

HEADQUARTERS  
PHILIPPINE ARMY  
OFFICE OF THE ARMY QUARTERMASTER  
Fort Andres Bonifacio, Metro Manila

PA SPECIFICATION

QM SPEC NR OE-23B2SMF/D26/N50

08 SEP 2019

(Interim)

**Battery, 2SMF/D26/N50**

Application: Intended for use of light passenger vehicles such as Sedan type or Multi-Purpose Vehicles.	
<b>Technical Data</b>	
1. Type	2SMF/D26/N50
2. Classification	12 Volts, Maintenance Free
3. Reserve Capacity (minutes)	110 (minimum)
4. AH Capacity at 20h Rate (AH)	65 (minimum)
5. Container Material	Hard Plastic or Hard Rubber
<b>6. Markings</b>	
• Trademark, Trade Name or Brand name	Identifiable
• The words "Made in the Philippines" or country of origin if imported / Address of the Manufacturer	Identifiable
• Date of Manufacture (coded or not)	Identifiable
• Type of Battery	Identifiable
• Must have the authorized Philippine Standard (PS) or Import Commodity Clearance (ICC) Quality Mark	Identifiable
<b>7. Dimensions</b>	
a. Overall Length (mm)	288 (maximum)
b. Overall Width (mm)	184 (maximum)
c. Overall Height (mm)	239 (maximum)
<b>d. Terminal Posts</b>	
• Top Diameter of Positive Post (mm)	17.5 to 19.5
• Top Diameter of Negative Post (mm)	16 to 18
• Bottom Diameter of Positive Post (mm)	19 to 21
• Bottom Diameter of Negative Post (mm)	17.5 to 19.5
• Length of Positive and Negative Post (mm)	17 (minimum)
8. Terminal Post must be provided with color coded circular polarity ring for identification. Positive Post shall be marked with "Pos", "P" or "+". Negative Post shall be marked with "Neg", "N" or "-".	

EDMUNDO S. SUFICIENCIA  
Colonel, QMS (GSG) PA  
Chief

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SEP 08 2019

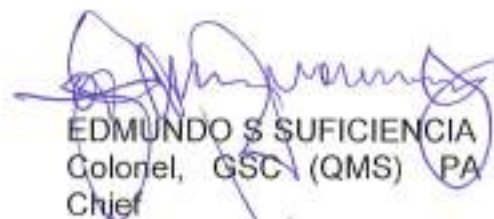
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**TABLE OF CLASSIFICATION OF DEFECTS  
BATTERIES 2SMF/D26/N50**

DEFECTS	CLASSIFICATION OF DEFECTS	
	Major	Minor
<b>Visual</b>		
1. Container Material is made with Hard Plastic or Hard Rubber	x	
2. Evident damage, cracks, bulging, dents, holes or open splices and broken parts	x	
<b>Markings on the Battery</b>		
3. Trademark, Trade name or Brand name is identifiable		x
4. The words "Made in the Philippines" or country of origin if imported/Address of the Manufacturer is identifiable.		x
5. Date of Manufacture, either plain or coded, is not identifiable		x
6. The Type of battery cannot be visually determined		x
7. No authorized Philippine Standard "PS" or Import Commodity Clearance "ICC" Quality Mark	x	
8. Positive Post is marked with "Pos", "P" or "+".		x
9. Positive Post is provided with Red colored plastic polarity ring for identification.		x
10. Negative Post is marked with "Neg", "N" or "-".		x
11. Negative Post is provided with any colored (other than red) plastic polarity ring for identification.		x
<b>Dimensional</b>		
12. Overall Length is within the standard requirement		x
13. Overall Width is within the standard requirement		x
14. Overall Height is within the standard requirement		x
15. Dimension of terminals		
a. Top diameter of positive post is within the standard requirement		x
b. Top diameter of negative post is within the standard requirement		x
c. Bottom diameter of Positive post is within the standard requirement		x
d. Bottom diameter of Negative post is within the standard requirement		x
e. Length of Positive Post is within the standard requirement		x
f. Length of Negative Post is within the standard requirement		x
<b>Total test point</b>	<b>3</b>	<b>17</b>

  
**EDMUNDO S SUFICIENCIA**  
 Colonel, GSC (QMS) PA  
 Chief

NOTED  
 CG, PA ent  
 DATE: **SEP 08 2019**



HEADQUARTERS  
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Fort Andres Bonifacio, Metro Manila

**TEST AND EVALUATION PROCEDURES**  
Battery, 2SMF/D26/N50 with QM SPEC NR OE-23B2SMF/D26/N50

**A. POST QUALIFICATION PROCEDURES**

**1. GENERAL**

1.1. **Scope:** This Post Qualification Tests Procedure shall apply to 2SMF/D26/N50 Battery. This will specify the procedure for testing the lead-acid storage batteries used for starting, lighting, and ignition services of vehicles intended for use of the Philippine Army.

1.2. **Objective:** To ascertain compliance of batteries with standards and specifications in consonance with the need of the end user.

1.3. **References:**

- 1.3.1. Philippine National Standard for Lead-acid Storage Batteries - Specification, PNS 06:1987,
- 1.3.2. Technical Specifications for 2SMF/D26/N50 Battery, QM SPEC NR OE - 23B2SMF/D26/N50
- 1.3.3. MIL STD 105E dated 10 May 1989.

**2. SAMPLE ALLOCATION**

Test sample shall consist of one (1) serviceable Battery based on the technical specifications on the submitted product offered by the proponent during the bidding.

**3. TEST PARAMETERS**

3.1. **Visual Inspection**

3.1.1. **Purpose:** To determine the overall external workmanship, symbols, codes and markings of the battery.

3.1.2. **Procedure:** Visually inspect the overall appearance and presence of required symbols or markings of the battery.

