Description. Data contained in the sheets provide adequate physical description and performance characteristics to permit selection of the item best suited for a specific application. Maximum wet weights are cited in the data sheets unless otherwise noted. In addition, photographs and outlined drawings are included to facilitate application planning.

5.1.2 Parametric Values. The Parametric values cited within these data sheets are the maximum allowable limits over the specified environmental range. Specified parametric values were determined using the test procedures delineated in MIL-STD-705, Generator Sets, Engine-Driven, Methods of Tests and Instructions. For a more complete description, see applicable specifications, drawings, and referenced documents.

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6. NOTES

6.1 National Stock Numbers. National Stock Numbers for mobile electric power generator sets and associated equipment are provided in Tables: A-I, B-I, C-I, D-I and E-I, and in the characteristics data sheets.

6.2 MEPGS Program Status. Current information on the DoD MEPGS program is available on the World Wide Web (WWW). Search the WWW for "Mobile Electric Power" using any of the available search engines. The DoD Project Manager, Mobile Electric Power (PM-MEP) will usually be at the top of the list. To determine the availability of desired generator sets or associated equipment and to assure proper and timely acquisition of MEPGS, users of this handbook are advised to contact PM MEP at:

DoD Project Manager - Mobile Electric Power
7798 Cissna Road
Springfield, Virginia 22150-3199

Phone: (703)806-7823, DSN: 656-7823; Fax:(703)806-7004
email: PM-MEP@EMH10.BELVOIR.ARMY.MIL

6.3 Mobile Electric Power Generating Source Development Program. A Mobile Electric Power Generating Source (MEPGS) development program is monitored by the DoD Project Manager - Mobile Electric Power. If users of this handbook cannot find a suitable generator set within the DoD Mobile Electric Power Engine-Driven Generator Standard Family as presented in this Handbook, they are advised to contact the Project Manager (see Para 6.2) to obtain status of the development program.

6.4 International Standardization Agreement. Certain power generation characteristics are the subject of international standardization agreements: ABCA QSTAG 298, ABCA QSTAG 299, NATO STANAG 4134, and NATO STANAG 4135. When change notice, revision, or cancellation of this document is proposed which will affect or violate the international agreements concerned, the preparing activity shall take appropriate reconciliation action through international standardization channels, including departmental standardization offices, if required.

6.5 Items not Army Type-Classified. Army Type-Classification (see 3.30) is a procedure described by AR 70-1 to designate Army materiel acquisition status. Some mobile electric power generating sources included in this document have not been Type-Classified for Army use and are identified by "Not Type-Classified for Army Use". These items have been approved for use by another service. Other items, such as the APUs, have been Army type-classified as part of a larger system and are not separately fielded. These items have been identified by "Not Separately Type-Classified".

6.6 Cross reference. Table I provides a cross reference of the figure numbers to the model number, NSN, LIN, SSN, and page number. Table II provides a list of model numbers arranged in alpha-numeric order.

6.7 Subject term (key word) listing.

Electric
Generator
Generator set
Mobile Electric Power
Power Plant
Power Unit
Auxiliary Power
Power Distribution
Ground Power Unit

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6.8 Changes from previous issues. Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes. Description of changes are described in the Foreword, paragraph 4.

Custodians:

Army - CR4
Navy - YD1
Air Force - 99

Preparing Activity:

Army - CR4

Review Activities:

