

BA-8140/U Battery Specification



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1. Document Scope

- 1.1. This document pertains to the performance, operational, and physical characteristics of the BA-8140/U battery pack

2. Important Nomenclature

- 2.1. Ambient conditions: 25°C ±3°C (77°F ±5°F), 50%RH ± 5%RH.
- 2.2. C/1 Rate: The rate at which 100% of the capacity is obtained under ambient conditions in 1 hour of constant current discharge

3. Battery Description

- 3.1. The BA-8140/U battery pack is designed as a Zinc-Air primary (disposable) battery pack for several military tactical devices. The battery consists of one 13.2V battery and an internal fan.
- 3.2. Typical Uses: MBITR (AN/PRC-148)

4. Battery Compatibility

- 4.1. Primary Batteries: BA-5598/U, BA-5588/U

5. Discharge Current

- 5.1. Maximum Discharge Current: 2A
- 5.2. Battery ratings are based upon C/55 (0.5A) discharge current under ambient conditions

6. Battery Capacity

- 6.1. 27 Ah

7. Voltage

- 7.1. Maximum Voltage (OCV): 16.8V
- 7.2. Nominal Voltage at C/55: 14V
- 7.3. Minimum Voltage: 10V

8. Temperature Storage

- 8.1. The battery must be stored in it's original, sealed metallized bag
- 8.2. Storage must be between -20°C and +60°C (-4°F and +140°F)

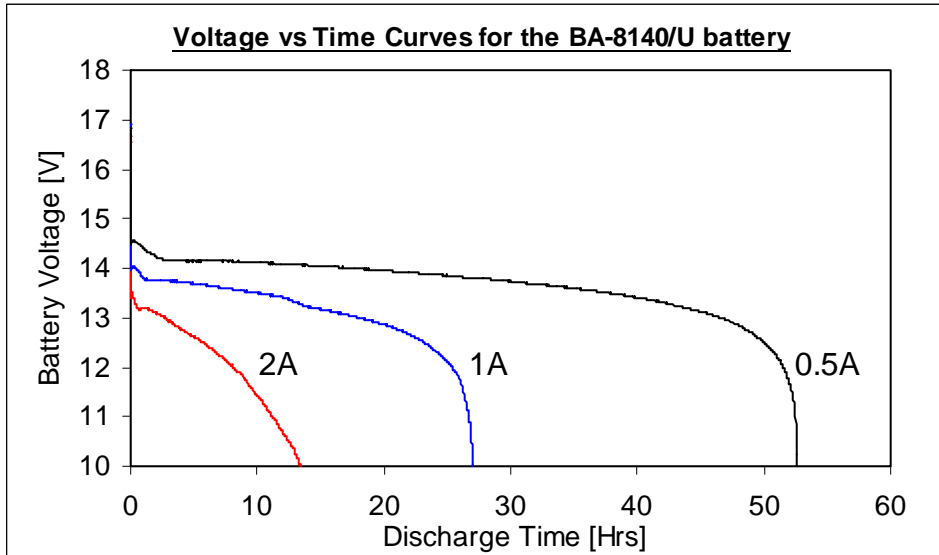
9. Operational Temperature

- 9.1. Operational temperature is between -20°C and +60°C (-4°F and +140°F)

10. Capacity Testing

10.1. Rated capacity is specified at the C/55 discharge rate under ambient conditions

10.2. Voltage vs time:



11. Shelf Life

11.1. 2 Years

12. Service Life

12.1. Discharging the battery intermittently may result in lower capacity than specified due to the internal load of the fan. To maximize the product performance, when not in use disconnect the battery from the connector of the external load (as this will deactivate the fan).

12.2. For extended service life (months) the battery should be stored in the ziplock bag provided when not in use.

13. Dimensions

13.1. Dimensions of the battery (not including the connector) are 292mm x 97mm x 60mm (11.5" x 3.8" x 2.4")

14. Weight

14.1. The battery weight is 1.5 kg (3.4 lb)

15. Case Material

15.1. ABS, High Impact grade. Flammability rating: UL94 HB.

16. Case Color

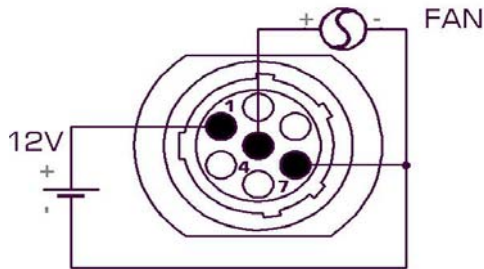
16.1. Black

17. Label Requirements

- 17.1. Labeling requirements are for both the battery and the metallized storage bag
- 17.2. The label will include manufacturer, location and country of origin
- 17.3. Safety Information and Warnings:
 - 17.3.1. **WARNING/STORAGE:** Do not store above 60°C (140°F), Crush, Mutilate, Reverse Polarity, or Disassemble.
- 17.4. The label shall be legible and free from visible defects such as wrinkles and cracks
- 17.5. The battery pack shall be serialized to maintain trace ability
- 17.6. The connector contacts will be clearly labeled for polarity

18. Connector

- 18.1. Circular Plastic Connector (CPC), Reverse Sex Free Hanging Receptacle, 13 - Shell Size, 7 contact positions, 3 socket contacts.
- 18.2. The connector also activates the internal fan
- 18.3. Connection polarity:



19. Quality and Workmanship

- 19.1. The metallized bag will be free of visible tears or holes
- 19.2. The battery case and connector will be free of visible scratches, cracks and/or damage.

20. Safety Requirements

- 20.1. Only specified connectors should be used to connect with the battery
- 20.2. Do not store above 60°C (140°F), Crush, Mutilate, Reverse Polarity, Charge, or Disassemble.

21. Disposal

- 21.1. Environmentally safe – Contains zero (0)% added Mercury
- 21.2. Disposal is the same as for Alkaline Manganese Dioxide batteries
- 21.3. Check with local regulations for proper disposal

END OF SPECIFICATION