

Effect of Connector Design on the Performance of Service Entrance Power Connectors

M. Braunovic

MB Interface, 5975 Place de l'Authion, Suite 503

Montreal, Quebec, Canada, H1M 2W3

E-mail: mbinterface@yahoo.com

Abstract - The work reported describes the results of laboratory tests carried out on aluminum-to-copper service entrance connectors. The laboratory performance tests were carried out on insulation piercing, bolted, wedge and compression types of service entrance connectors subjected to current-cycling tests in a saline environment. The current-cycling tests were carried out in accordance with a modified testing procedure. The results showed that insulation piercing and wedge connectors passed the current cycling tests whereas the compression and bolted type connectors failed the current-cycling tests. These results showed that insulation piercing and wedge connectors provide the best protection of the conductor-connector interface since neither the current-cycling nor the exposure to a saline environm