SOLARTECH
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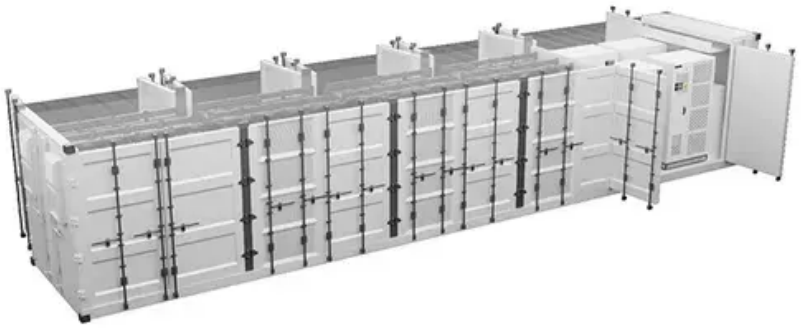
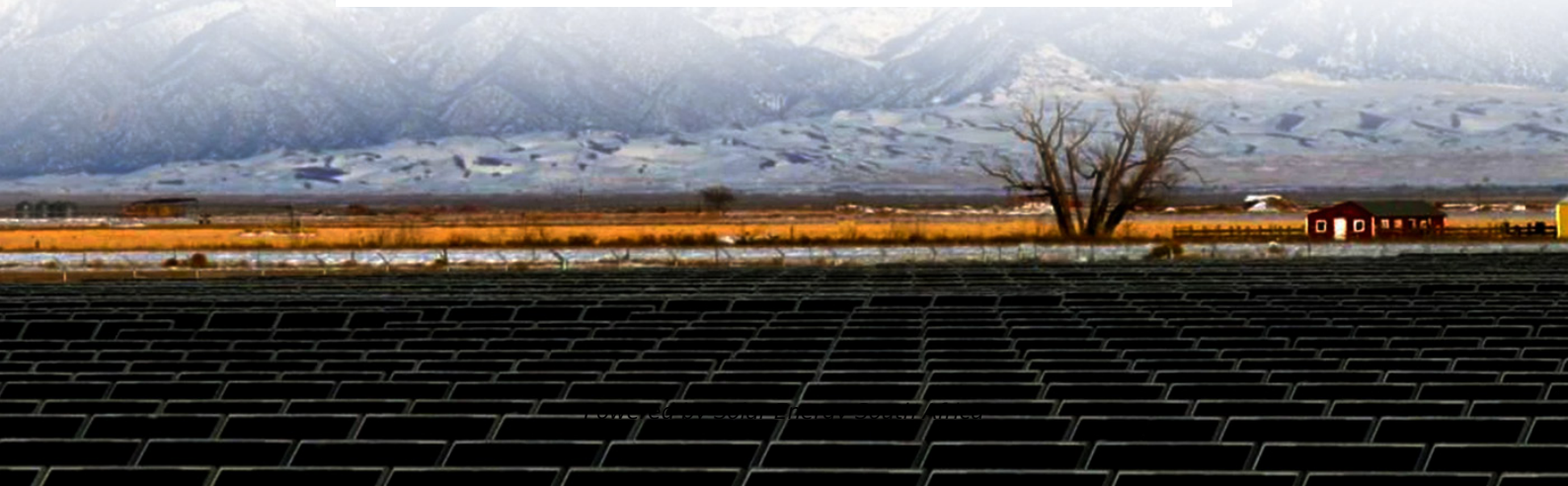
Solar Energy South Africa

What are the methods for pulling out the piles of photovoltaic brackets





Overview

How a load is applied to a pile?

The application of the load to the pile can be carried out either through the construction of a loading frame, or by employing heavy machinery as a reaction, applying the load with a pulley system or hoist in the case of axial tensile load tests and lateral load tests, or with a hydraulic jack in the case of compression tests.

Should a test pile be placed near a borehole?

Calibration with static load tests is preferable, depending on the prevailing ground conditions. For preliminary pile tests it is preferable to place the test pile(s) close to a borehole so that the test results can be reliably evaluated.

Can helical piles be used for ground-mounted solar PV systems?

For ground-mounted solar PV systems, two different pile foundation types were experimentally analysed for the pull-out test in clayey, sandy, and mixed (c – ϕ) soils. Maximum uplift load at failure of various diameter and length were compared for plain piles with helical piles.