Army - CE, MI
Navy - AS, EC, MC
Air Force - 11
DLA - GS

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TABLE I. Cross reference

FIG	MODEL NO.	LIN	NSN	SSN	PAGE
A-1	MEP-501A	Z31872	6115-01-435-1567	M59400	19
	MEP-531A	G36237	6115-01-435-1565	M59300	
A-2	MEP-831A	G18358	6115-01-285-3012	M58100	21
	MEP-832A	G74847	6115-01-287-2431	M53600	
A-3	PP-AN/MJQ-42	Z13645	6115-01-322-8583	M50600	23
A-4	PP-AN/MJQ-43	Z13713	6115-01-322-8582	M54800	24
A-5	MEP-802A	G11966	6115-01-274-7387	M53500	25
	MEP-812A	G12102	6115-01-274-7391	M518	
A-6	PU-797	G42238	6115-01-332-0741	R62700	27
	PU-797A	G42238	6115-01-413-3820	R62700	
A-7	PP-AN/MJQ-35	P28083	6115-01-313-4216	M54100	28
	PP-AN/MJQ-35A	P28083	6115-01-414-9697	M54100	
A-8	PP-AN/MJQ-36	P28151	6115-01-313-4215	M66200	29
A-9	MEP-803A	G74711	6115-01-275-5061	M52900	30
	MEP-813A	G74779	6115-01-274-7392	M56500	
A-10	PU-798	G42170	6115-01-319-9032	R59100	32
	PU-798A	G42170	6115-01-413-3818	R59100	
A-11	PU-799	G53403	6115-01-313-4283	M57000	33
	PU-799A	G53403	6115-01-413-3819	M57000	
A-12	PP-AN/MJQ-37	P42262	6115-01-299-6035	R59000	34
A-13	PP-AN/MJQ-38	P42330	6115-01-313-4214	M52300	35
A-14	MEP-804A	G12170	6115-01-274-7388	M52600	36
	MEP-814A	G12238	6115-01-274-7393	M549	
A-15	PU-800	G78203	6115-01-317-2137	M52100	38
A-16	PU-801	G78374	6115-01-319-9033	M500	39
	PU-801A	G78374	6115-01-413-3821	M500	
A-17	PU-802	G53778	6115-01-317-2138	M50000	40
A-18	PP-AN/MJQ-39	P42614	6115-01-299-6034	M56300	41
A-19	MEP-805A	G74575	6115-01-274-7389	M532	42
	MEP-815A	G74643	6115-01-274-7394	M50100	
A-20	PU-803	G35851	6115-01-317-2136	M54300	44
A-21	PU-804	G35919	6115-01-317-2135	M59500	45
A-22	PP-AN/MJQ-40	P42126	6115-01-299-6033	M51900	46
A-23	MEP-806A	G12034	6115-01-274-7390	M53400	47
	MEP-816A	G18052	6115-01-274-7395	M53100	
A-24	PU-805	G78306	6115-01-317-2134	M50900	49
A-25	PU-806	G17460	6115-01-317-2133	M51000	50
A-26	PP-AN/MJQ-41	P42194	6115-01-303-7896	M51100	51
A-27	PP-AN/MJQ-1610		6115-01-XXX-XXXX	M510	52
A-28	PP-AN/MJQ-1612		6115-01-349-1536	M510	53
A-29	MEP-808A		6115-01-296-1463		54
	MEP-818A		6115-01-XXX-XXXX		
A-30	MEP-809A		6115-01-296-1462		55
A-31	LARGE PRIME SET		6115-01-XXX-XXXX		56
B-1	MEP-952		6115-01-317-2139		59
B-2	MEP-903A	B16126	6115-01-431-3062	BZ9962	61
C-1	MEP-362A	G38140	6115-01-161-3992	R607	65
C-2	MEP-356A		6115-00-420-8486		67
C-3	MEP-357A		6115-00-110-1859		69

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TABLE I - Cross Reference - continued

FIG	MODEL NO.	LIN	NSN	SSN	PAGE
D-1	M200	F55689	6150-01-208-9755	R45500	75
	M200 A/P	F55689	6150-01-308-5672	R45500	
D-2	M100	F55621	6150-01-208-9754	R45400	76
	M100 A/P	F55621	6150-01-308-5671	R45400	
D-3	M40	F55485	6150-01-208-9753	R45300	77
	M40 A/P	F55485	6150-01-307-9446	R45300	
D-4	M60	F55553	6150-01-307-9445	R45200	78
	M60 A/P	F55553	6150-01-208-9752	R45200	
D-5	M46	U89185	6150-01-208-9751	R62800	79
E-1	MEP-019A	J43027	6115-00-940-7862		92
E-2	MEP-015A	J43918	6115-00-889-1446	M550	94
	MEP-025A	J44056	6115-00-017-8236	M513	
E-3	MEP-016A	J45699	6115-00-017-8237	M53601 M516 M516	96
	MEP-016C	J45699	6115-01-143-3311		
	MEP-021A	J45836	6115-00-017-8238		
	MEP-021C	J45836	6115-01-175-7321		
	MEP-026A	J46110	6115-00-017-8239		
	MEP-026C	J46110	6115-01-175-7320		
E-4	MEP-016B	G54041	6115-01-150-4140	M581	98
	MEP-701A	G54041	6115-01-234-5966	M581	
E-5	PP-AN/MJQ-32	M54800	6115-01-280-2300	M548	100
E-6	PP-AN/MJQ-33	M50600	6115-01-280-2301	M506	101
E-7	MEP-017A	J47068	6115-00-017-8240	M518	102
	MEP-022A	J48713	6115-00-017-8241		
E-8	MEP-002A	J35813	6115-00-465-1044	M535	104
E-9	PU-751/M	G37273	6115-00-033-1373	M565	106
E-10	AN/MJQ-16	P41832	6115-00-033-1395	M538	107
E-11	MEP-003A	J35825	6115-00-465-1030	M529	108
	MEP-112A	G35981	6115-00-465-1027	M565	
E-12	PU-753/M	G40744	6115-00-033-1389	M567	110
E-13	AN/MJQ-18	P28015	6115-00-033-1398	M540	111
E-14	AN/MJQ-25	P42364	6115-01-153-7742	M523	112
E-15	MEP-018A	J49398	6115-00-889-1447		113
	MEP-023A	J49466	6115-00-926-0843		
E-16	MEP-004A	J35835	6115-00-118-1241	M549	115
	MEP-013A	J36006	6115-00-118-1244	M526	
E-17	PU-405A/M	J35492	6115-00-394-9577	M500	117
E-18	PU-732/M	G36074	6115-00-260-3082	M521	118
E-19	AN/MJQ-15	P28075	6115-00-400-7591	M563	119
E-20	MEP-005A	J36109	6115-00-118-1240	M532	120
	MEP-114A	J36725	6115-00-118-1248	M501	
E-21	PU-406B/M	J36383	6115-00-394-9576	M543	122
E-22	PU-760/M	G53871	6115-00-394-9581	M595	123
E-23	AN/MJQ-10A	P27819	6115-00-394-9582	M519	124
E-24	MEP-006A	J38301	6115-00-118-1243	M531/M534	125
	MEP-115A	J38506	6115-00-118-1253		
E-25	PU-650B/G	J35692	6115-00-258-1622	M509	127
E-26	PU-707A/M	J35680	6115-00-394-9573	M510	128
E-27	AN/MJQ-12A	P27823	6115-00-257-1602	M511	129
E-28	MEP-007B	J38712	6115-01-036-6374	M54400	130

