

DOI: 10.1016/j.sandf.2023.101277 Corpus ID: 256352338; Frost jacking characteristics of steel pipe screw piles for photovoltaic support foundations in high-latitude and low-altitude regions

The results show that: (1) according to the general requirements of 4 rows and 5 columns fixed photovoltaic support, the typical permanent load of the PV support is 4679.4 N, ...

In this study, the frost jacking characteristics of steel pipe screw piles for photovoltaic support foundations in high-latitude and low-altitude regions are studied via in situ tests and numerical ...

Photovoltaic solar panels absorb sunlight as a source of energy to generate electricity. A photovoltaic (PV) module is a packaged, and connected photovoltaic solar cells assembled in ...

The contractor elected to install driven pipe piles to support the elevated solar panels, however, some questions arose as to the uplift capacity of the piles. In order to resolve ...

The pile foundations need to meet specific bearing capacity requirements in order to provide structural support for photovoltaic systems. In this paper, based on an offshore photovoltaic ...

In addition, foundations to support the trackers on the ground generally consist of steel piles, concrete piles, precast concrete piles, cast-in -place piles, driven piles, and helical ...

In conclusion, the SPV-50Y is a vital piece of equipment for the installation of support piles in solar PV systems. Its versatility, powerful hydraulic capabilities, and precise positioning ...

Fig. 2 Layout diagram of double layer cable system structure piles for photovoltaic power generation ... According to item 4.1.3 of the "Design Specification for Photovoltaic Support ...

This study has comprehensively investigated the bearing characteristics of three types of photovoltaic support piles, serpentine piles, square piles, and circular piles, in desert gravel areas. Through numerical ...

This paper investigates the frost depths and adfreeze stress related issues with the foundation piles of solar PV facilities hence the governing design forces on these piles and ...

<sec> Introduction In order to obtain the optimal structural layout scheme for photovoltaic supports in the road domain of the transportation and energy integration project, ...

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screw piles for photovoltaic support foundations in high-latitude and low-altitude ...

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