3.1.3. **Standard:**

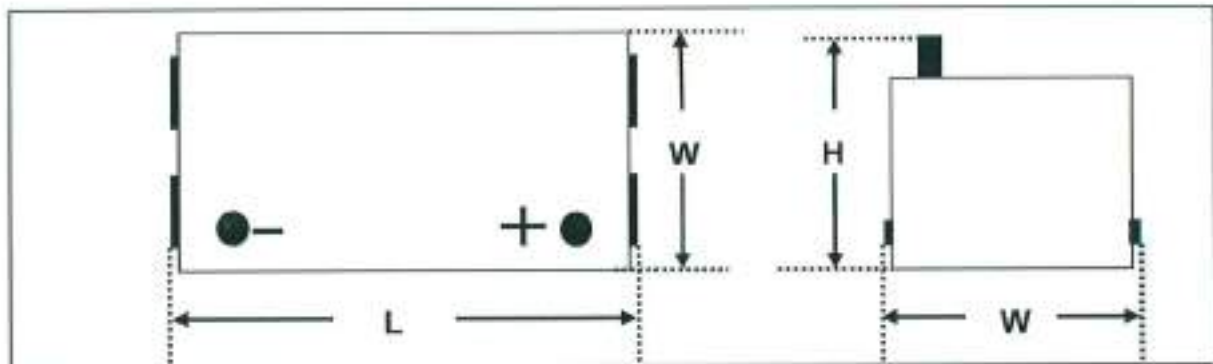
- 3.1.3.1. With Trademark, Trade Name or Brand Name.
- 3.1.3.2. With the words "Made in the Philippines" or "Country of Origin if imported/Address of Manufacturer.
- 3.1.3.3. Date of Manufacture (coded or not).
- 3.1.3.4. Type of Battery.
- 3.1.3.5. With authorized Philippine Standard (PS) or Import Commodity Clearance (ICC) Quality Mark.
- 3.1.3.6. Terminal Posts must be provided with color coded circular polarity ring for identification. (Positive Post should be provided with Red colored polarity ring; Negative Post should be provided with any colored polarity ring other than red)
- 3.1.3.7. Positive Post shall be marked with "Pos", "P" or "+". Negative Post shall be marked with "Neg", "N" or "-".

3.1.3.8. No evident damage, cracks, bulging, dents, holes or open splices and broken parts during the visual test.

**3.2. Dimensional Test**

3.2.1. Purpose: To determine the actual dimensions of the battery.

3.2.2. Procedure for the Battery Container:



3.2.2.1. Overall height (H) shall be determined by measuring the distance from lowest part of the battery to the highest part when the battery is positioned upright.

3.2.2.2. Overall width (W) is the maximum width including all the parts of the battery. This is the shorter side of the battery.

3.2.2.3. Overall length (L) is the maximum length including all the parts of the battery. This is the longer side of the battery.

Dimension	Standard Requirement
Overall length, mm	288 (maximum)
Overall width, mm	184 (maximum)
Overall height, mm	239 (maximum)

3.2.3. Procedure for the Terminal Posts:

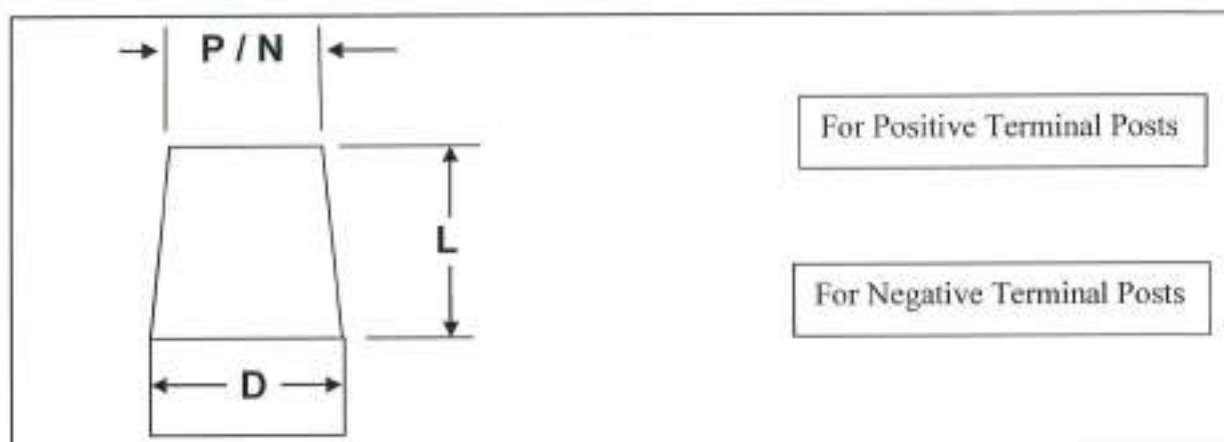
3.2.3.1. Record the data up to the nearest tenths of a millimeter.

3.2.3.2. Measure the top diameter (N) of the negative post and record.

3.2.3.3. Measure the top diameter (P) of the positive post and record.

3.2.3.4. Measure the bottom diameter (D) from the base of the positive and negative posts and record.

3.2.3.5. Measure the length (L) of positive and negative posts and record.





Dimension	Standard Requirement
Top diameter of Positive Post (mm)	17.5 to 19.5
Top diameter of Negative Post (mm)	16 to 18
Bottom diameter of Positive Post (mm)	19 to 21
Bottom diameter of Negative Post (mm)	17.5 to 19.5
Minimum Length of Positive and Negative Posts (mm)	17 (minimum)

## B. TECHNICAL AND ACCEPTANCE PROCEDURES

1.1 **Scope:** This Test and Acceptance Procedure shall apply to 2SMF/D26/N50 Battery. This will specify the procedure for testing the lead-acid storage batteries used for starting, lighting, and ignition services of vehicles intended for use of the Philippine Army.

1.2 **Objective:** To ascertain compliance of batteries with standards and specifications in consonance with the need of the end user.

