Earth-fault Detection of Feeder Cables for D.C. Traction

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Polyethylene-insulated feeder cables have been widely adopted in D.C. traction circuits in order to reduce clearances around live parts. In Japan, most of the D.C feeder cables are not equipped with a metallic shield for some reasons; thereby it makes the detection of degradation and fault of the cable difficult. This paper suggests two methods of the earth-fault detection for D.C. feeder cables without metallic shields and also reports basic examination results of these methods.