Bus joint temperature is lower than busbar temperature

Overview

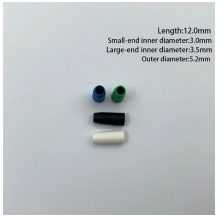
Temperature measurement on a 10kV fully insulated busbar is studied in, also for the joint conductor, for which the temperature rise is lower because of the heat dissipation. The temperature can be decreased by using slots in the contact area, as presented. Also, the mathematical model allows to calculate the temperature distribution along the busbar at different values of the contact resistances at junction points with other conductors. There is a good correlation between calculated, simulated and experimental results. Introduction The power. Members share and learn making Eng-Tips Forums the best source of engineering information on the Internet! Congratulations MileyDiley on being selected by the Eng-Tips community for having the most helpful posts in the forums last week. ANSI/IEEE Std. lure in the protection system functionality. Internal resistance Rb Rb is the internal resistance of both busbars over the overlap length lv, on the assumption that the busbars are joined metallically. Because a bus bar's geometry is complicated, it is difficult to predict in advance where there will be unevenness in the current's flow while current is running, and whether this will cause heat generation. 3, and the temper sulated cables ve silver-surfaced or equivalent, or tin-surfaced

or equival gear uses.

Bus joint temperature is lower than busbar temperature

Derivations/formulae/Calculations for busbar joint temperature subject to different applied currents. Busbar joint consists of two rectangular busbars are...

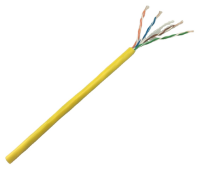
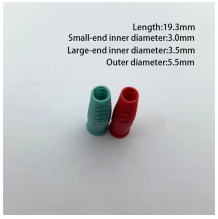
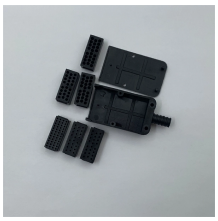
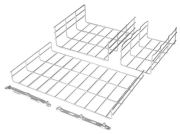
In Western Europe alone there are billions of these bus-bar joints; unnecessary energy losses at each of them obviously increase the consumption of valuable fossil fuels.



This Application Note presents how to obtain the temperature distribution in a bus bar or the like with changes in the power supply frequency.

Taking the uncertainty of contact resistance into account, this paper presents an indirect approach to monitor the conductor temperature for the fully insulated busbar prefabricated joint using ...

This paper proposes a mathematical model for busbars used within a high current power supply. The obtained thermal model can be used to analyse the thermal behaviour of busbars in ...

	In order to improve the simulation accuracy of the temperature rise, reduce the operating temperature, and improve the insulation performance of the gas insulated switchgear (GIS) busbar, ...
	busbar system can be used in order to replace the large overall sizes parallel cables which connect the main distribution block to devices in adjacent enclosures.
	When buses or connections have differing materials or coatings, the allowable temperature rise end temperature values shall be those of the conductor or coatings having the lowest value permitted in ...
	For hotspot temperature monitoring, therefore, this paper proposed an indirect approach which consists of radial direction temperature calculation (RDTC) in the busbar and axial direction temperature ...

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