### 1.3 References:

- 1.3.1. Philippine National Standard for Lead-acid Storage Batteries - Specification, PNS 06:1987.
- 1.3.2. Technical Specifications for 2SMF/D26/N50 Battery, QM SPEC NR OE-23B2SMF/D26/N50.
- 1.3.3. MIL STD 105E dated 10 May 1989.

## 2. PROCEDURE

2.1 The Technical Inspection and Acceptance Committee (TIAC) for Quartermaster QM Items or its representatives shall ensure that the complete quantity stated in the contract is packed/palletized prior to the inspection.

2.2 The TIAC shall conduct random sampling from the lot or lots. The samples shall be properly segregated, packed, marked and secured by the members/representatives of the committee.

2.3. Technical inspection and test shall be conducted on the representative samples of the lot by visual, dimensional and functional test to determine the over-all workmanship, markings, color, size and appropriate packaging of the items.

2.4. Functional Test will be done to determine the functional performance of the battery.

2.5. Results obtained shall be recorded and evaluated to determine the compliance of the items to Technical Specifications and as basis for acceptance or rejection of the lot or lots.

2.6. The attached table of classification of defects will be used as basis by the Technical Inspection and Acceptance Committee (TIAC) in determined the number of defects of the delivered items which are subject for evaluation on its acceptance or rejection.

## 3. TEST PARAMETERS

### 3.1 Visual Inspection

3.1.1 Purpose: To determine the overall external workmanship, symbols, codes and markings of the battery.

3.1.2 Procedure: Visually inspect the overall appearance, workmanship and presence of required symbols or markings of all the battery sample size.

#### 3.1.3 Standard:

- 3.1.3.1 With Trademark, Trade Name or Brand Name.
- 3.1.3.2 With the words "Made in the Philippines" or "Country of Origin if imported/Address of Manufacturer.
- 3.1.3.3 Date of Manufacture (coded or not).
- 3.1.3.4 Type of Battery.

3.1.3.5 With authorized Philippine Standard (PS) or Import Commodity Clearance (ICC) Quality Mark.

*Note: If the Batteries are imported and without PS Quality Mark, the ICC Certificate of Inspection shall be submitted to the TIAC on or before the test and acceptance inspection is conducted by the Committee. Failure to do so will be a ground for rejection.*

3.1.3.6 Terminal Posts must be provided with color coded circular polarity ring for identification. (Positive Post should be provided with Red colored polarity ring; Negative Post should be provided with any colored polarity ring other than red)

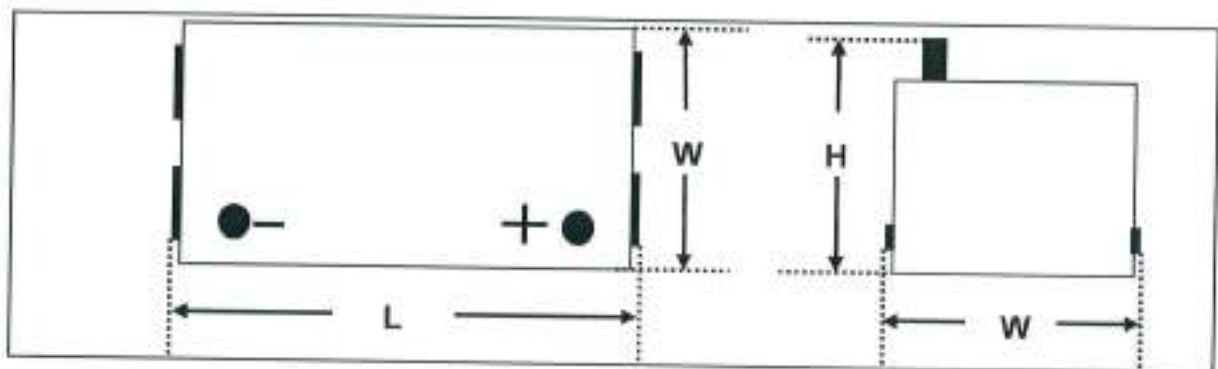
3.1.3.7 Positive Post shall be marked with "Pos", "P" or "+". Negative Post shall be marked with "Neg", "N" or "-".

3.1.3.8 No evident damage, cracks, bulging, dents, holes or open splices and broken parts during the visual test.

### 3.2 Functional Test

3.2.1 Purpose: To determine the actual dimensions of the battery.

3.2.2 Procedure for Battery Container:



3.2.2.1 The battery shall be placed on the top of a table parallel to the horizontal ground at room temperature, then measure the dimensions such as the overall width, overall length and overall height. Record the data up to nearest millimeter.

3.2.2.2 Overall height (H) shall be determined by measuring the distance from lowest part of the battery to the highest part when the battery is positioned upright.

3.2.2.3 Overall width (W) is the maximum width including all the parts of the battery. This is the shorter side of the battery.

3.2.2.4 Overall length (L) is the maximum length including all the parts of the battery. This is the longer side of the battery.

Dimension	Standard Requirement
Overall length, mm	288 (maximum)
Overall width, mm	184 (maximum)
Overall height, mm	239 (maximum)