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TABLE I - Cross Reference - continued

FIG	MODEL NO.	LIN	NSN	SSN	PAGE
E-30	MEP-108A	J40150	6115-00-935-8729	M504	133
	MEP-009A	J40158	6115-00-133-9104	M504	
E-31	MEP-009B	J40158	6115-01-021-4096	M50400	135
E-32	AN/MJQ-11A	P27821	6115-00-394-9583	M527	137
E-33	MEP-029A	G40424	6115-01-030-6085	M57700	138
E-34	MEP-012A	J	6115-01-143-3850	M	140
E-35	MEP-208A	J30093	6115-00-450-5881	M56400	142

TABLE II. Model number list

MODEL NO.	ITEM DESCRIPTION	NSN	FIG
M100	100 amp/phase Feeder Sys, 3 Phase-DEPMED	6150-01-208-9754	D-2
M100 A/P	100 amp/phase Feeder Sys - 3 Phase	6150-01-308-5671	D-2
M200	200 amp/phase Feeder Sys, 3 Phase-DEPMED	6150-01-208-9755	D-1
M200 A/P	200 amp/phase Feeder Sys - 3 Phase	6150-01-308-5672	D-1
M40	40 amp/phase Dist Sys - 3 Phase-DEPMED	6150-01-208-9753	D-3
M40 A/P	40 amp/phase Dist Sys - 3 Phase	6150-01-307-9446	D-3
M46	Electrical Kit, Utility Receptacle	6150-01-208-9751	D-5
M60	60 amp Dist Sys - 1 Phase	6150-01-307-9445	D-4
M60 A/P	60 amp Dist Sys - 1 Phase-DEPMED	6150-01-208-9752	D-4
MEP-002A	5 kW, 60 Hz, DED, TU	6115-00-465-1044	E-8
MEP-003A	10 kW, 60 Hz, DED, TU	6115-00-465-1030	E-11
MEP-004A	15 kW, 50/60 Hz, DED, TU	6115-00-118-1241	E-16
MEP-005A	30 kW, 50/60 Hz, DED, TU	6115-00-118-1240	E-20
MEP-006A	60 kW, 50/60 Hz, DED, TU	6115-00-118-1243	E-24
MEP-007B	100 kW, 50/60 Hz, DED, TU	6115-01-036-6374	E-28
MEP-009A	200 kW, 50/60 Hz, DED, TU	6115-00-133-9104	E-30
MEP-009B	200 kW, 50/60 Hz, DED, TU	6115-01-021-4096	E-31
MEP-012A	750 kW, 50/60 Hz, DED, PU	6115-01-143-3850	E-34
MEP-013A	15 kW, 400 Hz, DED, TP	6115-00-118-1244	E-16
MEP-015A	1.5 kW, 60 Hz, GED, TU unmod	6115-00-889-1446	E-2
MEP-016A	3 kW, 60 Hz, GED unmodified	6115-00-017-8237	E-3
MEP-016B	3 kW, 60 Hz, DED, TU, wo/ASK	6115-01-150-4140	E-4
MEP-016C	3 kW, 60 Hz, GED, mod	6115-01-143-3311	E-3
MEP-017A	5 kW, 60 Hz, GED, TU	6115-00-017-8240	E-7
MEP-018A	10 kW, 60 Hz, GED, TU	6115-00-889-1447	E-15
MEP-019A	0.5 kW, 400 Hz, GED, TU unmod	6115-00-940-7862	E-1
MEP-021A	3 kW, 400 Hz, GED, TU unmod	6115-00-017-8238	E-3
MEP-021C	3 kW, 400 Hz, GED, TU mod	6115-01-175-7321	E-3
MEP-022A	5 kW, 400 Hz, GED, TU	6115-00-017-8241	E-7
MEP-023A	10 kW, 400 Hz, GED, TU	6115-00-926-0843	E-15
MEP-025A	1.5 kW, 28 VDC, GED, TU unmod	6115-00-017-8236	E-2
MEP-026A	3 kW, 28 VDC, GED, TU unmod	6115-00-017-8239	E-3