Why is ground screw steel pile used for PV mounting structure?

Ground screw steel pile (helical pile) was applied for foundation because the convenient of installation and fasten with PV mounting frame. The ground screw load test was performed to prove the axial pile capacity for the advantage of engineering design for PV mounting structure.

Where should a test pile be based?

The test piles should be founded at the same level and in the same soil as the works piles. Alternatively, a bi-directional pile test with an O-cell cast into the pile can be used. For rapid loading and dynamic pile tests it may be necessary to increase the applied loads to the pile in order to overcome the ground damping effects.

How high should a pile be for a photovoltaic plant?

In any case, for the types of piles that are being used in the foundations of photovoltaic plants, it is recommended that the height of load application will be in order of 1,0 m and in no case exceeding 1,5 m.

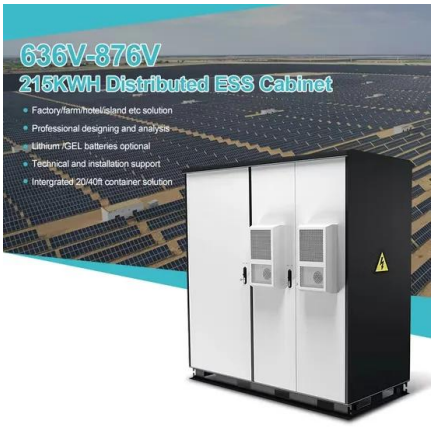
What are the methods for pulling out the piles of photovoltaic brack

Helical Ground Screw Piles for Solar Photovoltaic ...

Since 2009, Tianfon has provided 8.64GW of mounting systems for various photovoltaic projects at home and abroad. At present, we have about 100 employees and turnover of steel structure and solar mountings in 2018 is over ...

White Paper: Foundation Selection For Ground ...

When refusal is encountered during pile driving there are typically three options. One is to conduct a pull test to see if the driven pile has sufficient pull out resistance as it is installed, then to cut off the driven pile and ...



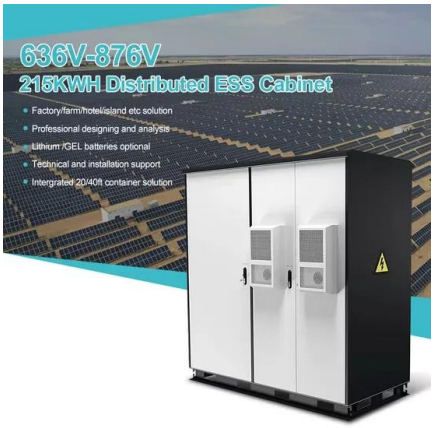
Helical Ground Screw Piles for Foundation of Solar ...

A:Our ground screw piles are manufactured with first quality materials (hot dip galvanized complying with the ISO 1461:1999).All our suppliers (certified under ISO 9001:2000) carry out strict quality controls in order to get the best quality ...

Pull-out Resistance of Single Piles and Parametric Study using the

pull-out capacity, skin friction, finite difference

method, stress -strain relation, FLAC2D . Cite This Article: Alex Otieno Owino, Zakaria Hossain, and Jim Shiau, "Pull-out Resistance of Single



Update for Technical Specifications: Pile Driving and ...

Pull Out Testing in Photovoltaic Plants. After gaining experience in more than 35GW of photovoltaic plants studied across five continents, Orbis' In Situ Test and Monitoring Department has published an update to its Technical ...

Optimization Study on Double Layer Cable System Structure of ...

End anchor piles, for aquaculture areas, are used to anchor the diagonal pull rods that extend from the high end pile crossbeam in the form of one cable and one pile; For the sea area, the ...

Field load testing and numerical analysis of offshore photovoltaic

The basic differential equation of the NL method is: (3) E I d 4 y d z 4 + B q = 0 (4) q = k n z 2 3 y 1 3 In the formula: EI is the bending stiffness of the pile body, measured in kN·m 2, B is the ...

Construction Method for Pulling Out Existing Piles and Influence ...

However, after the pulling out of a pile foundation, the mechanical characteristics of the surrounding ground are of great concern due to the existence of the holes that form when the ...

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