SPECIFICATION
FOR
BATTERY, DRY (MERCURY) 6.75 V, NATO STOCK NUMBER 6135-99-114-4411

This Supplement supersedes SRDE Design Specification No DS/1387, dated October 1970

1. This Supplement is to be read in conjunction with the General Specification for primary batteries (Leclanché, mercury, and manganese alkaline types) contained in DEF STAN 61 - 3 (PART 1).

2. NOMINAL VOLTAGE

a. Cell.

1.35

b. Battery.

6.75

3. DIMENSIONS

Dimensions shall be in accordance with the requirements of the attached drawing.

4. MASS

Mass shall not exceed 9 ounces (255 grams).

5. MARKINGS

Markings shall be in accordance with the requirements of the General Specification contained in DEF STAN 61 - 3 (PART 1), clause 11, and the attached drawing.

6. CONSTRUCTION

a. Assembly.

Five cells connected in series in an insulating sleeve of black PVC to BS 3168 in accordance with the requirements of the attached drawing. Inter-cell connections shall be spot welded.

b. Cell details,

Size: Length 0.390 in (9.9 mm)
Diameter 1.462 in (37.2 mm)

c. Terminations.

Shall be in accordance with the requirements of the attached drawing.

7. COMPONENT CELLS

The requirements of the General Specification contained in DEF STAN 61 - 3 (PART 1), clause 9. shall apply, except that for clause 9.a. the minimum period shall be not less than 14 days.

8. STORAGE AND PERFORMANCE TESTS

a. Allocation of sample batteries.

(1) For Qualification Approval testing.

Shall be in accordance with the requirements of the General Specification DEF STAN 61 - 3 (PART 1), clause 6.b.

(2) For Quality Assurance Testing.

Number of sample batteries supplied in accordance with the requirements of the General Specification DEF STAN 61 - 3 (PART 1) clause 14.b. to be divided between tests shown in the Table below as follows:

10% Jungle with the balance divided equally between the other four types of storage.

b. Storage conditions and performance requirements.

TYPE OF STORAGE BEFORE DISCHARGE TEST	GENERAL SPECIFICATION CLAUSE	STORAGE PERIOD (WEEKS)	MINIMUM DISCHARGE LIFE AFTER STORAGE (HOURS)		
			+55°C	+20°C	-37°C
Temperate (Short term)	17.a.	4	130	-	16
Temperate (Long term)	17.a.	104	-	113	-
Jungle	17.c.	8	-	125	-
Desert	17.b.	52	-	115	-
Temperate (Spare)	18.d.	-	-	-	-

Notes: 1. Batteries for Jungle and Desert storage shall be stored singly and with end caps fitted.

2. The insulation resistance after Jungle storage in accordance with General Specification DEF STAN 61 - 3 (PART 1), clause 19. shall be not less than 2 megohms.

8. c. Functional test.

The off-load voltage of sample batteries measured at any time during storage shall be not less than 6.5 volts and the voltage across an applied load of 112 ohms after 15 seconds shall be not less than 4.5 volts. The test shall be performed at 20 ± 5°C and applies only to batteries stored under temperate and desert conditions. Batteries undergoing desert storage shall receive the functional test at the end of the three-day period at 20°C.