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TABLE II. Model number list - continued

MODEL NO.	ITEM DESCRIPTION	NSN	FIG
MEP-026C	3 kW, 28 VDC, GED, TU mod	6115-01-175-7320	E-3
MEP-029A	500 kW, 50/60 Hz, DED, TU	6115-01-030-6085	E-33
MEP-108A	200 kW, 50/60 Hz, DED, TP	6115-00-935-8729	E-30
MEP-112A	10 kW, 400 Hz, DED, TU	6115-00-465-1027	E-11
MEP-114A	30 kW, 400 Hz, DED, TP	6115-00-118-1248	E-20
MEP-115A	60 kW, 400 Hz, DED, TP	6115-00-118-1253	E-24
MEP-208A	750 kW, 50/60 Hz, DED, PU	6115-00-450-5881	E-35
MEP-356A	60 kW, 400 Hz; 2kW, 28VDC; Pneumatic, Self Propelled, GTE, Aviation Ground Power Unit	6115-00-420-8486	C-2
MEP-357A	72 kW, 400 Hz; 21kW, 28VDC; Self Propelled, DED, Aviation Support Unit	6115-00-110-1859	C-3
MEP-362A	10 kW, 28VDC, GTE, Aircraft Support Unit, Integral wheel mount	6115-01-161-3992	C-1
MEP-501A	2 kW, 28 VDC, DED	6115-01-435-1567	A-1
MEP-531A	2 kW, 60 Hz, DED	6115-01-435-1565	A-1
MEP-701A	3 kW, 60 Hz, DED w/ASK	6115-01-234-5966	E-4
MEP-802A	5 kW, 60 Hz, DED TQG	6115-01-274-7387	A-5
MEP-803A	10 kW, 60 Hz, DED TQG	6115-01-275-5061	A-9
MEP-804A	15 kW, 50/60 Hz, DED TQG	6115-01-274-7388	A-14
MEP-805A	30 kW, 50/60 Hz, DED TQG	6115-01-274-7389	A-19
MEP-806A	60 kW, 50/60 Hz, DED TQG	6115-01-274-7390	A-23
MEP-808A	100 kW, 50/60 Hz, DED TQG	6115-01-296-1463	A-29
MEP-809A	200 kW, 50/60 Hz, DED TQG	6115-01-296-1462	A-30
MEP-812A	5 kW, 400 Hz, DED TQG	6115-01-274-7391	A-5
MEP-813A	10 kW, 400 Hz, DED TQG	6115-01-274-7392	A-9
MEP-814A	15 kW, 400 Hz, DED TQG	6115-01-274-7393	A-14
MEP-815A	30 kW, 400 Hz, DED TQG	6115-01-274-7394	A-19
MEP-816A	60 kW, 400 Hz, DED TQG	6115-01-274-7395	A-23
MEP-818A	100 kW, 400 Hz, DED TQG	6115-01-	A-29
MEP-831A	3 kW, 60 Hz, DED TQG	6115-01-285-3012	A-2
MEP-832A	3 kW, 400 Hz, DED, TQG	6115-01-287-2431	A-2
MEP-903A	10 kW, 60 Hz, DED/APU	6115-01-431-3062	B-2
MEP-952	5 kW, 28 VDC, DED/APU	6115-01-317-2139	B-1
MEP-TBD	LARGE PRIME POWER SET	6115-01-	A-31
PP-AN/MJQ-10A	Power Plant, DED, 30 kW, 50/60 Hz TRLMTD	6115-00-394-9582	E-23
PP-AN/MJQ-11A	PP, DED, 200 kW, 50/60 Hz, TRLMTD	6115-00-394-9583	E-32
PP-AN/MJQ-12A	PP, DED, 60 kW, 50/60 Hz TRLMTD	6115-00-257-1602	E-27
PP-AN/MJQ-15	PP, DED, 15 kW, 400 Hz TRLMTD	6115-00-400-7591	E-19
PP-AN/MJQ-16	PP, DED, 5 kW, 60 Hz TRLMTD	6115-00-033-1395	E-10
PP-AN/MJQ-1610	PP, TQG, 60 kW, 400 Hz, TRLMTD	6115-01-	A-27
PP-AN/MJQ-1612	PP, TQG, 60 kW, 50/60 Hz, TRLMTD	6115-01-349-1536	A-28
PP-AN/MJQ-18	PP, DED, 10 kW, 60 Hz TRLMTD	6115-00-033-1398	E-13
PP-AN/MJQ-25	PP, DED, 10 kW, 400 Hz TRLMTD	6115-01-153-7742	E-14
PP-AN/MJQ-32	PP, DED, 3 kW, 60 Hz TRLMTD	6115-01-280-2300	E-5

