

عنوان مقاله:

Design of composite cross arm based on the experimental results obtained from the 5% lower exclusion limit

محل انتشار:

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خلاصه مقاله:

Composite cross arms, with their light weight, long service life and ease of installation, can be utilized in highvoltage power transmission lines. In the present paper, mechanical tests were performed on the glass/polyesterpultruded composites in order to determine the material properties of the composites. For each mechanical property, anumber of 12 specimens were subjected to mechanical tests and the results were obtained based on the 5% lowerexclusion limit (LEL). Design process of the cross arm was performed according to the available pultruded profiles within the country. A finite element analysis is conducted based on the obtained material properties, to examine thedesigned cross arms against the applied loading conditions. The finite element results approved the capability of thedesigned .composite cross arm for utilizing in high voltage power transmission lines

کلمات کلیدی:

Composite cross arm, Pultruded profile, Experimental tests, Finite element method

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