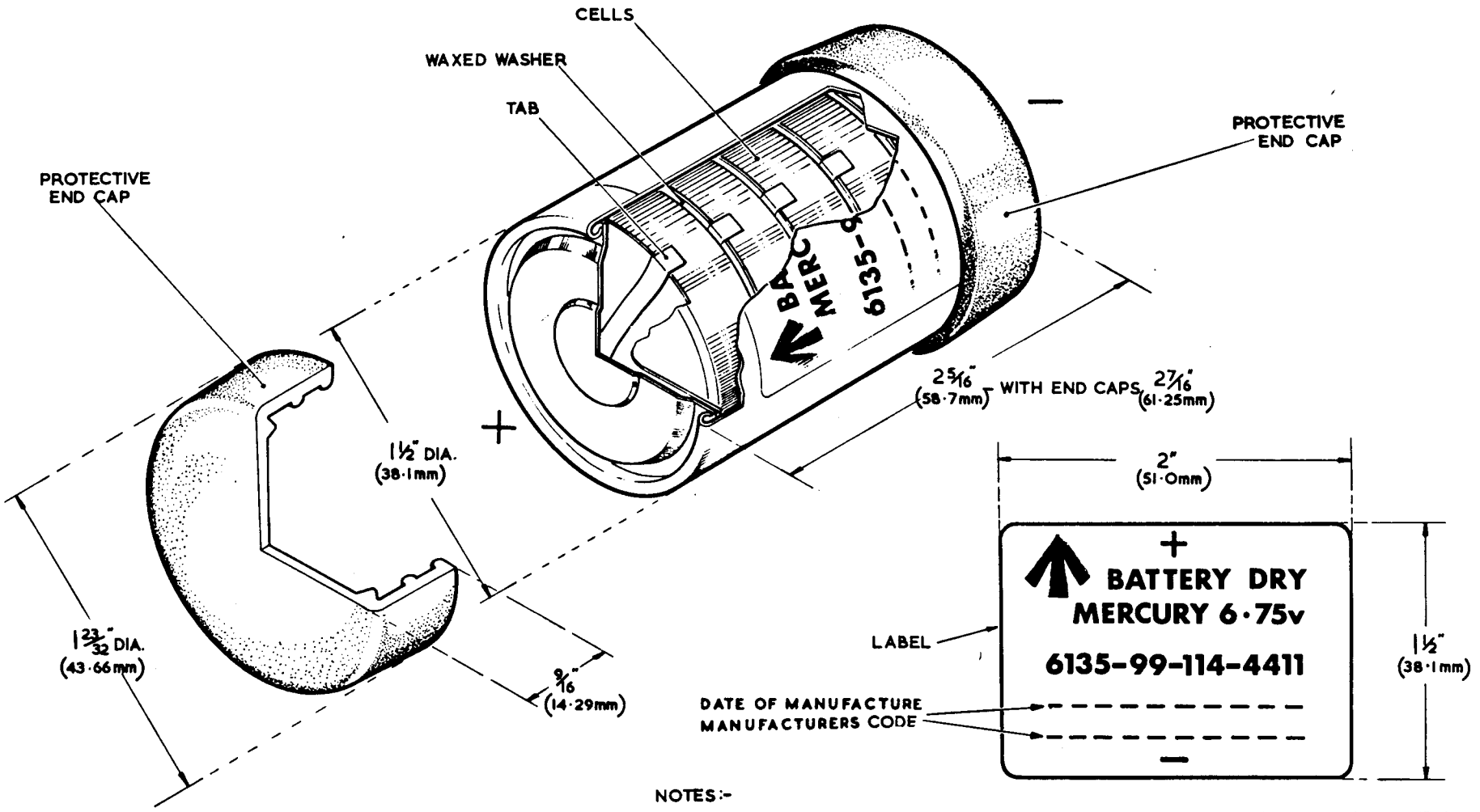
9. DISCHARGE TEST CONDITIONS

a. Discharge tests at specified temperatures.

Sample batteries shall be discharged, at the temperatures specified at clause 8.b., into a load of 330 ohms and the time taken to reach an on-load end-point voltage of 4.5 volts shall be not less than the minimum discharge life stated.

b. Pre-discharge test at -37°C.

Immediately before sample batteries are subjected to discharge at -37°C ± 2°C according to the requirements of clause 9.a., they shall be discharged for 5 seconds into a load of 112 ohms, the on-load voltage during this period shall be not less than 4.5 volts.



NOTES:-

1. ALL DIMENSIONS ARE IN INCHES MILLIMETRE CONVERSIONS IN PARENTHESES.
2. ALL MARKINGS SHALL BE IN 1/8" (3·2mm) CHARACTERS TO BE LEGIBLY AND DURABLY MARKED ON SIDE OF CASE AS AN ALTERNATIVE TO A LABEL.
3. SLEEVE MATERIAL BLACK P.V.C. TO B.S. 3168. CRIMPED AT BOTH ENDS.
4. PROTECTIVE ENDCAP MATERIAL TO BE THERMOPLASTIC RUBBER SHELL KRATON TYPE No 3202. 55° SHORE, BLACK. OR APPROVED EQUIVALENT.

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Our Reference : D/DStan/11/2

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Removal of Product Qualification Approval

IMPORTANT ANNOUNCEMENT

1. This Standard contains a Product Qualification Approval (PQA) scheme. [i]MOD policy requires that all PQA schemes are removed from Defence Standards called up in contracts placed after 1st January 1998.

2. Users of this Standard are to contact the Project Manager (PM), Equipment Support Manager (ESM) or Technical Service Authority (TSA) named in the contract or order, to identify whether there is a continuing need for an approvals scheme.

3. [ii]Product Conformity Certification (PCC) is a risk based process that replaces PQA. Once a risk has been identified PCC can be included as a contract clause. In exceptional circumstances agreement can be sought from AD/Stan for PCC to be included in a Defence Standard.

4. At the next revision of this Standard the PQA scheme will be removed.

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[i] Defence Council Instruction (General) 197/97; Quality Temporary Memorandum 5/98; Chief of Defence Procurement Instruction CDPI/TECH/250 (draft)

[ii] PCC is certification that a product meets its specification. When PC is required by the contract, the contractor is responsible for obtaining the necessary PCC. Certification shall be provided from a NAMAS accredited laboratory when appropriate. PCC shall apply where a Risk Assessment has been identified by the PM; ESM or TSA.