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TABLE II. Model number list - continued

MODEL NO.	ITEM DESCRIPTION	NSN	FIG
PP-AN/MJQ-33	PP, DED, 3 kW, 60 Hz TRLMTD	6115-01-280-2301	E-6
PP-AN/MJQ-35	PP, TQG, 5 kW, 60 Hz TRLMTD	6115-01-313-4216	A-7
PP-AN/MJQ-35A	PP, TQG, 5 kW, 60 Hz TRLMTD	6115-01-414-9697	A-7
PP-AN/MJQ-36	PP, TQG, 5 kW, 60 Hz TRLMTD	6115-01-313-4215	A-8
PP-AN/MJQ-37	PP, TQG, 10 kW, 60 Hz TRLMTD	6115-01-299-6035	A-12
PP-AN/MJQ-38	PP, TQG, 10 kW, 400 Hz TRLMTD	6115-01-313-4214	A-13
PP-AN/MJQ-39	PP, TQG, 15 kW, 400 Hz TRLMTD	6115-01-299-6034	A-18
PP-AN/MJQ-40	PP, TQG, 30 kW, 50/60 Hz TRLMTD	6115-01-299-6033	A-22
PP-AN/MJQ-41	PP, TQG, 60 kW, 50/60 Hz TRLMTD	6115-01-303-7896	A-26
PP-AN/MJQ-42	PP, TQG, 3 kW, 60 Hz TRLMTD	6115-01-322-8583	A-3
PP-AN/MJQ-43	PP, TQG, 3 kW, 60 Hz TRLMTD	6115-01-322-8582	A-4
PU-405A/M	Gen Set, DED, 15 kW, 50/60 Hz, TRLMTD	6115-00-394-9577	E-17
PU-406B/M	Gen Set, DED, 30 kW, 50/60 Hz, TRLMTD	6115-00-394-9576	E-21
PU-495B/G	Gen Set, DED, 100 kW, 50/60 Hz, TRLMTD	6115-01-134-0165	E-29
PU-650B/G	Gen Set, DED, 60 kW, 50/60 Hz, TRLMTD	6115-00-258-1622	E-25
PU-707A/M	Gen Set, DED, 60 kW, 400 Hz, TRLMTD	6115-00-394-9573	E-26
PU-732/M	Gen Set, DED, 15 kW, 400 Hz, TRLMTD	6115-00-260-3082	E-18
PU-751/M	Gen Set, DED, 5 kW, 60 Hz, TRLMTD	6115-00-033-1373	E-9
PU-753/M	Gen Set, DED, 10 kW, 60 Hz, TRLMTD	6115-00-033-1389	E-12
PU-760/M	Gen Set, DED, 30 kW, 400 Hz, TRLMTD	6115-00-394-9581	E-22
PU-797	Generator Set, TQG, 5 kW, 60 Hz, TRLMTD	6115-01-332-0741	A-6
PU-797A	Gen Set, TQG, 5 kW, 60 Hz, TRLMTD	6115-01-413-3820	A-6
PU-798	Gen Set, TQG, 10 kW, 60 Hz, TRLMTD	6115-01-319-9032	A-10
PU-798A	Gen Set, TQG, 10 kW, 60 Hz, TRLMTD	6115-01-413-3818	A-10
PU-799	Gene Set, TQG, 10 kW, 400 Hz, TRLMTD	6115-01-313-4283	A-11
PU-799A	Gen Set, TQG, 10 kW, 400 Hz, TRLMTD	6115-01-413-3819	A-11
PU-800	Gen Set, TQG, 15 kW, 400 Hz, TRLMTD	6115-01-317-2137	A-15
PU-801	Gen Set, TQG, 15 kW, 50/60 Hz, TRLMTD	6115-01-319-9033	A-16
PU-801A	Gen Set, TQG, 15 kW, 50/60 Hz, TRLMTD	6115-01-413-3821	A-16
PU-802	Gen Set, TQG, 15 kW, 50/60 Hz, TRLMTD	6115-01-317-2138	A-17
PU-803	Gen Set, TQG, 30 kW, 50/60 Hz, TRLMTD	6115-01-317-2136	A-20
PU-804	Gen Set, TQG, 30 kW, 400 Hz, TRLMTD	6115-01-317-2135	A-21
PU-805	Gen Set, TQG, 60 kW, 50/60 Hz, TRLMTD	6115-01-317-2134	A-24
PU-806	Gen Set, TQG, 60 kW, 400 Hz, TRLMTD	6115-01-317-2133	A-25

