



Case study of branded dry cells

P.N.G. Rathnaweera, ¹K.P.S. Jayathilaka, S.S. Abeywickrama

Department of Physics, Faculty of Science, University of Ruhuna, Sri Lanka

¹sunil@phy.ruh.ac.lk

A dry cell is a very important electrical component used in many household appliances. However, no information regarding the quality of the product is indicated on dry cells available in the market. The main objective of the study was to find the best general purpose AA battery product for household use. Three different AA brands available in the market were tested for quality by studying the behavior through discharging. Variation of internal resistance and terminal voltage with time were obtained automatically using the computer during discharging under constant current. The capacity of a dry cell is found to be inversely proportional to the discharging current. A super heavy duty AA dry cell which exhibited good capacities for all tested currents was found to be the best among the three.

The other aspects such as the effect of temperature and the effect of forced discharging of the battery are required to study further to reach a firm decision regarding the quality.

Key words: Dry cell quality, Capacity, Terminal voltage