

**High-resistance Ground Fault Detection Method for DC Feeding System
using Protective Wire**

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Ground faults to fixed structures with relatively high ground resistance have been unresolved troubles in DC feeding systems. It is difficult to detect such faults because of the feebleness of the fault current, and they sometimes break overhead contact lines, feeder wires or masts in case the fault current continues during several seconds. We contrived a new detection system for ground fault using a protective wire and 'PW devices.' This paper shows the system outline and the results of several indoor and on-site experiments on the proposed system.