3.2.3 Procedure for the Terminal Posts:

3.2.3.1 Record the data up to the nearest tenths of a millimeter.

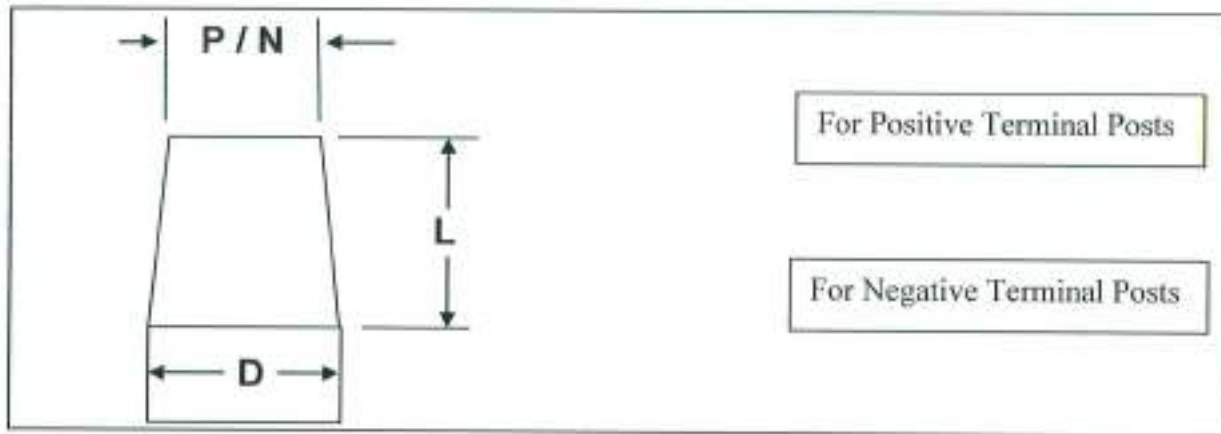
3.2.3.2 Measure the top diameter (N) of the negative post and record.

3.2.3.3 Measure the top diameter (P) of the positive post and record.

3.2.3.4 Measure the bottom diameter (D) from the base of the positive and negative posts and record.

3.2.3.5 Measure the length (L) of positive and negative posts and record.





Dimension	Standard Requirement
Top diameter of Positive Post (mm)	17.5 to 19.5
Top diameter of Negative Post (mm)	16 to 18
Bottom diameter of Positive Post (mm)	19 to 21
Bottom diameter of Negative Post (mm)	17.5 to 19.5
Minimum Length of Positive and Negative Posts (mm)	17 (minimum)

### 3.3. FUNCTIONAL TEST

3.3.2.1 Container/Material Test, Electrolyte Solution Test, Vibration Tests and Electrical Performance Tests shall be conducted by DTI Authorized Testing Center. Testing shall be in accordance with the parameters set in the PNS 06:1987- Lead- Acid Storage Batteries-Specification. For the Electrical Performance Test, the values to be used for the Minimum Reserve Capacity in minutes and Minimum AH Capacity at 20h Rate shall be as stated in the approved PA Technical Specification for Battery, 2SMF/D26/N50.

3.3.2.2 Should there be a Pre Delivery Inspection at the country of origin, all the required functional Tests and Inspections should be conducted through a capable independent third party entity, or in the absence thereof, at the manufacturer's test facilities.

3.3.2.3 Testing – A maximum of six (6) batteries are required to assess compliance with this standard with only five (5) batteries that shall be subjected through a series of functional tests.

Five batteries shall be subjected to tests listed in the table below. If one (1) battery fails any of the tests below, the sixth battery may be substituted for the failed battery.

The batteries shall be deemed to comply with this standard if all five batteries pass the test specification. When the sixth battery is substituted for a failed battery and passes the entire test, the battery shall be deemed to comply with the standard.

Performance/Functional Test	
1. Reserve Capacity (minutes)	110 (minimum)
2. AH Capacity at 20h Rate (AH)	65 (minimum)
3. Container Material	Hard Plastic or Hard Rubber
4. Vibration Test	Conducted by DTI
5. Electrolyte Solution Test	

If the Batteries subjected to the test passed the standard, then the lot shall be deemed to comply with the applicable test parameter.

#### 4. ACCEPTANCE CRITERIA

The result of the inspection and tests conducted based on the above inspection and test parameters shall be the basis for the evaluation of the Acceptance Committee in coming up with the report and recommendation to the Head of Procuring Entity (HOPE) for the acceptance or rejection of the above items/delivery.

  
EDMUNDO S SUFICIENCIA  
Colonel, QMS (GSC) PA  
Chief

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CG, PA 41  
DATE: SEP 08 2019



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PA SPECIFICATION

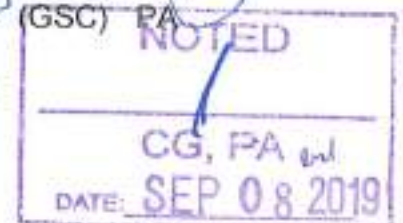
QM SPEC NR OE-23B3SMF/3D1/N70

08 SEP 2019  
(Interim)

**Battery, 3SMF/D31/N70**

Application: Intended for use of light vehicles suchs as SUVs, AUVs, Pick Ups, Vans and other Multi-Purpose Vehicles.	
<b>Technical Data</b>	
1. Type	3SMF/D31/N70
2. Classification	12 Volts, Maintenance Free
3. Reserve Capacity (minutes)	130 (minimum)
4. AH Capacity at 20h Rate (AH)	75 (minimum)
5. Container Material	Hard Plastic or Hard Rubber
<b>6. Markings</b>	
• Trademark, Trade Name or Brand name	Identifiable
• The words "Made in the Philippines" or country of origin if imported / Address of the Manufacturer	Identifiable
• Date of Manufacture (coded or not)	Identifiable
• Type of Battery	Identifiable
• Must have the authorized Philippine Standard (PS) or Import Commodity Clearance (ICC) Quality Mark	Identifiable
<b>7. Dimensions</b>	
a. Overall Length (mm)	333 (maximum)
b. Overall Width (mm)	185 (maximum)
c. Overall Height (mm)	235 (maximum)
<b>d. Terminal Posts</b>	
• Top Diameter of Positive Post (mm)	17.5 to 19.5
• Top Diameter of Negative Post (mm)	16 to 18
• Bottom Diameter of Positive Post (mm)	19 to 21
• Bottom Diameter of Negative Post (mm)	17.5 to 19.5
• Length of Positive and Negative Post (mm)	17 (minimum)
8. Terminal Post must be provided with color coded circular polarity ring for identification. Positive Post shall be marked with "Pos", "P" or "+". Negative Post shall be marked with "Neg", "N" or "-".	

