

**PIENAAR ENERGY (PTY) LTD**

# **Calculation of photovoltaic support crossarms**



## Overview

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In this paper, the analysis of two different design approaches of solar panel support structures is presented. The analysis can be split in the following steps. Whether the load is designed for vertical loads on tangent structures or horizontal loads from dead ends, cross arm modeling. The detailed crossarm analysis report indicates to the user whether one or more crossarms on the pole are adequate or not. This can be helpful when a crossarm is flagged in red in the inventory window - the red coloring on the icon usually indicates that the crossarm is failing or inadequate in. With Dlubal Software, you can model, analyze, and design any type of photovoltaic support structures and mounting systems efficiently. From load determination to verification of steel, aluminum, and concrete parts, all steps are integrated into one consistent environment for code-compliant design. Crossarms are widely used in power distribution and telecommunication sectors to support overhead cables.

## Calculation of photovoltaic support crossarms

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### PLS-POLE -- Power Line Systems

The program performs design checks of structures under user specified loads and can also calculate maximum allowable wind and weight spans. Virtually any transmission, substation or ...

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### Modeling Cross Arms in PLS-POLE

PLS-POLE gives users the options to model cross arms with a high degree of accuracy as material properties, connection codes, and loading geometry can all be specified and analyzed through non ...

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CE UN38.3 MSDS



### Power Line Systems, Inc. REA Crossarm Components

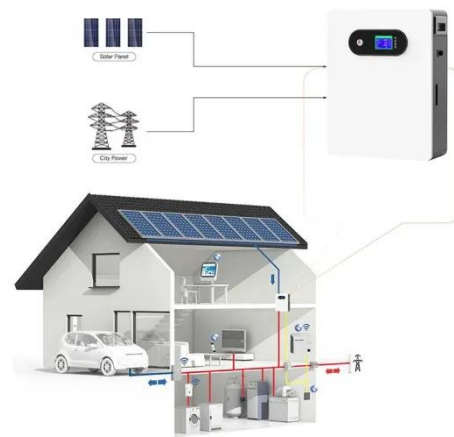
The crossarms in this library are based on the following equations; As the holes are not continuous along the entire arm, the Cross Sectional Area and Moment of Inertia are based on the nominal ...

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## Solar Structures - Mounting Systems Design

With Dlubal Software, you can model, analyze, and design any type of photovoltaic support structures and mounting systems efficiently. From load determination to verification of steel, aluminum, and ...

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## Structural Assessment Techniques for In-Service Crossarms in Power

This paper aims to highlight the advantages and disadvantages of different condition assessment techniques for crossarms, indicating the importance of an integrated approach ...

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## Design and Calculation of Photovoltaic Support Points: Engineering for

As solar installations grow 23% year-over-year (2023 Gartner Emerging Tech Report), engineers face mounting pressure to optimize these critical structural components. But here's the ...

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## Numerical analysis of insulated and conventional cross arms for



Comparative study of transmission towers with different heights aiming at the structural evaluation of insulated and conventional crossarms by means of computational modeling

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## Crossarm Analysis Reports - O- Calc Pro Wiki

This provides a brief listing of crossarms attached to a pole. This report also provides information about each individual insulator on a crossarm, as well as information regarding the ...



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## Microsoft Word

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## Design and calculation of photovoltaic support points

With ever decreasing feed-in tariffs world-wide, our new simulation program PV\*SOL advanced 6.0 is the right tool to

calculate and design the best PV system.  
For the first time, we calculate

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