

Statistical Characteristic Analysis of AC Flashover Performance of Iced Insulator String

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In order to obtain the flashover performance of the ice-covered insulator, referring the test method used in the pollution tests of insulators the up-down method has been used in the artificial icing test. But now, there is not enough investigation to its statistical characteristic. Consulting IEC60507 and taking the as an example, this paper investigates the AC icing flashover performance of XP-160 standard insulator in the artificial climate chamber of Chongqing University with the up-down method, and the analyzes the statistical characteristics of the test results. According to the analysis, it improves the statistical way of the test results used for pollution test in IEC507. It indicates that there is an effective smallest samples in order to obtain the flashover voltage of ice-covered insulators for the up-down method. And the results show that the AC flashover voltage distribution of ice-covered insulators with the up-and-down method submit to the normal school; the improving statistical way has smaller statistical wrap than that in IEC 60507; the effective smallest test samples with the up-down manner is 11.