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**TABLE OF CLASSIFICATION OF DEFECTS**

**BATTERIES 3SMF/D31/N70**

DEFECTS	CLASSIFICATION OF DEFECTS	
	Major	Minor
<b>Visual</b>		
1. Container Material is made with Hard Plastic or Hard Rubber	x	
2. Evident damage, cracks, bulging, dents, holes or open splices and broken parts	x	
<b>Markings on the Battery</b>		
3. Trademark, Trade name or Brand name is identifiable		x
4. The words "Made in the Philippines" or country of origin if imported/Address of the Manufacturer.		x
5. Date of Manufacture, either plain or coded, is not identifiable		x
6. The Type of battery cannot be visually determined		x
7. No authorized Philippine Standard "PS" or Import Commodity Clearance "ICC" Quality Mark	x	
8. Positive Post is marked with "Pos", "P" or "+".		x
9. Positive Post is provided with Red colored plastic polarity ring for identification.		x
10. Negative Post is marked with "Neg", "N" or "-".		x
11. Negative Post is provided with any colored (other than red) plastic polarity ring for identification.		x
<b>Dimensional</b>		
12. Overall Length is within the standard requirement		x
13. Overall Width is within the standard requirement		x
14. Overall Height is within the standard requirement		x
15. Dimension of terminals		
a. Top diameter of positive post is within the standard requirement		x
b. Top diameter of negative post is within the standard requirement		x
c. Bottom diameter of Positive post is within the standard requirement		x
d. Bottom diameter of Negative post is within the standard requirement		x
e. Length of Positive Post is within the standard requirement		x
f. Length of Negative Post is within the standard requirement		x
<b>Total test point</b>	<b>3</b>	<b>17</b>

  
**EDMUNDO S. SUFICIENCIA**  
 Colonel, GSC (QMS) PA  
 Chief



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Fort Andres Bonifacio, Metro Manila

**TEST AND EVALUATION PROCEDURES**  
Battery, 3SMF/D31/N70 with QM SPEC NR OE-23B3SMF/D31/N70

**A. POST QUALIFICATION PROCEDURES**

**1. GENERAL**

1.1. **Scope:** This Post Qualification Tests Procedure shall apply to 3SMF/D31/N70 Battery. This will specify the procedure for testing the lead-acid storage batteries used for starting, lighting, and ignition services of vehicles intended for use of the Philippine Army.

1.2. **Objective:** To ascertain compliance of batteries with standards and specifications in consonance with the need of the end user.

1.3. **References:**

- 1.3.1. Philippine National Standard for Lead-acid Storage Batteries - Specification, PNS 06:1987,
- 1.3.2. Technical Specifications for 3SMF/D31/N70 Battery, QM SPEC NR OE - 23B3SMF/D31/N70
- 1.3.3. MIL STD 105E dated 10 May 1989.

**2. SAMPLE ALLOCATION**

Test sample shall consist of one (1) serviceable Battery based on the technical specifications on the submitted product offered by the proponent during the bidding.

**3. TEST PARAMETERS**

3.1. **Visual Inspection**

3.1.1. **Purpose:** To determine the overall external workmanship, symbols, codes and markings of the battery.

3.1.2. **Procedure:** Visually inspect the overall appearance and presence of required symbols or markings of the battery.

3.1.3. **Standard:**

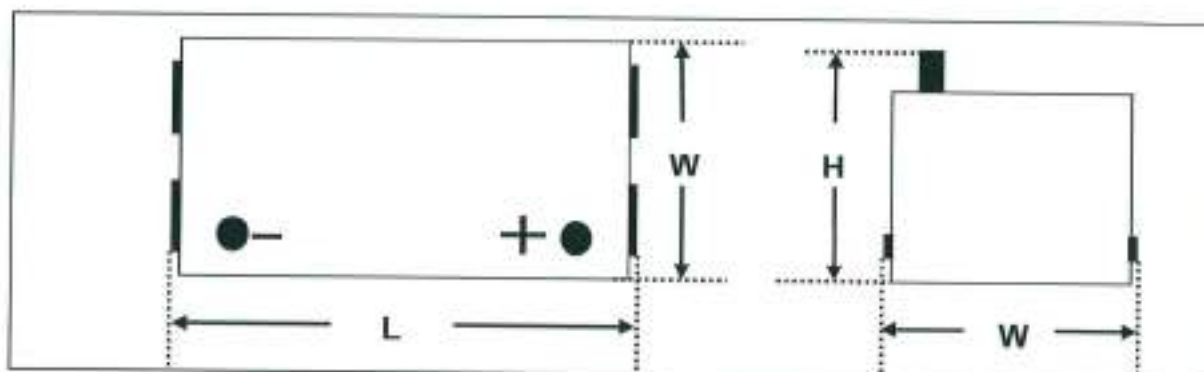
- 3.1.3.1. With Trademark, Trade Name or Brand Name.
- 3.1.3.2. With the words "Made in the Philippines" or "Country of Origin if imported/Address of Manufacturer.
- 3.1.3.3. Date of Manufacture (coded or not).
- 3.1.3.4. Type of Battery.
- 3.1.3.5. With authorized Philippine Standard (PS) or Import Commodity Clearance (ICC) Quality Mark.
- 3.1.3.6. Bottles or Containers of Electrolyte shall bear the mark "Poisonous", "Not for human consumption" or Skull Symbol.
- 3.1.3.7. Terminal Posts must be provided with color coded circular polarity ring for identification. (Positive Post should be provided with Red colored polarity ring; Negative Post should be provided with any colored polarity ring other than red)
- 3.1.3.8. Positive Post shall be marked with "Pos", "P" or "+". Negative Post shall be marked with "Neg", "N" or "-".

3.1.3.9. No evident damage, cracks, bulging, dents, holes or open splices and broken parts during the visual test.

**3.2. Dimensional Test**

3.2.1. Purpose: To determine the actual dimensions of the battery.

3.2.2. Procedure for the Battery Container:



3.2.2.1. Overall height (H) shall be determined by measuring the distance from lowest part of the battery to the highest part when the battery is positioned upright.