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APPENDIX A
THE PRESENT AND PROPOSED STANDARD FAMILY OF MEPGS
AND ASSOCIATED POWER UNITS AND POWER PLANTS

A.1 SCOPE

A.1.1 Scope. This Appendix identifies the current and proposed members of the DoD Standard Family of MEPGS to include trailer mounted configurations (Power Units and Power Plants). Data contained in this Appendix is for information only and is provided to assist both field operation and materiel developer personnel to select the power generation source that will best meet their needs. Supportable Standard Family power sources that are no longer procurable are not included in this Appendix but do appear in Appendix E. DoD activities are to utilize these power sources to the maximum extent practicable per DoD DIRECTIVE 4120.11.

A.1.2 Appendix Organization. This Appendix is a compilation of characteristics data sheets (see TABLE A-I) arranged by power rating capacity. Within a power rating, a skid mounted power generating source is listed first followed by its trailer mounted variants.

TABLE A-I. Guide to CHARACTERISTICS DATA SHEETS of APPENDIX A

MODEL NO.	ITEM DESCRIPTION	NSN	FIG	PAGE
MEP-501A	2 kW, 28 VDC, DED	6115-01-435-1567	A-1	19
MEP-531A	2 kW, 60 Hz, DED	6115-01-435-1565	A-1	19
MEP-831A	3 kW, 60 Hz, DED TQG	6115-01-285-3012	A-2	21
MEP-832A	3 kW, 400 Hz, DED, TQG	6115-01-287-2431	A-2	21
PP-AN/MJQ-42	Power Plant, TQG, 3 kW, 60 Hz TRLM TD	6115-01-322-8583	A-3	23
PP-AN/MJQ-43	Power Plant, TQG, 3 kW, 60 Hz TRLM TD	6115-01-322-8582	A-4	24
MEP-802A	5 kW, 60 Hz, DED TQG	6115-01-274-7387	A-5	25
MEP-812A	5 kW, 400 Hz, DED TQG	6115-01-274-7391	A-5	25
PU-797A	Generator Set, TQG, 5 kW, 60 Hz, TRLM TD	6115-01-413-3820	A-6	27
PU-797	Generator Set, TQG, 5 kW, 60 Hz, TRLM TD	6115-01-332-0741	A-6	27
PP-AN/MJQ-35A	Power Plant, TQG, 5 kW, 60 Hz TRLM TD	6115-01-414-9697	A-7	28
PP-AN/MJQ-35	Power Plant, TQG, 5 kW, 60 Hz TRLM TD	6115-01-313-4216	A-7	28
PP-AN/MJQ-36	Power Plant, TQG, 5 kW, 60 Hz TRLM TD	6115-01-313-4215	A-8	29
MEP-803A	10 kW, 60 Hz, DED TQG	6115-01-275-5061	A-9	30
MEP-813A	10 kW, 400 Hz, DED TQG	6115-01-274-7392	A-9	30
PU-798A	Generator Set, TQG, 10 kW, 60 Hz, TRLM TD	6115-01-413-3818	A-10	32
PU-798	Generator Set, TQG, 10 kW, 60 Hz, TRLM TD	6115-01-319-9032	A-10	32
PU-799A	Gen Set, TQG, 10 kW, 400 Hz, TRLM TD	6115-01-413-3819	A-11	33
PU-799	Gen Set, TQG, 10 kW, 400 Hz, TRLM TD	6115-01-313-4283	A-11	33
PP-AN/MJQ-37	Power Plant, TQG, 10 kW, 60 Hz TRLM TD	6115-01-299-6035	A-12	34
PP-AN/MJQ-38	Power Plant, TQG, 10 kW, 400 Hz TRLM TD	6115-01-313-4214	A-13	35
MEP-804A	15 kW, 50/60 Hz, DED TQG	6115-01-274-7388	A-14	36
MEP-814A	15 kW, 400 Hz, DED TQG	6115-01-274-7393	A-14	36
PU-800	Generator Set, TQG, 15 kW, 400 Hz, TRLM TD	6115-01-317-2137	A-15	38
PU-801A	Gen Set, TQG, 15 kW, 50/60 Hz, TRLM TD	6115-01-413-3821	A-16	38
PU-801	Gen Set, TQG, 15 kW, 50/60 Hz, TRLM TD	6115-01-319-9033	A-16	39
PU-802	Gen Set, TQG, 15 kW, 50/60 Hz, TRLM TD	6115-01-317-2138	A-17	40
PP-AN/MJQ-39	Power Plant, TQG, 15 kW, 400 Hz TRLM TD	6115-01-299-6034	A-18	41
MEP-805A	30 kW, 50/60 Hz, DED TQG	6115-01-274-7389	A-19	42
MEP-815A	30 kW, 400 Hz, DED TQG	6115-01-274-7394	A-19	42
PU-803	Gen Set, TQG, 30 kW, 50/60 Hz, TRLM TD	6115-01-317-2136	A-20	44
PU-804	Generator Set, TQG, 30 kW, 400 Hz, TRLM TD	6115-01-317-2135	A-21	45
PP-AN/MJQ-40	Power Plant, TQG, 30 kW, 50/60 Hz TRLM TD	6115-01-299-6033	A-22	46
MEP-806A	60 kW, 50/60 Hz, DED TQG	6115-01-274-7390	A-23	47

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TABLE A-I. Guide to CHARACTERISTICS DATA SHEETS of APPENDIX A - continued

MODEL NO.	ITEM DESCRIPTION	NSN	FIG	PAGE
MEP-816A	60 kW, 400 Hz, DED TQG	6115-01-274-7395	A-23	47
PU-805	Gen Set, TQG, 60 kW, 50/60 Hz, TRLMTD	6115-01-317-2134	A-24	49
PU-806	Generator Set, TQG, 60 kW, 400 Hz, TRLMTD	6115-01-317-2133	A-25	50
PP-AN/MJQ-41	Power Plant, TQG, 60 kW, 50/60 Hz TRLMTD	6115-01-303-7896	A-26	51
PP-AN/MJQ-1610	Power Plant, TQG, 60 kW, 400 Hz, TRLMTD	6115-01-	A-27	52
PP-AN/MJQ-1612	Power Plant, TQG, 60 kW, 50/60 Hz, TRLMTD	6115-01-349-1536	A-28	53
MEP-808A	100 kW, 50/60 Hz, DED TQG	6115-01-296-1463	A-29	54
MEP-818A	100 kW, 400 Hz, DED TQG	TBD	A-29	54
MEP-809A	200 kW, 50/60 Hz, DED TQG	6115-01-296-1462	A-30	55
TBD	LARGE PRIME POWER SET	TBD	A-31	56

A.2 APPLICABLE DOCUMENTS

This section is not applicable to this appendix.

A.3 DEFINITIONS

A.3.1 use definitions of basic document.

A.4 GENERAL DESCRIPTIONS

A.4.1 Item Descriptions.

A.4.1.1 Military Tactical Generator (MTG). The MTG is a 2 kW diesel engine driven generator set used to meet users requirements of less than 3 kW power. The MTG was introduced into the US military system through the DoD Foreign Comparative Test (FTC) program. It is small, light weight, relatively quiet, and available in 60 Hz, 120V, single phase, and in 28 VDC versions.

A.4.1.2 Tactical Quiet Generator (TQG). The TQGs are reliable, quiet and light weight diesel engine driven generator set in the 3 kW to 60 kW range. The TQGs incorporate commercial components engineered to meet military requirements and are procured in large quantities so they are relatively inexpensive. Larger 100 and 200 kW TQGs are proposed. Also proposed is a Quiet Prime Power Generator (Deployable Power Generation and Distribution System (DPGDS)) to replace the present 500-750 kW Standard Family generator sets.

A.4.1.3 Trailers. Several trailers are used in Power Unit and Power Plant MEPGS systems depending on size, weight and configuration.

a. High Mobility Trailer (HMT). The HMT is a 1-1/4 ton trailer designed to match the cross country mobility of the High Mobility Multipurpose Wheeled Vehicle (HMMWV) while carrying up to a full payload. The HMT was designed to allow mounting of the TQG generators directly to the frame without modification. Some PU/PPs have been fielded with the HMT but no future use of the HMT is planned.

b. M116A3. The M116A3 is a 3/4 ton trailer modified to carry the extra weight of a generator set and its associated hardware. The mobility is sufficient to allow lower speed access to areas accessible to a HMMWV.

c. M103A4. The M103A4 is a 1-1/2 ton trailer modified to carry the extra weight of a generator set and its associated hardware.

d. M200A1. The M200A1 is a 2-1/2 ton trailer modified to carry the extra weight of a generator set and its associated hardware.

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A.4.2 Delivered condition.

A.4.2.1 Skid sets.

a. Safety Items. Production generator sets may or may not be delivered with fire extinguishers, ground rods or ground rod slide hammer/puller. Units may obtain needed items. See TABLE A-II for details.

b. Batteries. Battery information is included in TABLE A-II. The 2 kW Military Tactical Generator has no battery. It may be started manually or by external 24 VDC electrical power via the NATO slave connector.

c. Auxiliary Fuel Line. A 25 foot auxiliary fuel line is furnished with the 5 kW through 200 kW diesel engine driven generator sets. Fuel lines for the other sets may be ordered (see TABLE A-II) or fabricated on site in accordance with drawing 69-668 (30554).

d. Ether starting aid. Sets greater than 15 kW are equipped with an integral ether starting aid for temperatures below 40 °F. Ether bottles may be obtained as NSN 2910-00-209-4997.

e. Paralleling cables. Sets greater than 15 kW are designed for parallel operation as well as single set operation. Sets are supplied with a paralleling cable for interconnection of the voltage regulators and governor systems of the sets to be paralleled. Additional details on parallel operation are contained in the generator set manuals and FM 20-31, Electrical Power Generation in the Field.

f. Power output terminals. Power output terminals consist of split-lug terminals with captive nuts. The Power Distribution and Illumination System, Electrical (PDISE) interfaces to the power output terminals via a pigtail connection. In addition, A series of standard power output receptacles (MIL-C-22992) are available through the supply system and the US Army Missile Command (MICOM) has a series of missile system receptacles for the 15 kW through 60 kW DED generator sets.

g. NATO slave receptacle. A NATO slave receptacle is provided with all generator sets LISTED in this Appendix. The slave receptacle can be used to start the generator set from an external 24 VDC power source.

h. Convenience receptacle. A convenience receptacle is provided on all 60 Hz generator sets in this Appendix.

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A.4.2.2 Trailer mounted sets. The trailer mounted set (Power Units and Power Plants) are normally delivered with ground kit (ground rods, connectors, ground terminal), ground rod driver/puller, 8 pound hammer, and a fire extinguisher per trailer. See TABLE A-II for details.

TABLE A-II. Batteries and auxiliary equipment

MODEL	DESCRIPTION	NSN	APPLICATION
BATTERIES			
2HN	LEAD-ACID	6140-00-057-2553	5 kW TQG
6TL	LEAD-ACID	6140-01-210-1964	15 kW - 200 kW TQG
OPTIMA	STARVED-ELECTROLYTE	6140-01-347-2243	10 kW TQG
GROUNDING ITEMS			
	GROUND ROD KIT (includes rod, connectors, terminal)	5975-00-828-3791	TQG, PU, PP
	GROUND ROD (3 ft sec)	5975-00-878-3791	TQG, PU, PP
	DRIVER/PULLER (slide hammer)	5120-01-013-1676	PU, PP
	HAMMER, 8 POUND	5120-00-251-4489	PU, PP
FUEL HANDLING ITEMS			
	AUXILIARY FUEL LINE	2010-00-016-1235	TQG, PU, PP
	FUEL CONTAINER/DRUM ADAPTER	2910-00-066-1235	PU, PP
	5 GAL FUEL CAN	7240-00-222-3088	PU, PP
	SPOUT	7240-00-177-6154	PU, PP
FIRE EXTINGUISHERS			
A-A-1106	5 LB CO2 FIRE EXTINGUISHER	4210-00-270-4512	ALL

A.5 DETAILED DESCRIPTIONS

A.5.1 Detailed Descriptions. Detailed descriptions are contained in the CHARACTERISTICS DATA SHEETS of FIGURES A-1 through A-31. See TABLE A-I.