3.2.2.2. Overall width (W) is the maximum width including all the parts of the battery. This is the shorter side of the battery.

3.2.2.3. Overall length (L) is the maximum length including all the parts of the battery. This is the longer side of the battery.

Dimension	Standard Requirement
Overall length, mm	333 (maximum)
Overall width, mm	185 (maximum)
Overall height, mm	235 (maximum)

3.2.3. Procedure for the Terminal Posts:

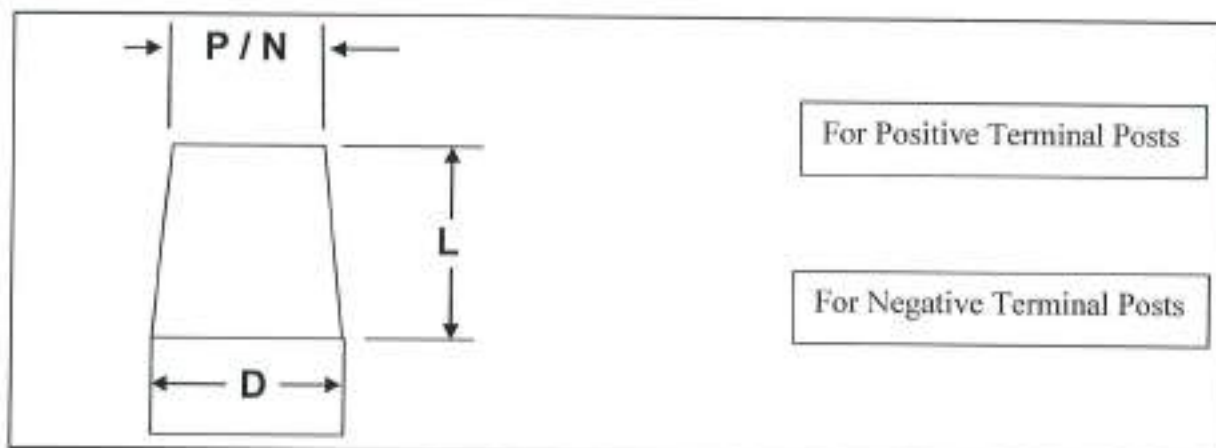
3.2.3.1. Record the data up to the nearest tenths of a millimeter.

3.2.3.2. Measure the top diameter (N) of the negative post and record.

3.2.3.3. Measure the top diameter (P) of the positive post and record.

3.2.3.4. Measure the bottom diameter (D) from the base of the positive and negative posts and record.

3.2.3.5. Measure the length (L) of positive and negative posts and record.





Dimension	Standard Requirement
Top diameter of Positive Post (mm)	17.5 to 19.5
Top diameter of Negative Post (mm)	16 to 18
Bottom diameter of Positive Post (mm)	19 to 21
Bottom diameter of Negative Post (mm)	17.5 to 19.5
Minimum Length of Positive and Negative Posts (mm)	17 (minimum)

## B. TECHNICAL AND ACCEPTANCE PROCEDURES

1.1 **Scope:** This Test and Acceptance Procedure shall apply to 3SMF/D31/N70 Battery. This will specify the procedure for testing the lead-acid storage batteries used for starting, lighting, and ignition services of vehicles intended for use of the Philippine Army.

1.2 **Objective:** To ascertain compliance of batteries with standards and specifications in consonance with the need of the end user.

### 1.3 References:

- 1.3.1. Philippine National Standard for Lead-acid Storage Batteries - Specification, PNS 06:1987,
- 1.3.2. Technical Specifications for 3SMF/D31/N70 Battery, QM SPEC NR OE-23B3SMF/D31/N70,
- 1.3.3. MIL STD 105E dated 10 May 1989.

## 2. PROCEDURE

2.1 The Technical Inspection and Acceptance Committee (TIAC) for Quartermaster QM Items or its representatives shall ensure that the complete quantity stated in the contract is packed/palletized prior to the inspection.

2.2 The TIAC shall conduct random sampling from the lot or lots. The samples shall be properly segregated, packed, marked and secured by the members/representatives of the committee.

2.3 Technical inspection and test shall be conducted on the representative samples of the lot by visual, dimensional and functional test to determine the over-all workmanship, markings, color, size and appropriate packaging of the items.

2.4 Functional Test will be done to determine the functional performance of the battery.

2.5 Results obtained shall be recorded and evaluated to determine the compliance of the items to Technical Specifications and as basis for acceptance or rejection of the lot or lots.

2.6 The attached table of classification of defects will be used as basis by the Technical Inspection and Acceptance Committee (TIAC) in determined the number of defects of the delivered items which are subject for evaluation on its acceptance or rejection.

## 3. TEST PARAMETERS

### 3.1 Visual Inspection

3.1.1 Purpose: To determine the overall external workmanship, symbols, codes and markings of the battery.

3.1.2 Procedure: Visually inspect the overall appearance, workmanship and presence of required symbols or markings of all the battery sample size.

#### 3.1.3 Standard:

- 3.1.3.1 With Trademark, Trade Name or Brand Name.
- 3.1.3.2 With the words "Made in the Philippines" or "Country of Origin if imported/Address of Manufacturer.
- 3.1.3.3 Date of Manufacture (coded or not).
- 3.1.3.4 Type of Battery.

3.1.3.5 With authorized Philippine Standard (PS) or Import Commodity Clearance (ICC) Quality Mark.

*Note: If the Batteries are imported and without PS Quality Mark, the ICC Certificate of Inspection shall be submitted to the TIAC on or before the test and acceptance inspection is conducted by the Committee. Failure to do so will be a ground for rejection.*

3.1.3.6 Terminal Posts must be provided with color coded circular polarity ring for identification. (Positive Post should be provided with Red colored polarity ring; Negative Post should be provided with any colored polarity ring other than red)

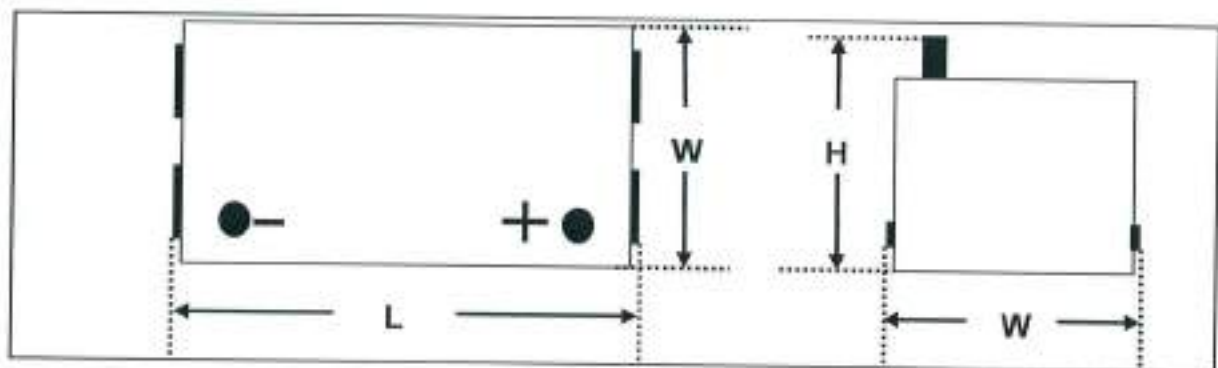
3.1.3.7 Positive Post shall be marked with "Pos", "P" or "+". Negative Post shall be marked with "Neg", "N" or "-".

3.1.3.8 No evident damage, cracks, bulging, dents, holes or open splices and broken parts during the visual test.

**3.2 Functional Test**

3.2.1 Purpose: To determine the actual dimensions of the battery.

3.2.2 Procedure for Battery Container:



3.2.2.1 The battery shall be placed on the top of a table parallel to the horizontal ground at room temperature, then measure the dimensions such as the overall width, overall length and overall height. Record the data up to nearest millimeter.

3.2.2.2 Overall height (H) shall be determined by measuring the distance from lowest part of the battery to the highest part when the battery is positioned upright.

3.2.2.3 Overall width (W) is the maximum width including all the parts of the battery. This is the shorter side of the battery.

3.2.2.4 Overall length (L) is the maximum length including all the parts of the battery. This is the longer side of the battery.

Dimension	Standard Requirement
Overall length, mm	333 (maximum)
Overall width, mm	185 (maximum)
Overall height, mm	235 (maximum)

3.2.3 Procedure for the Terminal Posts:

3.2.3.1 Record the data up to the nearest tenths of a millimeter.

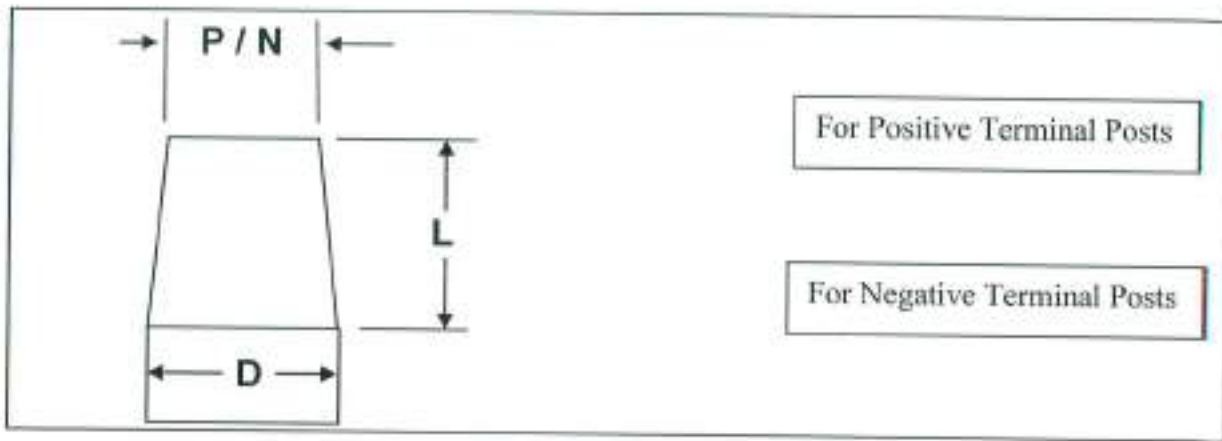
3.2.3.2 Measure the top diameter (N) of the negative post and record.

3.2.3.3 Measure the top diameter (P) of the positive post and record.

3.2.3.4 Measure the bottom diameter (D) from the base of the positive and negative posts and record.

3.2.3.5 Measure the length (L) of positive and negative posts and record.





Dimension	Standard Requirement
Top diameter of Positive Post (mm)	17.5 to 19.5
Top diameter of Negative Post (mm)	16 to 18
Bottom diameter of Positive Post (mm)	19 to 21
Bottom diameter of Negative Post (mm)	17.5 to 19.5
Minimum Length of Positive and Negative Posts (mm)	17 (minimum)

### 3.3. FUNCTIONAL TEST

3.3.2.1 Container/Material Test, Electrolyte Solution Test, Vibration Tests and Electrical Performance Tests shall be conducted by DTI Authorized Testing Center. Testing shall be in accordance with the parameters set in the PNS 06:1987- Lead- Acid Storage Batteries-Specification. For the Electrical Performance Test, the values to be used for the Minimum Reserve Capacity in minutes and Minimum AH Capacity at 20h Rate shall be as stated in the approved PA Technical Specification for Battery, 3SMF/D31/N70.

3.3.2.2 Should there be a Pre Delivery Inspection at the country of origin, all the required functional Tests and Inspections should be conducted through a capable independent third party entity, or in the absence thereof, at the manufacturer's test facilities.

3.3.2.3 Testing – A maximum of six (6) batteries are required to assess compliance with this standard with only five (5) batteries that shall be subjected through a series of functional tests.

Five batteries shall be subjected to tests listed in the table below. If one (1) battery fails any of the tests below, the sixth battery may be substituted for the failed battery.

The batteries shall be deemed to comply with this standard if all five batteries pass the test specification. When the sixth battery is substituted for a failed battery and passes the entire test, the battery shall be deemed to comply with the standard.

Performance/Functional Test	
1. Reserve Capacity (minutes)	130 (minimum)
2. AH Capacity at 20h Rate (AH)	75 (minimum)
3. Container Material	Hard Plastic or Hard Rubber
4. Vibration Test	Conducted by DTI
5. Electrolyte Solution Test	

If the Batteries subjected to the test passed the standard, then the lot shall be deemed to comply with the applicable test parameter.

#### 4. ACCEPTANCE CRITERIA

The result of the inspection and tests conducted based on the above inspection and test parameters shall be the basis for the evaluation of the Acceptance Committee in coming up with the report and recommendation to the Head of Procuring Entity (HOPE) for the acceptance or rejection of the above items/delivery.

  
EDMUNDO S SUFICIENCIA  
Colonel, QMS (GSC) PA  
Chief

NOTED  
CG PA  
DATE: SEP 08 2019



**HEADQUARTERS  
PHILIPPINE ARMY  
OFFICE OF THE ARMY CHIEF QUARTERMASTER  
Fort Andres Bonifacio, Metro Manila**

**PA SPECIFICATION**

**QM SPEC NR OE-23B6SME41N100**

**MAY 30 2017**

**(Interim)**

Supersedes

SPEC Nr MB-01-12

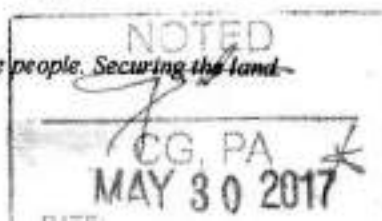
Dated 22 Sep 2015

**Battery, 6SM/E41/N100**

Application: Intended for use of Light/Heavy Duty Trucks, Buses and Heavy Equipment Applications.	
<b>Technical Data</b>	
1. Type	6SM/E41/N100
2. Classification	12 Volts, Low Maintenance
3. Reserve Capacity (minutes)	120 (minimum)
4. AH Capacity at 20h Rate (AH)	84 (minimum)
5. Container Material	Hard Plastic or Hard Rubber
6. Markings	
• Trademark, Trade Name or Brand name	Identifiable
• The words "Made in the Philippines" or country of origin if imported / Address of the Manufacturer	Identifiable
• Date of Manufacture (coded or not)	Identifiable
• Type of Battery	Identifiable
• Bottles or Containers of Electrolyte shall bear the mark "Poisonous" , " Not for human consumption" or Skull Symbol	Positively Visible, Non Erasable
7. Dimensions	
a. Overall Length (mm)	423 (maximum)
b. Overall Width (mm)	180 (maximum)
c. Overall Height (mm)	225 (maximum)
d. Terminal Posts	
• Top Diameter of Positive Post (mm)	17.5 to 19.5
• Top Diameter of Negative Post (mm)	16 to 18
• Bottom Diameter of Positive Post (mm)	19 to 21
• Bottom Diameter of Negative Post (mm)	17.5 to 19.5
• Length of Positive and Negative Post (mm)	16 (minimum)
8. Terminal Post must be provided with color coded circular polarity ring for identification. Positive Post shall be marked with "Pos", "P" or "+". Negative Post shall be marked with "Neg", "N" or "-".	

  
**AURELIO T BADAJOS**  
 Colonel, QMS (GSC) PA  
 Chief

*Army Core Purpose: Serving the people. Securing the land.*



HEADQUARTERS  
PHILIPPINE ARMY  
OFFICE OF THE ARMY QUARTERMASTER  
Fort Andres Bonifacio, Metro Manila

PA SPECIFICATION

QM SPEC NR OE-23BLN2/DIN55H/G46

09 AUG 2019  
(Interim)

**Battery, LN2/DIN55H/G46**

Application: Intended for use of Light/Heavy Duty Trucks, Buses and Heavy Equipment Applications.	
<b>Technical Data</b>	
1. Type	LN2/DIN55H/G46
2. Classification	Maintenance Free
3. Reserve Capacity (minutes)	126 (minimum)
4. AH Capacity at 20h Rate (AH)	65 (minimum)
5. Container Material	Hard Plastic or Hard Rubber
6. <b>Markings</b>	
• Trademark, Trade Name or Brand name	Identifiable
• The words "Made in the Philippines" or country of origin if imported / Address of the Manufacturer	Identifiable
• Date of Manufacture (coded or not)	Identifiable
• Type of Battery	Identifiable
• Bottles or Containers of Electrolyte shall bear the mark "Poisonous", "Not for human consumption" or Skull Symbol	Positively Visible, Non Erasable
7. <b>Dimensions</b>	
a. Overall Length (mm)	280 (maximum)
b. Overall Width (mm)	190 (maximum)
c. Overall Height (mm)	200 (maximum)
d. Terminal Posts	
• Top Diameter of Positive Post (mm)	17.5 to 19.5
• Top Diameter of Negative Post (mm)	16 to 18
• Bottom Diameter of Positive Post (mm)	19 to 21
• Bottom Diameter of Negative Post (mm)	17.5 to 19.5
• Length of Positive and Negative Post (mm)	16 (minimum)
8. Terminal Post must be provided with color coded circular polarity ring for identification. Positive Post shall be marked with "Pos", "P" or "+". Negative Post shall be marked with "Neg", "N" or "-".	

EDMUNDO S. SUFICIENCIA  
Colonel, QMS (GSG) PA  
Chief

CG PA  
AUG 09 2019  
DATE: